

Package ‘timelineR’

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Title Visualization for Time Series Data

Version 0.1.0

Maintainer Mohsin Vindhani <mohsin@systeminsights.com>

Description Helps to visualize multi-variate time-series having numeric and factor variables.

You can use the package for visual analysis of data by plotting the data for each variable in the desired order and study interaction between a factor and a numeric variable by creating overlapping plots.

Depends R (>= 3.3.0)

Imports dplyr, lubridate, stringr, futile.logger, ggplot2, gtable, grid, mtconnectR

Suggests testthat, knitr, rmarkdown

License AGPL-3

Encoding UTF-8

LazyData TRUE

RoxygenNote 6.0.1

VignetteBuilder knitr

NeedsCompilation no

Author Mohsin Vindhani [aut, cre],
Alex Joseph [aut],
Ananthapadmanabhan [aut],
Subramanyam Ravishankar [aut]

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match_grep	<i>Regular expression based extraction</i>
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Description

This function does a regular expression based search for each name in one vector for the values in the other vector and returns a named vector with names as the matched names and values as given in the queried vector.

Usage

```
match_grep(grep_vec, actual_names, use_values = F, return_names = F,
           echo = F)
```

Arguments

grep_vec	A named vector with the names to be searched for and the values, which the matching names should hold. It can also be a unnamed vector of names to search for.
actual_names	A vector giving the names in which the search is to be made
use_values	Logical value. (TRUE) if the values in the grep_vec are to be used for searching. Defualut is FALSE
return_names	Logical value (TRUE) if just want to return the matching names and not the values. Defualut is FALSE
echo	Logical value(TRUE) To print for each name in the grep_vec, which values in actual_names match and didnt match. Default is FALSE

Value

A named vector with the matched names and substituted values or a vector of macthed names

plot_timeline	<i>Plotting function (standard style)</i>
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Description

Plots time series data of State type (factors) as stripe charts, Numeric data type as step charts and an overlapping combination of a plot of State type and Numeric type .

Usage

```
plot_timeline(timeline_df, data_cols = NULL, start_time = NULL,
             end_time = NULL, ylimits = NULL, scale_vals = NULL, titles = NULL,
             ylabel = NULL, save_path = NULL, add_legend = TRUE,
             plot_size_ratios = NULL, overlap_plots_names = NULL,
             color_mapping = list(), order_plots = NULL, plot_output = T,
             numeric_plot_type = "line")
```

Arguments

timeline_df	Dataframe
data_cols	A vector showing the columns to subset for plotting
start_time	is left end point of the plot e.g: start_time="2014-01-30 09:53:02.792663 UTC" or start_time=1391075599
end_time	is right end point of the plot
ylimits	A named vector to determine the limits on the y-axis for Sample plots e.g: ylimits=list(a=c(0,100),d=c(-100,50)). The names must be present in the data frame
scale_vals	A named vector to scale numeric data e.g: scale_vals = c(a=10), matching data will be multiplied by 10
titles	A named vector to give titles to the plot. For state and numeric plots, the names should be the same as in the data frame. For overlapping plots, it should be the same as the name given in the overlap_plots_names. e.g: titles = c(ab="first plot",cd="second plot")
ylabels	change the labels on y-axis of plots e.g: ylabel=c(ab="value",bcd="tmeperature")
save_path	if a file_path is specified, then the image will be saved to that location.
add_legend	TRUE (default) if legend is needed for the plots
plot_size_ratios	proportion of event plot size to the sample plot size
overlap_plots_names	specify the data items to be overlapped. Plots of the same type can only be overlapped for now. This argument can be used to specify the order of plots. e.g.: overlap_plots="list(overlap_plot1 = c(state1,numeric1), overlap_plot2 = c(state1,numeric2)"
color_mapping	A named list of named vectors. The names of the list are the names of the state columns in the data frame. Each named vector for a state should have color mapping for all the states in the column.
order_plots	A vector containing the name of the plots to be plotted. The plots in the final output are arranged according to the order of the names in this vector.
plot_output	Logical argument to specify if the output is required to be plotted or not. TRUE(default)
numeric_plot_type	The plot type for numeric variables. It can be either of the type 'line', 'step' or 'point'. By default the type is 'line'.

Value

A grob of all the plots

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