

Package ‘rblt’

December 5, 2019

Type Package

Title Bio-Logging Toolbox

Version 0.2.4.5

Description An R-shiny application to plot datalogger time series at a microsecond precision as Acceleration, Temperature, Pressure, Light intensity from CATS, AXY-TREK LUL and WACU bio-loggers. It is possible to link behavioral labels extracted from 'BORIS' software <<http://www.boris.unito.it>> or manually written in a csv file. CATS bio-logger are manufactured by <<http://www.cats.is>>, AXY-TREK are manufactured by <<http://www.technosmart.eu>> and LUL and WACU are manufactured by <<http://www.iphc.cnrs.fr/-MIBE-.html>>.

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Encoding UTF-8

LazyData true

RoxygenNote 6.1.1

SystemRequirements libhdf5 (>= 1.8.12)

Depends R (>= 3.2), hdf5r (>= 1.0), data.table, xts, dygraphs, shiny, methods

Imports tools

URL <https://github.com/sg4r/rblt>

BugReports <https://github.com/sg4r/rblt/issues>

Suggests knitr, rmarkdown

VignetteBuilder knitr

NeedsCompilation no

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Repository CRAN

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|------------|--|
| axytrek2h5 | <i>A axytrek2h5 function for convert csv file to h5 file</i> |
|------------|--|

Description

A axytrek2h5 function for convert csv file to h5 file

Usage

```
axytrek2h5(filecsv = "", accres = 25, fileh5 = "")
```

Arguments

| | |
|---------|--|
| filecsv | A input axytrek csv file. |
| accres | input number of data rate in 1 seconde |
| fileh5 | A output h5 data file. |

| | |
|---------|---|
| cats2h5 | <i>A cats2h5 function for convert csv file to h5 file</i> |
|---------|---|

Description

A cats2h5 function for convert csv file to h5 file

Usage

```
cats2h5(filecsv = "", accres = 50, fileh5 = "")
```

Arguments

| | |
|---------|------------------------|
| filecsv | A input cats csv file. |
| accres | input resolution |
| fileh5 | A output h5 data file. |

| | |
|----------------|--|
| demoaxytrek2h5 | <i>A demoaxytrek2h5 function build demo cats h5 file</i> |
|----------------|--|

Description

A demoaxytrek2h5 function build demo cats h5 file

Usage

```
demoaxytrek2h5(fileh5 = "", nbrow = 10000)
```

Arguments

| | |
|--------|--------------------|
| fileh5 | input data H5 file |
| nbrow | number of row |

| | |
|-------------|---|
| democats2h5 | <i>A democats2h5 function build demo cats h5 file</i> |
|-------------|---|

Description

A democats2h5 function build demo cats h5 file

Usage

```
democats2h5(fileh5 = "", nbrow = 10000)
```

Arguments

| | |
|--------|--------------------|
| fileh5 | input data h5 file |
| nbrow | number of row |

| | |
|--------------|---|
| democatsmkbe | <i>A democatsmkbe function for generate ramdom data</i> |
|--------------|---|

Description

A democatsmkbe function for generate ramdom data

Usage

```
democatsmkbe(fbe = "", nbrow = 10, nbseq = 2)
```

Arguments

| | |
|-------|--|
| fbe | A outout be csv file. |
| nbrow | input number of data rate in 1 seconde |
| nbseq | input sequence lenght |

| | |
|------------|---|
| demolul2h5 | <i>A demolul2h5 function build demo lul h5 file</i> |
|------------|---|

Description

A demolul2h5 function build demo lul h5 file

Usage

```
demolul2h5(fileh5 = "", nbrow = 10000)
```

Arguments

| | |
|--------|-----------------|
| fileh5 | A h5 data file. |
| nbrow | number of row |

| | |
|-------------|---|
| demowacu2h5 | <i>A demowacu2h5 function build demo cats h5 file</i> |
|-------------|---|

Description

A demowacu2h5 function build demo cats h5 file

Usage

```
demowacu2h5(fileh5 = "", nbrow = 10000)
```

Arguments

| | |
|--------|-----------------|
| fileh5 | A h5 data file. |
| nbrow | number of row |

| | |
|----------|---|
| demo_gui | <i>A demow_gui function for lunch a R-shiny application to plot datalogger view</i> |
|----------|---|

Description

A demow_gui function for lunch a R-shiny application to plot datalogger view

Usage

```
demo_gui()
```

Logger-class *A Logger reference class*

Description

A Logger reference class

Fields

name logger display name
 fileh5 h5 data file name
 filebehavior behavior file name
 besep behavior field separator character
 besaturation the 'saturation' value from 0 to 1
 uizoomstart uizoomstart default value
 uizoomend uizoomend default value

Methods

behaviorinit(besep, besaturation) init behavior list event
 draw() draw the objec value
 Return Value: returns a String object representing the value
 h5init() verify if h5 is correct version
 initmetriclst() set metric list for this logger class
 setextmatrix(m) set external matrix

Author(s)

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LoggerAxytrek-class *A LoggerAxytrek reference class*

Description

A LoggerAxytrek reference class

Methods

draw() draw the objec value
 Return Value: returns a String object representing the value
 h5init() verify if h5 is correct version
 initmetriclst() set metric list for this logger class

LoggerCats-class *A LoggerCats reference class*

Description

A LoggerCats reference class

Methods

draw() draw the objec value

Return Value: returns a String object representing the value

h5init() verify if h5 is correct version

initmetriclst() set metric list for this logger class

LoggerData-class *A LoggerData reference class*

Description

A LoggerData reference class

Methods

draw() draw the objec value

Return Value: returns a String object representing the value

h5init() verify if h5 is correct version

initmetriclst() set metric list for this logger class

LoggerList-class *A LoggerList reference class*

Description

A LoggerList reference class

Methods

add(node) add new node in the list.

draw() draw the objec value

Return Value: returns a list of String object representing the value

LoggerLul-class *A LoggerLul reference class*

Description

A LoggerLul reference class

Methods

draw() draw the objec value

Return Value: returns a String object representing the value

h5init() verify if h5 is correct version

initmetriclst() set metric list for this logger class

LoggerUI-class *A LoggerUI reference class*

Description

A LoggerUI reference class

Fields

loglst list of logger class

id id of curent loger view

ldatestart curent start date

nbrow courent row number

zoomhistory history storage

Methods

gui() plot logger list

| | |
|------------------|-------------------------------------|
| LoggerWacu-class | <i>A LoggerWacu reference class</i> |
|------------------|-------------------------------------|

Description

A LoggerWacu reference class

Methods

draw() draw the objec value

Return Value: returns a String object representing the value

h5init() verify if h5 is correct version

initmetriclst() set metric list for this logger class

| | |
|--------|--|
| lul2h5 | <i>A lul2h5 function for concert lul csv file to h5 file</i> |
|--------|--|

Description

A lul2h5 function for concert lul csv file to h5 file

Usage

```
lul2h5(filecsv = "", fileh5 = "", sep = "\t")
```

Arguments

filecsv A input LUL csv file.

fileh5 A output h5 data file.

sep input the field separator character.

| | |
|--------------|-------------------------------|
| Metric-class | <i>Metric reference class</i> |
|--------------|-------------------------------|

Description

Metric reference class

Fields

name title metric in chart
 colid start column id
 connb number of column for this metric

Methods

draw() draw the objec value
Return Value: returns a String object representing the value
 getmatrix(id) get matrix of elements

| | |
|------------------|-----------------------------------|
| MetricList-class | <i>MetricList reference class</i> |
|------------------|-----------------------------------|

Description

MetricList reference class

Methods

add(node) add new node in the list.
 draw() draw the objec value
Return Value: returns a list of String object representing the value
 get() get all node from the list.
Return Value: returns a list of node
 getat(id) return element at id index.
Return Value: returns the node @ id
 getcolactive() get matrix col enable
 getcolnames() get matrix col name
 getmatrix() get matrix of elements
 getsize() return lenght of element.
Return Value: returns a non-negativ numeric
 slctset(v) enable or disable metric view
Parameters:

- v True or False vector

OldLoggerUI-class *A OldLoggerUI reference class*

Description

A OldLoggerUI reference class

wacu2h5 *A wacu2h5 function for concert wacu csv file to h5 file*

Description

A wacu2h5 function for concert wacu csv file to h5 file

Usage

```
wacu2h5(filecsv = "", fileh5 = "", rtctick = 1, accres = 50,
        datestartstring = "")
```

Arguments

| | |
|-----------------|------------------------|
| filecsv | A input WACU csv file. |
| fileh5 | A output h5 data file. |
| rtctick | tpl frequence |
| accres | acc frequence |
| datestartstring | A Date string in GMT |

ZoomHistory-class *A ZoomHistory reference class*

Description

A ZoomHistory reference class

Methods

draw() draw the objec value

Return Value: returns a matrix of value

pop() pop one history position

push(s, e) push new history position in array.

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