Package 'TableMonster'

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Depends xtable

Title Table Monster

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

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Contents

`basic.tmPrint` *Simple Call to print.TableMonster*

Description

For a generic table ready data.frame, 'x', the call basic.tmPrint(x) produces booktabs style latex table suitable for publication

Usage

```
basic.tmPrint(x, special = NULL, simple = FALSE, dbg = FALSE, ...)
```

Arguments

`x`	A table ready data.frame
`special`	Special arguments to print.TableMonster. See object documentation.
`simple`	The remnants of a call to the print method, e.g. if x is a table ready data.frame then print(x, simple=TRUE) calls this function.
`dbg`	set to a value >= 1 for debugging
`...`	other arguments to print.TableMonster

Value

An invisible version of the argument 'x'

Author(s)

Grant Izmirlian

`paste` *The paste operator*

Description

A binary operator shortcut for paste(x,y)

Usage

```
x %,% y
```

Arguments

x	a character string
y	a character string

Value

The concatenated character string

Author(s)

Grant Izmirlian <izmirlian@nih.gov>

Examples

```
"var" %,% (1:10)
```

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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

```
## 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 charcter 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

```
## 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)))


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>

tmCaption<- *Assignment function for the 'caption' attribute*

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'

Author(s)

Grant Izmirlian

References

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

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

Description

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

Usage

```
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 the same length as the number of 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*

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>

`tmDisplay` *Gets the 'display' attribute*

Description

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

Usage

```
tmDisplay(x)
```

Arguments

`x`	An object of class 'TableMonster'

Details

This attribute is optional and is only used when you want to specify the format type for each column as other than "g" (general format).

Value

A vector of length exceeding the number of columns by 1 consiting of the format specifiers, '"d"' (for integers), '"f"', '"e"', '"E"', '"g"', '"G"', '"fg"' (for reals), or '"s"' (for strings).

Author(s)

Grant Izmirlian

References

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

tmDisplay<- *Assignment function for the 'display' attribute*

Description

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

Usage

```
tmDisplay(x) <- value
```

Arguments

x	An object of class 'TableMonster'
value	A vector of length exceeding the number of columns by 1 consiting of the format specifiers, '"d"' (for integers), '"f"', '"e"', '"E"', '"g"', '"G"', '"fg"' (for reals), or '"s"' (for strings).

Details

This attribute is optional and is only used when you want to specify the format type for each column as other than "g" (general format).

Author(s)

Grant Izmirlian

References

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

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

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<-` *Assignment function for the 'headings' attribute*

Description

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

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 *Gets the 'totals' attribute*

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 and 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

```
tmTotals(x) <- value
```

Arguments

x	An object of class 'TableMonster'
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 and 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

References

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Index