

# Package ‘lulab.utils’

October 7, 2024

**Title** Supporting Functions Maintained by Zhen Lu

**Version** 0.0.4

**Description** Miscellaneous functions commonly used by LuLab. This package aims to help more researchers on epidemiology to perform data management and visualization more efficiently.

**License** Artistic-2.0

**URL** <https://leslie-lu.github.io/>

**BugReports** <https://github.com/Leslie-Lu/lulab.utils/issues>

**Encoding** UTF-8

**RoxygenNote** 7.3.1

**Imports** boot, car, descr, dplyr, httr2, magrittr, openxlsx, purrr,  
rappdirs, stringr, table1, utils

**Suggests** knitr, rmarkdown, testthat (>= 3.0.0)

**VignetteBuilder** knitr

**Config/testthat/edition** 3

**NeedsCompilation** no

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**Repository** CRAN

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## Contents

check_cha . . . . .	2
check_wget . . . . .	3
Table1 . . . . .	3
test_mirror . . . . .	4
use_wget . . . . .	5
<b>Index</b>	<b>7</b>

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check_cha	<i>check_cha</i>
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### Description

Check for missing values for character columns

### Usage

```
check_cha(col, df, verbose = TRUE)
```

### Arguments

col	a character variable name
df	a data.frame
verbose	logical, controlling the output

### Details

This function is used to check the distribution of character variables in the data frame.

### Value

a distribution table of the character variable in the data frame

### Author(s)

Zhen Lu

### Examples

```
data("melanoma", package = "boot")
melanoma2 <- melanoma
check_cha('status', melanoma2)
# or
mapply(check_cha, 'status', MoreArgs= list(melanoma2))
```

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 check\_wget

*check\_wget*


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**Description**

Check if wget is installed

**Usage**

```
check_wget()
```

**Details**

This function is used to check if wget is installed on the system.

**Value**

a logical value indicating whether wget is installed

**Author(s)**

Zhen Lu

**Examples**

```
check_wget()
```

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 Table1

*Table1*


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**Description**

Make Table1

**Usage**

```
Table1(df, ycol, xcol, xlabel, result_dir, verbose = TRUE)
```

**Arguments**

df	a data.frame
ycol	a grouping variable
xcol	variables to be compared
xlabels	levels of ycol
result_dir	directory to save the result
verbose	logical, controlling the output

**Details**

This function is used to make Table1 and return excel file.

**Value**

excel file

**Author(s)**

Zhen Lu

**Examples**

```
data("melanoma", package = "boot")
melanoma2 <- melanoma
# Factor the basic variables that
# we're interested in
melanoma2$status <-
  factor(melanoma2$status,
         levels=c(2,1,3),
         labels=c("Alive", # Reference
                 "Melanoma death",
                 "Non-melanoma death"))
test= Table1(
  df= melanoma2,
  xcol= setdiff(names(melanoma2), "status"),
  ycol= "status",
  result_dir= tempdir()
)
```

---

test\_mirror

*test\_mirror*

---

**Description**

Test speed of CRAN mirror

**Usage**

```
test_mirror(region, verbose = TRUE)
```

**Arguments**

region	a character string, the region of the CRAN mirror, e.g. 'China'
verbose	logical, controlling the output

**Details**

This function is used to test the speed of CRAN mirror.

**Value**

a data.frame with the name, URL, and download time of the fastest CRAN mirror

**Author(s)**

Zhen Lu

**Examples**

```
test_mirror('China')
```

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<i>use_wget</i>	<i>use_wget</i>
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**Description**

Use wget to download files

**Usage**

```
use_wget(use = TRUE)
```

**Arguments**

*use* a logical value, controlling the download method

**Details**

This function is used to set the download method.

**Value**

a logical value indicating whether wget is used

**Author(s)**

Zhen Lu

**Examples**

```
use_wget(use = TRUE)
getOption("download.file.method")
getOption("download.file.extra")
test_url <- "https://eternallybored.org/misc/wget/1.21.4/64/wget.exe"
test_destfile <- tempfile()
download.file(test_url, destfile = test_destfile)
```

# Index

check\_cha, 2  
check\_wget, 3

Table1, 3  
test\_mirror, 4

use\_wget, 5