

Package: rnwb (via r-universe)

September 23, 2024

Title 'Neurodata' Without Borders in R

Version 0.0.0.9000

Description Supports 'Neurodata' Without Borders ('NWB') format in R.

License file LICENSE

Encoding UTF-8

Roxygen list(markdown = TRUE)

RoxygenNote 7.2.3

Imports cli (>= 3.6.1), R6 (>= 2.5.1), rpymat (>= 0.1.6.6)

Remotes dipterix/rpymat

URL <http://dipterix.org/rnwb/>

Repository <https://rave-ieeg.r-universe.dev>

RemoteUrl <https://github.com/dipterix/rnwb>

RemoteRef HEAD

RemoteSha 7c030f8af930f3eb8a9de57317d3def2dc0f5fc2

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install_nwb	<i>Install 'NWB' via 'pynwb'</i>
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Description

Install 'NWB' via 'pynwb'

Usage

```
install_nwb(python_ver = "auto", verbose = TRUE)
```

Arguments

python_ver	'Python' version, see configure_conda ; default is "auto", which is suggested
verbose	whether to print the installation messages

Value

This function returns nothing.

nwb	<i>Get 'pynwb' module</i>
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Description

Get 'pynwb' module

Usage

```
nwb
load_nwb(force = FALSE, error_if_missing = TRUE)
```

Arguments

force	whether to force reloading pynwb module; default is false
error_if_missing	whether to raise errors when the module is unable to load; default is true.

Value

A 'Python' module if successfully loaded. If `error_if_missing` is set to false and module is unable to load, return NULL

NWBHDF5IO	<i>Creates a NWBHDF5IO file container</i>
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Description

Creates a NWBHDF5IO file container

Creates a NWBHDF5IO file container

Value

Nothing

Nothing

'NWFile' container

Whatever results generated by expr

Active bindings

opened Whether the container is opened.

Methods**Public methods:**

- [NWBHDF5IO\\$new\(\)](#)
- [NWBHDF5IO\\$close\(\)](#)
- [NWBHDF5IO\\$close_linked_files\(\)](#)
- [NWBHDF5IO\\$read\(\)](#)
- [NWBHDF5IO\\$with\(\)](#)

Method `new()`: Initialize the class

Usage:

```
NWBHDF5IO$new(path = NULL, mode = c("r", "w", "r+", "a", "w-", "x"), ...)
```

Arguments:

path Path to a '.nwb' file

mode Mode for opening the file

... Other parameters passed to `nwb$NWBHDF5IO`

Method `close()`: Close the connections (low-level method, see 'with' method below)

Usage:

```
NWBHDF5IO$close(close_links = TRUE)
```

Arguments:

close_links Whether to close all files linked to from this file; default is true

Method `close_linked_files()`: Close all opened, linked-to files. 'MacOS' and 'Linux' automatically release the linked-to file after the linking file is closed, but 'Windows' does not, which prevents the linked-to file from being deleted or truncated. Use this method to close all opened, linked-to files.

Usage:

```
NWBHDF5IO$close_linked_files()
```

Method `read()`: Read the 'NWB' file from the 'IO' source. Please use along with '\$with' method

Usage:

```
NWBHDF5IO$read()
```

Method `with()`: Safe wrapper for reading and handling 'NWB' file. See class examples.

Usage:

```
NWBHDF5IO$with(expr, quoted = FALSE, envir = parent.frame())
```

Arguments:

`expr` R expression to evaluate

`quoted` Whether `expr` is quoted; default is false

`envir` environment for `expr` to evaluate; default is the parent frame (see `parent.frame`)

Examples

```
## Not run:

# Running this example requires a .nwb file

library(rnwb)
container <- NWBHDF5IO$new(path = file)
container$with({

  data <- container$read()
  electrode_table <- data$electrodes[convert = TRUE]

})

print(electrode_table)

## End(Not run)
```

py

Get 'Python' main process environment

Description

Get 'Python' main process environment

Usage

```
py
```

Format

An object of class NULL of length 0.

Value

The 'Python' main process as a module

to_r

Try to convert an object to an R object

Description

Try to convert an object to an R object

Usage

```
to_r(x, on_fail = c("ignore", "error", "warning"))
```

Arguments

x	input data, can be either an 'R' or 'Python' object
on_fail	what to do when the object is still a 'Python' object; default is 'ignore', other choices are 'error' and 'warning'

Value

The converted R object

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