

Package ‘metajam’

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Type Package

Title Easily Download Data and Metadata from 'DataONE'

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Description A set of tools to foster the development of reproducible analytical workflow by simplifying the download of data and metadata from 'DataONE' (<<https://www.dataone.org>>) and easily importing this information into R.

License Apache License (== 2.0)

Encoding UTF-8

Language en-US

RoxygenNote 7.3.2

SystemRequirements Mac OSX: redland (>= 1.0.14) ; Linux: librdf0 (>= 1.0.14), librdf0-dev (>= 1.0.14)

URL <https://nceas.github.io/metajam/>, <https://github.com/NCEAS/metajam>

BugReports <https://github.com/NCEAS/metajam/issues>

Depends R (>= 3.6.0)

Imports dataone, dplyr, EML, emld, lubridate, purrr, readr, stats, stringr, tibble, tidyr, XML

Suggests knitr, rmarkdown, testthat

VignetteBuilder knitr

NeedsCompilation no

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check_version	<i>Check PID version</i>
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Description

This function takes an identifier and checks to see if it has been obsoleted.

Usage

```
check_version(pid, formatType = NULL)
```

Arguments

pid	(character) The persistent identifier of a data, metadata, or resource map object on a DataONE member node.
formatType	(character) Optional. The format type to return (one of 'data', 'metadata', or 'resource').

Value

(data.frame) A data frame of object version PIDs and related information.

Examples

```
## Not run:
# Most data URLs and identifiers work
check_version("https://cn.dataone.org/cn/v2/resolve/urn:uuid:a2834e3e-f453-4c2b-8343-99477662b570")
check_version("doi:10.18739/A2ZF6M")

# Specify a formatType (data, metadata, or resource)
check_version("doi:10.18739/A2ZF6M", formatType = "metadata")
```

```
# Returns a warning if the identifier has been obsoleted
check_version("doi:10.18739/A2HF7Z", formatType = "metadata")

# Returns an error if no matching identifiers are found
check_version("a_test_pid")

# Returns a warning if several identifiers are returned
check_version("10.18739/A2057CR99")

## End(Not run)
```

download_d1_data	<i>Download data and metadata from DataONE</i>
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Description

Downloads a data object from DataONE along with metadata.

Usage

```
download_d1_data(data_url, path)
```

Arguments

data_url	(character) An identifier or URL for a DataONE object to download.
path	(character) Path to a directory to download data to.

Value

(character) Path where data is downloaded to.

See Also

[read_d1_files()] [download_d1_data_pkg()]

Examples

```
## Not run:
download_d1_data("urn:uuid:a2834e3e-f453-4c2b-8343-99477662b570", path = file.path("."))
download_d1_data(
  "https://cn.dataone.org/cn/v2/resolve/urn:uuid:a2834e3e-f453-4c2b-8343-99477662b570",
  path = file.path(".")
)

## End(Not run)
```

download_d1_data_pkg *Download all data and metadata of a data package from DataONE*

Description

Downloads all the data objects of a data package from DataONE along with metadata.

Usage

```
download_d1_data_pkg(meta_obj, path)
```

Arguments

meta_obj (character) A DOI or metadata object PID for a DataONE package to download.
path (character) Path to a directory to download data to.

Value

(list) Paths where data are downloaded to.

See Also

[read_d1_files()] [download_d1_data()]

Examples

```
## Not run:  
download_d1_data_pkg("doi:10.18739/A2028W", ".")  
download_d1_data_pkg("https://doi.org/10.18739/A2028W", ".")  
  
## End(Not run)
```

read_d1_files *Read data and metadata based on 'download_d1_data()' file structure*

Description

Reads data along with metadata into your R environment based on [download_d1_data()] file structure.

Usage

```
read_d1_files(folder_path, fnc = "read_csv", ...)
```

Arguments

folder_path (character) Path to a directory where data and metadata are located.
 fnc (character) Function to be used to read the data (default is [readr::read_csv()]).
 ... Parameters to pass into the function specified in 'fnc'.

Value

(list) Named list containing data and metadata as data frames.

See Also

[download_d1_data()] [download_d1_data_pkg()]

Examples

```
data_folder <- system.file(file.path("extdata", "test_data"), package = "metajam")
soil_moist_data <- read_d1_files(data_folder)

# You can specify the function you would like to use to read the file and pass parameters
soil_moist_data_skipped <- read_d1_files(data_folder, "read.csv",
                                       skip = 8, stringsAsFactors = FALSE)
```

tabularize_eml	<i>Get tabular metadata</i>
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Description

This function takes a path to an EML (.xml) metadata file and returns a data frame.

Usage

```
tabularize_eml(eml, full = FALSE)
```

Arguments

eml An emld class object, the path to an EML (.xml) metadata file, or a raw EML object.
 full (logical) Returns the most commonly used metadata fields by default. If full = TRUE is specified, the full set of metadata fields are returned.

Value

(data.frame) A data frame of selected EML values.

Examples

```
eml <- system.file("extdata", "test_data", "SoilMois2012_2017__full_metadata.xml",
                  package = "metajam")
tabularize_eml(eml)
```

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