

# Package ‘rblt’

May 11, 2023

**Type** Package

**Title** Bio-Logging Toolbox

**Version** 0.2.4.6

**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 <<https://cats.is/>>, AXY-TREK are manufactured by <<https://www.technosmart.eu>> and LUL and WACU are manufactured by <<https://www.iphc.cnrs.fr/-MIBE-.html>>.

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**License** GPL (>= 3)

**Encoding** UTF-8

**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> |
|------------|--|

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### 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.                 |

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

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**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. |

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

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**Description**

A demoaxytrek2h5 function build demo cats h5 file

**Usage**

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

**Arguments**

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

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

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**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> |
|--------------|---|

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**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> |
|------------|---|

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**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> |
|-------------|---|

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**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> |
|----------|---|

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**Description**

A demow\_gui function for lunch a R-shiny application to plot datalogger view

**Usage**

```
demo_gui()
```

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Logger-class      *A Logger reference class*

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### 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)

sebastien geiger

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LoggerAxytrek-class      *A LoggerAxytrek reference class*

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### 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



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

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**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

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|        |  |
|--------|--|
| 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                      *Metric reference class*

---

### 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                      *MetricList reference class*

---

### 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

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OldLoggerUI-class      *A OldLoggerUI reference class*

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### Description

A OldLoggerUI reference class

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

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### 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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