Package ‘canvasXpress’

March 15, 2020

Version 1.27.6
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 <http://canvasxpress.org> for more information.

Type Package
License GPL-3
Encoding UTF-8
Language en-US

URL https://github.com/neuhasi/canvasXpress.git

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

Depends R (>= 3.5.0)
Imports htmlwidgets (>= 0.8), httr, stats
RoxygenNote 7.0.2
Suggests shiny (>= 1.0), knitr, rmarkdown, testthat, covr, webshot, png, grid, limma, glue, dplyr, tibble, tidyr

VignetteBuilder knitr

NeedsCompilation no

Author Isaac Neuhaus [aut],
Connie Brett [aut, cre]

Maintainer Connie Brett <connie@aggregate-genius.com>

Repository CRAN

Date/Publication 2020-03-15 05:20:02 UTC
canvasXpress-package

R topics documented:

- canvasXpress-package
- canvasXpress
- canvasXpressOutput
- cxShinyExample
- renderCanvasXpress

Index

---

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

- [http://canvasxpress.org](http://canvasxpress.org)
- `browseVignettes(package = "canvasXpress")`

Author(s)

Maintainer: Connie Brett <connie@aggregate-genius.com>

Authors:

- Isaac Neuhaus <imnphd@gmail.com>

See Also

Useful links:

- [https://github.com/neuhausi/canvasXpress.git](https://github.com/neuhausi/canvasXpress.git)
canvasXpress

**Description**

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

**Usage**

```r
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  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  Create Shiny Example Application

Description
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
renderCanvasXpress

See Also

canvasXpressOutput
renderCanvasXpress

renderCanvasXpress renderCanvasXpress

Description

Render function for canvasXpressOutput in Shiny applications and interactive Rmd documents

Usage

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:

renderCanvasXpress({canvasXpress(destroy = TRUE)})

See Also

canvasXpressOutput
cxShinyExample
Index

_PACKAGE (canvasXpress-package), 2

canvasXpress, 3
canvasXpress-package, 2
canvasXpressOutput, 4, 5
cxShinyExample, 4, 4, 5

renderCanvasXpress, 4, 5, 5