

# Package ‘a4Reporting’

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**Type** Package

**Title** Automated Affymetrix Array Analysis Reporting Package

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**Author** Tobias Verbeke

**Maintainer** Tobias Verbeke <tobias.verbeke@openanalytics.eu>

**Description** Automated Affymetrix Array Analysis Reporting Package

**Depends** methods, annaffy

**Imports** xtable, utils

**biocViews** Microarray

**License** GPL-3

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annotationTable	<i>Function to Create an annotationTable</i>
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### 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

<code>displayData</code>	data frame containing data that is meant to be displayed in a LaTeX table
<code>displayCols</code>	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 <code>displayData</code> . The values should be one of "EntrezId" or "GOId".
<code>hrefData</code>	data frame containing hyperlink information for the columns of the same name in the <code>displayData</code> 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

```
## 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"))
```

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annotationTable-class    *Class "annotationTable"*

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### Description

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

### 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")
```

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`generateEntrezIdLinks`    *Transform an ENTREZ ID into a hyperlink*

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### 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](#)

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generateGOIdLinks	<i>Transform a GO ID into a hyperlink</i>
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**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](#)

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 print.xtableAnnotationTable

*Print method for 'xtableAnnotationTable' objects*


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### Description

Print or export 'xtableAnnotationTable' objects

### Usage

```
print.xtableAnnotationTable(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

### Author(s)

Tobias Verbeke

### See Also

[print.xtable](#)

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 xtable-methods

*Methods for Function xtable in Package 'annotationTable'*


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### Description

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

### Methods

`x = "annotationTable", caption = "missing", label = "missing", align = "missing", digits = "missing", display = "`  
generates 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**

```
## 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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