Package 'readosense'

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Title Imports Log and Data Files from Eosense Flux Chambers

Version 0.0.1

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Description Imports log and data files from ``Eosense" ecosystem gas flux chambers into dataframes that can directly be used with ``fluxible" by Gaudard et al (2025) <doi:10.1111/2041-210X.70161>.

License GPL (>= 3)

Encoding UTF-8

RoxygenNote 7.3.3

Imports dplyr, lubridate, purrr, readr, rlang, tidyr

Suggests testthat (>= 3.0.0)

Depends R (>= 4.1)

Config/testthat/edition 3

URL https://jogaudard.github.io/readosense/

BugReports https://github.com/jogaudard/readosense/issues

NeedsCompilation no

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Repository CRAN

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eo_data *imports data files from Eosense chambers*

Description

imports data files from Eosense chambers

Usage

```
eo_data(path)
```

Arguments

path	location of the data files

Value

a dataframe with continuous measurement with timestamps

Examples

```
path <- system.file("extdata/ex_data", package = "readosense")
eo_data(path)
```

eo_env *extracts the environmental data from the logs*

Description

extracts the environmental data from the logs

Usage

```
eo_env(logs)
```

Arguments

logs	as provided by eo_import_logs

Value

a dataframe with the datetime, air temperature (celsius), and pressure (atm) for all chambers

Examples

```
path <- system.file("extdata/ex_logs", package = "readosense")
eo_import_logs(path) |>
eo_env()
```

`eo_import_logs` *imports log files from Eosense chambers*

Description

imports log files from Eosense chambers

Usage

```
eo_import_logs(
  path,
  closed = c(1:3),
  open = 0,
  fully_closed = 1,
 colnames = c("port", "valvestatus", "chamberstatus", "aux1", "aux2", "aux3", "aux4",
    "aux5", "temperaturev", "pressure"),
  nb_ports = 12
)
```

Arguments

`path`	folder in which the log files are located
`closed`	status numbers indicating chamber is closed
`open`	status numbers indicating chamber is open
`fully_closed`	status number indicating the chamber is fully closed
`colnames`	column names as defined in Eosense documentation
`nb_ports`	number of ports

Value

a dataframe with all the information from the logs and measurement id

Examples

```
path <- system.file("extdata/ex_logs", package = "readosense")
eo_import_logs(path)
```

eo_logs *extracts the measurements metadata from the logs*

Description

extracts the measurements metadata from the logs

Usage

```
eo_logs(logs, time_buffer = 300)
```

Arguments

logs	as provided by eo_import_logs
time_buffer	around the full closure of the chamber in seconds

Value

a dataframe with the measurement ids, port, and closing and opening time

Examples

```
path <- system.file("extdata/ex_logs", package = "readosense")
eo_import_logs(path) |>
eo_logs()
```

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