

BioMVCClass

March 24, 2012

GSE-class

Class "GSE": A class to represent gene set enrichment data

Description

GSE is a class to represent gene set enrichment data and will be used in the `modelData` slot in the `gseModel` object. This class will store all of the information that pertains to performing gene set enrichment.

Objects from the Class

Objects can be created by calls of the form `new("GSE", ...)`.

Slots

`incidMat`: the incidence matrix that shows the relationship between the genes and the gene sets

`gTestStat`: the test statistic for the genes relationship with the phenotype

`gsTestStat`: the test statistic for the gene set

`expData`: the experimental data (here it will be of class `ExpressionSet`)

`descr`: a description of the gene set being studied

Methods

`incidMat<-` Sets the `incidMat` slot

`incidMat` Returns the `incidMat` slot

`gTestStat<-` Sets the `gTestStat` slot

`gTestStat` Returns the `gTestStat` slot

`gsTestStat<-` Sets the `gsTestStat` slot

`gsTestStat` Returns the `gsTestStat` slot

`expData<-` Sets the `expData` slot

`expData` Returns the `expData` slot

`descr<-` Sets the `descr` slot

`descr` Returns the `descr` slot

Author(s)

Elizabeth Whalen

See Also

[gseModel-class](#)

exprModel-class *Class "exprModel": A class to represent an ExpressionSet model*

Description

exprModel is a class to represent an ExpressionSet model. This class inherits from the virtual class, gModel. An object of exprModel is responsible for storing and updating the data.

Objects from the Class

Objects can be created by calls of the form `new("exprModel", ...)`. The initialize method for this class will be created in other packages that use this package (for example, the initialize method will be created in the iSNetwork package).

Slots

`modelData`: the model data, which is an ExpressionSet

`linkData`: a list of functions that link this model to its parent and child models (if it has any)

`virtualData`: the data that is needed by the views of this object

`modelName`: the name of this model

`modelVar`: a list of variables that refer to the modelData (for instance this may be t-test values that were calculated from the modelData)

Extends

Class "gModel", directly.

Methods

No methods defined with class "exprModel" in the signature. The methods for this class will be created in other packages that use this package like iSNetwork.

Author(s)

Elizabeth Whalen

See Also

[graphModel-class](#)

graphModel-class *Class "graphModel": A class to represent a graph model*

Description

graphModel is a class to represent a graph model. This class inherits from the virtual class, gModel. An object of graphModel is responsible for storing and updating the data.

Objects from the Class

Objects can be created by calls of the form `new ("graphModel", ...)`. The initialize method for this class will be created in other packages that use this package (for example, the initialize method will be created in the iSNetwork package).

Slots

`modelData`: the model data, which is a graph object

`linkData`: a list of functions that link this model to its parent and child models (if it has any)

`virtualData`: data that is needed by views of this model

`modelName`: the name of this model

`modelVar`: a list of variables that refer to the modelData (for instance this may be t-test values that were calculated from the modelData)

Extends

Class "gModel", directly.

Methods

No methods defined with class "graphModel" in the signature. The methods for this class will be created in other packages that use this package like iSNetwork.

Author(s)

Elizabeth Whalen

See Also

[exprModel-class](#)

graphView-class *Class "graphView": A class to represent a graph view*

Description

graphView is a class to represent a view that is a graph. graphView inherits from the class, plotView, which inherits from the virtual class, genView.

Objects from the Class

Objects can be created by calls of the form `new("graphView", ...)`. The initialize method for this class will be created in other packages that use this package (for example, the initialize method will be created in the iSNetwork package).

Slots

plotDevice: the plot device number

plotPar: the parameter list for the plot, see `par()`

drArea: an object of class "GtkDrawingArea"

dataName: a character string describing what data are shown in the view

win: an object of class "GtkWindow" that holds the view

winNum: a number that tells what number view this is (for example, the first view created will have winNum=1)

grLayout: the Ragraph object, which represents the layout for the graph plot

Extends

Class "plotView", directly. Class "genView", by class "plotView".

Methods

No methods defined with class "graphView" in the signature.

Author(s)

Elizabeth Whalen

gseModel-class *Class "gseModel": A class to represent a GSE model*

Description

gseModel is a class to represent a gene set enrichment (GSE) model. This class inherits from the virtual class, gModel.

Objects from the Class

Objects can be created by calls of the form `new("gseModel", ...)`. The initialize method for this class will be created in other packages that use this package (for example, the initialize method will be created in the `iSNetwork` package).

Slots

`modelData`: the model data, which is an object of GSE

`linkData`: a list of functions that link this model to its parent and child models (if it has any)

`virtualData`: the data that is needed by the views of this object

`modelName`: the name of this model

`modelVar`: a list of variables that refer to the `modelData` (for instance this may be t-test values that were calculated from the `modelData`)

Extends

Class `"gModel"`, directly.

Methods

No methods defined with class `"gseModel"` in the signature. The methods for this class will be created in other packages that use this package like `iSNetwork`.

Author(s)

Elizabeth Whalen

See Also

[GSE-class](#), [graphModel-class](#), [exprModel-class](#)

`heatmapView-class` *Class "heatmapView": A class to represent a heatmap view*

Description

`heatmapView` is a class to represent a view that is a heatmap. `heatmapView` inherits from the class, `plotView`, which inherits from the virtual class, `genView`.

Objects from the Class

Objects can be created by calls of the form `new("heatmapView", ...)`. The initialize method for this class will be created in other packages that use this package (for example, the initialize method will be created in the `iSNetwork` package).

Slots

ordering: a list of information returned from the heatmap function
plotDevice: the plot device number
plotPar: the parameter list for the plot, see par()
drArea: an object of class "GtkDrawingArea"
dataName: a character string describing what data are shown in the view
win: an object of class "GtkWindow" that holds the view
winNum: a number that tells what number view this is (for example, the first view created will have winNum=1)
rNames: the names of the rows to be included in the heatmap (this allows the original data to be subset in the view)

Extends

Class "plotView", directly. Class "genView", by class "plotView".

Methods

ordering<- Sets the `ordering` slot
ordering Returns the `ordering` slot
rNames<- Sets the `rNames` slot
rNames Returns the `rNames` slot

Author(s)

Elizabeth Whalen

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