Package: rnwb (via r-universe)

June 29, 2024

Title 'Neurodata' Without Borders in R

Version 0.0.0.9000

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

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Encoding UTF-8

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

Remotes dipterix/rpymat

URL http://dipterix.org/rnwb/

Repository https://dipterix.r-universe.dev

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

RemoteRef HEAD

RemoteSha 7c030f8af930f3eb8a9de57317d3def2dc0f5fc2

Contents

install_nwb *Install 'NWB' via 'pynwb'*

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 *Get 'pynwb' module*

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 *Creates a* NWBHDF5IO *file container*

Description

Creates a NWBHDF5IO file container

Creates a NWBHDF5IO file container

Value

Nothing

Nothing

'NWBFile' 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)
```

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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

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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 to `'ignore'`, other choices are `'error'` and `'warning'`

Value

The converted R object

Index