

Package ‘EDCimport’

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Version 0.2.1

Title Import Data from EDC Software

Description A convenient toolbox to import data exported from Electronic Data Capture (EDC) software 'TrialMaster' and 'Macro'.

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URL <https://github.com/DanChaltiel/EDCimport>

BugReports <https://github.com/DanChaltiel/EDCimport/issues>

Depends R (>= 3.1.0)

Imports cli, dplyr, glue, forcats, haven, labelled, purrr, readr, rlang, stringr, tibble, tidyr

Suggests callr, covr, crosstable, knitr, testthat (>= 3.0.0), withr

Encoding UTF-8

RoxygenNote 7.2.1

Config/testthat/edition 3

NeedsCompilation no

Author Dan Chaltiel [aut, cre] (<<https://orcid.org/0000-0003-3488-779X>>)

Maintainer Dan Chaltiel <dan.chaltiel@gmail.com>

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EDCimport_options *Options used in EDCimport*

Description

Here are all the options used in EDCimport:

- trialmaster_pw: the password for the archive read by [read_trialmaster\(\)](#)
 - edc_lookup: the default data used by [find_keyword\(\)](#)
 - path_7zip: the path to 7-zip directory if not in the PATH, usually "C:/Program Files/7-Zip/" on Windows. See [extract_7z\(\)](#) for more information.
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extract_7z *Extract an archive using 7zip*

Description

Use 7zip to extract an archive. Obviously, 7zip should be installed beforehand.

Usage

```
extract_7z(archive, target_dir, password = NULL, path_7zip = NULL)
```

Arguments

archive	the archive file
target_dir	the target directory
password	the password of the archive, if any
path_7zip	See section below. Default to get_7z_dir() .

Value

the success/error message. Mainly used for its side effect of extracting the archive.

Install 7-zip

If 7-zip is not installed on your computer, the easiest way to get it is to run `installr::install.7zip()`.

Add 7zip to the PATH

For this function to work, 7-zip should be registered as a PATH environment variable. There are many resources online to help you register it, e.g. <https://www.java.com/en/download/help/path.html>. If you cannot change the PATH on your computer, then you can add the path to 7zip executable directory in the parameter path_7zip or globally using `options(path_7zip="path/to/7zip")`. This will add 7zip to the PATH for the current session.

See Also

<https://info.nrao.edu/computing/guide/file-access-and-archiving/7zip/7z-7za-command-line-guide#section-17>

find_keyword	<i>Find a keyword</i>
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Description

Find a keyword in all names and labels of a list of datasets.

Usage

```
find_keyword(keyword, data = getOption("edc_lookup", NULL), ignore_case = TRUE)
```

Arguments

keyword	the keyword to search for
data	the dataframe where to search the keyword. Can be set using options(edc_lookup=my_data), which is done automatically when calling read_trialmaster() .
ignore_case	should case differences be ignored in the match?

Value

a filtered tibble

EDCimport

Usually,

Examples

```
library(crosstable)
library(dplyr)
library(purrr)

#Using a custom table list
lookup = list(i=crosstable::iris2, m=crosstable::mtcars2) %>% get_lookup()
find_keyword("hp", data=lookup)
find_keyword("number|date", data=lookup)
find_keyword("number|date", data=lookup, ignore_case=FALSE)

#Using lookup from [read_trialmaster()]
## Not run:
path = system.file("extdata/Example_Export_SAS_XPORT_2022_08_25_15_16.zip",
  package = "EDCimport", mustWork=TRUE)
w = read_trialmaster(path, verbose=FALSE)
options(edc_lookup=w$.lookup) #optional
```

```
find_keyword("patient")
## End(Not run)
```

get_7z_dir	<i>Retrieve the path to 7zip executable directory</i>
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Description

Retrieve the path to 7zip executable directory. Use options(path_7zip="path/to/7zip") to change its behavior.

Usage

```
get_7z_dir()
```

Value

the path to 7zip executable directory

get_lookup	<i>Generate a lookup table</i>
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Description

Generate a lookup table

Usage

```
get_lookup(data_list)
```

Arguments

data_list a list containing at least 1 dataframe

Value

a dataframe summarizing column names and labels

Examples

```
t1 = list(r=crosstable::iris2, x=mtcars) %>% get_lookup()
t1
library(tidyr)
t1 %>% unnest(everything()) %>% unnest(everything())
```

load_as_list	<i>Load a .RData file as a list</i>
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Description

Instead of loading a .RData file in the global environment, extract every object into a list.

Usage

```
load_as_list(filename)
```

Arguments

filename the filename, with the .RData extension.

Value

a list

Examples

```
x = list(a=1, b=mtcars)
save_list(x, "test.RData")
y = load_as_list("test.RData")
print(y$a)
```

load_list	<i>Load a list in an environment</i>
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Description

Load a list in an environment

Usage

```
load_list(x, env = parent.frame(), remove = TRUE)
```

Arguments

x a list
env the environment onto which the list should be loaded
remove if TRUE, x will be removed from the environment afterward

Value

nothing, called for its side-effect

Examples

```
x=list(a=1, b=mtcars)
load_list(x, remove=FALSE)
print(a)
print(nrow(b))
```

read_tm_all_xpt	<i>Read all .xpt files in a directory</i>
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Description

Read all .xpt files in a directory (unzipped TrialMaster archive).
 If 7zip is installed, you should probably rather use [read_trialmaster\(\)](#) instead.
 If a procformat .sas file exists in the directory, formats will be applied.

Usage

```
read_tm_all_xpt(directory, datetime_extraction)
```

Arguments

directory	<character> unzipped archive using SAS_XPORT format. Will read the extraction date from the directory name
datetime_extraction	the datetime of the data extraction

Value

a list containing one dataframe for each .xpt file in the folder, the extraction date (datetime_extraction), and a summary of all imported tables (.lookup). If not set yet, option edc_lookup is automatically set to .lookup.

read_trialmaster	<i>Read the .zip archive of a TrialMaster export</i>
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Description

Import the .zip archive of a TrialMaster trial export as a list of dataframes. The archive filename should be leaved untouched as it contains the project name and the date of extraction.
 Generate a .rds cache file for future reads.
 If 7zip is not installed or available, use [read_tm_all_xpt\(\)](#) instead.

Usage

```
read_trialmaster(
  archive,
  use_cache = TRUE,
  pw = getOption("trialmaster_pw", NULL),
  verbose = 1
)
```

Arguments

archive	the path to the archive
use_cache	if TRUE, read the .rds cache if any or extract the archive and create a cache. If FALSE extract the archive without creating a cache file.
pw	The password if the archive is protected. To avoid writing passwords in plain text, it is better to indicate your password using <code>options(trialmaster_pw="xxx")</code> than <code>pw="xxx"</code> .
verbose	one of <code>c(0, 1, 2)</code> . The higher, the more information will be printed

Value

a list containing one dataframe for each .xpt file in the folder, the extraction date (`datetime_extraction`), and a summary of all imported tables (`.lookup`). If not set yet, option `edc_lookup` is automatically set to `.lookup`.

save_list	<i>Save a list as .RData file</i>
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Description

Save a list as .RData file

Usage

```
save_list(x, filename)
```

Arguments

x	a list
filename	the filename, with the .RData extension.

Value

nothing, called for its side-effect

Examples

```
x=list(a=1, b=mtcars)
save_list(x, "test.RData")
load("test.RData")
file.remove("test.RData")
print(a)
print(nrow(b))
```


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