Package ‘TableMonster’

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Title Table Monster
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Description Provides a user friendly interface to
generation of booktab style tables using ‘xtable’.
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R topics documented:

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**print.TableMonster**  

**Easy Generation of 'booktab' tables**

**Description**

Provides a user friendly interface to generation of booktab style tables using xtable.

**Usage**

```r
## S3 method for class 'TableMonster'
print(x, special = NULL, simple = FALSE, dbg = FALSE, ...)
```

**Arguments**

- `x`: an object of class 'TableMonster' – see below
- `special`: Optionally, one of the following: 'aos' or 'jrss-b', to produce tables compatible with the style guid of the Annals of Statistics or JRSS-B, respectively.
- `simple`: Set to 'TRUE' to override the default treatment of multi-level tables
- `dbg`: Set to 'TRUE' and the routine will output intermediate results to a file 'debug.rda' containing the computed results of the list 'add.to.row' which is passed to the function print.xtable.
- `...`: 1. Optionally, `label`, of type character, giving the name of the latex label name associated with the table for crossreference within the latex document. 2. Optionally `special`, a character string taking the value "jrss-b" or "aos". 3. Optionally `rowcolor`, a list of the form list(color="yellow", rownum=5), for highlighting a particular row. You must remember to \usepackage{xcolor} and include 'table' in your documentclass options, e.g. \documentclass[table]{beamer}, and of course, define the color 'yellow' in your preamble. Finally, any named arguments accepted by `print.xtable` are accepted.

**Author(s)**

Grant Izmirlian

**References**

<https://www.youtube.com/watch?v=CM1TaNVnh58>

**Examples**

```r
## Example 1: A table with a single heading
##
library(TableMonster)
tst <- as.data.frame(cbind(rep(c("John","Joe","Mary","Jane","Alex"), 2),
rep(c("male","male","female","female","female"), 2),
rep(c(12345, 54321, 46943, 23123, 51234), 2)))
```
tmCaption

```
hdngs <- as.list(rep("", 3))
names(hdngs) <- c("Name", "Gender", "Student ID")

tmHeadings(tst) <- hdngs
tmCtypes(tst) <- rep("n", 3)
tmDigits(tst) <- rep(0, 3)
tmCaption(tst) <- "This is JUST a TEST"

class(tst) <- "TableMonster"

tst

print(tst, label="tbl:anexample")
print(tst, include.rownames=FALSE, sanitize.text.function=I)
print(tst, label="tbl:anexample", include.rownames=FALSE, sanitize.text.function=I)

## Example 2: A table with a two level heading
##
library(TableMonster)

gp <- rep(1:2, each=5)
m1 <- rnorm(10)
s1 <- (rchisq(10, df=1)/10)^0.5
z1 <- m1/s1
m2 <- rnorm(10)
s2 <- (rchisq(10, df=1)/10)^0.5
z2 <- m2/s2
m3 <- rnorm(10)
s3 <- (rchisq(10, df=1)/10)^0.5
z3 <- m3/s3

foo <- as.data.frame(list(variable=letters[sample(10)], group= gp, model1=m1, se1=s1, z1=z1, model2=m2, se2=s2, z2=z2, model3=m3, se3=s3, z3=z3))


tmHeadings(foo) <- list('Variable'="", 'Group'="",
                       'Model 1'=list('Estimate'="", 'Std Err'="", 'Wald Test'=""),
                       'Model 2'=list('Estimate'="", 'Std Err'="", 'Wald Test'=""),
                       'Model 3'=list('Estimate'="", 'Std Err'="", 'Wald Test'=""))

tmCaption(foo) <- "This is TableMonster (TM)!!!"

tmCtypes(foo) <- c("c", "c", rep("n", 9))
tmDigits(foo) <- c(0, 0, rep(3, 9))

class(foo) <- "TableMonster"

print(foo, rowcolor=list(color="yellow", rownum=7))
```

---

**tmCaption**

*Gets the attribute 'caption' from a 'TableMonster' class object*
Description
Gets the attribute 'caption' from a 'TableMonster' class object

Usage
tmCaption(x)

Arguments
x An object of class 'TableMonster'

Details
This is a required attribute for an object of class 'TableMonster'

Value
A character string

Author(s)
Grant Izmirlian

References
<https://www.youtube.com/watch?v=CM1TaNVnh58>

---

Description
Assignment function for the 'caption' attribute of an object of class 'TableMonster'

Usage
tmCaption(x) <- value

Arguments
x An object of class 'TableMonster'
value A character string

Details
This is a required attribute for an object of class 'TableMonster'
tmCtypes

Author(s)
Grant Izmirlian

References
<https://www.youtube.com/watch?v=CM1TaNVnh58>

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**tmCtypes**

*Gets the attribute 'ctypes' from a 'TableMonster' class object*

**Description**

Gets the attribute 'ctypes' from a 'TableMonster' class object

**Usage**

```r
tmCtypes(x)
```

**Arguments**

- `x` An object of class 'TableMonster'

**Details**

This is a required attribute for an object of class 'TableMonster'

**Value**

A character vector of length \# columns of the table having entries "n" or "c", meaning "numeric" or "character"

**Author(s)**

Grant Izmirlian

**References**

<https://www.youtube.com/watch?v=CM1TaNVnh58>
tmCtypes<-  

Assignment function for the 'ctypes' attribute of an object of class 'TableMonster'

Description
Assignment function for the 'ctypes' attribute of an object of class 'TableMonster'

Usage
    tmCtypes(x) <- value

Arguments
    x          An object of class 'TableMonster'
    value      A vector of length equal to the number of columns in the table containing entries "n" or "c" meaning that the corresponding column is of mode "numeric" or "character"

Details
This is a required attribute for an object of class 'TableMonster'

Author(s)
Grant Izmirlian

References
<https://www.youtube.com/watch?v=CM1TaNVnh58>

tmDigits  

Gets the attribute 'digits' from a 'TableMonster' class object

Description
Gets the attribute 'digits' from a 'TableMonster' class object

Usage
    tmDigits(x)

Arguments
    x          An object of class 'TableMonster'
Details

This is a required attribute for an object of class 'TableMonster'

Value

A numeric vector of length equal to the number of columns in the table

Author(s)

Grant Izmirlian

References

<https://www.youtube.com/watch?v=CM1TaNVnh58>

tmDigits <- Assignment function for the 'digits' attribute

Description

Assignment function for the 'digits' attribute of an object of class 'TableMonster'

Usage

tmDigits(x) <- value

Arguments

x An object of class 'TableMonster'

value A numeric vector of length equal to the number of columns in the table specifying the desired number of digits. Enter '0' for character columns.

Details

This is a required attribute for an object of class 'TableMonster'

Author(s)

Grant Izmirlian

References

<https://www.youtube.com/watch?v=CM1TaNVnh58>
tmHeadings<-  

Description  

Gets the attribute 'headings' from a 'TableMonster' class object

Usage  

tmHeadings(x)

Arguments  

x  An object of class 'TableMonster'

Details  

This is a required attribute for an object of class 'TableMonster'

Value  

The 'headings' attribute of a 'TableMonster' object, a vector of character strings of length equal to the number of columns of the table.

Author(s)  

Grant Izmirlian

References  

<https://www.youtube.com/watch?v=CM1TaNVnh58>

tmHeadings<-  

Description  

Assignment function for the 'headings' attribute

Usage  

tmHeadings(x) <- value
Arguments

x An object of class 'TableMonster'
value A vector of character strings of length equal to the number of columns in the table

Details

This is a required attribute for an object of class 'TableMonster'

Author(s)

Grant Izmirlian

References

<https://www.youtube.com/watch?v=CM1TaNVnh58>

tmTotals

Description

 Gets the 'totals' attribute of an object of class 'TableMonster'

Usage

 tmTotals(x)

Arguments

x An object of class 'TableMonster'

Details

This attribute is optional an is only used when you have a table in which you want to put a single row of column totals (or anything else) below the bottom line.

Value

A numeric or character vector of length equal to the number of columns in the table

Author(s)

Grant Izmirlian

References

<https://www.youtube.com/watch?v=CM1TaNVnh58>
tmTotals<-

Assignment function for the 'totals' attribute

Description

Assignment function for the 'totals' attribute of an object of class 'TableMonster'

Usage

\texttt{tmTotals(x) \leftarrow value}

Arguments

- \texttt{x} An object of class 'TableMonster'
- \texttt{value} The 'totals' attribute, a numeric or character vector of length equal to the number of columns in the table.

Details

This attribute is optional an is only used when you have a table in which you want to put a single row of column totals (or anything else) below the bottom line.

Author(s)

Grant Izmirlian

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