Package ‘interactiveDisplay’

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Enhances rstudio
Description The interactiveDisplay package contains the methods needed to generate interactive Shiny based display methods for Bioconductor objects.
License Artistic-2.0
Collate 'interactiveDisplay.R' 'ExpressionSet.R' 'GRanges.R'
'GRangesList.R' 'SummarizedExperiment.R' 'gridsvgjs.R'
'bicgo.R' 'gridweak.R' 'simplenet.R' 'MReperiment.R'
'altgr.R' 'zzz.R'
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Description

This opens a shiny visualization application in the browser based on ...

Usage

altgr(object, ...)

Arguments

object data object to display
... additional arguments passed to methods; currently unused.

Value

Any ...

See Also

Examples

    if(interactive()) {

    ## Open an browser application for the purpose of manually biclustering an
    ## ExpressionSet object and obtaining a GO summary for a specific bicluster.

    data(mmgr)
    altgr(mmgr)

    }

bicgo

bicgo: Open a Shiny Application for manual/interactive biclustering and GO exploration

Description

This opens a shiny visualization application in the browser based on the submitted ExpressionSet object.

Usage

bicgo(object, ...)

Arguments

  object    data object to display
  ...       additional arguments passed to methods; currently unused.

Value

Any ExpressionSet object.

See Also


Examples

    if(interactive()) {

    ## Open an browser application for the purpose of manually biclustering an
    ## ExpressionSet object and obtaining a GO summary for a specific bicluster.

    data(expr)
    bicgo(expr)

    }
display

**Description**

This opens a shiny visualization application in the browser based on the submitted object.

**Usage**

```r
display(object, ...)
```

**Arguments**

- `object`: data object to display
- `...`: additional arguments passed to methods; currently unused.

**Value**

Usually some variation of the initial input object, but it may be altered by the display widget (subset for example).

**Author(s)**

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**See Also**


**Examples**

```r
if(interactive()) {
  ## draw a RangedSummarizedExperiment object
  data(se)
  display(se)

  ## draw a GRanges object
  data(mmgr)
  display(mmgr)

  ## some display methods allow subsetting.
  ## To take advantage, just use an assignment operator like this:
  mmgr2 <- display(mmgr)

  ## draw a GRangesList object
  data(mmgrl)
  display(mmgrl)
```
expr

```r
## draw an ExpressionSet object
data(expr)
display(expr)

## draw an MRexperiment object (placeholder!!)
data(mr)
display(mr)
```

```{r}
}
```

## expr

**An Example ExpressionSet object**

### Description

The expression data are real but anonymized. The data are from an experiment that used Affymetrix U95v2 chips. The data were processed by dChip and then exported to R for analysis. The data illustrate ExpressionSet-class, with assayData containing the required matrix element `exprs` and an additional matrix `se.exprs`. `se.exprs` has the same dimensions as `exprs`. The phenoData and standard error estimates (`se.exprs`) are made up. The information in the "description" slot is fake.

### Details

The data for 26 cases, labeled A to Z and 500 genes. Each case has three covariates: sex (male/female); type (case/control); and score (testing score).

### Examples

```r
data(expr)
```

## gridsvgjs

**gridsvgjs: Open a Shiny Application for a Grid Plot**

### Description

This opens a shiny visualization application in the browser based on the submitted plot.

### Usage

```r
gridsvgjs(object, ...)
```

### Arguments

- `object` data object to display
- `...` additional arguments passed to methods; currently unused.
Value

Any grid based plot. For example: a plot produced with lattice, ggplot2 or biobase libraries.

See Also


Examples

if(interactive()) {
  ## Send a grid based plot to a browser as a Javascript interactive SVG

  library(ggplot2)
  data(mtcars)
  qp <- qplot(mpg, data=mtcars, geom="density", fill=factor(cyl), alpha=I(.4))
  gridsvgjs(qp)
}

gridtweak

gridtweak: Open a Shiny Application for the purpose of tweaking grid plots

Description

This opens a shiny visualization application in the browser.

Usage

gridtweak(...)

Arguments

... additional arguments passed to methods; currently unused.

Value

Any grid based plot. For example: a plot produced with lattice, ggplot2 or biobase libraries.

See Also

Examples

```r
if(interactive()) {
  ## Send a grid based plot to a browser as a Javascript interactive SVG
  gridtweak()
}
```

---

**mmgr**

*An Example GRanges Object*

**Description**

A toy GRanges object for demonstration purposes.

**Examples**

data(mmgr)

---

**mmgrl**

*An Example GRangesList Object*

**Description**

A toy GRangesList dataset derived from the GRanges dataset in this package for purposes of demonstration.

**Details**

The GRanges dataset was submitted to `display()`, subsetted and several iterations of the results were fused into a GRangesList object. This is fake data.

**Examples**

data(mmgrl)

---

**se**

*An Example RangedSummarizedExperiment Object*

**Description**

A toy RangedSummarizedExperiment object for demonstration purposes.

**Examples**

data(se)
simplenet

simplenet: Open a Shiny Application for ...

Description

This opens a shiny visualization application in the browser based on ...

Usage

simplenet(object, ...)

Arguments

object data object to display
... additional arguments passed to methods; currently unused.

Value

Any ...

See Also


Examples

if(interactive()) {

## Open an browser application for the purpose of manually biclustering an
## ExpressionSet object and obtaining a GO summary for a specific bicluster.

simplenet(mtcars)

}
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