Package 'metaR'

December 5, 2017

Type Package

Title Read Micromanager Metadata

Version 0.1.0

Author Julien Godet

Maintainer Julien Godet <julien.godet@unistra.fr>

Description Micromanager generates metadata files storing microscopes acquisition parameters. metaR gathered a collection of functions to easily read and extract these data.

License GPL-3

Encoding UTF-8

LazyData true

RoxygenNote 6.0.1

R topics documented:

aduToPhotons *Return photons from ADU*

Description

Compute signal in photons from camera ADU. Set for Hamamatsu cam ImagEM.

Usage

```
aduToPhotons(EMGain)
```

Arguments

EMGain	EM gain from the camera

Author(s)

JuG

getAcqTime *Get Acquisition time - POSIXct object*

Description

Get Acquisition time

Usage

```
getAcqTime(path)
```

Arguments

path	Path to the .txt or .gz metadata file

Value

Acquisition time (POSIXct object)

Author(s)

JuG

getDcamExposure *Get DCAM Exposure*

Description

Get DCAM Exposure - expressed in msec

Usage

```
getDcamExposure(path)
```

Arguments

path	Path to the .txt or .gz metadata file

Value

DCAM exposure in ms

Author(s)

JuG

getElapsedTime *Function to extract elapsed time (in msec)*

Description

Get elapsed time in ms between consecutive frames

Usage

```
getElapsedTime(path)
```

Arguments

path	Path to the .txt or .gz metadata file

Value

Elapsed time (vector) in msec

Author(s)

JuG

getEmGain *Get EM Gain*

Description

Get EM Gain

Usage

```
getEmGain(path)
```

Arguments

path	Path to the .txt or .gz metadata file

Value

EMGain value

Author(s)

JuG

getExposure *Get Exposure time in ms*

Description

Get Exposure time in ms

Usage

```
getExposure(path)
```

Arguments

path	Path to the .txt or .gz metadata file

Value

Exposure time in ms

Author(s)

JuG

getFrameNumber *Get the total number of frames*

Description

Get frame number

Usage

```
getFrameNumber(path)
```

Arguments

path	Path to the .txt or .gz metadata file

Value

EMGain value

Author(s)

JuG

getImageHeight *Get Image Height*

Description

Get image height - expressed in pixels

Usage

```
getImageHeight(path)
```

Arguments

path	Path to the .txt or .gz metadata file

Value

Image height in px

Author(s)

JuG

getImageWidth *Get Image Width*

Description

Get image width - expressed in pixels

Usage

```
getImageWidth(path)
```

Arguments

path	Path to the .txt or .gz metadata file

Value

Image width in px

Author(s)

JuG

getMetaGeneric *Generic function to get a given parameter from the metadata file*

Description

Generic function to get a given parameter from the metadata file need to define time zone using Sys.setenv(TZ='GMT') - otherwise warning message

Usage

```
getMetaGeneric(path, parameter = "FrameIndex", type = "ai")
```

Arguments

path	Path to the .txt or .gz metadata file
parameter	parameter to extract (string)
type	i:integer, n:numeric, f:factor, t:time, ai:'asis'

Value

Values of the parameter for each image

Author(s)

JuG

Examples

```
pNames <- getParamNames(path)
pNames[59]
getMetaGeneric(path, parameter = pNames[59], type = "ai")

getMetaGeneric(path, parameter = "Time", type = "t")
```

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getParamNames *Get Metadata parameters names*

Description

Get metadata parameters names

Usage

```
getParamNames(path)
```

Arguments

path	Path to the .txt or .gz metadata file

Value

Metadata parameters names

Author(s)

JuG

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getXpos *Function to extract X position in micrometer*

Description

Get X position in micrometer

Usage

```
getXpos(path)
```

Arguments

path	Path to the .txt or .gz metadata file

Value

X position (vector) of images

Author(s)

JuG

getYpos *Function to extract Y position in micrometer*

Description

Get Y position in micrometer

Usage

```
getYpos(path)
```

Arguments

path	Path to the .txt or .gz metadata file

Value

Y position (vector) of images

Author(s)

JuG

getZpos *Get Z position in micrometer*

Description

Get Z position in micrometer

Usage

```
getZpos(path)
```

Arguments

path	Path to the .txt or .gz metadata file

Value

Z position (vector) of images

Author(s)

JuG

Index