Package 'rAmCharts'

June 30, 2017

Title JavaScript Charts Tool

Description Provides an R interface for using 'AmCharts' Library. Based on 'htmlwidgets', it provides a global architecture to generate 'JavaScript' source code for charts. Most of classes in the library have their equivalent in R with S4 classes; for those classes, not all properties have been referenced but can easily be added in the constructors. Complex properties (e.g. 'JavaScript' object) can be passed as named list. See examples at <http://datastorm-open.github.io/introduction_ramcharts/> and <http://www.amcharts.com/> for more information about the library. The package includes the free version of 'AmCharts' Library. Its only limitation is a small link to the web site displayed on your charts. If you enjoy this library, do not hesitate to refer to this page <http://www.amcharts.com/online-store/> to purchase a licence, and thus support its creators and get a period of Priority Support. See also <http://www.amcharts.com/about/> for more information about 'AmCharts' company.

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License GPL (>= 2)

URL http://datastorm-open.github.io/introduction_ramcharts/

BugReports https://github.com/datastorm-open/rAmCharts/issues/

Depends R (>= 3.2.0)

Collate 'base_data.R' 'base_startupMessage.R' 'chart_amBarplot.R' 'chart_amBoxplot.R' 'chart_amBullet.R' 'chart_amCandlestick.R' 'chart_amDataset.R' 'chart_amFloatingBar.R' 'chart_amFunnel.R' 'chart_amGauge.R' 'chart_amHist.R' 'chart_amMekko.R' 'chart_amOHLC.R' 'chart_amPie.R' 'chart_amPlot.R' 'chart_amRadar.R' 'chart_amTimeSeries.R' 'chart_amWaterfall.R' 'chart_amWind.R' 'utils_sharedGenerics.R' 'class_AmObject.R' 'class_AxisBase.R' 'class_ValueAxis.R' 'utils_basicClassUnions.R' 'class_TrendLine.R' 'class_Title.R' 'class_AmChart.R' 'class_StockPanel.R' 'class_StockEvent.R' 'class_PeriodSelector.R' 'class_Label.R' 'class_Guide.R' 'class_GaugeAxis.R' 'class_GaugeBand.R' 'class_GaugeArrow.R'

'class_DataSet.R' 'class_ChartScrollbar.R'
'class_ChartCursor.R' 'class_AmLegend.R' 'class_AmGraph.R'
'class_AmBalloon.R' 'classUnions.R'
'class_AmChart_constructors.R' 'class_CategoryAxis.R'
'class_AmChart_setters.R' 'class_AmChart_shinyUtils.R'
'class_AmStockChart.R' 'class_AmStockChart_setters.R'
'class_AxisBase_setters.R' 'class_ChartCursor_setters.R'
'class_ChartScrollbar_setters.R' 'class_DataSetSelector.R'
'class_DataSet_setters.R' 'class_GaugeArrow_setters.R'
'class_GaugeAxis_setters.R' 'class_Guide_setters.R'
'class_StockEvent_setters.R' 'class_StockPanel_setters.R'
'class_TrendLine_setters.R' 'shiny_examples.R'
'shiny_modules_export.R' 'shiny_modules_timeSeries.R'
'union_AmCharts.R' 'utils.R' 'utils_amOptions.R'
'utils_amTests.R'

Imports methods, htmlwidgets, htmltools, data.table (>= 1.9.6), graphics, utils, pipeR, knitr, grDevices, yaml, zoo

Suggests magrittr, shiny, testthat, shinydashboard, base64enc, lubridate, jsonlite

RoxygenNote 6.0.1

NeedsCompilation no

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R topics documented:

addGuide,AxisBase,GuideOrMissing-method *Add a Guide for AxisBase*

Description

Update an object of inherited class AxisBase.

Usage

```
## S4 method for signature 'AxisBase,GuideOrMissing'
addGuide(.Object, guide = NULL, ...)
```

Arguments

.Object	children class of AxisBase.
guide	(optional) Guide.
...	properties of Guide Argument for method addGuide.

Value

(possibly updated) .Object of class AxisBase.

Examples

```
addGuide(.Object = valueAxis(), fillAlpha = .4, adjustBorderColor = TRUE, gridThickness = 1)
# equivalent to:
guide_obj <- guide(fillAlpha = .4, adjustBorderColor = TRUE, gridThickness = 1)
addGuide(.Object = valueAxis(), guide = guide_obj)
```

addListener *AmObject methods*

Description

Methods for inherited classes.

Usage

```
addListener(.Object, name, expression)

## S4 method for signature 'AmObject,character,character'
addListener(.Object, name, expression)

resetProperties(.Object, ...)

## S4 method for signature 'AmObject'
resetProperties(.Object, ...)

setProperties(.Object, list_prop, ...)

## S4 method for signature 'AmObject'
setProperties(.Object, list_prop, ...)
```

Arguments

.Object	AmObject.
name	character, name of the listener.
expression	character, associated function event.
...	other properties
list_prop	(Optional) list containing properties to set. The former properties will be overwritten.

Details

Former properties will be overwritten.

Former properties will be overwritten.

Value

The updated object.

Examples

```
addListener(.Object = amPieChart(),
            name = "clickSlice" ,
            expression = "function(event){ alert('ok !'); }")

addListener(.Object = amLegend(),
            name = "select",
            expression = paste0("function onSelect (properties) {",
                                "alert('selected nodes: ' + properties.nodes);",
                                "}"))
library(pipeR)
amPlot(runif(10)) %>>% resetProperties("categoryAxis") %>>% print(withDetail = FALSE)
library(pipeR)
```

```
# either you can set a list
ls <- list(categoryAxis = list(gridPosition = "start"), fontSize = 15)
amSerialChart() %>>% setProperties(list = ls)  %>>% print()

# or you can set one or more properties
amPieChart() %>>% setProperties(handDrawn = TRUE, fontSize = 15) %>>% print()

# overwrite a property
amPieChart() %>>%  setProperties(fontSize = 15) %>>%  setProperties(fontSize = 12) %>>% print()

# Carefull if you try to set a property which is a slot...
# in that case, use the setter methods 'setXX' or 'addXX' which check the validity
## Not run:
amPieChart() %>>% setProperties(type = "serial") %>>% print()

## End(Not run)

amPieChart() %>>% setExport()
```

`add_dataloader_dependency` *Add dataloader dependency*

Description

Add the 'dataloader' dependency to an htmlwidget. You can only manipulate the htmlwidget if you call the method 'plot' with an rAmChart.

Usage

```
add_dataloader_dependency(widget)
```

Arguments

`widget`	An htmlwidget

Value

Return the updated htmlwidget.

add_export_dependency *Add the export dependency to an htmlwidget*

Description

Add the 'export' dependency to an htmlwidget. You can only manipulate the htmlwidget if you call the method 'plot' with an rAmChart.

Usage

```
add_export_dependency(widget)
```

Arguments

widget	An htmlwidget.

Value

Return the updated widget with the 'export' dependency.

add_responsive_dependency *Add responsive dependency*

Description

Add the 'responsive' dependency to an htmlwidget. You can only manipulate the htmlwidget if you call the method 'plot' with an rAmChart.

Usage

```
add_responsive_dependency(widget)
```

Arguments

widget	An htmlwidget.

Value

Return an updated htmlwidget with the dependency.

add_theme_dependency *Add theme dependency*

Description

Add the 'theme' dependency to an htmlwidget. You can only manipulate the htmlwidget if you call the method 'plot' with an rAmChart.

Usage

```
add_theme_dependency(widget, theme_js = c("light.js", "patterns.js",
  "dark.js", "chalk.js"))
```

Arguments

widget	An htmlwidget.
theme_js	A character indicating the JS file dependency.

Value

Return the updated htmlwidget.

Examples

```
library(pipeR)
amPlot(1:10, theme = "dark") %>>% plot() %>>% add_theme_dependency("light.js")
```

amAngularGauge *Plotting gauge using rAmCharts*

Description

amAngularGauge computes a gauge of the given value.

Usage

```
amAngularGauge(x, start = 0, end = 100, step = 20,
  bands = data.frame(start = numeric(), end = numeric(), color = character(),
  width = numeric(), stringsAsFactors = FALSE), text = "", textSize = 25,
  secondAxe = FALSE, start2 = 0, end2 = 100, step2 = 20,
  bands2 = data.frame(start = numeric(), end = numeric(), color = character(),
  stringsAsFactors = FALSE), ...)
```

Arguments

x	numeric, value for which the angular gauge is desired.
start	numeric, minimum value allowed.
end	numeric, maximum value allowed.
step	numeric, intervals size.
bands	data.frame with 4 columns : start (numeric, minimal value for the band), end (numeric, maximal value for the band), color (character, color of the band, in hexadecimal) and width (numeric, width of the band). If the last column is not defined, it is auomatically set to 10.
text	character, text lengend.
textSize	numeric, text size.
secondAxe	logical, TRUE if two axes are desired. Default is set to FALSE.
start2	numeric, minimum value allowed for the second axe if secondAxe is TRUE.
end2	numeric, maximum value allowed for the second axe if secondAxe is TRUE.
step2	numeric, intervals size for the second axe if secondAxe is TRUE.
bands2	data.frame with 4 columns : start (numeric, minimal value for the band), end (numeric, maximal value for the band), color (character, color of the band, in hexadecimal) and width (numeric, width of the band). If the last column is not defined, it is auomatically set to 10.
...	see amOptions for more options.

See Also

- https://datastorm-open.github.io/introduction_ramcharts/

AmBalloon-class *AmBalloon class*

Description

Creates the balloons (tooltips) of the chart. It follows the mouse cursor when you roll-over the data items. The framework generates the instances automatically, you just have to adjust the appearance to your needs.

Details

Run api("AmBalloon") for more information and all avalaible properties.

Slots

`adjustBorderColor logical`. If TRUE, border color will be changed when user rolls-over the slice, graph, etc, instead of background color.

`color character`. Balloon text color.

`cornerRadius numeric`. Balloon corner radius.

`fillColor character`. Balloon background color. It is usually defined by the chart itself. If "adjustBorderColor" is set to TRUE, the balloon background color will be equal to "fillColor".

`listeners list` containining the listeners to add to the object. The list must be named as in the official API. Each element must be a character string. See examples for details. Inherited from AmObject.

`otherProperties list` containing other avalaible properties not yet implemented in the package. Inherited from AmObject.

`value numeric`. Inherited from AmObject.

`amBarplot` *Plotting bar chart using rAmCharts*

Description

amBarplot computes a bar chart of the given values.

Usage

```
amBarplot(x, y, data, xlab = "", ylab = "", ylim = NULL,
  groups_color = NULL, horiz = FALSE, stack_type = c("none", "regular",
  "100"), layered = FALSE, show_values = FALSE, depth = 0,
  dataDateFormat = NULL, minPeriod = ifelse(!is.null(dataDateFormat), "DD",
  ""), ...)
```

Arguments

`x`	`character`, column name for x-axis or `numeric`, value of the corresponding column. It is optional if argument `data` has row names.
`y`	`character`, column name for y-axis or `numeric` vector of the corresponding column. If you want to display a grouped barchart or a stacked barchart, y is a vector of characters or numerics.
`data`	`data.frame`, dataframe with values to display. You can add a column "color" (character, colors in hexadecimal). You can also add a column "description" (character) containing the text you want to display when mouse is on the graphic (' ' for a new line). See data_bar and data_gbar.
`xlab`	`character`, label for x-axis.
`ylab`	`character`, label for y-axis.
`ylim`	limits for the y axis.

groups_color	character, vector of colors in hexadecimal, same length as y.
horiz	logical, TRUE for an horizontal chart, FALSE for a vertical one If 'horiz' is set to TRUE, the setting 'labelRotation' will be ignored.
stack_type	character, "regular" if you wish stacked bars, "100" if you want 100 percent stacked bars. Default is set to "none".
layered	logical, TRUE for layered bars. If TRUE, stack_type must be set to "none".
show_values	logical, TRUE to display values.
depth	numeric, if > 0, chart is displayed in 3D. Value between 0 and 100.
dataDateFormat	character, default set to NULL. Even if your chart parses dates, you can pass them as strings in your dataframe - all you need to do is to set data date format and the chart will parse dates to date objects. Check this page for available formats. Please note that two-digit years (YY) as well as literal month names (MMM) are NOT supported in this setting.
minPeriod	Specifies the shortest period of your data. This should be set only if dataDateFormat is not 'NULL'. Possible period values: fff - milliseconds, ss - seconds, mm - minutes, hh - hours, DD - days, MM - months, YYYY - years. It's also possible to supply a number for increments, i.e. '15mm' which will instruct the chart that your data is supplied in 15 minute increments.
...	see amOptions for more options.

Details

Notice about labels: if the chart has many columns, several labels might be hidden. It depends on the width of the conatainer where the chart is displayed. Zoom on the chart to see if the chart can contain all labels. If not, use the parameter labelRotation. You can also add a cursor to your chart...

Value

An object of class AmChart.

See Also

https://datastorm-open.github.io/introduction_ramcharts/

Examples

```
# Data
data(data_bar)
data(data_gbar)

amBarplot(x = "country", y = "visits", data = data_bar, main = "example")



# Other examples available which can be time consuming depending on your configuration.

# fixed value axis
amBarplot(x = "year", y = c("income", "expenses"), data = data_gbar, ylim = c(0, 26))
```

```
amBarplot(x = "year", y = c("income", "expenses"), data = data_gbar, stack_type = "100")

# Test with label rotation
amBarplot(x = "country", y = "visits", data = data_bar, labelRotation = -45)

# Horizontal bar
amBarplot(x = "country", y = "visits", data = data_bar, horiz = TRUE, labelRotation = -45)

# 3D bar
amBarplot(x = "country", y = "visits", data = data_bar, depth = 15, labelRotation = -45)

# Display values
amBarplot(x = "country", y = "visits", data = data_bar, show_values = TRUE, labelRotation = -45)

# Grouped columns
amBarplot(x = "year", y = c("income", "expenses"), data = data_gbar)

# Parse dates
# Default label: first day of each year
amBarplot(x = "year", y = c("income", "expenses"), data = data_gbar,
          dataDateFormat = "YYYY", minPeriod = "YYYY")

# Default label: first day of each month
amBarplot(x = "month", y = c("income", "expenses"), data = data_gbar,
          dataDateFormat = "MM/YYYY", minPeriod = "MM")

amBarplot(x = "day", y = c("income", "expenses"), data = data_gbar,
          dataDateFormat = "DD/MM/YYYY")

# Change groups colors
amBarplot(x = "year", y = c("income", "expenses"), data = data_gbar,
          groups_color = c("#87cefa", "#c7158"))

# Regular stacked bars
amBarplot(x = "year", y = c("income", "expenses"), data = data_gbar, stack_type = "regular")

# 100% stacked bars
amBarplot(x = "year", y = c("income", "expenses"), data = data_gbar, stack_type = "100")

# Layered bars
amBarplot(x = "year", y = c("income", "expenses"), data = data_gbar, layered = TRUE)

# Data with row names
dataset <- data.frame(get(x = "USArrests", pos = "package:datasets"))
amBarplot(y = c("Murder", "Assault", "UrbanPop", "Rape"), data = dataset, stack_type = "regular")

# Round values
amBarplot(x = "year", y = c("in", "ex"), data = data_gbar, precision = 0)
```

amBoxplot *Plotting boxplot using rAmCharts*

Description

amBoxplot computes a boxplot of the given data values. Can be a vector, a data.frame, or a matrix.

Usage

```
amBoxplot(object, ...)

## Default S3 method:
amBoxplot(object, xlab = NULL, ylab = NULL, ylim = NULL,
  names = NULL, col = "#1e90ff", horiz = FALSE, ...)

## S3 method for class 'data.frame'
amBoxplot(object, id = NULL, xlab = NULL,
  ylab = NULL, ylim = NULL, col = NULL, horiz = FALSE, ...)

## S3 method for class 'matrix'
amBoxplot(object, use.cols = TRUE, xlab = NULL,
  ylab = NULL, ylim = NULL, col = NULL, horiz = FALSE, ...)

## S3 method for class 'formula'
amBoxplot(object, data = NULL, id = NULL, xlab = NULL,
  ylab = NULL, ylim = NULL, col = NULL, horiz = FALSE, ...)
```

Arguments

object	a vector, data.frame, a matrix, or a formula.
...	see amOptions for more options.
xlab, ylab	character, labels of the axis.
ylim	numeric, y values range with sensible defaults.
names	character, name on x-axis, if object is a vector.
col	character, color(s) to be used to fill the boxplot.
horiz	logical, TRUE to rotate chart.
id	character, column name of id to identify outliers, if object is a dataframe.
use.cols	logical, for matrix only. Set to TRUE to display boxplot based on columns.
data	data.frame, from which the variables in formula should be taken.

Value

An object of class AmChart.

See Also

- https://datastorm-open.github.io/introduction_ramcharts/

Examples

```
## Not run:
# 'numeric' (default)
amBoxplot(rnorm(100))

# 'formula'
amBoxplot(count ~ spray, data = InsectSprays)

# 'formula', two group
data <- InsectSprays
data$group <- c("H", "F")
amBoxplot(count ~ spray + group, data = data, col = c("purple", "darkblue"))

# 'matrix'
x <- matrix(nrow = 10, ncol = 5, rnorm(50))
amBoxplot(x)

# 'data.frame'
amBoxplot(iris[, 1:4])


## End(Not run)
# Other examples available which can be time consuming depending on your configuration.


don <- data.frame(a = 1:10, b = 1:5)
amBoxplot(don, ylim = c(0,15))


# --- matrix
x <- matrix(nrow = 10, ncol = 5, rnorm(50))

amBoxplot(x) # on columns
colnames(x) <- LETTERS[1:5]
amBoxplot(x) # with names
amBoxplot(x, use.cols = FALSE, col = c("blue", "red"))

# Parameter for amOptions
amBoxplot(x, export = TRUE, exportFormat = "SVG")


# --- Formula
(obj <- amBoxplot(count ~ spray, data = InsectSprays))

# Adding parameters
amBoxplot(count ~ spray, data = InsectSprays, ylim = c(0,50),
          xlab = "spray", col = c("darkblue", "gray"))
```

```
# Transpose
amBoxplot(count ~ spray, data = InsectSprays, ylim = c(0,50), xlab = "spray", horiz = FALSE)

# Using a custom colum to identify outliers
InsectSprays$id <- paste0("ID : ", 1:nrow(InsectSprays))
amBoxplot(count ~ spray, data = InsectSprays, id = "id")

# Parameter for amOptions
amBoxplot(count ~ spray, data = InsectSprays, main = "amcharts")
```

`amBullet` *Plotting bullet chart using rAmCharts*

Description

amBullet computes a bullet chart of the given value.

Usage

```
amBullet(value, min = 0, max = 100, val_color = "#000000", limit = 85,
  limit_color = "#000000", steps = TRUE, label = "", horiz = TRUE,
  rates, ...)
```

Arguments

`value`	`numeric`, value to display.
`min`	`numeric`, minimum value allowed.
`max`	`numeric`, maximum value allowed.
`val_color`	`character`, color of the bar value, in hexadecimal.
`limit`	`numeric`, target value.
`limit_color`	`character`, color of the target line.
`steps`	`logical`, default set to TRUE.
`label`	`character`, label of the bullet.
`horiz`	`logical`, TRUE (default) for an horizontal bullet chart, FALSE for a vertical one.
`rates`	`data.frame` with 4 columns: name (character), min (numeric), max (numeric), and color (character, color in hexadecimal).
`...`	see `amOptions` for more options.

See Also

- https://datastorm-open.github.io/introduction_ramcharts/

Examples

```
amBullet(value = 65)


# Other examples available which can be time consuming depending on your configuration.

# Remove steps for background
amBullet(value = 65, steps = FALSE)

# Tune the colors with name or HTML code
amBullet(value = 65, val_color = "purple", limit_color = "#3c8dbc")

# Change the orientation
amBullet(value = 65, steps = FALSE, horiz = FALSE)

# Add text
amBullet(value = 65, label = "Evaluation")

# Change min and max values
amBullet(value = 65, min = 20, max = 90)
```

---

amCandlestick *Plotting candlestick chart using rAmCharts*

Description

amCandlestick computes a candlestick chart of the given value.

Usage

```
amCandlestick(data, xlab = "", ylab = "", horiz = FALSE,
  positiveColor = "#7f8da9", negativeColor = "#db4c3c", names = c("low",
  "open", "close", "high"), dataDateFormat = NULL,
  minPeriod = ifelse(!is.null(dataDateFormat), "DD", ""), ...)
```

Arguments

data	data.frame, dataframe with at least 5 columns: category, open (numeric), close (numeric), low (numeric), high (numeric). See data_candleStick1 and data_candleStick2.
xlab	character, label for x-axis.
ylab	character, label for y-axis.
horiz	logical, TRUE for an horizontal chart, FALSE for a vertical one
positiveColor	character, color for positive values (in hexadecimal).
negativeColor	character, color for negative values (in hexadecimal).

names	character, names for the tooltip. Default set to c("low", "open", "close", "high").
dataDateFormat	character, default set to NULL. Even if your chart parses dates, you can pass them as strings in your dataframe - all you need to do is to set data date format and the chart will parse dates to date objects. Check this page for available formats. Please note that two-digit years (YY) as well as literal month names (MMM) are NOT supported in this setting.
minPeriod	character, minPeriod Specifies the shortest period of your data. This should be set only if dataDateFormat is not NULL. Possible period values: fff - milliseconds, ss - seconds, mm - minutes, hh - hours, DD - days, MM - months, YYYY - years. It's also possible to supply a number for increments, i.e. '15mm' which will instruct the chart that your data is supplied in 15 minute increments.
...	see amOptions for more options.

See Also

- https://datastorm-open.github.io/introduction_ramcharts/

Examples

```
data("data_candleStick2")
amCandlestick(data = data_candleStick2)


# Change colors
amCandlestick(data = data_candleStick2, positiveColor = "black", negativeColor = "green")

# Naming the axes
amCandlestick(data = data_candleStick2, xlab = "categories", ylab = "values")

# Rotate the labels for x axis
amCandlestick(data = data_candleStick2, labelRotation = 90)

# Change names
amCandlestick(data = data_candleStick2, names = c("min", "begin", "end", "max"))

# Horizontal chart :
amCandlestick(data = data_candleStick2, horiz = TRUE)

# Parse date
amCandlestick(data = data_candleStick2, dataDateFormat = "YYYY-MM-DD")

# Datas over months
data_candleStick2$category <- c("2015-01-01", "2015-02-01", "2015-03-01",
                                "2015-04-01", "2015-05-01", "2015-06-01",
                                "2015-07-01", "2015-08-01", "2015-09-01",
                                "2015-10-01", "2015-11-01", "2015-12-01")

amCandlestick(data = data_candleStick2, dataDateFormat = "YYYY-MM-DD", minPeriod = "MM")

# Decimal precision
```

```
require(pipeR)
amCandlestick(data = data_candleStick2, horiz = TRUE) %>>%
  setProperties(precision = 2)
```

`AmChart-class` *AmChart*

Description

Defines the AmChart properties.

Details

API for plotting AmChart with R.

Slots

`allLabels list` of Label. Example of a label object, with all possible properties: label(x = 20, y = 20, text = "this is a label", align = "left", size = 12, color = "#CC0000", alpha = 1, rotation = 0, bold = TRUE, url = "http=//www.amcharts.com"). Run `api("Label")` for more informations.

`arrows list` of GaugeArrow. Only valid for gauge charts. Run `api("GaugeArrow")` for more informations.

`axes list` of GaugeAxis properties. Only valid for gauge charts. Run `api("GaugeAxis")` for more informations.

`balloon` AmBalloon. Creates the balloons (tooltips) of the chart, It follows the mouse cursor when you roll-over the data items. The framework generates the instances automatically you just have to adjust the appearance to your needs. Run `api("AmBalloon")` for more informations.

`categoryAxis` CategoryAxis. Read-only. Chart creates category axis itself. If you want to change some properties, you should get this axis from the chart and set properties to this object. Run `api("CategoryAxis")` for more informations.

`categoryField character`. Category field name indicates the name of the field in your dataProvider object which will be used for category axis values.

`ChartCursor` ChartCursor. Chart's cursor. Run `api("ChartCursor")` for more informations.

`ChartScrollbar` ChartScrollbar. Chart's scrollbar. Run `api("ChartScrollbar")` for more informations.

`creditsPosition character`, specifies position of the amCharts' website link. Allowed values are: "top-left", "top-right", "bottom-left" and "bottom-right".

`dataProvider data.frame`, containing the data.

`graphs list` of AmGraph. Creates the visualization of the data in following types: line, column, step line, smoothed line, olhc and candlestick. Run `api("AmGraph")` for more informations.

`graph` AmGraph. Only valid for Gantt charts. Gant chart actually creates multiple graphs (separate for each segment). Properties of this graph are passed to each of the created graphs - this allows you to control the look of segments. Run `api("AmGraph")` for more informations.

`guides list` of Guide. Instead of adding guides to the axes, you can push all of them to this array. In case guide has category or date defined, it will automatically be assigned to the category axis, otherwise to the first value axis, unless you specify a different valueAxes for the guide. Run `api("Guide")` for more informations.

`legend` AmLegend. Legend of a chart. Run `api("AmLegend")` for more informations.

`segmentsField character`. Segments field in your data provider. Only valid for Gantt Charts.

`subChartProperties list`. Only valid for Drilldown charts.

`theme character`. Theme of a chart. Config files of themes can be found in amcharts/themes/ folder. See http://www.amcharts.com/tutorials/working-with-themes/.

`titles list` of Title. Run `api("Title")` for more informations.

`trendLines list` of TrendLine objects added to a chart. You can add trend lines to a chart using this list or access already existing trend lines. Run `api("TrendLine")` for more informations.

`type character`. Possible types are: "serial", "pie", "radar", "xy", "radar", "funnel", "gauge", "stock". See details about using argument type. (type map is in development).

`valueAxes list` of ValueAxis. Chart creates one value axis automatically, so if you need only one value axis, you don't need to create it. Run `api("ValueAxis")` for more informations.

`valueAxis` ValueAxis. Only valid for Gantt Charts. Set it's type to "date" if your data is date or time based. Run `api("ValueAxis")` for more informations.

`valueScrollbar` ChartScrollbar. Value scrollbar, enables scrolling value axes.

`listeners list` containining the listeners to add to the object. The list must be named as in the official API. Each element must be a character string. Run `runShinyExamples()` for examples.

`otherProperties list` containing other avalaible properties not yet implemented in the package.

`value numeric`.

See Also

http://docs.amcharts.com/3/javascriptcharts/

Examples

```
# Run runShinyExamples() for examples.
```

---

amChartsOutput *SHINY*

Description

Widget output function for use in Shiny

Usage

```
amChartsOutput(outputId, type = NULL, width = "100%", height = "400px")
```

Arguments

outputId	character, output variable to read the chart from.
type	character, indicating the chart type.
width	character, the width of the chart container.
height	character, the height of the chart container.

---

amFloatingBar *Plotting floating bar chart using rAmCharts*

Description

amFloatingBar computes a floating bar chart of the given values.

Usage

```
amFloatingBar(x, y_inf, y_sup, data, xlab = "", ylab = "",
  groups_color = NULL, horiz = FALSE, show_values = FALSE, depth = 0,
  dataDateFormat = NULL, minPeriod = ifelse(!is.null(dataDateFormat), "DD",
  ""), ...)
```

Arguments

x	character, column name for x-axis or numeric value of the corresponding column. It is optional if argument data has row names.
y_inf	character, column name for the lower value or numeric vector of the corresponding column.
y_sup	character, column name for the upper value or numeric vector of the corresponding column.
data	data.frame, dataframe with values to display. You can add a column "color" (character, colors in hexadecimal). You can also add a column "description" (character) containing the text you want to display when mouse is on the graphic (' ' for a new line). See data_fbar.
xlab	character, label for x-axis.
ylab	character, label for y-axis.
groups_color	character, vector of colors in hexadecimal, same length as y_inf or y_sup.
horiz	logical, TRUE for an horizontal chart, FALSE for a vertical one If 'horiz' is set to TRUE, the setting 'labelRotation' will be ignored.
show_values	logical, TRUE to display values.
depth	numeric, if > 0, chart is displayed in 3D. Value between 0 and 100.

dataDateFormat	character, default set to NULL. Even if your chart parses dates, you can pass them as strings in your dataframe - all you need to do is to set data date format and the chart will parse dates to date objects. Check this page for available formats. Please note that two-digit years (YY) as well as literal month names (MMM) are NOT supported in this setting.
minPeriod	Specifies the shortest period of your data. This should be set only if dataDateFormat is not 'NULL'. Possible period values: fff - milliseconds, ss - seconds, mm - minutes, hh - hours, DD - days, MM - months, YYYY - years. It's also possible to supply a number for increments, i.e. '15mm' which will instruct the chart that your data is supplied in 15 minute increments.
...	see amOptions for more options.

Details

Notice about labels: if the chart has many columns, several labels might be hidden. It depends on the width of the conatainer where the chart is displayed. Zoom on the chart to see if the chart can contain all labels. You can also add a cursor to your chart...

Value

An object of class AmChart.

See Also

- https://datastorm-open.github.io/introduction_ramcharts/

Examples

```
# Load data
data(data_fbar)
data(data_gbar)

amFloatingBar(x = "country", y_inf = "visits_inf", y_sup = "visits_sup",
              data = data_fbar, labelRotation = -45)

amFloatingBar(x = "year", y_inf = "expenses", y_sup = "income", data = data_gbar,
              dataDateFormat = "YYYY", minPeriod = "YYYY", zoom = TRUE)


# Other examples available which can be time consuming depending on your configuration.
library(pipeR)

# Reference example : column chart
amFloatingBar(x = "country", y_inf = "visits_inf", y_sup = "visits_sup",
              data = data_fbar, labelRotation = -45)

# Label rotation modification
amFloatingBar(x = "country", y_inf = "visits_inf", y_sup = "visits_sup",
              data = data_fbar, labelRotation = -90)

# Horizontal bar
```

```
amFloatingBar(x = "country", y_inf = "visits_inf", y_sup = "visits_sup",
              data = data_fbar, horiz = TRUE)

# 3D bar
amFloatingBar(x = "country", y_inf = "visits_inf", y_sup = "visits_sup",
              data = data_fbar, labelRotation = -45, depth = 15)

# Display values
amFloatingBar(x = "country", y_inf = "visits_inf", y_sup = "visits_sup",
              data = data_fbar, labelRotation = -90, show_values = TRUE)

# Change colors
amFloatingBar(x = "country", y_inf = "visits_inf", y_sup = "visits_sup",
              data = data_fbar[,1:3], labelRotation = -45, groups_color = "#67b7dc")


# Grouped columns
# Parse dates

# Default label: firt day of each year

amFloatingBar(x = "year", y_inf = "expenses", y_sup = "income", data = data_gbar,
              dataDateFormat = "YYYY", minPeriod = "YYYY", zoom = TRUE)

# Default label: first day of each month

amFloatingBar(x = "month", y_inf = "expenses", y_sup = "income", data = data_gbar,
              dataDateFormat = "MM/YYYY", minPeriod = "MM", zoom = TRUE)


amFloatingBar(x = "day", y_inf = "expenses", y_sup = "income", data = data_gbar,
              dataDateFormat = "DD/MM/YYYY", zoom = TRUE)
```

---

amFunnel *Plotting funnel chart using rAmCharts*

Description

amFunnel computes a funnel chart of the given value.

Usage

```
amFunnel(data, inverse = FALSE, neck_height = NULL, neck_width = NULL,
  depth = 0, label_side = "right", margin_right = 200,
  margin_left = 200, ...)
```

Arguments

data	data.frame of at least 2 columns : value (numeric, positive), and description (character). You can add a third column "color" (character, colors in hexadecimal) see data_funnel.
inverse	logical, if TRUE, the funnel chart will be inversed.
neck_height	numeric, value between 0 and 100 : if a bottleneck is desired, this value determines its heigh. Default to NULL.
neck_width	numeric, value between 0 and 100 : if a bottleneck is desired, this value determines its witdh. Default to NULL.
depth	numeric, if > 0, chart is displayed in 3D, only for pyramid chart (without a bottleneck). Value between 0 and 100.
label_side	character, label position : "right" or "left".
margin_right	numeric, margin at the right side.
margin_left	numeric, margin at the left side.
...	see amOptions for more options.

See Also

- https://datastorm-open.github.io/introduction_ramcharts/

Examples

```
data(data_funnel)
amFunnel(data = data_funnel, inverse = TRUE)


# Other examples available which can be time consuming depending on your configuration.

# Change the orientation and legend side
amFunnel(data = data_funnel, inverse = FALSE,
         label_side = "left", margin_right = 15, margin_left = 160)

# Basic example : Funnel chart
amFunnel(data = data_funnel, neck_height = 30, neck_width = 40)

# 3D pyramid
amFunnel(data = data_funnel, depth = 50, inverse = TRUE)
```

AmGraph-class *AmGraph class*

Description

Creates the visualization of the data in following types: line, column, step line, smoothed line, ohlc and candlestick.

Details

Run `api("AmGraph")` for more details and all avalaible properties.

Slots

`balloonText character`. Balloon text. You can use tags like [[value]], [[description]], [[percents]], [[open]], [[category]] or any other field name from your data provider. HTML tags can also be used.

`title character`. Graph title.

`type character`. Type of the graph. Possible values are: "line", "column", "step", "smoothedLine", "candlestick", "ohlc". XY and Radar charts can only display "line" otherArguments graphs.

`valueField character`. Name of the value field in your dataProvider.

`listeners "list"` containining the listeners to add to the object. The list must be named as in the official API. Each element must be a character string. See examples for details.

`otherProperties "list"` containing other avalaible properties not yet implemented in the package.

`value numeric`.

amHist *Plotting histogram using rAmCharts*

Description

amHist computes a histogram of the given data values.

Usage

```
amHist(x, ...)

## S3 method for class 'numeric'
amHist(x, col = "#1e90ff", border = "#1e90ff",
  freq = TRUE, plot = TRUE, labels = FALSE, xlab, ylab, ylim,
  control_hist, ...)
```

Arguments

x	numeric, a vector of values for which the histogram is desired.
...	see amOptions for more options.
col	character, a color to be used to fill the bars.
border	character, a color for the borders.
freq	logical, if TRUE, the histogram graphic is a representation of frequencies, the counts component of the result; if FALSE, probability densities, component density, are plotted (so that the histogram has a total area of one). Defaults to TRUE if and only if breaks are equidistant (and probability is not specified).
plot	logical, if TRUE (default), an histogram is plotted, otherwise a list of breaks and counts is returned. In the second case, a warning is used if (typically graphical) arguments are specified that only apply to the plot = TRUE case.
labels	logical, set to TRUE to display labels. Default set to FALSE. Additionally draw labels on top of bars. if TRUE, draw the counts or rounded densities; if labels is a character, draw itself.
xlab, ylab	character, labels of the axis.
ylim	numeric, the range of y values with sensible defaults.
control_hist	(optional) named list() containing parameters to compute the histogram.

Value

An object of class AmChart.

See Also

- https://datastorm-open.github.io/introduction_ramcharts/

Examples

```
amHist(x = rnorm(100))


# Other examples available which can be time consuming depending on your configuration.

x <- replicate(1000, {
if (round(runif(1))) {
  rnorm(1)
} else {
  rnorm(1, mean = 5)
}
})


# Without plot
amHist(x = x, plot = FALSE)

# With options
```

```
amHist(x = x, border = "blue")
amHist(x = x, col = "lightblue", control_hist = list(breaks = 100))
amHist(x = x, col = "grey")
amHist(x = x, col = "gray")
amHist(x = x, main = "Histogram", ylab = "y-axis", xlab = "x-axis", col = "red")
amHist(x = x, main = "Histogram", ylab = "y-axis", xlab = "x-axis", ylim = c(10, 15))
amHist(x = x, main = "Histogram", ylab = "y-axis", xlab = "x-axis")

# Options for computing the histogram
amHist(x = x, control_hist = list(breaks = "Scott"))
```

`AmLegend-class` *AmLegend class*

Description

Creates the legend for the chart, automatically adapts the color settings of the graphs.

Details

Run `api("AmLegend")` for more information and all avalaible properties.

Slots

`useGraphSettings logical`. If TRUE, border color will be changed when user rolls-over the slice, graph, etc, instead of background color.

`listeners list` containining the listeners to add to the object. The list must be named as in the official API. Each element must be a character string.

`otherProperties list` containing other avalaible properties not yet implemented in the package.

`value numeric`.

Author(s)

datastorm-open

amLines *amLines adds a serie to a graph.*

Description

amLines adds a new serie to an existing serial chart.

Usage

```
amLines(chart, x = NULL, y = NULL, type = c("points", "line",
  "smoothedLine"), col = "#0066cc", title, fill_alphas = 0, balloon = T)
```

Arguments

chart	AmChart. Chart you wish to add the new serie.
x	numeric, equivalent to y, deprecated.
y	numeric.
type	(optionnal) character. Possible values are : "l" for line, "p" for points, "sl" for smoothed line.
col	character, color of the new serie.
title	character, name of the new serie, used when legend is enabled.
fill_alphas	a numeric between 0 and 1 for printed area.
balloon	logical, add balloon with value or not

Note

It is supposed here that x or y corresponds to the y-axis, and the x-axis is automatically linked to the x values of the chart "chart". That is why it makes sense to give the y argument.

Examples

```
require(pipeR)
amPlot(x = rnorm(100), type = 'sl') %>>%
  amLines(x = rnorm(100), type = "p")


amPlot(x = rnorm(100), type = 'sl') %>>%
  amLines(x = rnorm(100), col = "blue") %>>%
  amLines(x = rnorm(100), type = "sl") %>>%
  amLines(x = rnorm(100), type = "p")

# For an XY chart
x <- sort(rnorm(100))
y1 <- rnorm(100, sd = 10)
y2 <- rnorm(100, sd = 10)
y3 <- rnorm(100, sd = 10)
```

```
amPlot(x = x, y = y1) %>>%
  amLines(x = y2, col = "blue") %>>%
  amLines(x = y3, type = "p")
```

---

amMekko *Plotting mekko chart (quali vs quali) using rAmCharts*

Description

amMekko computes a mekko chart of the given values.

Usage

```
amMekko(x, y, data, xlab = "", ylab = "", groups_color = NULL,
  horiz = FALSE, show_values = FALSE, ...)
```

Arguments

x	character, column name for x-axis.
y	character, column name for y-axis.
data	data.frame, dataframe with values to display. See data_mekko
xlab	character, label for x-axis.
ylab	character, label for y-axis.
groups_color	character vector of colors in hexadecimal, same length as the number of y modalities.
horiz	logical, TRUE for an horizontal chart, FALSE for a vertical one.
show_values	logical, TRUE to display values.
...	see amOptions for more options.

See Also

- https://datastorm-open.github.io/introduction_ramcharts/

Examples

```
data(data_mekko)
amMekko(x = "var1", y = "var2", data = data_mekko)


# Other examples available which can be time consuming depending on your configuration.
library(pipeR)

# Horizontal
amMekko(x = "var1", y = "var2", data = data_mekko, horiz = TRUE)
```

```
# Display values
amMekko(x = "var1", y = "var2", data = data_mekko, show_values = TRUE)
```

`AmObject-class` *AmObject class*

Description

This is a virtual class for representing any Am** class

Slots

`listeners list` containining the listeners to add to the object. The list must be named as in the official API. Each element must be a character string.

`otherProperties list` containing other avalaible properties not yet implemented in the package.

`value numeric`.

Author(s)

datastorm-open

`amOHLC` *Plotting OHLC chart using rAmCharts*

Description

amOHLC computes an OHLC chart of the given value.

Usage

```
amOHLC(data, xlab = "", ylab = "", horiz = FALSE, zoom = TRUE,
  positiveColor = "#7f8da9", negativeColor = "#db4c3c", names = c("low",
  "open", "close", "high"), dataDateFormat = NULL,
  minPeriod = ifelse(!is.null(dataDateFormat), "DD", ""), ...)
```

Arguments

data	data.frame, dataframe with at least 5 columns : category, open (numeric), close (numeric), low (numeric), high (numeric).
xlab	character, label for x-axis.
ylab	character, label for y-axis.
horiz	logical, TRUE for an horizontal chart, FALSE for a vertical one
zoom	logical, default set to TRUE : a cursor is added to the chart.
positiveColor	character, color for positive values (in hexadecimal).
negativeColor	character, color for negative values (in hexadecimal).
names	character, names for the tooltip. Default to c("low", "open", "close", "high").
dataDateFormat	character, default set to NULL. Even if your chart parses dates, you can pass them as strings in your dataframe - all you need to do is to set data date format and the chart will parse dates to date objects. Check this page for available formats. Please note that two-digit years (YY) as well as literal month names (MMM) are NOT supported in this setting.
minPeriod	character, minPeriod Specifies the shortest period of your data. This should be set only if dataDateFormat is not 'NULL'. Possible period values: fff - milliseconds, ss - seconds, mm - minutes, hh - hours, DD - days, MM - months, YYYY - years. It's also possible to supply a number for increments, i.e. '15mm' which will instruct the chart that your data is supplied in 15 minute increments.
...	see amOptions for more options.

See Also

- https://datastorm-open.github.io/introduction_ramcharts/

Examples

```
data("data_candleStick2")
amOHLC(data = data_candleStick2)


# Other examples available which can be time consuming depending on your configuration.
require(pipeR)



# Change colors
amOHLC(data = data_candleStick2, positiveColor = "green", negativeColor = "red")

# Naming the axes
amOHLC(data = data_candleStick2, xlab = "categories", ylab = "values") %>>% setChartCursor()

# Rotate the labels for x axis
amOHLC(data = data_candleStick2, labelRotation = 90)

# Change names
```

```
amOHLC(data = data_candleStick2, names = c("min", "begin", "end", "max")) %>>% setChartCursor()

# Use amOptions
amOHLC(data = data_candleStick2, zoom = FALSE)
```

---

amOptions *amOptions*

Description

amOptions sets the most common options for chart customization. You can set other properties with the method setProperties. See details for exception.

Usage

```
amOptions(chart, theme = c("none", "light", "dark", "patterns", "chalk"),
  legend = FALSE, legendPosition = "right", legendAlign = "left",
  export = FALSE, exportFormat = character(),
  creditsPosition = "top-left", main = character(), mainColor = "#000000",
  mainSize = 15, zoom = FALSE, scrollbar = FALSE, scrollbarHeight = 20,
  valuescrollbar = FALSE, valuescrollbarHeight = 20, labelRotation = 0,
  ...)
```

Arguments

chart	AmChart.
theme	character, possible values are : "none", "light", "dark", "patterns", "chalk", default set to "none".
legend	logical, default FALSE. TRUE to add a legend to the chart.
legendPosition	character, possible values are : "left", "right", "top" or "bottom", default set to "right".
legendAlign	character, controls the legend alignement. Possible values are : "left","right" or "center", default set to "left". Only used if legend = TRUE.
export	logical, default set to FALSE. TRUE to display export feature.
exportFormat	character, desired export format. Possible values are : "JPG", "PNG" ,"SVG", "CSV", "JSON", "PDF", "XLSX", "PRINT".
creditsPosition	character, controsl credits position. Possible values are : "top-left", "top-right", "bottom-left" or "bottom-right", default set to "top-left".
main	character, chart's title.
mainColor	character, main color (in hexadecimal), default set to "#000000".
mainSize	numeric, main size, default set to 15.
zoom	logical, TRUE to add a chart cursor, default set to FALSE.

`scrollbar`	`logical`, default `FALSE`, TRUE to display scrollbar.
`scrollbarHeight`	`numeric`, height in pixels, must be > 0.
`valuescrollbar`	`logical`, default `FALSE`, TRUE to display valuescrollbar.
`valuescrollbarHeight`	`numeric`, height in pixels, must be > 0.
`labelRotation`	`numeric`, rotation angle of a label. Only horizontal axis' values can be rotated. Value must be between -90 and 90.
`...`	Other properties added to the chart using `setProperties`.

Details

Exception:

- It's not possible to export a gauge chart data as CSV.

See Also

- https://datastorm-open.github.io/introduction_ramcharts/

Examples

```
library(pipeR)
data(data_pie)

# Export
amPie(data = data_pie) %>>%
  amOptions(export = TRUE)

# Legend
amPie(data = data_pie) %>>%
  amOptions(legend = TRUE)

# Legend position
amPie(data = data_pie) %>>%
  amOptions(legend = TRUE, legendPosition = "bottom")

# Credits position
amPie(data = data_pie) %>>%
  amOptions(creditsPosition = "bottom-right")

# Theme
amPie(data = data_pie) %>>%
  amOptions(theme = "chalk")

# Title
amPie(data = data_pie) %>>%
  amOptions(main = "Social network", mainColor = "#FFFFFF", mainSize = 40, theme = "chalk")
```

```
# Custom exemple
amPie(data = data_pie) %>>%
  amOptions(main = "Social network", mainColor = "#FFFFFF", mainSize = 40,
            theme = "dark", legend = TRUE, legendPosition = "bottom",
            creditsPosition = "bottom-right" )
```

---

amPie *Plotting pie chart using rAmCharts*

Description

amPie computes a pie chart of the given value.

Usage

```
amPie(data, show_values = TRUE, depth = 0, inner_radius = 0, ...)
```

Arguments

data	data.frame, dataframe with at least 2 columns : label (character), value (numeric). See data_pie You can add a third column "color" (character, colors in hexadecimal).
show_values	logical, TRUE to display values.
depth	numeric, if > 0, chart is displayed in 3D, value between 0 and 100
inner_radius	numeric, value between 0 and 100
...	see amOptions for more options.

See Also

- https://datastorm-open.github.io/introduction_ramcharts/

Examples

```
data("data_pie")
amPie(data = data_pie)


# Other examples available which can be time consuming depending on your configuration.

# Don't display values
amPie(data = data_pie, show_values = FALSE)

# 3D pie
amPie(data = data_pie, depth = 10)

# Donut chart
```

```
amPie(data = data_pie, inner_radius = 50)

# All parameters
amPie(data = data_pie, inner_radius = 50, depth = 10, show_values = FALSE)
```

---

amPlot *Plot serial data*

Description

amPlot computes a plot of the given data values (can be a vectorn a dataframe or a formula).

Usage

```
amPlot(x, ...)

## Default S3 method:
amPlot(x, ...)

## S3 method for class 'numeric'
amPlot(x, y, bullet = c("round", "diamond", "square",
  "bubble", "yError", "xError", "triangleLeft", "triangleRight", "triangleUp",
  "triangleDown"), type = c("points", "line", "smoothedLine", "step", "both"),
  col = "#0066cc", fill_alphas = 0, weights = NULL, precision = 2, id,
  error, xlab, ylab, lty, cex, lwd, xlim, ylim, ...)

## S3 method for class 'character'
amPlot(x, y, bullet = c("round", "diamond", "square",
  "bubble", "yError", "xError", "triangleLeft", "triangleRight", "triangleUp",
  "triangleDown"), type = c("points", "line", "smoothedLine", "step", "both"),
  col = "#0066cc", fill_alphas = 0, weights = NULL, precision = 2,
  parseDates = FALSE, dataDateFormat, id, error, xlab, ylab, lty, cex, lwd,
  xlim, ylim, ...)

## S3 method for class 'factor'
amPlot(x, y, bullet = "round", type = "p", col = "gray",
  weights = NULL, precision = 2, parseDates = FALSE,
  dataDateFormat = NULL, id, error, xlab, ylab, lty, cex, lwd, xlim, ylim,
  ...)

## S3 method for class 'data.frame'
amPlot(x, columns, type = "l", precision = 2, xlab,
  ylab, fill_alphas = 0, ...)

## S3 method for class 'formula'
amPlot(x, data, type = "p", fill_alphas = 0, xlab, ylab,
  main = "", ...)
```

Arguments

x	the coordinates of points in the plot : numeric, data.frame, or formula.
...	see amOptions for more options.
y	numeric, the y coordinates of points in the plot, optional if x is an appropriate structure.
bullet	character, point shape. Possible values are : "diamond", "square", "bubble", "yError", "xError", "round", "triangleLeft", "triangleRight", "triangleUp", "triangleDown". Default set to "round".
type	character, type of plot. Possible values are : "l" for a line, "sl" for a smoothed line (deprecated), "st" for steps, "p" for points, and "b" for line and points. Default set to "p".
col	either a factor or a character, default set to "gray".
fill_alphas	a numeric between 0 and 1 for printed area.
weights	numeric, weights for x/y charts only. Small values are prefered for lisibility.
precision	numeric, precision you wish to display. Default set to 2.
id	numeric, point id, for x/y charts only. Default 1:length(x).
error	numeric, only when type is "xError" "yError" default NULL,
xlab	character, label for x-axis.
ylab	character, label for y-axis.
lty	numeric, line type (dashes).
cex	numeric, bullet size.
lwd	numeric, line width
xlim	numeric, x range.
ylim	numeric, y range.
parseDates	logical, default set to FALSE, if TRUE argument dataDateFormat has to be provided.
dataDateFormat	character, default set to NULL. Even if your chart parses dates, you can pass them as strings in your dataframe - all you need to do is to set data date format and the chart will parse dates to date objects. Check this page for available formats. Please note that two-digit years (YY) as well as literal month names (MMM) are NOT supported in this setting.
columns	(optional) either a vector of character containing the names of the series to draw, or a numeric vector of indices. By default all numeric columns will be drawn.
data	dataset
main	title

Value

Return an Amchart.

See Also

- https://datastorm-open.github.io/introduction_ramcharts/

Examples

```
## Not run:
# 'numeric':
amPlot(x = rnorm(100))

# 'character':
start <- as.POSIXct('01-01-2015', format = '%d-%m-%Y')
end <- as.POSIXct('31-12-2015', format = '%d-%m-%Y')
date <- seq.POSIXt(from = start, to = end, by = 'day')
date <- format(date, '%m-%d-%Y')

y <- rnorm(length(date))
amPlot(x = date, y = y, type = 'l', parseDates = TRUE, dataDateFormat = "MM-DD-YYYY")
# notice that by default 'parseDates = FALSE'

# 'data.frame'
amPlot(iris, col = colnames(iris)[1:2], type = c("l", "st"), zoom = TRUE, legend = TRUE)

# 'formula':
amPlot(Petal.Length + Sepal.Length ~ Sepal.Width, data = iris, legend = TRUE, zoom = TRUE)

## End(Not run)


# Other examples available which can be time consuming depending on your configuration.
library(data.table)

iris <- as.data.table(get("iris", "package:datasets"))
x <- rnorm(100)

# Simple scatter plot with title and color
# Also change type (set to "p" by default), avalaible "l", "sl", "st", "p", "b"
amPlot(x = x, main = "Title", col = "lightblue", type = "b")

x <- sort(rnorm(100))
y <- runif(100)
weights <- runif(100, 0, 15)
amPlot(x = x, y = y, weights = weights)
```

---

amRadar *Plotting radar using rAmCharts*

Description

radar computes a radarplot of the given data values.

Usage

```
amRadar(data, col = NULL, backTransparency = 0.5, type = "polygons",
  pch = "round", xlim = NULL, ...)
```

Arguments

data	data.frame first column is named "label" (character), other columns are series of values, see data_radar.
col	character, color(s) of serie(s) hexadecimal like "#00FF00".
backTransparency	numeric, background transparency, between 0 and 1.
type	character, type of radar. Possible values are : "polygons" or "circle".
pch	character, points symbols. Possible values are : "round", "square", "triangleUp", "triangleDown", "triangleLeft", "triangleRight", "bubble", "diamond", "xError", "yError".
xlim	numeric, x range.
...	see amOptions for more options.

See Also

- https://datastorm-open.github.io/introduction_ramcharts/

Examples

```
data("data_radar")
amRadar(data_radar)


# Other examples available which can be time consuming depending on your configuration.

require(pipeR)

# Change color
amRadar(data_radar, col = "#FF0000")
amRadar(data_radar, col = c("#0000FF", "#00FF00", "#FF0000"))


# Change backTransparency
amRadar(data_radar, backTransparency = 0.6)
amRadar(data_radar, backTransparency = c(0, 0.4, 0.6))


# Change type
amRadar(data_radar, type = "circles")
```

```
# Change pch
amRadar(data_radar,  pch = "triangleRight")
amRadar(data_radar,  pch = "triangleLeft")

#Min-Max
amRadar(data_radar, xlim = c(0, 8))
```

---

amSolidGauge *Plotting solid gauge using rAmCharts*

Description

amSolidGauge computes a gauge of the given value.

Usage

```
amSolidGauge(x, min = 0, max = 100, type = "full", width = 20,
  color = "", text = "", textSize = 20, ...)
```

Arguments

x	numeric, value for which the angular gauge is desired.
min	numeric, minimal possible value.
max	numeric, maximal possible value.
type	character, type of gauge : "full" or "semi".
width	numeric, width of the gauge.
color	character, hexadecimal color value or a vector of colors.
text	character, text.
textSize	numeric, text size.
...	see amOptions for more options.

Examples

```
amSolidGauge(x = 65)


# Other examples available which can be time consuming depending on your configuration.

require(pipeR)

# Change min and max values
amSolidGauge(x = 65, min = 0, max = 200)

# Semi solid gauge
```

```
amSolidGauge(x = 65, type = "semi")

# Change width
amSolidGauge(x = 65, width = 50)

# Change color
amSolidGauge(x = 65, color = "#2F4F4F")

# Put a color scale
amSolidGauge(x = 10, color = c("#00ff00", "#ffd700", "#ff0000"))
amSolidGauge(x = 35, color = c("#00ff00", "#ffd700", "#ff0000"))
amSolidGauge(x = 70, color = c("#00ff00", "#ffd700", "#ff0000"))
amSolidGauge(x = 90, color = c("#00ff00", "#ffd700", "#ff0000"))

# Add some text to the printed value
amSolidGauge(x = 65, text = "%")

# Modify textSize value
amSolidGauge(x = 65, text = "%", textSize = 50)
```

`AmStockChart-class` *AmStockChart*

Description

Class to draw stock charts

Slots

`balloon` AmBalloon.

`comparedDataSets list` of DataSet. Properties of data sets selected for comparison.

`dataSets list` of DataSet. Each element must be a list of DataSet properties.

`dataSetSelector list` of DataSetSelector. You can add it if you have more than one data set and want users to be able to select/compare them.

`mainDataSet` DataSet. Data set selected as main.

`panels list` of StockPanel.

`periodSelector` PeriodSelector. You can add it if you want users to be able to enter date ranges or zoom chart with predefined period buttons.

`theme character`

`type` equals "stock"

`group character` for synchronization

`is_ts_module logicalOrMissing`. Don't use. For rAmChartsTimeSeriesUI

`listeners list` containining the listeners to add to the chart. The list must be named as in the official API. Each element must be a character string.

`otherProperties list` containing other avalaible properties not yet implemented in the package.

`value numeric`.

Author(s)

datastorm-open

See Also

http://docs.amcharts.com/3/javascriptstockchart/AmStockChart

`amStockMultiSet` *Plotting multi data-sets*

Description

amStockMultiSet compute a stock of multi data-sets, still in dev

Usage

```
amStockMultiSet(data, panelColumn = NULL, ZoomButtonPosition = "bottom",
  ZoomButton = data.frame(Unit = "MAX", multiple = 1, label = "All"),
  color = c("#2E2EFE", "#31B404", "#FF4000"), precision = 1,
  export = FALSE, percentHeightPanel = NULL,
  creditsPosition = "top-right", ...)
```

Arguments

`data`	`list`, list of data.frame (same structure) first column is date, others are values
`panelColumn`	`numeric`, numeric vector, controle panel adding for selected series
`ZoomButtonPosition`	`character`, zoom button position. Possible values are : "left", "right", "bottom", "top"
`ZoomButton`	`data.frame`, 3 columns : Unit, times unit multiple : multiple*unit label : button's label
`color`	`character`, color of data-sets (in hexadecimal).
`precision`	`numeric`, digits precision
`export`	`logical`, default set to FALSE. TRUE to display export feature.
`percentHeightPanel`	`numeric`, vector of size panel, same length than data
`creditsPosition`	`character`, credits position. Possible values are : "top-right", "top-left", "bottom-right", "bottom-left"
`...`	other first level attributes

Examples

```
## Not run:
data(data_stock_3)

amStockMultiSet(data = data_stock_3)
amStockMultiSet(data = data_stock_3, panelColumn = c(1,2,1,1))

amStockMultiSet(data = data_stock_3, panelColumn = c(1,2,3,4))

ZoomButton <- data.frame(Unit = c("DD", "DD", "MAX"), multiple = c(1, 10 ,1),
                  label = c("Day","10 days", "MAX"))
                  ZoomButtonPosition <- "bottom"
amStockMultiSet(data = data_stock_3, panelColumn = c(1,2,1,1), ZoomButton = ZoomButton,
ZoomButtonPosition = "top")

amStockMultiSet(data = data_stock_3, precision = 2)

amStockMultiSet(data = data_stock_3, panelColumn = c(1,2,1,1), percentHeightPanel = c(3,1))

## End(Not run)
```

---

amTimeSeries *Plotting times series which aggregation*

Description

amTimeSeries computes a stock chart.

Usage

```
amTimeSeries(data, col_date, col_series, main = "", ylab = "",
  color = c("#2E2EFE", "#31B404", "#FF4000", "#AEB404"), bullet = NULL,
  bulletSize = 2, linetype = c(0, 5, 10, 15, 20), linewidth = c(1, 1, 1,
  1, 1, 1), fillAlphas = 0, precision = 1, export = FALSE,
  legend = TRUE, legendPosition = "bottom", legendHidden = FALSE,
  aggregation = c("Average", "Low", "High", "Sum"), maxSeries = 300,
  groupToPeriods = c("ss", "mm", "hh", "DD", "MM", "YYYY"),
  ZoomButton = data.frame(Unit = "MAX", multiple = 1, label = "All"),
  ZoomButtonPosition = "bottom", periodFieldsSelection = FALSE,
  scrollbar = TRUE, scrollbarPosition = "bottom", scrollbarHeight = 40,
  scrollbarGraph = NULL, cursor = TRUE, cursorValueBalloonsEnabled = TRUE,
  creditsPosition = "top-right", group = NULL, is_ts_module = FALSE, ...)
```

Arguments

data	data.frame, data of graph.
col_date	character name of date column
col_series	character names of series columns
main	character, title.
ylab	character, value axis label.
color	character, color of series (in hexadecimal).
bullet	character, point shape. Possible values are : "diamond", "square", "bubble", "yError", "xError", "round", "triangleLeft", "triangleRight", "triangleUp"
bulletSize	: numeric, size of bullet.
linetype	: numeric, line type, 0 : solid, number : dashed length
linewidth	: numeric, line width.
fillAlphas	: numeric, fill. Between 0 (no fill) to 1.
precision	numeric, default set to 1.
export	logical, default set to FALSE. TRUE to display export feature.
legend	logical, enabled or not legend ? Defaut to TRUE.
legendPosition	character, legend position. Possible values are : "left", "right", "bottom", "top"
legendHidden	logical hide some series on rendering ? Defaut to FALSE
aggregation	character, aggregation type. Possible values are : "Low", "High", "Average" and "Sum"
maxSeries	numeric Maximum series shown at a time. In case there are more data points in the selection than maxSeries, the chart will group data to longer periods, for example - you have 250 days in the selection, and maxSeries is 150 - the chart will group data to weeks.
groupToPeriods	character, Periods to which data will be grouped in case there are more data items in the selected period than specified in maxSeries property. Possible value are : 'ss', 'mm', 'hh', 'DD', 'MM', 'YYYY'. It's also possible to add multiple like "30mm". Or NULL to disable.
ZoomButton	data.frame, 3 or 4 columns : • "Unit" : Character. Times unit. 'ss', 'mm', 'hh', 'DD', 'MM', 'YYYY' • "multiple" : Numeric. multiple*unit • "label" : Character. button's label • "selected" : Boolean. Optional. To set initial selection. (One TRUE, others FALSE)
ZoomButtonPosition	character, zoom button position. Possible values are : "left", "right", "bottom", "top"
periodFieldsSelection	boolean, using zoom button, add also two fields to select period ?
scrollbar	boolean, enabled or not scrollbar ? Defaut to TRUE.

`scrollbarPosition`
: `character`, scrollbar position. Possible values are : "left", "right", "bottom", "top"

`scrollbarHeight`
: `numeric`, height of scroll bar. Default : 40.

`scrollbarGraph`
: `character`, name of serie (column) to print in scrollbar. Defaut to NULL.

`cursor`
: `boolean`, enabled or not cursor ? Defaut to TRUE.

`cursorValueBalloonsEnabled`
: `boolean`, if cursor, enabled or not balloons on cursor ? Defaut to TRUE.

`creditsPosition`
: `character`, credits position. Possible values are : "top-right", "top-left", "bottom-right", "bottom-left"

`group`
: `character`, like in `dygraphs`, for synchronization in `shiny` or `rmarkdown`.

`is_ts_module`
: `boolean`. Don't use. For rAmChartsTimeSeriesUI

`...`
: other first level attributes

See Also

- https://datastorm-open.github.io/introduction_ramcharts/

Examples

```
data("data_stock_2")
amTimeSeries(data_stock_2, "date", c("ts1", "ts2"))

## Not run:
# upper /lower
data <- data_stock_2[1:50, ]
data$ts1low <- data$ts1-100
data$ts1up <- data$ts1+100

amTimeSeries(data, "date", list(c("ts1low", "ts1", "ts1up"), "ts2"))
amTimeSeries(data, "date", list(c("ts1low", "ts1", "ts1up"), "ts2"),
 color = c("red", "blue"), bullet = c("round", "square"))


amTimeSeries(data_stock_2, "date", c("ts1", "ts2"), bullet = "round")
amTimeSeries(data_stock_2, "date", c("ts1", "ts2"), bullet = "round",
              groupToPeriods = c('hh', 'DD', '10DD'))

amTimeSeries(data_stock_2, "date", c("ts1", "ts2"), bullet = "round",
              groupToPeriods = c('12hh', 'DD', '10DD'),
              maxSeries = 50)

amTimeSeries(data_stock_2, "date", c("ts1", "ts2"), bullet = "round",
             groupToPeriods = c('hh', 'DD', '10DD'),
             linewidth = c(3, 1))

amTimeSeries(data_stock_2, "date", c("ts1", "ts2"), aggregation = "Sum")
```

```
amTimeSeries(data_stock_2, "date", c("ts1", "ts2"), bullet = "round",
             groupToPeriods = c('12hh', 'DD', '10DD'),
             maxSeries = 50, precision = 5)

amTimeSeries(data_stock_2, "date", c("ts1", "ts2"), bullet =  c("diamond", "square"),
             linetype = 0, bulletSize = c(5, 10),
             groupToPeriods = c('12hh', 'DD', '10DD'),
             maxSeries = 50, aggregation = "Sum")


ZoomButton <- data.frame(Unit = c("DD", "DD", "MAX"), multiple = c(1, 2 ,1),
                         label = c("Day","2 days", "MAX"))
amTimeSeries(data_stock_2, "date", c("ts1", "ts2"), bullet = "round",
             ZoomButton = ZoomButton, main = "My title", ylab = "Interest")

amTimeSeries(data_stock_2, "date", c("ts1", "ts2"), bullet = "round",
             ZoomButton = ZoomButton, main = "My title", ylab = "Interest",
             export = TRUE, ZoomButtonPosition = "right",
             legendPosition = "bottom", scrollbarPosition = "top")

amTimeSeries(data_stock_2, "date", c("ts1", "ts2"), bullet = "round",
             ZoomButton = ZoomButton, main = "My title",
             ylab = "Interest", export = TRUE,
             creditsPosition = "bottom-left")


## End(Not run)
```

`amWaterfall` *Plotting waterfall chart using rAmCharts*

Description

amWaterfall computes a waterfall chart of the given value.

Usage

```
amWaterfall(data, start = 0, horiz = FALSE, show_values = FALSE, ...)
```

Arguments

`data`	`data.frame`, dataframe with at least 3 columns : label (character), value (numeric), operation (character : "plus", "minus", "total"). You can add a third column "color" (character, colors in hexadecimal). You can also add a column "description" (character) containing the text you want to display when mouse is on the graphic (' ' for a new line). See `data_waterfall`.
`start`	`numeric`, value from which to start.

horiz	logical, TRUE for an horizontal chart, FALSE for a vertical one.
show_values	logical, TRUE to display values on the chart.
...	see amOptions for more options.

See Also

- https://datastorm-open.github.io/introduction_ramcharts/

Examples

```
data("data_waterfall")
amWaterfall(data = data_waterfall, show_values = TRUE)

# Other examples available which can be time consuming depending on your configuration.

# Change the orientation :
amWaterfall(data = data_waterfall, horiz = TRUE)
```

---

amWind *Plotting wind using rAmCharts*

Description

amWind computes a windplot of the given data values.

Usage

```
amWind(data, col = NULL, backTransparency = 0.5, ...)
```

Arguments

data	data.frame, a dataframe which columns are series of values, from weakest wind (first column) to stronger wind (last column). See data_wind.
col	character, color(s) of serie(s) hexadecimal like "#00FF00".
backTransparency	numeric, background transparency, between 0 and 1.
...	see amOptions for more options.

See Also

- https://datastorm-open.github.io/introduction_ramcharts/
- amRadar

Examples

```
data("data_wind")
amWind(data_wind)


# Other examples available which can be time consuming depending on your configuration.

# Change color
amWind(data = data_wind, col = "#0404B4")
amWind(data = data_wind, col = c("#0404B4","#01DF01","#FFBF00"))

# Change backTransparency
amWind(data = data_wind, col = c("#0404B4","#01DF01","#FFBF00"), backTransparency = 0.1)
amWind(data = data_wind, col = c("#0404B4","#01DF01","#FFBF00"), backTransparency = 1)
amWind(data = data_wind, col = c("#0404B4","#01DF01","#FFBF00"), backTransparency = c(0.1, 0.1, 1))
```

---

api *See AmCharts API*

Description

Open a window in your browser at the referenced documentation under http://docs.amcharts.com/3/javascriptstockchart/.

Usage

```
api(class = NULL)
```

Arguments

class	Object of class character. Name of the class to see documentation. Please respect lower and upper case.

Examples

```
api()
api("AmChart")
```

AxisBase-class *AxisBase class*

Description

Base class for ValueAxis and CategoryAxis. It can not be explicitly instantiated.

Slots

`guides list`.

`listeners list` containining the listeners to add to the object. The list must be named as in the official API. Each element must be a character string.

`otherProperties list` containing other avalaible properties not yet implemented in the package.

`value numeric`. Guides of this axis. Use addGuide method.

Author(s)

datastorm-open

CategoryAxis-class *CategoryAxis class*

Description

Children class of AxisBase. Automatically set.

Details

Run `api("CategoryAxis")` for more information and all avalaible properties.

Slots

`gridPosition character`. Specifies if a grid line is placed on the center of a cell or on the beginning of a cell. Possible values are: "start" and "middle" This setting doesn't work if parseDates is set to TRUE.

`listeners list` containining the listeners to add to the object. The list must be named as in the official API. Each element must be a character string.

`otherProperties list` containing other avalaible properties not yet implemented in the package.

`value numeric`.

Author(s)

datastorm-open

ChartCursor-class *ChartCursor class*

Description

Creates a cursor for the chart which follows the mouse movements. In case of AmSerialChart charts it shows the balloons of hovered data points.

Details

Run `api("ChartCursor")` for more information and all avalaible properties.

Slots

`oneBalloonOnly logical`. If TRUE, border color will be changed when user rolls-over the slice, graph, etc, instead of background color.

`valueLineAxis list`. Properties of Axis of value line. If you set valueLineBalloonEnabled to true, but you have more than one axis, you can use this property to indicate which axis should display balloon.

`listeners list` containining the listeners to add to the object. The list must be named as in the official API. Each element must be a character string.

`otherProperties list` containing other avalaible properties not yet implemented in the package.

`value numeric`.

Author(s)

datastorm-open

ChartScrollbar-class *ChartScrollbar class*

Description

Creates a scrollbar for amSerialChart and amXYChart charts.

Details

Run `api("ChartScrollbar")` for more information and all avalaible properties.

Slots

`enabled logical`. Specifies if the chart should be updated while dragging/resizing the scrollbar or only at the moment when user releases mouse button.

`graph list`. Specifies which graph properties will be displayed in the scrollbar. Only Serial chart's scrollbar can display a graph.

`listeners list` containining the listeners to add to the object. The list must be named as in the official API. Each element must be a character string.

`otherProperties list` containing other avalaible properties not yet implemented in the package.

`value numeric`.

Author(s)

datastorm-open

`controlShinyPlot` *Tests the class of an expression.*

Description

Only used in 'renderAmCharts'.

Usage

```
controlShinyPlot(x)
```

Arguments

`x`	expression passed to 'renderAmCharts'. Either an expression that generates an HTML widget, or an expression that generates an AmChart.

Details

This function has only an internal purpose. Never use it.

DataSet-class *DataSet class*

Description

DataSet is an object which holds all information about data for AmStockChart

Details

Run `api("DataSet")` for more information.

Slots

`dataProvider list`, the data set data. Important: the data sets need to come pre-ordered in ascending order. Data with incorrect order might result in visual and functional glitches on the chart.

`fieldMappings list`, field mappings. Field mapping is an object with fromField and toField properties. fromField is the name of your value field in dataProvider. toField might be chosen freely, it will be used to set value/open/close/high/low fields for the StockChart. Example: fromField:"val1", toField:"value".

`stockEvents list` of StockEvent.

`listeners list` containining the listeners to add to the object. The list must be named as in the official API. Each element must be a character string.

`otherProperties list` containing other avalaible properties not yet implemented in the package.

`value numeric`.

Author(s)

datastorm-open

DataSetSelector-class *DataSetSelector class*

Description

DataSetSelector is a tool used to select data sets as main and to compare to main data set.

Details

Run `api("DataSetSelector")` for more information and all avalaible properties.

Slots

`position character`. Possible values: "right", "left", "top", "bottom". "top" and "bottom" positions has a limitation - only one data set can be selected for comparing.

`listeners list` containining the listeners to add to the object. The list must be named as in the official API. Each element must be a character string.

`otherProperties list` containing other avalaible properties not yet implemented in the package.

`value numeric`.

Author(s)

datastorm-open

---

data_AirPassengers *Air passengers for example*

Description

Based on the dataset 'AirPassengers' from the package 'datasets'.

Usage

```
data_AirPassengers
```

Format

2 column, 144 rows :

AirPassengers `numeric`

Period `character`, MM/YYYY

---

data_bar *Random data for plotting bar chart examples*

Description

This dataset is used in the examples, moreover it can be used as a reference if you notice a bug.

Usage

```
data_bar
```

Format

Dataset of 3 columns and 12 rows

country `character`

visits `numeric`

color `character`

data_candleStick1 *Random data for plotting candlestick chart examples*

Description

This dataset is used in the tutorial, moreover if you notice a bug, use this dataset to give us an example.

Usage

```
data_candleStick1
```

Format

Dataset of 5 columns and 12 rows

category `character`, can be parsed as a date

open `numeric`

close `numeric`

low `numeric`

high `numeric`

data_candleStick2 *Random data for plotting candlestick chart examples*

Description

This dataset is used in the tutorial, moreover if you notice a bug, use this dataset to give us an example.

Usage

```
data_candleStick2
```

Format

Dataset of 5 columns and 12 rows

category `character`, can be parsed as a date

open `numeric`

close `numeric`

low `numeric`

high `numeric`

data_fbar *Random data for plotting floating bar chart examples*

Description

This dataset is used in the examples, moreover it can be used as a reference if you notice a bug.

Usage

```
data_fbar
```

Format

Dataset of 2 columns and 1000 rows

country `character`

visits_inf `numeric`

visits_sup `numeric`

color `character`

data_funnel *Random data for plotting funnel chart examples*

Description

This dataset is used in the examples, moreover it can be used as a reference if you notice a bug.

Usage

```
data_funnel
```

Format

Dataset of 2 columns and 7 rows

description `character`

value `numeric`

data_gantt *Random data for plotting gantt chart examples*

Description

This dataset is used in the examples, moreover it can be used as a reference if you notice a bug.

Usage

```
data_gantt
```

Format

Dataset of 5 columns and 4 rows

category character

begin date

end date

color character

data_gbar *Random data for plotting bar chart examples*

Description

This dataset is used in the examples, moreover it can be used as a reference if you notice a bug.

Usage

```
data_gbar
```

Format

Dataset of 5 columns and 12 rows

year character

day character

month character

income numeric

expenses numeric

data_gdp *10 Richest Countries in the World by 2015 GDP*

Description

Value in $ trillion

Usage

```
data_gdp
```

Format

Dataset of 2 columns and 10 rows

country character

gdp numeric

Source

http://www.insidermonkey.com/blog/10-richest-countries-in-the-world-by-2015-gdp-344692/

data_mekko *Random data for plotting mekko chart examples*

Description

This dataset is used in the examples, moreover it can be used as a reference if you notice a bug.

Usage

```
data_mekko
```

Format

Dataset of 2 columns and 1000 rows

var1 character

var2 numeric

data_pie *Random data for plotting pie chart examples*

Description

This dataset is used in the examples, moreover it can be used as a reference if you notice a bug.

Usage

```
data_pie
```

Format

Dataset of 2 columns and 5 rows

label character

value numeric

data_radar *Random data for plotting radar chart examples*

Description

This dataset is used in the examples, moreover it can be used as a reference if you notice a bug.

Usage

```
data_radar
```

Format

Dataset of 4 columns and 5 rows

label character

Product1 numeric

Product2 numeric

Product3 numeric

data_stock1 *Random data for example*

Description

A list containing 4 datasets.

Usage

```
data_stock1
```

Format

Each datasetis a data.table with 21 rows and 4 variables:

date vector of dates

a random vector of data

b random vector of data

data_stock_2 *Random data for example*

Description

Times Series on 2015-2016, one data by hour

Usage

```
data_stock_2
```

Format

Each datasetis a data.table with 21 rows and 4 variables:

date vector of datesTimes

ts1 random vector of data

ts2 random vector of data

data_stock_3 *Random data for example*

Description

Times Series on 2017, by months

Usage

```
data_stock_3
```

Format

List of 4 datasets, 4 variables in each

date vector of datesTimes

value random vector of data

volume random vector of data

value2 random vector of data

value3 random vector of data

data_waterfall *Random data for plotting candlestick chart examples*

Description

This dataset is used in the examples, moreover it can be used as a reference if you notice a bug.

Usage

```
data_waterfall
```

Format

Dataset of 3 columns and 15 rows

label `character`, can be parsed as a date

value `numeric`

operation `numeric`

data_wind *Random data for plotting wind chart examples*

Description

This dataset is used in the examples, moreover it can be used as a reference if you notice a bug.

Usage

```
data_wind
```

Format

Dataset of 3 columns and 8 rows

weak `numeric`

middle `numeric`

strong `numeric`

GaugeArrow-class *GaugeArrow class*

Description

Creates an arrow for AmAngularGaugeChart, multiple can be assigned.

Details

Run `api("GaugeArrow")` for more information and all avalaible properties.

Slots

`axis list` containing properties of GaugeAxis. Axis of the arrow. You can use reference to the axis or id of the axis. If you don't set any axis, the first axis of the chart will be used.

`listeners list` containining the listeners to add to the chart. The list must be named as in the official API. Each element must be a character string.

`otherProperties list` containing other avalaible properties not yet implemented in the package.

`value numeric`.

Author(s)

datastorm-open

GaugeAxis-class *GaugeAxis class*

Description

Creates an axis for AmAngularGaugeChart, multiple can be assigned.

Details

Run `api("GaugeAxis")` for more information and all avalaible properties.

Slots

`bands list` containing properties of one or several GaugeBand objects. Bands are used to draw color fills between specified values.

`listeners list` containining the listeners to add to the chart. The list must be named as in the official API. Each element must be a character string.

`otherProperties list` containing other avalaible properties not yet implemented in the package.

`value numeric`.

Author(s)

datastorm-open

GaugeBand-class *GaugeBand class*

Description

Creates a band for a specified value range on the GaugeAxis. Multiple bands can be assigned to a single GaugeAxis.

Details

Run `api("GaugeBand")` for more information and all avalaible properties.

Slots

`id character`. Unique id of a band.

`listeners list` containining the listeners to add to the chart. The list must be named as in the official API. Each element must be a character string.

`otherProperties list` containing other avalaible properties not yet implemented in the package.

`value numeric`.

Author(s)

datastorm-open

Generics functions *General shared generic methods*

Description

These methods are shared by at least two different classes

Usage

```
setBalloon(.Object, amBalloon = NULL, ...)

setDataProvider(.Object, dataProvider, keepNA = TRUE)

setTitle(.Object, title)

setType(.Object, type)

setGraph(.Object, graph = NULL, ...)

addGuide(.Object, guide = NULL, ...)

setText(.Object, text)

setValueAxis(.Object, valueAxis = NULL, ...)
```

Arguments

.Object	AmObject.
amBalloon	AmBalloon.
...	Other properties.
dataProvider	data.frame.
keepNA	logical, default set to TRUE. Indicates if NULL values have to be kept or ignored.
title	character.
type	character.
graph	AmGraph.
guide	Guide.
text	character.
valueAxis	ValueAxis.

Details

Be cautious when using one of these functions since they have several signatures (S4).

setBalloon is shared by AmChart and AmStockChart.

setDataProvider(..) is shared by AmGraph and DataSet.

setTitle(...) is Shared by AmGraph and ValueAxis.

setType(...) is shared by AmGraph and AmChart.

setGraph(...) is shared by AmChart and ChartScrollbar.

addGuide(...) is shared by AxisBase and AmChart.

setText(...) is shared by Title and Label.

setValueAxis(...) is shared by AmChart(type = "gantt"), TrendLine and Guide.

Value

An updated 'AmObject'.

`getCurrentStockData` *Get data in shiny module*

Description

Get data in shiny module

Usage

```
getCurrentStockData(data, col_date, col_series, zoom = NULL,
  maxPoints = 1000, tz = "UTC", ts = c("5 min", "10 min", "30 min",
  "hour", "3 hour", "12 hour", "day", "week", "month", "year"),
  fun_aggr = "mean", treat_missing = FALSE, maxgap = Inf,
  type_aggr = "first")
```

Arguments

`data`	: data.frame to transform
`col_date`	: Date column name, default to "date". Must be "POSIXct" or "CET24" colum
`col_series`	: Column name of quantitative variable(s) to be transformed. Default to setdiff(colnames(data), "date")
`zoom`	: List for init subset. NULL to keep all
`maxPoints`	: Maximal number of rows in results
`tz`	: Timezone of result. Defaut to "UTC".
`ts`	: Increment of the sequence. Default to "10 min". Can be a number, in seconds, or a character string containing one of "min", "hour", "day". This can optionally be preceded by a positive integer and a space

fun_aggr	: Aggregation function to use ("min", "max", "sum", "mean"). Default to "mean".
treat_missing	: Boolean. Default to FALSE Whether or not to interpolate missing values ? see na.approx
maxgap	: When interpolate missing values with na.approx. Maximum number of consecutive NAs to fill. Defaut to Inf.
type_aggr	: Character. Type of aggregation • "first" : Date/Time result is equal to minimum of sequence, and this minimum is included in aggregation • "last" : Date/Time result is equal to maximum of sequence, and this maximum is included in aggregation

---

getTransformTS *Transform quantitative variables.*

Description

Transform quantitative variables. Aggregate or interpolate time series data.

Usage

```
getTransformTS(data, col_date = "date", col_series = setdiff(colnames(data),
  col_date), ts = "10 min", tz = "UTC", fun_aggr = "mean",
  treat_missing = FALSE, control_date = TRUE, maxgap = Inf,
  keep_last = TRUE, type_aggr = "first", showwarn = FALSE)
```

Arguments

data	: data.frame to transform
col_date	: Date column name, default to "date". Must be "POSIXct"
col_series	: Column name of quantitative variable(s) to be transformed. Default to setdiff(colnames(data), "date")
ts	: Increment of the sequence. Default to "10 min". Can be a number, in seconds, or a character string containing one of "min", "hour", "day". This can optionally be preceded by a positive integer and a space
tz	: Timezone of result. Defaut to "UTC".
fun_aggr	: Aggregation function to use ("min", "max", "sum", "mean"). Default to "mean".
treat_missing	: Boolean. Default to FALSE Whether or not to interpolate missing values ? see na.approx
control_date	: Boolean. Control full data sequence ? Defaut to TRUE and set to TRUE if treat_missing
maxgap	: When interpolate missing values with na.approx. Maximum number of consecutive NAs to fill. Defaut to Inf.
keep_last	: Boolean. Keep last date/time value after interpolation ?

`type_aggr` : Character. Type of aggregation

- "first" : Date/Time result is equal to minimum of sequence, and this minimum is included in aggregation
- "last" : Date/Time result is equal to maximum of sequence, and this maximum is included in aggregation

`showwarn` : Boolean. Show warnings ?

Value

a data.frame

`Guide-class` *Guide class*

Description

Creates a horizontal/vertical guideline-/area for amSerialChart, amXYChart and amRadarChart charts, automatically adapts it's settings from the axes if none has been specified.

Details

Run `api("Guide")` for more information and all avalaible properties.

Slots

`fillAlpha numeric`. Specifies if a grid line is placed on the center of a cell or on the beginning of a cell. Possible values are: "start" and "middle" This setting doesn't work if parseDates is set to TRUE.

`valueAxis` ValueAxis. As you can add guides directly to the chart, you might need to specify which value axis should be used.

`listeners list` containining the listeners to add to the object. The list must be named as in the official API. Each element must be a character string.

`otherProperties list` containing other avalaible properties not yet implemented in the package.

`value numeric`.

Author(s)

datastorm-open

initialize,AmBalloon-method
Initializes an AmBalloon

Description

Initializes or updates an object AmBalloon.

Usage

```
## S4 method for signature 'AmBalloon'
initialize(.Object, adjustBorderColor, color,
  cornerRadius, fillColor, ...)

amBalloon(adjustBorderColor, color, cornerRadius, fillColor, ...)

setAdjustBorderColor(.Object, adjustBorderColor)

## S4 method for signature 'AmBalloon,logical'
setAdjustBorderColor(.Object, adjustBorderColor)

setColor(.Object, color)

## S4 method for signature 'AmBalloon,character'
setColor(.Object, color)

setCornerRadius(.Object, cornerRadius)

## S4 method for signature 'AmBalloon,numeric'
setCornerRadius(.Object, cornerRadius)

setFillColor(.Object, fillColor)

## S4 method for signature 'AmBalloon,character'
setFillColor(.Object, fillColor)
```

Arguments

.Object	AmBalloon.
adjustBorderColor	logical, if TRUE, border color will be changed when user rolls-over the slice, graph, etc, instead of background color.
color	character, balloon text color.
cornerRadius	numeric, balloon corner radius.
fillColor	character, balloon background color. It is usually defined by the chart itself. If "adjustBorderColor" is set to TRUE, the balloon background color will be equal to "fillColor".

... other properties of AmBalloon. See http://docs.amcharts.com/3/javascriptcharts/AmBalloon.

Value

An object, possibly updated, of class AmBalloon.

Examples

```
new("AmBalloon", cornerRadius = 10)

amBalloon(adjustBorderColor = TRUE, color = "#000000", other = TRUE)

setAdjustBorderColor(.Object = amBalloon(), adjustBorderColor = TRUE)

setColor(.Object = amBalloon(), color = "#000000")

setCornerRadius(.Object = amBalloon(), cornerRadius = 5)

setFillColor(.Object = amBalloon(), fillColor = "#FFFFFF")
```

---

initialize,AmChart-method

Creates an AmChart

Description

Method to initialize any S4 class provided by the package.

Usage

```
## S4 method for signature 'AmChart'
initialize(.Object, allLabels, arrows, axes, balloon,
  categoryAxis, categoryField, chartCursor, chartScrollbar, creditsPosition,
  dataProvider, graphs, graph, guides, legend, segmentsField, theme, titles,
  trendLines, type, valueAxes, valueAxis, valueScrollbar, ...)

amChart(allLabels, arrows, axes, balloon, categoryAxis, categoryField,
  chartCursor, chartScrollbar, creditsPosition, dataProvider, graph, graphs,
  guides, legend, segmentsField, theme, titles, trendLines, type, valueAxes,
  valueAxis, ...)

amAngularGaugeChart(arrows, titles, axes, ...)

amFunnelChart(dataProvider, marginLeft = 10, marginRight = 10, ...)
```

```
amRadarChart(allLabels, balloon, categoryField, creditsPosition, dataProvider,
  graphs, guides, legend, titles, valueAxes, ...)

amSerialChart(allLabels, balloon, categoryAxis, categoryField, chartCursor,
  chartScrollbar, creditsPosition, dataProvider, graphs, guides, legend, titles,
  trendLines, valueAxes, ...)

amPieChart(allLabels, balloon, creditsPosition, dataProvider, legend, titles,
  ...)

amGanttChart(categoryField, dataProvider, graph, segmentsField, valueAxis, ...)

amXYChart(creditsPosition, dataProvider, graphs, ...)

setAllLabels(.Object, allLabels)

## S4 method for signature 'AmChart,list'
setAllLabels(.Object, allLabels)

addLabel(.Object, label = NULL, ...)

## S4 method for signature 'AmChart,LabelOrMissing'
addLabel(.Object, label = NULL, ...)

setArrows(.Object, arrows = NULL)

## S4 method for signature 'AmChart'
setArrows(.Object, arrows = NULL)

addArrow(.Object, arrow = NULL, ...)

## S4 method for signature 'AmChart,GaugeArrowOrMissing'
addArrow(.Object, arrow = NULL, ...)

setAxes(.Object, axes, ...)

## S4 method for signature 'AmChart,list'
setAxes(.Object, axes)

addAxe(.Object, axe = NULL, ...)

## S4 method for signature 'AmChart,GaugeAxisOrMissing'
addAxe(.Object, axe = NULL, ...)

addAxis(.Object, axis = NULL, ...)

## S4 method for signature 'AmChart,GaugeAxisOrMissing'
addAxis(.Object, axis = NULL, ...)
```

```
## S4 method for signature 'AmChart,AmBalloonOrMissing'
setBalloon(.Object, amBalloon = NULL,
  ...)

setCategoryAxis(.Object, categoryAxis = NULL, ...)

## S4 method for signature 'AmChart'
setCategoryAxis(.Object, categoryAxis = NULL, ...)

setCategoryField(.Object, categoryField)

## S4 method for signature 'AmChart,character'
setCategoryField(.Object, categoryField)

setChartCursor(.Object, chartCursor = NULL, ...)

## S4 method for signature 'AmChart,ChartCursorOrMissing'
setChartCursor(.Object,
  chartCursor = NULL, ...)

setChartScrollbar(.Object, chartScrollbar = NULL, ...)

## S4 method for signature 'AmChart,ChartScrollbarOrMissing'
setChartScrollbar(.Object,
  chartScrollbar = NULL, ...)

setCreditsPosition(.Object, creditsPosition)

## S4 method for signature 'AmChart,character'
setCreditsPosition(.Object, creditsPosition)

setDataLoader(.Object, url, format, ...)

## S4 method for signature 'AmChart,character,character'
setDataLoader(.Object, url, format, ...)

## S4 method for signature 'AmChart,ANY,logicalOrMissing'
setDataProvider(.Object, dataProvider,
  keepNA = TRUE)

setGraphs(.Object, graphs)

## S4 method for signature 'AmChart,list'
setGraphs(.Object, graphs)

addGraph(.Object, amGraph = NULL, ...)
```

```
## S4 method for signature 'AmChart,AmGraphOrMissing'
addGraph(.Object, amGraph = NULL, ...)

## S4 method for signature 'AmChart,AmGraphOrMissing'
setGraph(.Object, graph = NULL, ...)

setGuides(.Object, guides)

## S4 method for signature 'AmChart,list'
setGuides(.Object, guides)

## S4 method for signature 'AmChart,GuideOrMissing'
addGuide(.Object, guide = NULL, ...)

setLegend(.Object, amLegend = NULL, ...)

## S4 method for signature 'AmChart,AmLegendOrMissing'
setLegend(.Object, amLegend = NULL, ...)

addSegment(.Object, categoryIDs, sgts)

## S4 method for signature 'AmChart,numeric'
addSegment(.Object, categoryIDs, sgts)

addSubData(.Object, categoryIDs, data)

## S4 method for signature 'AmChart,numeric'
addSubData(.Object, categoryIDs, data)

setSubChartProperties(.Object, .subObject = NULL, ...)

## S4 method for signature 'AmChart'
setSubChartProperties(.Object, .subObject = NULL, ...)

setTheme(.Object, theme)

## S4 method for signature 'AmChart,character'
setTheme(.Object, theme)

setTitles(.Object, titles)

## S4 method for signature 'AmChart,list'
setTitles(.Object, titles)

addTitle(.Object, title = NULL, ...)

## S4 method for signature 'AmChart,TitleOrMissing'
addTitle(.Object, title = NULL, ...)
```

```
setTrendLines(.Object, trendLines)

## S4 method for signature 'AmChart,list'
setTrendLines(.Object, trendLines)

addTrendLine(.Object, trendLine = NULL, ...)

## S4 method for signature 'AmChart,TrendLineOrMissing'
addTrendLine(.Object, trendLine = NULL,
  ...)

## S4 method for signature 'AmChart,character'
setType(.Object, type)

setValueAxes(.Object, valueAxes)

## S4 method for signature 'AmChart,list'
setValueAxes(.Object, valueAxes)

addValueAxes(.Object, valueAxis = NULL, ...)

## S4 method for signature 'AmChart,ValueAxisOrMissing'
addValueAxes(.Object, valueAxis = NULL,
  ...)

addValueAxis(.Object, valueAxis = NULL, ...)

## S4 method for signature 'AmChart,ValueAxisOrMissing'
addValueAxis(.Object, valueAxis = NULL,
  ...)

## S4 method for signature 'AmChart,ValueAxisOrMissing'
setValueAxis(.Object, valueAxis = NULL,
  ...)

setValueScrollbar(.Object, valueScrollbar, ...)

## S4 method for signature 'AmChart,ChartScrollbarOrMissing'
setValueScrollbar(.Object,
  valueScrollbar, ...)
```

Arguments

.Object	AmChart.
allLabels	list of Label. Example of a label object, with all possible properties: label(x = 20, y = 20, text = "this is a label", align = "left", size = 12, color = "#CC0000", alpha = 1, rotation = 0, bold = TRUE, url = "http=//www.amcharts.com"). Run

api("Label") for more informations.

arrows — list of GaugeArrow. Only valid for gauge charts. Run api("GaugeArrow") for more informations.

axes — list of GaugeAxis properties. Only valid for gauge charts. Run api("GaugeAxis") for more informations.

balloon — AmBalloon. Creates the balloons (tooltips) of the chart. It follows the mouse cursor when you roll-over the data items. The framework automatically generates the instances you just have to adjust the appearance to your needs. Run api("AmBalloon") for more informations.

categoryAxis — CategoryAxis. Read-only. Chart creates category axis itself. If you want to change some properties, you should get this axis from the chart and set properties to this object. Run api("CategoryAxis") for more informations.

categoryField — character, category field name indicates the name of the field in your dataProvider object which will be used for category axis values.

chartCursor — ChartCursor. Chart's cursor. Run api("ChartCursor") for more informations.

chartScrollbar — ChartScrollbar. Chart's scrollbar. Run api("ChartScrollbar") for more informations.

creditsPosition — character, specifies position of the amCharts' website link. Allowed values are: "top-left", "top-right", "bottom-left" and "bottom-right".

dataProvider — data.frame, containing the data.

graphs — list of AmGraph. Creates the visualization of the data in following types: line, column, step line, smoothed line, olhc and candlestick. Run api("AmGraph") for more informations.

graph — AmGraph. Only valid for Gantt charts. Gant chart actually creates multiple graphs (separate for each segment). Properties of this graph are passed to each of the created graphs - this allows you to control the look of segments. Run api("AmGraph") for more informations.

guides — list of Guide. Instead of adding guides to the axes, you can push all of them to this array. In case guide has category or date defined, it will automatically be assigned to the category axis, otherwise to the first value axis, unless you specify a different valueAxes for the guide. Run api("Guide") for more informations.

legend — AmLegend. Legend of a chart. Run api("AmLegend") for more informations.

segmentsField — character, segments field in your data provider. Only valid for Gantt Charts.

theme — character, theme of a chart. Config files of themes can be found in amcharts/themes/ folder. See http://www.amcharts.com/tutorials/working-with-themes/.

titles — list of Title. Run api("Title") for more informations.

trendLines — list of TrendLine objects added to the chart. You can add trend lines to a chart using this list or access already existing trend lines. Run api("TrendLine") for more informations.

type — character, possible types are: "serial", "pie", "radar", "xy", "radar", "funnel", "gauge", "stock". See details about using argument type. (type map is in development).

valueAxes	list of ValueAxis. Chart creates one value axis automatically, so if you need only one value axis, you don't need to create it. Run api("ValueAxis") for more informations.
valueAxis	ValueAxis. Only valid for Gantt Charts. Set it's type to "date" if your data is date or time based. Run api("ValueAxis") for more informations.
valueScrollbar	ChartScrollbar. Value scrollbar, enables scrolling value axes.
...	In case of constructor new("AmChart") or amChart() Dots represent other properties to set to the AmChart object. See http://docs.amcharts.com/3/javascriptstockchart/AmChart. In case of setters, dots represent properties of the object to add. See examples.
marginLeft	character, left margin of the chart.
marginRight	character, right margin of the chart.
label	(optional) Label. Argument of method addLabel.
arrow	(optional) GaugeArrow. Argument of method addArrow.
axe	(optional) GaugeAxis. Argument of deprecated method addAxe.
axis	(optional) GaugeAxis. same as axe.
amBalloon	AmBalloon, argument of method 'setBalloon'.
url	character.
format	character.
keepNA	object of class logical, default TRUE. Indicates if NULL values have to be kept or ignored.
amGraph	(optional) AmGraph.
guide	(optional) Guide. Argument of method addGuide.
amLegend	(optional) AmLegend.
categoryIDs	numeric, see details.
sgts	data.frame (or list of data.frame for multiple add).
data	data.frame. Data to draw at the second level, after clicking on the column.
.subObject	AmChart.
title	(optional) Title, argument of method addTitle.
trendLine	(optional) TrendLine. Argument of method addTrendLine.

Details

amAngularGaugeChart is a shortcut for instantiating AmChart of type gauge.

amFunnelChart is a shortcut for instantiating AmChart of type funnel.

amRadarChart is a shortcut for instantiating AmChart of type radar.

amSerialChart is a shortcut constructor for instantiating AmChart of type serial.

amPieChart is a shortcut constructor for instantiating AmChart of type pie.

amGanttChart is a constructor for instantiating AmChart of type gantt.

amXYChart is a shortcut constructor for instantiating AmChart of type xy.

Method 'addAxe' is deprecated, use 'addAxis'.

Method `setGraph` is only valid for Gantt Charts.

'addSubData' allows to add subdata for a chart with drilldown. In this case, categoryIDs indicates corresponding indice(s) of the `dataProvider` where to add the data.

For method `addValueAxis`: valueAxis is optional. Method `addValueAxes` is deprecated.

Method `setValueAxis` is only valid for Gantt charts.

Value

(updated) AmChart with given properties.

See Also

Refer to http://docs.amcharts.com/3/javascriptcharts/.

Examples

```
new("AmChart", valueField = "value", theme = "patterns")


amChart(type = "pie")


amAngularGaugeChart()


amFunnelChart(marginLeft = 15)


amRadarChart()


amSerialChart(creditsPostion = "top-right")


amPieChart()


amGanttChart(segmentsField = "segments")


amXYChart()


allLabels <- list(label(text = "balloonText"), label(text = "column"))
amSerialChart(allLabels = allLabels)

# ---

addLabel(.Object = amSerialChart(), text = "balloonText")
# equivalent to:
```

```
label_obj <- label(text = "balloonText")
addLabel(.Object = amSerialChart(), label = label_obj)

# ---

arrows_ls <- list(gaugeArrow(value = 130), gaugeArrow(value = 150))
amAngularGaugeChart(arrows = arrows_ls)

# ---

chart <- addArrow(.Object = amAngularGaugeChart(), value = 10); print(chart)
# equivalent to:
gaugeArrow_obj <- gaugeArrow(value = 10)
addArrow(.Object = amAngularGaugeChart(), arrow = gaugeArrow_obj)

# ---

axes_ls <- list(gaugeAxis(value = 130), gaugeAxis(value = 150))
setAxes(.Object = amAngularGaugeChart(), axes = axes_ls)
# If possible, simplify your code by using the constructor:
amAngularGaugeChart(axes = axes_ls)

# ---

addAxis(.Object = amAngularGaugeChart(), startValue = 0, endValue = 100, valueInterval = 10)
# equivalent to:
gaugeAxis_obj <- gaugeAxis(startValue = 0, enValue = 100, valueInterval = 10)
addAxis(.Object = amAngularGaugeChart(), axis = gaugeAxis_obj)

# ---

setBalloon(.Object = amSerialChart(), adjustBorderColor = TRUE, fillColor = "#FFFFFF",
           color = "#000000", cornerRadius = 5)
# equivalent to:
amBalloon_obj <- amBalloon(adjustBorderColor = TRUE, fillColor = "#FFFFFF",
                           color = "#000000", cornerRadius = 5)
setBalloon(.Object = amSerialChart(), amBalloon = amBalloon_obj)

# ---

setCategoryAxis(.Object = amSerialChart(), gridPosition = "start")
# equivalent to:
categoryAxis_obj <- categoryAxis(gridPosition = "start")
setCategoryAxis(.Object = amSerialChart(), categoryAxis = categoryAxis_obj)

# ---
setCategoryField(.Object = amSerialChart(), categoryField = "country")
# ---

# with default value, no argument needed
setChartCursor(.Object = amSerialChart())
# other example
setChartCursor(.Object = amSerialChart(), oneBallOnly = TRUE)
```

```
# equivalent to
chartCursor_obj <- chartCursor(oneBallOnly = TRUE)
setChartCursor(.Object = amSerialChart(), chartCursor = chartCursor_obj)

# ---

# Add the default scrollbar
setChartScrollbar(.Object = amSerialChart())
# equivalent to:
chartScrollbar_obj <- chartScrollbar(updateOnReleaseOnly = FALSE)
setChartScrollbar(.Object = amSerialChart(), chartScrollbar = chartScrollbar_obj)

# ---

setCreditsPosition(.Object = amPieChart(), creditsPosition = "top-right")

# ---

setDataLoader(.Object = amSerialChart(), url = "data.json", format = "json")

# ---

dataProvider_obj <- data.frame(key = c("FR", "US", "GER", "ENG", "IT" ),
                               value = round(runif(5, max = 100)))
setDataProvider(.Object = amPieChart(), dataProvider = dataProvider_obj)

# ---

graphs_ls <- list(graph(balloonText = "balloonText"), graph(type = "column"))
setGraphs(.Object = amSerialChart(), graphs = graphs_ls)

# ---

addGraph(.Object = amSerialChart(), balloonText = "balloonText", "type" = "column")
# equivalent to
amGraph_obj <- amGraph(balloonText = "balloonText", "type" = "column")
addGraph(.Object = amSerialChart(), amGraph = amGraph_obj)

# ---

print(setGraph(.Object = amGanttChart(), id = "amGraph-1"))
# equivalent to:
amGraph_obj <- amGraph(id = "amGraph-1")
setGraph(.Object = amGanttChart(), amGraph = amGraph_obj)

# ---

guides_ls <- list(guide(fillAlpha = .1), guide(fillAlpha = .5))
amSerialChart(guides = guides_ls)

# ---

chart <- addGuide(.Object = amSerialChart(), fillAlpha = .1, value = 0, toVAlue = 10)
```

```
print(chart)
# equivalent to
guide_obj <- guide(fillAlpha = .1, value = 0, toValue = 10, valueAxis = "1")
addGuide(.Object = amSerialChart(), guide = guide_obj)


setLegend(.Object = amChart(), amLegend = amLegend(useGraphSettings = TRUE))
# equivalent to:
setLegend(.Object = amChart(), useGraphSettings = TRUE)

# ---

pipeR::pipeline(
  amGanttChart(segmentsField = "segments"),
  setDataProvider(data.frame(category = c( "John", "Julia"))),
  addSegment(1, data.frame(start = 7, duration = 2:3, task = c("Task #1", "Task #2"))),
  addSegment(2, data.frame(start = 10, duration = 2:3, task = c("Task #1", "Task #2")))
)
# ---
ls <- list(data.frame(start = 7, duration = 2:3, task = c("Task #1", "Task #2")),
           data.frame(start = 10, duration = 2:3, task = c("Task #1", "Task #2")))
pipeR::pipeline(
  amGanttChart(segmentsField = "segments"),
  setDataProvider(data.frame(category = c( "John", "Julia"))),
  addSegment(1:2,  ls)
)

# ---

amChart_obj <- amChart(dataProvider = data.frame(a = 1:5, b = 6:10))
addSubData(.Object = amChart_obj, categoryIDs = 3, data = data.frame(a = 1:10, b = 11:20))

# ---

setSubChartProperties(.Object = amSerialChart(), type = "serial")

# ---

setTheme(.Object = amPieChart(), theme = "dark")

# ---

titles_ls <- list(amTitle(text = "balloonText"), amTitle(text = "column"))
setTitles(.Object = amXYChart(), titles = titles_ls)
# or...
amXYChart(titles = titles_ls)

# ---

addTitle(.Object = amPieChart(), text = "balloonText", size = 15)
# equivalent to
title_obj <- amTitle(text = "balloonText", size = 15)
addTitle(.Object = amPieChart(), title = title_obj)
```

```
# ---

trendLines <- list(trendLine(initialValue = 1, finalValue = 5),
                   trendLine(initialValue = 7, finalValue = 19))
setTrendLines(.Object = amSerialChart(), trendLines = trendLines)
# or...
amSerialChart(trendLines = trendLines) # Equivalent

# ---

addTrendLine(.Object = amSerialChart(), initialValue = 1, initialXValue = 1,
             finalValue = 11, finalXValue = 12)
# equivalent to:
trendLine_obj <- trendLine(initialValue = 1, initialXValue = 1, finalValue = 11, finalXValue = 12)
chart <- addTrendLine(.Object = amSerialChart(), trendLine = trendLine_obj); print(chart)

# ---

setType(.Object = amChart(), type = "pie")
# equivalent to:
amPieChart()


valueAxes <- list(valueAxis(axisTitleOffset = 12, tickLength = 10),
                  valueAxis(axisTitleOffset = 10, tickLength = 10))
setValueAxes(.Object = amSerialChart(), valueAxes = valueAxes)
# or...
amSerialChart(valueAxes = valueAxes)

# ---

print(addValueAxis(.Object = amSerialChart(), axisTitleOffset = 12, tickLength = 10, title = "foo"))
# equivalent to:
valueAxis_obj <- valueAxis(axisTitleOffset = 12, tickLength = 10, title = "foo")
addValueAxis(.Object = amSerialChart(), valueAxis = valueAxis_obj)

# ---

setValueAxis(.Object = amGanttChart())
setValueAxis(.Object = amGanttChart(), type = "date")


valueScrollbar_obj <- chartScrollbar(updateOnReleaseOnly = FALSE)
chart <- setValueScrollbar(.Object = amSerialChart(), valueScrollbar = valueScrollbar_obj)
print(chart)
# or...
amSerialChart(updateOnReleaseOnly = FALSE)

# ---
```

initialize,AmGraph-method
Initializes an AmGraph

Description

To create an AmGraph, you can use the usual methode Initialize or the constructor. You can update properties with setters.

Usage

```
## S4 method for signature 'AmGraph'
initialize(.Object, animationPlayed = FALSE, balloonText,
  title, type, valueField, ...)

amGraph(animationPlayed = FALSE, balloonText, title, type, valueField, ...)

graph(animationPlayed = FALSE, balloonText, title, type, valueField, ...)

setBalloonText(.Object, balloonText)

## S4 method for signature 'AmGraph,character'
setBalloonText(.Object, balloonText)

## S4 method for signature 'AmGraph,character'
setTitle(.Object, title)

## S4 method for signature 'AmGraph,character'
setType(.Object, type)

setValueField(.Object, valueField)

## S4 method for signature 'AmGraph,character'
setValueField(.Object, valueField)
```

Arguments

.Object	AmGraph.
animationPlayed	logical.
balloonText	character, balloon text. You can use tags like [[value]], [[description]], [[percents]], [[open]], [[category]] or any other field name from your data provider. HTML tags can also be used.
title	character, graph title.
type	character, type of the graph. Possible values are: "line", "column", "step", "smoothedLine", "candlestick", "ohlc". XY and Radar charts can only display "line" otherArguments graphs.

valueField	character, name of the value field in your dataProvider.
...	other properties of AmGraph. See http://docs.amcharts.com/3/javascriptcharts/AmGraph.

Value

An object of class AmGraph with the given properties.

Examples

```
# --- method 'initialize'
new("AmGraph", valueField = "value")

# constructor
amGraph(balloonText = "My text")
## Not run:
amGraph(balloonText = "balloonText", "type" = "column", title = "myGraph!",
        valueField = "value", animationPlayed = TRUE, other = TRUE)

## End(Not run)
amGraph(balloonText = "some text")
# --- shortcut constructor
graph(balloonText = "balloonText", "type" = "column",
      valueField = "value", animationPlayed = TRUE)

# --- update 'balloonText'
setBalloonText(.Object = amGraph(), balloonText = "performance")

# --- update 'title'
setTitle(.Object = amGraph(), title = "Power")

# --- update 'type'
setType(.Object = amGraph(), type = "type")

# --- update valueField
setValueField(.Object = amGraph(), valueField = "score")
```

---

initialize,AmLegend-method

Initializes legend of the chart

Description

Constructor for an AmLegend.

Usage

```
## S4 method for signature 'AmLegend'
initialize(.Object, useGraphSettings, ...)

amLegend(useGraphSettings, ...)

legend(useGraphSettings, ...)

setUseGraphSettings(.Object, useGraphSettings)

## S4 method for signature 'AmLegend,logical'
setUseGraphSettings(.Object, useGraphSettings)
```

Arguments

.Object	AmLegend.
useGraphSettings	logical, if TRUE, border color will be changed when user rolls-over the slice, graph, etc, instead of background color.
...	Other properties of AmLegend. See http://docs.amcharts.com/3/javascriptstockchart/AmLegend.

Examples

```
new("AmLegend", useGraphSettings = TRUE)
amLegend(useGraphSettings = FALSE)
rAmCharts:::legend(useGraphSettings = FALSE)
setUseGraphSettings(.Object = amLegend(), useGraphSettings = TRUE)
```

---

initialize,AmStockChart-method

Initializes an AmStockChart

Description

Method to initialize any S4 class provided by the package.

Usage

```
## S4 method for signature 'AmStockChart'
initialize(.Object, balloon, comparedDataSets,
  dataSets, dataSetSelector, mainDataSet, panels, periodSelector, theme, group,
  is_ts_module, ...)

amStockChart(balloon, comparedDataSets, dataSets, dataSetSelector, mainDataSet,
  panels, periodSelector, theme, group, is_ts_module, ...)
```

```
## S4 method for signature 'AmStockChart,AmBalloonOrMissing'
setBalloon(.Object,
  amBalloon = NULL, ...)

setCategoryAxesSettings(.Object, ...)

## S4 method for signature 'AmStockChart'
setCategoryAxesSettings(.Object, ...)

setChartCursorSettings(.Object, ...)

## S4 method for signature 'AmStockChart'
setChartCursorSettings(.Object, ...)

setChartScrollbarSettings(.Object, chartScrollbarSettings = NULL, ...)


  ## S4 method for signature 'AmStockChart,ChartScrollbarOrMissing'
setChartScrollbarSettings(.Object,
  chartScrollbarSettings = NULL, ...)

setComparedDataSets(.Object, comparedDataSets)

## S4 method for signature 'AmStockChart'
setComparedDataSets(.Object, comparedDataSets)

addComparedDataSet(.Object, dataSet = NULL, ...)

## S4 method for signature 'AmStockChart,DataSetOrMissing'
addComparedDataSet(.Object,
  dataSet = NULL, ...)

setDataSets(.Object, dataSets)

## S4 method for signature 'AmStockChart'
setDataSets(.Object, dataSets)

addDataSet(.Object, dataSet = NULL, ...)

## S4 method for signature 'AmStockChart,DataSetOrMissing'
addDataSet(.Object, dataSet = NULL,
  ...)

setDataSetSelector(.Object, dataSetSelector = NULL, ...)

## S4 method for signature 'AmStockChart'
setDataSetSelector(.Object, dataSetSelector = NULL,
  ...)
```

```
setLegendSettings(.Object, ...)

## S4 method for signature 'AmStockChart'
setLegendSettings(.Object, ...)

setMainDataSet(.Object, dataSet = NULL, ...)

## S4 method for signature 'AmStockChart,DataSetOrMissing'
setMainDataSet(.Object,
  dataSet = NULL, ...)

setPanels(.Object, panels)

## S4 method for signature 'AmStockChart,list'
setPanels(.Object, panels)

addPanel(.Object, panel = NULL, ...)

## S4 method for signature 'AmStockChart,StockPanelOrMissing'
addPanel(.Object, panel = NULL,
  ...)

setPanelsSettings(.Object, ...)

## S4 method for signature 'AmStockChart'
setPanelsSettings(.Object, ...)

setPeriodSelector(.Object, periodSelector = NULL, ...)

## S4 method for signature 'AmStockChart,PeriodSelectorOrMissing'
setPeriodSelector(.Object,
  periodSelector = NULL, ...)

setStockEventsSettings(.Object, ...)

## S4 method for signature 'AmStockChart'
setStockEventsSettings(.Object, ...)

setValueAxesSettings(.Object, ...)

## S4 method for signature 'AmStockChart'
setValueAxesSettings(.Object, ...)
```

Arguments

.Object	AmStockChart.
balloon	AmBalloon.

`comparedDataSets`
: `list` of DataSet. Properties of data sets selected for comparing.

`dataSets`
: `list` of DataSet. Each element must be a list of DataSet properties.

`dataSetSelector`
: `list` of DataSetSelector. You can add it if you have more than one data set and want users to be able to select/compare them.

`mainDataSet`
: DataSet. Data set selected as main.

`panels`
: `list` of StockPanel.

`periodSelector`
: PeriodSelector. You can add it if you want user's to be able to enter date ranges or zoom chart with predefined period buttons.

`theme`
: `character`.

`group`
: `character` for synchronization

`is_ts_module`
: `boolean`. Don't use. For rAmChartsTimeSeriesUI

`...`
: other properties of AmStockChart.

`amBalloon`
: AmBalloon. Argument for method `setBalloon`.

`chartScrollbarSettings`
: ChartScrollbar. If you change a property after the chart is initialized, you should call stockChart.validateNow() method in order for it to work. If there is no default value specified, default value of ChartScrollbar class will be used.

`dataSet`
: DataSet.

`panel`
: StockPanel.

Details

CategoryAxesSettings sets common settings for all CategoryAxes of StockPanels. If you change a property after the chart is initialized, you should call stockChart.validateNow() method. If there is no specified value, default value of CategoryAxis class will be used. you should get this axis from the chart and set properties to this object.

ChartCursorSettings sets settings for chart cursor. If you change a property after the chart is initialized, you should call stockChart.validateNow() method. If there is no specified value, default value of ChartCursor class will be used.

You can add it if you have more than one data set and want users to be able to select/compare them.

Value

An object of class AmStockChart.

Examples

```
# --- method 'initialize'
new("AmStockChart", theme = "dark")
```

```
# --- constructor
amStockChart()

library(pipeR)


# Dummy example
amStockChart() %>>% setBalloon(gridPosition = "start")


# Dummy example
setCategoryAxesSettings(.Object = amStockChart(), gridPosition = "start")


# Dummy example
setChartCursorSettings(.Object = amStockChart(), oneBallOnly = TRUE)


# Dummy example
amchart <- setChartScrollbarSettings(.Object = amStockChart(), enabled = TRUE)
print(amchart)

# equivalent to:
chartScrollbarSettings_obj <- chartScrollbarSettings()
setChartScrollbarSettings(.Object = amStockChart(),
                          chartScrollbarSettings = chartScrollbarSettings_obj)


# Dummy example
comparedDataSets_ls <- list(dataSet(compared = TRUE), dataSet(compared = TRUE))
setComparedDataSets(.Object = amStockChart(), comparedDataSets = comparedDataSets_ls)


# Dummy example
addComparedDataSet(.Object = amStockChart(), compared = TRUE)


# Dummy example
dataSets_ls <- list(dataSet(compared = FALSE), dataSet(compared = FALSE))
setDataSets(.Object = amStockChart(), dataSets = dataSets_ls)


# Dummy example
addDataSet(.Object = amStockChart(), compared = FALSE)
# equivalent to:
dataSet_obj <- dataSet(compared = FALSE)
addDataSet(.Object = amStockChart(), dataSet = dataSet_obj)


# Dummy example
print(setDataSetSelector(.Object = amStockChart(), width = 180))

# equivalent to:
```

```
dataSetSelector_obj <- dataSetSelector(width = 180)
print(setDataSetSelector(.Object = amStockChart(),
                         dataSetSelector = dataSetSelector_obj))


# Dummy example
setLegendSettings(.Object = amStockChart(), equalWidths = TRUE)


# Dummy example
setMainDataSet(.Object = amStockChart(), showInCompare = TRUE)


# Dummy example
panels_ls <- list(stockPanel(compared = TRUE), stockPanel(compared = TRUE))
setPanels(.Object = amStockChart(), panels = panels_ls)


# Dummy example
chart <- addPanel(.Object = amStockChart(), allowTurningOff = TRUE); print(chart)
# equivalent to:
panel_obj <- panel(allowTurningOff = TRUE)
addPanel(.Object = amStockChart(), panel = panel_obj)


# Dummy example
setPanelsSettings(.Object = amStockChart(), backgroundAlpha = 0)


# Dummy example
setPeriodSelector(.Object = amStockChart(), dateFormat = "DD-MM-YYYY")


# Dummy example
setStockEventsSettings(.Object = amStockChart(), backgroundAlpha = 1)


# Dummy example
setValueAxesSettings(.Object = amStockChart(), autoGridCount = "TRUE")
```

`initialize,CategoryAxis-method`
Initializes a CategoryAxis

Description

Initializes or update a CategoryAxis.

Usage

```
## S4 method for signature 'CategoryAxis'
initialize(.Object, gridPosition, guides, ...)

categoryAxis(gridPosition, ...)

setGridPosition(.Object, gridPosition)

## S4 method for signature 'CategoryAxis,character'
setGridPosition(.Object, gridPosition)
```

Arguments

.Object	CategoryAxis.
gridPosition	character, specifies if a grid line is placed on the center of a cell or on the beginning of a cell. Possible values are: "start" and "middle" This setting doesn't work if parseDates is set to TRUE.
guides	list of Guide.
...	Other properties.

Examples

```
guides <- list(guide(fillAlpha = .4, adjustBorderColor = TRUE),
               guide(fillAlpha = .4, adjustBorderColor = TRUE))
new("CategoryAxis", gridPosition = "start",  gridThickness = 1, guides = guides)


new("CategoryAxis")
new("CategoryAxis", gridPosition = "start", 1) # 1 is not take into account


categoryAxis(gridPosition = "start", adjustBorderColor = TRUE)

setGridPosition(.Object = categoryAxis(), gridPosition = "start")
```

---

initialize,ChartCursor-method

Initializes a ChartCursor

Description

Initializes or updates a ChartCursor.

Usage

```
## S4 method for signature 'ChartCursor'
initialize(.Object, oneBalloonOnly, valueLineAxis, ...)

chartCursor(animationDuration = 0.3, oneBalloonOnly, valueLineAxis, ...)

setOneBalloonOnly(.Object, oneBalloonOnly)

## S4 method for signature 'ChartCursor,logical'
setOneBalloonOnly(.Object, oneBalloonOnly)

setValueLineAxis(.Object, valueLineAxis = NULL, ...)

## S4 method for signature 'ChartCursor,ValueAxisOrCharacterOrMissing'
setValueLineAxis(.Object,
  valueLineAxis = NULL, ...)
```

Arguments

.Object	ChartCursor.
oneBalloonOnly	logical, if TRUE, border color will be changed when user rolls-over the slice, graph, etc, instead of background color.
valueLineAxis	ValueAxis. If you set valueLineBalloonEnabled to TRUE, but you have more than one axis, you can use this property to indicate which axis should display balloon.
...	other properties of ChartCursor. Run : api("ChartCursor") for more information.
animationDuration	numeric, duration of animation of a line, in seconds.

Value

(updated) .Object of class ChartCursor.

Examples

```
new("ChartCursor", oneBalloonOnly = TRUE)

chartCursor()
chartCursor(oneBalloonOnly = TRUE)

setOneBalloonOnly(.Object = chartCursor(), oneBalloonOnly = TRUE)
setValueLineAxis(.Object = chartCursor(), id = "valueAxis1",
                 title = "Hello !", axisTitleOffset = 12)
# equivalent to:
valueLineAxis_obj <- valueAxis(id = "valueAxis1", title = "Hello !", axisTitleOffset = 12)
setValueLineAxis(.Object = chartCursor(), valueLineAxis  = valueLineAxis_obj)
# or iff 'valueLineAxis_obj' has already been added to the chart:
setValueLineAxis(.Object = chartCursor(), valueLineAxis  = "valueAxis1")
```

`initialize,ChartScrollbar-method` *Initializes a ChartScrollbar*

Description

ChartScrollbarSettings sets settings for chart scrollbar. If you change a property after the chart is initialized, you should call stockChart.validateNow() method. If there is no default value specified, default value of ChartScrollbar class will be used. Run `api("ChartScrollbarSettings")` for more informations.

Usage

```
## S4 method for signature 'ChartScrollbar'
initialize(.Object, graph, enabled, ...)

chartScrollbar(graph, enabled = TRUE, ...)

chartScrollbarSettings(graph, enabled = TRUE, ...)

## S4 method for signature 'ChartScrollbar,AmGraphOrCharacterOrMissing'
setGraph(.Object,
  graph = NULL, ...)

setEnabled(.Object, enabled)

## S4 method for signature 'ChartScrollbar,logical'
setEnabled(.Object, enabled)
```

Arguments

`.Object`	ChartScrollbar.
`graph`	AmGraph. Specifies which graph will be displayed in the scrollbar.
`enabled`	`logical`, specifies if the chart should be updated while dragging/resizing the scrollbar or only when user releases mouse button.
`...`	other properties of ChartScrollbar. Run : api("ChartScrollbar") for more information.

Examples

```
new("ChartScrollbar", graph = "g1")
new("ChartScrollbar", graph = amGraph(test = 1))
chartScrollbar()
chartScrollbar(enabled = TRUE)
chartScrollbar()
chartScrollbar(enabled = TRUE)
# chartScrollbar with default graph
```

```
setGraph(.Object = chartScrollbar())

# example with arguments
setGraph(.Object = chartScrollbar(), id = "graph1", balloonText = "performance")
# equivalent to:
graph_obj <- amGraph(id = "graph1", balloonText = "performance")
(chartScrollbar_obj <- setGraph(.Object = chartScrollbar(), graph = graph_obj))
# or, iff graph_obj has alreadey been added to the chart:
setGraph(.Object = chartScrollbar(), graph = "graph1")

# ---
setEnabled(.Object = chartScrollbar(), enabled = TRUE)
```

`initialize,DataSet-method`

Creates or updates a DataSet

Description

Uses the constructors to create the object with its properties or updates an existing one with the setters.

Usage

```
## S4 method for signature 'DataSet'
initialize(.Object, compared = FALSE, dataProvider,
  fieldMappings, stockEvents, ...)

dataSet(compared = FALSE, dataProvider, fieldMappings, stockEvents, ...)

## S4 method for signature 'DataSet,ANY,ANY'
setDataProvider(.Object, dataProvider,
  keepNA = TRUE)

setFieldMappings(.Object, fieldMappings)

## S4 method for signature 'DataSet,list'
setFieldMappings(.Object, fieldMappings)

addFieldMapping(.Object, ...)

## S4 method for signature 'DataSet'
addFieldMapping(.Object, ...)

setStockEvents(.Object, stockEvents)

## S4 method for signature 'DataSet,list'
setStockEvents(.Object, stockEvents)
```

```
addStockEvent(.Object, stockEvent = NULL, ...)

## S4 method for signature 'DataSet,StockEventOrMissing'
addStockEvent(.Object,
  stockEvent = NULL, ...)
```

Arguments

.Object	DataSet.
compared	logical.
dataProvider	data.frame, the data set data. Important: the data sets need to come pre-ordered in ascending order. Data with incorrect order might result in visual and functional glitches on the chart.
fieldMappings	list of field mappings. Field mapping is an object with fromField and toField properties. fromField is a name of your value field in dataProvider. toField might be chosen freely, it will be used to set value/open/close/high/low fields for the StockGraph. Example: list(fromField = "val1", toField ="value").
stockEvents	StockEvent.
...	other properties of DataSet.
keepNA	logical, TRUE to keep NA values.
stockEvent	StockEvent. Argument for method addStockEvent.

Value

(updated) DataSet object

Examples

```
new("DataSet")

dataSet(categoryField = "categoryField")

setDataProvider(.Object = dataSet(), data.frame(key = c("FR", "US"), value = c(20,10)))

dataset <- addFieldMapping(.Object = dataSet(),
                           fieldMappings = list(fromField ="val1", toField ="value"))
print(dataset)
dataset <- addFieldMapping(.Object = dataSet(), fromField ="val1", toField ="value")
print(dataset)
addStockEvent(.Object = dataSet(), backgroundAlpha = 1, backgroundColor = "#DADADA")
# equivalent to:
stockEvent_obj <- stockEvent(backgroundAlpha = 1, backgroundColor = "#DADADA")
chart <- addStockEvent(.Object = dataSet(), stockEvent = stockEvent_obj); print(chart)
```

`initialize,DataSetSelector-method`
Creates or updates a DataSetSelector

Description

Use the constructors to create the object with its properties or update an existing one with the setters.

Usage

```
## S4 method for signature 'DataSetSelector'
initialize(.Object, position, ...)

dataSetSelector(position, ...)

setPosition(.Object, position)

## S4 method for signature 'DataSetSelector,character'
setPosition(.Object, position)
```

Arguments

`.Object`	DataSetSelector.
`position`	`character`. Possible values: "right", "left", "top", "bottom". "top" and "bottom" positions has a limitation - only one data set can be selected for comparison.
`...`	other properties of DataSetSelector.

Value

(updated) DataSetSelector.

Examples

```
new("DataSetSelector", size = 10)

dataSetSelector(position = "left")
setPosition(.Object = dataSetSelector(), position = "left")
```

initialize,GaugeArrow-method
Initializes a GaugeArrow

Description

Uses the constructor to create the object with its properties or update an existing one with the setters.

Usage

```
## S4 method for signature 'GaugeArrow'
initialize(.Object, alpha = 1, axis, ...)

gaugeArrow(alpha = 1, axis, ...)

setAxis(.Object, axis = NULL, ...)

## S4 method for signature 'GaugeArrow,GaugeAxisOrCharacterOrMissing'
setAxis(.Object,
  axis = NULL, ...)
```

Arguments

.Object	GaugeArrow.
alpha	numeric.
axis	GaugeAxis. Axis of the arrow. You can use reference to the axis or id of the axis. If you don't set any axis, the first axis of the chart will be used.
...	other properties of GaugeArrow.

Value

(updated) .Object of class GaugeArrow.

Examples

```
# --- method initialize
new("GaugeArrow", alpha = 2)

# --- constructor
gaugeArrow(value = 10)

# -- update 'axis' property
setAxis(.Object = gaugeArrow(), id = "axis1", startValue = 0,
        endValue = 100, valueInterval = 10)
# equivalent to:
axis_obj <- gaugeAxis(id = "axis1", startValue = 0, endValue = 100, valueInterval = 10)
setAxis(.Object = gaugeArrow(), axis = axis_obj)
```

```
# or, iff, 'axis_obj' has already been added to the chart
setAxis(.Object = gaugeArrow(), axis = "axis1")
```

`initialize,GaugeAxis-method`

Initializes a GaugeAxis

Description

Uses the constructor to create the object or update an existing one with the setters.

Usage

```
## S4 method for signature 'GaugeAxis'
initialize(.Object, axisAlpha = 1, bands, ...)

gaugeAxis(axisAlpha = 1, bands, ...)

setBands(.Object, bands)

## S4 method for signature 'GaugeAxis,list'
setBands(.Object, bands)

addBand(.Object, band = NULL, ...)

## S4 method for signature 'GaugeAxis,GaugeBandOrMissing'
addBand(.Object, band = NULL, ...)
```

Arguments

`.Object`	GaugeAxis.
`axisAlpha`	`numeric`.
`bands`	`list` of GaugeBand. Bands are used to draw color fills between specified values.
`...`	other properties of GaugeAxis.
`band`	GaugeBand. Argument for method `addBand`.

Examples

```
# --- method initialize
new("GaugeAxis", alpha = 1)

# -- constructor
gaugeAxis()

# -- update 'bands' at once
bands <- list(gaugeBand(startValue = 70, endValue = 90),
```

```
                gaugeBand(startValue = 40, endValue = 60))
gaugeAxis(bands = bands)

# --- add 'band' one by one one
addBand(.Object = gaugeAxis(), startValue = 0, endValue = 100)
# equivalent to
gaugeBand_obj <- gaugeBand(startValue = 0, endValue = 100)
addBand(.Object = gaugeAxis(), band = gaugeBand_obj)
```

`initialize,GaugeBand-method`
Initializes a GaugeBand

Description

Uses the constructor to create the object or update an existing one with the setters.

Usage

```
## S4 method for signature 'GaugeBand'
initialize(.Object, alpha = 1, id, ...)

gaugeBand(alpha = 1, id, ...)

setID(.Object, id)

## S4 method for signature 'GaugeBand'
setID(.Object, id)
```

Arguments

`.Object`	GaugeBand (or "GaugeBand" for initialize).
`alpha`	`numeric`.
`id`	`character`.
`...`	other properties of GaugeBand.

Value

(updated) .Object of class GaugeBand.

Examples

```
# --- method 'initialize'
new("GaugeBand")

# --- constructor
gaugeBand(alpha = 2, id = "band2")
```

```
# --- set the 'id'
setID(.Object = gaugeBand(), id = "1")
```

`initialize,Guide-method`

Initializes a Guide

Description

Uses the constructor to create the object or update an existing one with the setters.

Usage

```
## S4 method for signature 'Guide'
initialize(.Object, fillAlpha, valueAxis, value, ...)

guide(fillAlpha, valueAxis, value, ...)

setFillAlpha(.Object, fillAlpha)

## S4 method for signature 'Guide,numeric'
setFillAlpha(.Object, fillAlpha)

## S4 method for signature 'Guide,ValueAxisOrCharacterOrMissing'
setValueAxis(.Object,
  valueAxis = NULL, ...)
```

Arguments

`.Object`	Guide
`fillAlpha`	`numeric`, specifies if a grid line is placed on the center of a cell or on the beginning of a cell. Possible values are: "start" and "middle" This setting doesn't work if parseDates is set to TRUE.
`valueAxis`	ValueAxis class. As you can add guides directly to the chart, you might need to specify which value axis should be used.
`value`	`numeric`.
`...`	other properties of Guide.

Examples

```
# --- method initialize
new("Guide", fillAlpha = 0.1, gridThickness = 1, value = 1)

# --- constructor
guide(fillAlpha = .4, value = 1)
```

```
guide(fillAlpha = .4, adjustBorderColor = TRUE, gridThickness = 1)

setFillAlpha(.Object = guide(), fillAlpha = 1)
valueAxis_obj <- valueAxis(test = "foo")
setValueAxis(.Object = guide(), valueAxis = valueAxis_obj)
```

`initialize,Label-method` *Initializes Label*

Description

Uses the constructor to create the object or update an existing one with the setters.

Usage

```
## S4 method for signature 'Label'
initialize(.Object, text, bold, x, y, ...)

label(text, bold, x, y, ...)

setBold(.Object, bold)

## S4 method for signature 'Label,logical'
setBold(.Object, bold)

## S4 method for signature 'Label,character'
setText(.Object, text)

setX(.Object, x)

## S4 method for signature 'Label,numericOrCharacter'
setX(.Object, x)

setY(.Object, y)

## S4 method for signature 'Label,numericOrCharacter'
setY(.Object, y)
```

Arguments

`.Object`	Label.
`text`	`character`, text of a title.
`bold`	`character`, specifies if label is bold or not.
`x`	`numeric`, label's x position.
`y`	`numeric`, label's y position.
`...`	other properties of Label.

Value

(updated) .Object of class Label.

Examples

```
# --- method initialize
new("Label", x = 10)

# --- constructor
label(text = "bonjour")
label(text = "Male", x = "28%", y = "97%")

# --- update property 'bold'
setBold(.Object = label(), bold = TRUE)

# --- update 'text'
setText(.Object = label(), text = "Bonjour")

# --- update 'x'
setX(.Object = label(), x = 16)

# --- update 'y'
setY(.Object = label(), y = 16)
```

---

initialize,PeriodSelector-method

Initializes a PeriodSelector

Description

Uses the constructors to create the object with its properties or update an existing one with the setters.

Usage

```
## S4 method for signature 'PeriodSelector'
initialize(.Object, periods, ...)

periodSelector(periods, ...)

addPeriod(.Object, ...)

## S4 method for signature 'PeriodSelector'
addPeriod(.Object, ...)
```

Arguments

.Object	PeriodSelector.
periods	list. Period object has 4 properties - period, count, label and selected. Possible period values are: "ss" - seconds, "mm" - minutes, "hh" - hours, "DD" - days, "MM" - months and "YYYY" - years. property "count" specifies how many periods this button will select. "label" will be displayed on a button and "selected" is a logical. which specifies if this button is selected when chart is initialized or not.
...	other properties of PeriodSelector.

Value

(updated) .Object of class PeriodSelector.

Examples

```
new( "PeriodSelector")
periodSelector(fillAlpha = .4, value = 1)
periodSelector(fillAlpha = .4, adjustBorderColor = TRUE, gridThickness = 1)
addPeriod(.Object = periodSelector(), period = "MM", selected = TRUE,
          count = 1, label= "1 month")
```

---

initialize,StockEvent-method

Initialize a StockEvent

Description

Use the constructor to create the object or update an existing one with the setters.

Usage

```
## S4 method for signature 'StockEvent'
initialize(.Object, backgroundAlpha = 1, stockGraph,
  ...)

stockEvent(backgroundAlpha = 1, stockGraph, ...)

setStockGraph(.Object, stockGraph = NULL, ...)

## S4 method for signature 'StockEvent,AmGraphOrCharacterOrMissing'
setStockGraph(.Object,
  stockGraph = NULL, ...)
```

Arguments

.Object	StockEvent.
backgroundAlpha	numeric.
stockGraph	AmGraph created with stockGraph(*). This is the graph on which event will be displayed. You can use a reference to the stock graph object or id of the graph.
...	other properties of StockEvent.

Value

(updated) argument .Object of class StockEvent.

Examples

```
new("StockEvent")
stockEvent()
setStockGraph(.Object = stockEvent(), id = "stockGraph1", balloonText = "balloonText")
# equivalent to:
stockGraph_obj <- stockGraph(id = "stockGraph1", balloonText = "balloonText")
setStockGraph(.Object = stockEvent(), stockGraph = stockGraph_obj)
# if stockGraph_obj has already been added to the chart:
setStockGraph(.Object = stockEvent(), stockGraph = "stockGraph1")
```

---

initialize,StockPanel-method

Initialize a StockPanel

Description

Use the constructor to create the object or update an existing one with the setters.

Usage

```
## S4 method for signature 'StockPanel'
initialize(.Object, allLabels, axes, balloon,
  categoryAxis, categoryField, chartCursor, chartScrollbar, creditsPosition,
  dataProvider, graphs, graph, guides, legend, theme, title, titles, trendLines,
  type, valueAxes, valueScrollbar, drawOnAxis, stockGraphs, stockLegend, ...)

stockPanel(...)

panel(...)

setDrawOnAxis(.Object, valueAxis = NULL, ...)

## S4 method for signature 'StockPanel,ValueAxisOrCharacterOrMissing'
setDrawOnAxis(.Object,
```

```
  valueAxis = NULL, ...)

setStockGraphs(.Object, stockGraphs)

## S4 method for signature 'StockPanel,list'
setStockGraphs(.Object, stockGraphs)

addStockGraph(.Object, stockGraph = NULL, ...)

## S4 method for signature 'StockPanel,AmGraphOrMissing'
addStockGraph(.Object,
  stockGraph = NULL, ...)

setStockLegend(.Object, stockLegend = NULL, ...)

## S4 method for signature 'StockPanel,AmLegendOrMissing'
setStockLegend(.Object,
  stockLegend = NULL, ...)
```

Arguments

.Object	StockPanel.
allLabels	list of Label. Example of a label object, with all possible properties: label(x = 20, y = 20, text = "this is a label", align = "left", size = 12, color = "#CC0000", alpha = 1, rotation = 0, bold = TRUE, url = "http=//www.amcharts.com"). Run api("Label") for more informations.
axes	list of GaugeAxis properties. Only valid for gauge charts. Run api("GaugeAxis") for more informations.
balloon	AmBalloon. Creates the balloons (tooltips) of the chart. It follows the mouse cursor when you roll-over the data items. The framework automatically generates the instances you just have to adjust the appearance to your needs. Run api("AmBalloon") for more informations.
categoryAxis	CategoryAxis. Read-only. Chart creates category axis itself. If you want to change some properties, you should get this axis from the chart and set properties to this object. Run api("CategoryAxis") for more informations.
categoryField	character, category field name indicates the name of the field in your dataProvider object which will be used for category axis values.
chartCursor	ChartCursor. Chart's cursor. Run api("ChartCursor") for more informations.
chartScrollbar	ChartScrollbar. Chart's scrollbar. Run api("ChartScrollbar") for more informations.
creditsPosition	character, specifies position of the amCharts' website link. Allowed values are: "top-left", "top-right", "bottom-left" and "bottom-right".
dataProvider	data.frame, containing the data.
graphs	list of AmGraph. Creates the visualization of the data in following types: line, column, step line, smoothed line, olhc and candlestick. Run api("AmGraph") for more informations.

graph	AmGraph. Only valid for Gantt charts. Gant chart actually creates multiple graphs (separate for each segment). Properties of this graph are passed to each of the created graphs - this allows you to control the look of segments. Run `api("AmGraph")` for more informations.
guides	`list` of Guide. Instead of adding guides to the axes, you can push all of them to this array. In case guide has category or date defined, it will automatically be assigned to the category axis, otherwise to the first value axis, unless you specify a different valueAxes for the guide. Run `api("Guide")` for more informations.
legend	AmLegend. Legend of a chart. Run `api("AmLegend")` for more informations.
theme	`character`, theme of a chart. Config files of themes can be found in amcharts/themes/ folder. See http://www.amcharts.com/tutorials/working-with-themes/.
title	A title of a panel. Note, StockLegend should be added in order title to be displayed.
titles	`list` of Title. Run `api("Title")` for more informations.
trendLines	`list` of TrendLine objects added to the chart. You can add trend lines to a chart using this list or access already existing trend lines. Run `api("TrendLine")` for more informations.
type	`character`, possible types are: "serial", "pie", "radar", "xy", "radar", "funnel", "gauge", "stock". See details about using argument type. (type map is in development).
valueAxes	`list` of ValueAxis. Chart creates one value axis automatically, so if you need only one value axis, you don't need to create it. Run `api("ValueAxis")` for more informations.
valueScrollbar	ChartScrollbar. Value scrollbar, enables scrolling value axes.
drawOnAxis	ValueAxis. Specifies on which value axis user can draw trend lines. Set drawingIconsEnabled to true if you want drawing icons to be visible. First value axis will be used if not set here. You can use a reference to the value axis object or id of value axis.
stockGraphs	`list` of AmGraph. Each element must be have been created with stockGraph(*)
stockLegend	`list` of AmLegend. Each element must be have been created with stockLegend(*)
...	other properties of StockPanel.
valueAxis	A ValueAxis for the property 'drawnOnAxis'.
stockGraph	AmGraph, created with stockGraph(...). Argument for method `addStockGraph`.

Value

(updated) StockPanel with given properties.

Examples

```
new("StockPanel", title = "Volume")

stockPanel(stockLegend = amLegend(useGraphSettings = TRUE))
panel(creditsPosition = "top-right")
```

```
panel(title = "top-right")
valueAxis_obj <- valueAxis(id = "valueAxis1")
setDrawOnAxis(.Object = stockPanel(), valueAxis = valueAxis_obj)
setDrawOnAxis(.Object = stockPanel(), valueAxis = "valueAxis1")
# ---
stockGraphs <- list(stockGraph(comparable = TRUE), stockGraph(comparable = FALSE))
setStockGraphs(.Object =  stockPanel(), stockGraphs = stockGraphs)
stockPanel(stockGraphs = stockGraphs)
# ---
stock_panel <- addStockGraph(.Object = stockPanel(), comparable = FALSE); print(stock_panel)
# or...
stock_panel <- addStockGraph(.Object = stockPanel(), stockGraph = stockGraph(comparable = FALSE))
# ---
setStockLegend(.Object = stockPanel(), valueTextRegular = "[[value]]")
# equivalent to:
stockLegend_obj <- stockLegend(valueTextRegular = "[[value]]")
setStockLegend(.Object = stockPanel(), stockLegend = stockLegend_obj)
# ---
```

`initialize,Title-method`

Initializes A Title

Description

Uses the constructor to create the object or update an existing one with the setters.

Usage

```
## S4 method for signature 'Title'
initialize(.Object, text, size, ...)

title(text, size, ...)

amTitle(text, size, ...)

## S4 method for signature 'Title,character'
setText(.Object, text)

setSize(.Object, size)

## S4 method for signature 'Title,numeric'
setSize(.Object, size)
```

Arguments

`.Object`	Title
`text`	character, title text.

size	numeric, title size.
...	other properties of Title.

Value

(updated) Title

Examples

```
new("Title", size = 10)
rAmCharts:::title(text = "Main", size = 10)
rAmCharts:::title(text = "Main", bold = TRUE)
amTitle(text = "Main", size = 10)
amTitle(text = "Main", bold = TRUE)
setText(.Object = amTitle(), text = "Bonjour")
setSize(amTitle(), 16)
```

---

initialize,TrendLine-method

Initializes a TrendLine

Description

Uses the constructor to create the object or update an existing one with the setters.

Usage

```
## S4 method for signature 'TrendLine'
initialize(.Object, initialValue, initialXValue,
  finalValue, finalXValue, valueAxis, valueAxisX, ...)

trendLine(.Object, initialValue, initialXValue, finalValue, finalXValue,
  valueAxis, valueAxisX, ...)

setInitialValue(.Object, initialValue)

## S4 method for signature 'TrendLine,numeric'
setInitialValue(.Object, initialValue)

setInitialXValue(.Object, initialXValue)

## S4 method for signature 'TrendLine,numeric'
setInitialXValue(.Object, initialXValue)

setFinalValue(.Object, finalValue)

## S4 method for signature 'TrendLine,numeric'
setFinalValue(.Object, finalValue)
```

```
setFinalXValue(.Object, finalXValue)

## S4 method for signature 'TrendLine,numeric'
setFinalXValue(.Object, finalXValue)

## S4 method for signature 'TrendLine,ValueAxisOrCharacterOrMissing'
setValueAxis(.Object,
  valueAxis = NULL, ...)

setValueAxisX(.Object, valueAxisX = NULL, ...)

## S4 method for signature 'TrendLine,ValueAxisOrCharacterOrMissing'
setValueAxisX(.Object,
  valueAxisX = NULL, ...)
```

Arguments

.Object	TrendLine.
initialValue	numeric, value from which trend line should start.
initialXValue	numeric, used by XY chart only. X value from which trend line should start.
finalValue	numeric, value at which trend line should end.
finalXValue	numeric, used by XY chart only. X value at which trend line should end.
valueAxis	ValueAxis. Value axis of the trend line. Will use first value axis of the chart if not set any. You can use a reference to the value axis object or id of value axis.
valueAxisX	ValueAxis. Used by XY chart only. X axis of trend line. Will use first X axis of the chart if not set any. You can use a reference to the value axis object or id of value axis.
...	other properties of TrendLine.

Value

(possibly updated) .Object of class TrendLine.

Examples

```
new("TrendLine", initialValue = 1, finalValue = 11)

# Other example
valueAxis <- valueAxis(title = "Hello !", axisTitleOffset = 12)
new("TrendLine", valueAxis = valueAxis)

trendLine(initialValue = 1, finalValue = 11)
setInitialValue(.Object = trendLine(), initialValue = 16)
setInitialXValue(.Object = trendLine(), initialXValue = 16)
setFinalValue(.Object = trendLine(), finalValue = 16)
setFinalXValue(.Object = trendLine(), finalXValue = 16)
setValueAxis(.Object = trendLine(), id = "valueAxis-1",
```

```
             title = "Hello !", axisTitleOffset = 12)
# equival to:
valueAxis_obj <- valueAxis(id = "valueAxis-1", title = "Hello !", axisTitleOffset = 12)
trendLine(valueAxis = valueAxis_obj)
# or...
trendLine(valueAxis = "valueAxis-1")
# valid if and only if 'valueAxis_obj' has already been added to the chart

setValueAxisX(.Object = trendLine(), id = "valueAxisX-1",
              title = "Hello !", axisTitleOffset = 12)
# equival to:
valueAxisX_obj <- valueAxis(id = "valueAxisX-1", title = "Hello !", axisTitleOffset = 12)
trendLine(valueAxisX = valueAxisX_obj)
# or...
trendLine(valueAxisX = "valueAxisX-1")
# valid if and only if 'valueAxisX_obj' has already been added to the chart
```

`initialize,ValueAxis-method`
Initializes ValueAxis

Description

Creates a ValuesAxis or updates its properties.

Usage

```
## S4 method for signature 'ValueAxis'
initialize(.Object, title, guides, ...)

valueAxis(...)

## S4 method for signature 'ValueAxis,character'
setTitle(.Object, title)
```

Arguments

`.Object`	ValueAxis.
`title`	`character`.
`guides`	`list` of Guide.
`...`	Other properties (depend of call function)

Examples

```
guides <- list(guide(fillAlpha = .4), guide(fillAlpha = .5))
new("ValueAxis", title = "Hello !",  gridThickness = 1, guides = guides)

## Not run:
new("ValueAxis", title = "Hello !", 1) # 1 is not take into account

# If one element of guides is not a Guide object, it shows an error
guides <- list(guide(fillAlpha = .4), b = 1)
new("ValueAxis", title = "Hello !",  gridThickness = 1, guides = guides)

## End(Not run)

valueAxis(title = "Hello !", axisTitleOffset = 12)

setTitle(.Object = valueAxis(), title = "Hello !")
```

`Label-class` *Label class*

Description

Creates a label on the chart which can be placed anywhere, multiple can be assigned.

Details

Run `api("Label")` for more information and all avalaible properties.

Slots

`bold character`. Specifies if label is bold or not.

`text character`. Text of a title.

`x numeric`. X position of a label.

`y numeric`. Y position of a label.

`listeners list` containining the listeners to add to the object. The list must be named as in the official API. Each element must be a character string.

`otherProperties list` containing other avalaible properties not yet implemented in the package.

`value numeric`.

Author(s)

datastorm-open

listProperties *List properties of an S4 object*

Description

Each S4 class implements the method to list its properties (usefull to update complex properties).

Usage

```
listProperties(.Object)

## S4 method for signature 'AmObject'
listProperties(.Object)
```

Arguments

.Object	any class object of the package

Value

A list containing all the chart's properties.

Examples

```
amChart(type = "serial")
```

PeriodSelector-class *PeriodSelector*

Description

Defines the PeriodSelector properties.

Slots

`periods list`. Period object has 4 properties - period, count, label and selected. Possible period values are: "ss" - seconds, "mm" - minutes, "hh" - hours, "DD" - days, "MM" - months and "YYYY" - years. property "count" specifies how many periods this button will select. "label" will be displayed on a button and "selected" is logical. which specifies if this button is selected when chart is initialized or not.

`listeners list` containining the listeners to add to the object. The list must be named as in the official API. Each element must be a character string. See examples for details.

`otherProperties list` containing other avalaible properties not yet implemented in the package.

`value` Object of class `numeric`.

Author(s)

datastorm-open

`plot,AmCharts-method` *PLOTTING METHOD*

Description

Basic method to plot an AmChart

Usage

```
## S4 method for signature 'AmCharts'
plot(x, y, width = "100%", height = NULL,
  background = "#ffffff", ...)
```

Arguments

x	AmChart
y	unused.
width	character.
height	character.B
background	character.
...	Other properties.

Details

Plots an object of class `AmChart`

`print,AmObject-method` *Visualize with print*

Description

Display the object in the console.

Usage

```
## S4 method for signature 'AmObject'
print(x, withDetail = TRUE, ...)
```

Arguments

x	AmChart.
withDetail	logical, TRUE to display details.
...	Other properties.

Details

If the object possess a 'dataProvider' property, it will be hidden in the console. To see if it's correctly registered use '@dataProvider'.

Examples

```
print(new("AmChart", categoryField = "variables", type = "serial"))
print(new("AmChart", categoryField = "variables", type = "serial"), withDetail = FALSE)
```

---

rAmCharts-shinymodules

Shiny module to export rAmCharts graphics on server-side

Description

This function need the base64enc package to save image.

Usage

```
rAmChartsExportServerUI(id)

rAmChartsExportServer(input, output, session, list_am_graph,
  path = shiny::reactive(tempdir()), mode = "single", progress = T,
  message = "Calculation in progress", detail = "This may take a while...")
```

Arguments

id	character, used to specify namesapce, see shiny::NS
input	standard, shiny input
output	standard, shiny output
session	standard, shiny session
list_am_graph	named list, reactive expression with all amCharts to export • "graph"rAmCharts object to export • "name"character, name of file, with ".jpg" extension • "width"Optionnal, character. Linked to amChartsOutput • "height"Optionnal, character. Linked to amChartsOutput • "type"Optionnal, character. Linked to amChartsOutput
path	character, directory. tempdir() by Defaut

mode	character, 'single' : graphics are rendered and saved one by one. 'multiple' all at same time
progress	boolean, set a progress bar or not ?
message	character, if progress, message. Defaut to "Calculation in progress"
detail	character, if progress, detail. Defaut to "This may take a while...'

Value

a reactive expression

Examples

```
## Not run:

# ui
rAmChartExportServerUI("export_server_graphs")

# server

mult_amgraph <- reactive({
 if(input$goSave > 0){
   isolate({
     list(
      list(graph = amPie(data = data_pie), name = "pie.jpg", height = "200px", width = "300px"),
      list(graph = amBarplot(x = "country", y = "visits", data = data_bar, main = "example") %>%
          setExport(), name = "bar.jpg", height = "600px")
     )
   })
 } else {
   NULL
 }
})


callModule(rAmChartExportServer, "export_server_graphs", mult_amgraph,
           reactive("/home/benoit/amchart_export"))


## End(Not run)
```

---

rAmCharts-shinymodules-ts

Shiny module to render large time-series data with live server-client aggregation

---

Description

Shiny module to render large time-series data with live server-client aggregation

Usage

```
rAmChartsTimeSeriesUI(id, width = "100%", height = "400px")

rAmChartsTimeSeriesServer(input, output, session, data, col_date, col_series,
  maxPoints = shiny::reactive(600), tz = shiny::reactive("UTC"),
  ts = shiny::reactive(c("5 min", "10 min", "30 min", "hour", "3 hour",
  "12 hour", "day", "week", "month", "year")),
  fun_aggr = shiny::reactive("mean"),
  treat_missing = shiny::reactive(FALSE), maxgap = shiny::reactive(Inf),
  type_aggr = shiny::reactive("first"), main = shiny::reactive(""),
  ylab = shiny::reactive(""), color = shiny::reactive(c("#2E2EFE",
  "#31B404", "#FF4000", "#AEB404")), bullet = shiny::reactive(NULL),
  bulletSize = shiny::reactive(2), linetype = shiny::reactive(c(0, 5, 10,
  15, 20)), linewidth = shiny::reactive(c(1, 1, 1, 1, 1, 1)),
  fillAlphas = shiny::reactive(0), precision = shiny::reactive(1),
  export = shiny::reactive(FALSE), legend = shiny::reactive(TRUE),
  legendPosition = shiny::reactive("bottom"),
  legendHidden = shiny::reactive(FALSE),
  ZoomButton = shiny::reactive(data.frame(Unit = "MAX", multiple = 1, label =
  "All")), ZoomButtonPosition = shiny::reactive("bottom"),
  periodFieldsSelection = shiny::reactive(FALSE),
  scrollbar = shiny::reactive(TRUE),
  scrollbarPosition = shiny::reactive("bottom"),
  scrollbarHeight = shiny::reactive(40),
  scrollbarGraph = shiny::reactive(NULL), cursor = shiny::reactive(TRUE),
  cursorValueBalloonsEnabled = shiny::reactive(TRUE),
  creditsPosition = shiny::reactive("top-right"),
  group = shiny::reactive(NULL))
```

Arguments

id	character, used to specify namesapce, see shiny::NS
width	character, the width of the chart container. For amChartsOutput.
height	character, the height of the chart container. For amChartsOutput.
input	standard, shiny input
output	standard, shiny output
session	standard, shiny session
data	: data.frame to transform.
col_date	: Date column name, default to "date". Must be "POSIXct" or "CET24" colum
col_series	: Column name of quantitative variable(s) to be transformed. Default to setdiff(colnames(data), "date")
maxPoints	: Maximal number of rows in results
tz	: Timezone of result. Defaut to "UTC".
ts	: All enabled aggregation. Default to c("5 min", "10 min", "30 min", "hour", "3 hour", "12 hour", "day", "week", "month", "year"). Can be a number, in

seconds, or a character string containing one of "min", "hour", "day".... This can optionally be preceded by a positive integer and a space

`fun_aggr` : Aggregation function to use ("min", "max", "sum", "mean"). Default to "mean".

`treat_missing` : Boolean. Default to FALSE Whether or not to interpolate missing values ? see `na.approx`

`maxgap` : When interpolate missing values with `na.approx`. Maximum number of consecutive NAs to fill. Defaut to Inf.

`type_aggr` : Character. Type of aggregation

- "first" : Date/Time result is equal to minimum of sequence, and this minimum is included in aggregation
- "last" : Date/Time result is equal to maximum of sequence, and this maximum is included in aggregation

`main` `character`, title.

`ylab` `character`, value axis label.

`color` `character`, color of series (in hexadecimal).

`bullet` `character`, point shape. Possible values are : "diamond", "square", "bubble", "yError", "xError", "round", "triangleLeft", "triangleRight", "triangleUp"

`bulletSize` : `numeric`, size of bullet.

`linetype` : `numeric`, line type, 0 : solid, number : dashed length

`linewidth` : `numeric`, line width.

`fillAlphas` : `numeric`, fill. Between 0 (no fill) to 1.

`precision` `numeric`, default set to 1.

`export` `logical`, default set to FALSE. TRUE to display export feature.

`legend` `logical`, enabled or not legend ? Defaut to TRUE.

`legendPosition` `character`, legend position. Possible values are : "left", "right", "bottom", "top"

`legendHidden` `logical` hide some series on rendering ? Defaut to FALSE

`ZoomButton` `data.frame`, 3 or 4 columns :

- "Unit" : Character. Times unit. 'ss', 'mm', 'hh', 'DD', 'MM', 'YYYY'
- "multiple" : Numeric. multiple*unit
- "label" : Character. button's label
- "selected" : Boolean. Optional. To set initial selection. (One TRUE, others FALSE)

`ZoomButtonPosition`
`character`, zoom button position. Possible values are : "left", "right", "bottom", "top"

`periodFieldsSelection`
`boolean`, using zoom button, add also two fields to select period ?

`scrollbar` `boolean`, enabled or not scrollbar ? Defaut to TRUE.

`scrollbarPosition`
`character`, scrollbar position. Possible values are : "left", "right", "bottom", "top"

scrollbarHeight
: numeric, height of scroll bar. Default : 40.

scrollbarGraph
: character, name of serie (column) to print in scrollbar. Defaut to NULL.

cursor
: boolean, enabled or not cursor ? Defaut to TRUE.

cursorValueBalloonsEnabled
: boolean, if cursor, enabled or not balloons on cursor ? Defaut to TRUE.

creditsPosition
: character, credits position. Possible values are : "top-right", "top-left", "bottom-right", "bottom-left"

group
: character, like in dygraphs, for synchronization in shiny or rmarkdown.

Value

a reactive expression with aggregate data and ts

Examples

```
## Not run:

# ui
rAmChartTimeSeriesUI("ts_1")

# server
callModule(rAmChartTimeSeriesServer, "ts_1", data_stock_2, reactvie("date"), reactvie("value"))


## End(Not run)
```

---

renderAmCharts *SHINY*

Description

Widget output function to use in Shiny.

Usage

```
renderAmCharts(expr, env = parent.frame(), quoted = FALSE)
```

Arguments

expr
: an expression that generates an HTML widget.

env
: the environment in which expr must be evaluated.

quoted
: is expr a quoted expression (with quote()). This is useful if you want to save an expression into variable.

runExamples *Run example with shiny*

Description

See some examples in a shiny web application. Both 'am' functions and basic functions are illustrated.

Usage

```
runExamples()
```

Examples

```
if (interactive()) runExamples()
```

setExport *Setters for AmChart and AmStockChart.*

Description

These methods can be used both for AmChart and AmStockChart. There are general for some first-level properties.

Usage

```
setExport(.Object, enabled = TRUE, ...)

## S4 method for signature 'AmCharts,logicalOrMissing'
setExport(.Object, enabled = TRUE, ...)

setResponsive(.Object, enabled = TRUE, ...)

## S4 method for signature 'AmCharts,logicalOrMissing'
setResponsive(.Object, enabled = TRUE,
  ...)
```

Arguments

.Object	AmChart or AmStockChart.
enabled	logical, TRUE to display the export button.
...	Other properties that can be used depending on the setter.

Examples

```
# Dummy examples
setExport(amPlot(1:10))
setExport(amStockChart())


# Dummy examples
setResponsive(amSerialChart())
setResponsive(amStockChart())
```

`show,AmChart-method` *Visualize AmStockChart with show*

Description

Display the object in the console.

Usage

```
## S4 method for signature 'AmChart'
show(object)
```

Arguments

`object`	AmChart.

Value

If the object has a valid type, it will plot the chart. If not the method will trigger the method 'print'.

`show,AmObject-method` *Visualize with show*

Description

Display the object in the console.

Usage

```
## S4 method for signature 'AmObject'
show(object)
```

Arguments

`object`	AmObject.

Examples

```
library(pipeR)
amPieChart(valueField = "value", titleField = "key", backgroundColor = "#7870E8") %>>%
  setDataProvider(data.frame(key = c("FR", "US"), value = c(20,10))) %>>%
  setExport(position = "bottom-left")
```

---

show,AmStockChart-method

Visualize AmStockChart with show

Description

Display the object in the console.

Usage

```
## S4 method for signature 'AmStockChart'
show(object)
```

Arguments

object	AmStockChart.

Value

If the object has a valid type, it will plot the chart. If not the method will trigger the method 'print'.

StockEvent-class *StockEvent class*

Description

StockEvent is an object which holds information about event (bullet). Values from StockEventsSettings will be used if not set. Stock event bullet's size depends on it's graphs fontSize. When user rolls-over, clicks or rolls-out of the event bullet, AmStockChart dispatches events.

Details

Run `api("StockEvent")` for more informations.

Slots

`stockGraph` AmGraph containing properties of stockGraph. This is the graph on which event will be displayed. You can use a reference to the stock graph object or id of the graph.

`listeners list` containining the listeners to add to the object. The list must be named as in the official API. Each element must be a character string.

`otherProperties list` containing other avalaible properties not yet implemented in the package.

`value numeric`.

Author(s)

datastorm-open

`stockGraph` *Constructor for a stockGraph (class AmGraph)*

Description

Constructor used for AmStockChart

Usage

```
stockGraph(animationPlayed = FALSE, balloonText, title, type, valueField, ...)
```

Arguments

`animationPlayed`	`logical`.
`balloonText`	`character`. Balloon text. You can use tags like [[value]], [[description]], [[percents]], [[open]], [[category]] or any other field name from your data provider. HTML tags can also be used.
`title`	`character`. Graph title.
`type`	`character`. Type of the graph. Possible values are: "line", "column", "step", "smoothedLine", "candlestick", "ohlc". XY and Radar charts can only display "line" otherArguments graphs.
`valueField`	`character`. Name of the value field in your dataProvider.
`...`	Other properties

Value

An object of class AmGraph.

Examples

```
# --- constructor
stockGraph(balloonText = "balloonText",valueField = "value", animationPlayed = TRUE)
```

stockLegend *Constructor for StockLegend.*

Description

This method is used for AmStockChart.

Usage

```
stockLegend(useGraphSettings, valueTextComparing = "[[percents.value]]%",
  ...)
```

Arguments

useGraphSettings	logical Legend markers can mirror graph's settings, displaying a line and a real bullet as in the graph itself. Set this property to TRUE if you want to enable this feature.
valueTextComparing	character
...	Properties of AmLegend. See http://docs.amcharts.com/3/javascriptstockchart/StockLegend

Value

An AmLegend object

Examples

```
stockLegend(useGraphSettings = TRUE)
```

StockPanel-class *StockPanel class*

Description

StockPanel class creates stock panels (charts). AmStockChart can have multiple Stock panels.

Details

Run api("StockPanel") for more information and all avalaible properties.

Fields

`drawOnAxis` ValueAxis. Specifies on which value axis user can draw trend lines. Set drawingIconsEnabled to TRUE if you want icons to be visible. First value axis will be used if not set here. You can use a reference to the value axis object or id of value axis.

`stockGraphs list`. Each element must be have been created with stockGraph(*)

`stockLegend list`. Each element must be have been created with stockLegend(*)

`allLabels list` of Label. Example of label object, with all possible properties: label(x = 20, y = 20, text = "this is label", align = "left", size = 12, color = "#CC0000", alpha = 1, rotation = 0, bold = TRUE, url = "http=//www.amcharts.com"). Run `api("Label")` for more informations.

`arrows list` of GaugeArrow. Only valid for gauge charts. Run `api("GaugeArrow")` for more informations.

`axes list` of GaugeAxis properties. Only valid for gauge charts. Run `api("GaugeAxis")` for more informations.

`balloon` AmBalloon Creates the balloons (tooltips) of the chart. It follows the mouse cursor when you roll-over the data items. The framework automatically generates the instances you just have to adjust the appearance to your needs. Run `api("AmBalloon")` for more informations.

`categoryAxis` CategoryAxis. Read-only. Chart creates category axis itself. If you want to change some properties, you should get this axis from the chart and set properties to this object.

`categoryField character`. Category field name indicates the chart the name of the field in your dataProvider object which will be used for category axis values.

`ChartCursor` ChartCursor. Cursor of a chart. Run `api("ChartCursor")` for more informations.

`ChartScrollbar` ChartScrollbar. Chart's scrollbar. Run `api("ChartScrollbar")` for more informations.

`creditsPosition character`, specifies position of the amCharts' website link. Allowed values are: "top-left", "top-right", "bottom-left" and "bottom-right".

`dataProvider data.frame`, containing the data.

`graphs list` of AmGraph. Creates the visualization of the data in following types: line, column, step line, smoothed line, olhc and candlestick.

`graph` AmGraph. Only valid for Gantt charts. Gant chart actually creates multiple graphs (separate for each segment). Properties of this graph are passed to each of the created graphs - this allows you to control the look of segments. Run `api("AmGraph")` for more informations.

`guides list` of Guide. Instead of adding guides to the axes, you can push all of them to this array. In case guide has category or date defined, it automatically will be assigned to the category axis. Otherwise to first value axis, unless you specify a different valueAxes for the guide. Run `api("Guide")` for more informations.

`legend` AmLegend. Chart's legend. Run `api("AmLegend")` for more informations.

`segmentsField character`. Segments field in your data provider. Only valid for Gantt Charts.

`subChartProperties list`. Only valid for Drilldown charts.

`theme character`. Chart's theme. Config files of themes can be found in amcharts/themes/ folder. See http://www.amcharts.com/tutorials/working-with-themes/.

`titles list` of Title. Run `api("Title")` for more informations.

`trendLines list` of TrendLine objects added to a chart. You can add trend lines to a chart using this list or access already existing trend lines.

`type character`. Possible types are: "serial", "pie", "radar", "xy", "radar", "funnel", "gauge", "stock". See details about using argument type. (type map is in development).

`valueAxes list` of ValueAxis. Chart creates one value axis automatically, so if you need only one value axis, you don't need to create it. Run `api("ValueAxis")` for more informations.

`valueAxis` ValueAxis. Only valid for Gantt Charts. Set it's type to "date" if your data is date or time based.

`listeners list` containining the listeners to add to the object. The list must be named as in the official API. Each element must be a character string. Run `runShinyExamples()` for examples.

`otherProperties list` containing other avalaible properties not yet implemented in the package.

`value numeric`.

Author(s)

datastorm-open

`Title-class` *Title class*

Description

Creates a title on above the chart, multiple can be assigned.

Details

Run `api("Title")` for more informations and all avalaible properties.

Slots

`text character`, title's text.

`size numeric`, title's size.

`listeners list` containining the listeners to add to the object. The list must be named as in the official API. Each element must be a character string. See examples for details.

`otherProperties list` containing other avalaible properties not yet implemented in the package.

`value numeric`.

Author(s)

datastorm-open

TrendLine-class *TrendLine class*

Description

Creates a trendline for amSerialChart and amXYChart charts which indicates the trend of your data or covers some different purposes. Multiple can be assigned.

Details

Run `api("TrendLine")` for more information and all avalaible properties.

Slots

`finalValue numeric`. Value at which trend line should end.

`finalXValue numeric`. Used by XY chart only. X value at which trend line should end.

`initialValue numeric`. Value from which trend line should start.

`initialXValue numeric`. Used by XY chart only. X value from which trend line should start.

`valueAxis` ValueAxis. Value axis of the trend line. Will use first value axis of the chart if not set any. You can use a reference to the value axis object or id of value axis.

`valueAxisX` ValueAxis. Used by XY chart only. X axis of trend line. Will use first X axis of the chart if not set any. You can use a reference to the value axis object or id of value axis.

`listeners list` containining the listeners to add to the object. The list must be named as in the official API. Each element must be a character string. See examples for details.

`otherProperties list`, containing other avalaible properties.

`value numeric`.

Author(s)

datastorm-open

ValueAxis-class *ValueAxis class*

Description

Extension for ValueAxis to create an axis for amSerialChart, amRadarChart, amXYChart charts, multiple can be assigned. Gets automatically populated, one for amSerialChart and two for amXYChart charts, if none has been specified.

Details

Run `api("ValueAxis")` for more information and all avalaible properties.

Slots

`title character`. Title of the axis.

`guides list`.

`listeners list` containining the listeners to add to the object. The list must be named as in the official API. Each element must be a character string. See examples for details.

`otherProperties list` containing other avalaible properties not yet implemented in the package.

`value numeric`. Guides belonging to this axis. Use addGuide method

Author(s)

datastorm-open

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