Package ‘canvasXpress’

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Version 1.35.0

Title Visualization Package for CanvasXpress in R

Description Enables creation of visualizations using the CanvasXpress framework in R. CanvasXpress is a standalone JavaScript library for reproducible research with complete tracking of data and end-user modifications stored in a single PNG image that can be played back. See <https://www.canvasxpress.org> for more information.

Type Package

License GPL-3

Encoding UTF-8

Language en-US

URL https://github.com/neuhausi/canvasXpress

BugReports https://github.com/neuhausi/canvasXpress/issues

Depends R (>= 3.5)

Imports htmlwidgets (>= 1.0), httr, stats

RoxygenNote 7.1.1

Suggests shiny (>= 1.1.0), canvasXpress.data, dplyr, glue, grid,
      knitr, png, readr, rmarkdown, testthat, tibble, tidyr, webshot,
      limma

VignetteBuilder knitr

NeedsCompilation no

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Repository CRAN

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canvasXpress-package  CanvasXpress Visualization Package

Description

A package to assist in creating visualizations in CanvasXpress in R.

Details

CanvasXpress is a standalone JavaScript library for reproducible research with complete tracking of data and end-user modifications stored in a single PNG image that can be played back for an extensive set of visualizations.

More Information

https://www.canvasxpress.org

browseVignettes(package = "canvasXpress")

Author(s)

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See Also

Useful links:

- https://github.com/neuhausi/canvasXpress
- Report bugs at https://github.com/neuhausi/canvasXpress/issues
canvasXpress

description

Custom HTML widget creation function based on widget YAML and JavaScript for use in any html-compatible context

usage

canvasXpress(
  data = NULL,
  smpAnnot = NULL,
  varAnnot = NULL,
  graphType = "Scatter2D",
  events = NULL,
  afterRender = NULL,
  pretty = FALSE,
  digits = 4,
  width = 600,
  height = 400,
  destroy = FALSE,
  ...
)

arguments

data                      data.frame-, matrix-, or list- classed data object
smpAnnot                  additional data that applies to samples (columns)
varAnnot                  additional data that applies to variables (rows)
graphType                 type of graph to be plotted - default = "Scatter2D"
events                    user-defined events (e.g.mousemove, mouseout, click and dblclick)
afterRender               event triggered after rendering
pretty                    print tagged code (JSON/HTML) nicely - default = FALSE
digits                    display digits - default = 4
width                      plot width (valid CSS units) - default = 600px
height                     plot height (valid CSS units) - default = 400px
destroy                   used to indicate removal of a plot - default = FALSE
...                        additional parameters passed to canvasXpress

value

htmlwidgets object
canvasXpressOutput

description

Output creation function for canvasXpressOutput in Shiny applications and interactive Rmd documents

Usage

canvasXpressOutput(outputId, width = "100\%", height = "400px")

Arguments

outputId shiny unique ID
width width of the element - default = 100\%
height height of the element - default = 400px

Value

Output function that enables the use of the widget in applications

See Also

renderCanvasXpress
cxShinyExample

cxShinyExample

description

Create Shiny Example Application

This function runs one of the available shiny example applications. To see the list of available example applications run the function with no inputs

Usage

cxShinyExample(example = NULL)

Arguments

example character name of a valid example application.

Value

Launches a running shiny example application
**Description**

Render function for `canvasXpressOutput` in Shiny applications and interactive Rmd documents

**Usage**

```r
renderCanvasXpress(expr, env = parent.frame(), quoted = FALSE)
```

**Arguments**

- `expr` expression used to render the `canvasXpressOutput`
- `env` environment to use - default = `parent.frame()`
- `quoted` whether the expression is quoted - default = `FALSE`

**Value**

Render function that enables the use of the widget in applications

**Destroy**

When there exists a need to visually remove a plot from a Shiny application when it is not being immediately replaced with a new plot use the destroy option as in:

```r
renderCanvasXpress({canvasXpress(destroy = TRUE)})
```

**See Also**

- `canvasXpressOutput`
- `cxShinyExample`
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