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Function to Create an annotationTable

Description

This function takes data to be displayed as well as data containing hyperlinks corresponding to displayed data and constructs an object of class annotationTable.

Usage

annotationTable(displayData, displayCols = NULL, hrefData = NULL)

Arguments

displayData   data frame containing data that is meant to be displayed in a LaTeX table
displayCols   list of named character vectors (of length one) that function as key-value pairs; the names (keys) correspond to columns for which the hyperlinks should be generated whereas the strings (values) indicate what kind of link should be produced based on the corresponding column in the displayData. The values should be one of "EntrezId" or "GOId".
hrefData      data frame containing hyperlink information for the columns of the same name in the displayData data frame

Details

If hrefData is given, the displayCols are not taken into account. If no hrefData is given, the information in displayCols allows to automatically create the hrefData.

Value

object of class 'annotationTable'

Author(s)

Tobias Verbeke

Examples

```r
## some dummy data
dData <- data.frame(someSymbol = LETTERS[1:5],
  accessionNumber = c("X83928", "V00540", "U21090", "L38487", "M34057"))
at <- annotationTable(displayData = dData,
  displayCols = list(accessionNumber = "EntrezId"))
```
Class 'annotationTable'

Description

Class to represent both displayed information and hyperlink information to prepare tabular output for LaTeX (with hyperlinks)

Usage

## S4 method for signature 'annotationTable'
show(object)

Arguments

object annotationTable object

Objects from the Class

Objects can be created by calls of the form new("annotationTable", ...) or using the wrapper function annotationTable

Slots

displayData: Object of class "data.frame" containing the columns to be displayed in the table
displayCols: Object of class "list" giving key-value pairs that allow to automatically generate the hyperlinks for the corresponding columns of the displayData
hrefData: Object of class "data.frame" giving the hyperlink information for the corresponding columns of the displayData

Methods

show signature(object = "annotationTable"): print an annotationTable (without displaying the hyperlink information)

Author(s)

Tobias Verbeke

Examples

showClass("annotationTable")
generateEntrezIdLinks  

Transform an ENTREZ ID into a hyperlink

Description
Utility function to transform an ENTREZ ID into a hyperlink on the NCBI Entrez page for the given gene

Usage
generateEntrezIdLinks(x)

Arguments
x  
vector of Entrez IDs

Value
vector of hyperlinks for the corresponding Entrez IDs

Note
Snippet taken from the annaffy package

Author(s)
Tobias Verbeke

See Also
generateGOIdLinks

Examples
generateEntrezIdLinks(c("5230", "18655"))
**generateGOIdLinks**

**Transform a GO ID into a hyperlink**

**Description**
Utility function to transform a GO ID into a hyperlink to the corresponding page on the gene ontology website.

**Usage**
generateGOIdLinks(x)

**Arguments**
x  vector of GO IDs

**Value**
vector of hyperlinks

**Note**
Snippet taken from the annaffy package

**Author(s)**
Tobias Verbeke

**See Also**
generateEntrezIdLinks

---

**print.xtableAnnotationTable**

*Print method for 'xtableAnnotationTable' objects*

**Description**
Print method for 'xtableAnnotationTable' objects

**Usage**

```r
## S3 method for class 'xtableAnnotationTable'
print(x, ...)
```
Arguments

- `x`: Object of class `xtableAnnotationTable`
- `...`: Further arguments passed to `print.xtable`

Details

Wrapper to be able to use a specific `sanitize.text` function in the `print.xtable` call

Value

No returned value, the object is printed.

Author(s)

Tobias Verbeke

See Also

- `print.xtable`

Description

`xtable` methods for several a4 objects, such as `annotationTable` objects, `topTable` objects etc.

Usage

```r
## S4 method for signature
## 'annotationTable,missing,missing,missing,missing,missing,missing-method'
xtable(x, caption, label, align, digits, display)

## S4 method for signature 'annotationTable,ANY,ANY,ANY,ANY,ANY'
xtable(x, caption, label, align, digits, display)

## S4 method for signature 'annotationTable,ANY,ANY,ANY,numERIC,ANY'
xtable(x, caption, label, align, digits, display)

## S3 method for class 'topTableGlmnet'
xtable(
  x,
  caption = NULL,
  label = NULL,
  align = NULL,
  digits = NULL,
```
```r
xtable, annotationTable, missing, missing, missing, missing, missing-method

## S3 method for class 'topTableLognet'
xtable(
  x,
  caption = NULL,
  label = NULL,
  align = NULL,
  digits = NULL,
  display = NULL,
  ...
)

## S3 method for class 'topTableElnet'
xtable(
  x,
  caption = NULL,
  label = NULL,
  align = NULL,
  digits = NULL,
  display = NULL,
  ...
)

## S3 method for class 'pamClassConfusionTable'
xtable(
  x,
  caption = NULL,
  label = NULL,
  align = NULL,
  digits = NULL,
  display = NULL,
  ...
)

## S3 method for class 'topTablePam'
xtable(x, ...)

## S3 method for class 'topTableRfClass'
xtable(
  x,
  caption = NULL,
  label = NULL,
  align = NULL,
  digits = NULL,
  display = NULL,
```
Arguments

x _annotationTable object

caption  Character vector of length 1 or 2 containing the table’s caption or title. If length is 2, the second item is the "short caption" used when LaTeX generates a "List of Tables". Set to NULL to suppress the caption. Default value is NULL.

label  Character vector of length 1 containing the LaTeX label or HTML anchor. Set to NULL to suppress the label. Default value is NULL.

align  Character vector of length equal to the number of columns of the resulting table, indicating the alignment of the corresponding columns. Also, "$" may be used to produce vertical lines between columns in LaTeX tables, but these are effectively ignored when considering the required length of the supplied vector. If a character vector of length one is supplied, it is split as strsplit(align, "")[[1]] before processing. Since the row names are printed in the first column, the length of align is one greater than ncol(x) if x is a data.frame. Use "1", "r", and "c" to denote left, right, and center alignment, respectively. Use "p(3cm)" etc. for a LaTeX column of the specified width. For HTML output the "p" alignment is interpreted as "1", ignoring the width request. Default depends on the class of x.

digits  Numeric vector of length equal to one (in which case it will be replicated as necessary) or to the number of columns of the resulting table or matrix of the same size as the resulting table, indicating the number of digits to display in the corresponding columns. Since the row names are printed in the first column, the length of the vector digits or the number of columns of the matrix digits is one greater than ncol(x) if x is a data.frame. Default depends on the class of x. If values of digits are negative, the corresponding values of x are displayed in scientific format with abs(digits) digits.

display  Character vector of length equal to the number of columns of the resulting table, indicating the format for the corresponding columns. Since the row names are printed in the first column, the length of display is one greater than ncol(x) if x is a data.frame. These values are passed to the formatC function. Use "d" (for integers), "f", "e", "E", "g", "G", "fg" (for reals), or "s" (for strings). "f" gives numbers in the usual xxx.xxx format; "e" and "E" give n.ddde+nn or n.dddE+nn (scientific format); "g" and "G" put x[i] into scientific format only if it saves space to do so. "fg" uses fixed format as "f", but digits as number of significant digits. Note that this can lead to quite long result strings. Default depends on the class of x.

Methods

x = "annotationTable", caption = "missing", label = "missing", align = "missing", digits = "missing", display = "missing"
genrates a LaTeX representation for the given annotationTable
x = "annotationTable", caption = "ANY", label = "ANY", align = "ANY", digits = "ANY", display = "ANY"
generates a LaTeX representation for the given annotationTable

x = "annotationTable", caption = "ANY", label = "ANY", align = "ANY", digits = "numeric", display = "ANY"
generates a LaTeX representation for the given annotationTable

Examples

```r
## some dummy data
dData <- data.frame(someSymbol = LETTERS[1:5], accessionNumber = c("X83928", "V00540", "U21090", "L38487", "M34057"))
at <- annotationTable(displayData = dData, displayCols = list(accessionNumber = "EntrezId"))
xat <- xtable(at)
print(xat, include.rownames = FALSE)
```
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