

# Package ‘canvasXpress’

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**Version** 1.32.9

**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, knitr, rmarkdown, testthat, covr, webshot, png, grid, limma, glue, dplyr, tibble, tidy

**VignetteBuilder** knitr

**NeedsCompilation** no

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**Repository** CRAN

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canvasXpress-package *CanvasXpress Visualization Package*

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### 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                      *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      *canvasXpressOutput*

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**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](#)

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cxShinyExample      *Create Shiny Example Application*

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**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.
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**Value**

Launches a running shiny example application

**See Also**

[canvasXpressOutput](#)  
[renderCanvasXpress](#)

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`renderCanvasXpress`     *renderCanvasXpress*

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**Description**

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

**Usage**

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

**Arguments**

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

**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](#)

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