Package 'redatamx'

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Title R Interface to 'Redatam' Library

Version 1.1.0

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Description Provides an API to work with 'Redatam' (see <https://redatam.org>) databases in both formats: 'RXDB' (new format) and 'DICX' (old format) and running 'Redatam' programs written in 'SPC' language. It's a wrapper around 'Redatam' core and provides functions to open/close a database (redatam_open()/redatam_close()), list entities and variables from the database (redatam_entities(), redatam_variables()) and execute a 'SPC' program and gets the results as data frames (redatam_query(), redatam_run()).

License GPL (>= 3)

Encoding UTF-8

Language en-US

RoxygenNote 7.3.2

NeedsCompilation yes

LinkingTo cpp11

SystemRequirements 'Redatam' runtime engine (see https://redatam.org), The dynamic binary library is downloaded from <https://redatam-core.s3.us-west-2.amazonaws.com> during the build step. Currently supported platforms are Windows, Linux and macOS.

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URL https://ideasybits.github.io/redatamx4r/, https://github.com/ideasybits/redatamx4r/

BugReports https://github.com/ideasybits/redatamx4r/issues

Config/Needs/website rmarkdown

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Contents

`outputs` *Environment for Outputs Tables*

Description

This environment is created to store the outputs generated by a Redatam program execution. The environment contains TABLES (Redatam outputs) generated from FREQ, AREALIST, MATOP, TABLIST commands. You can't modify objects contained in this environment.

Usage

```
outputs
```

Format

An object of class `environment` of length 0.

Examples

```
## Not run:
dic<-redatam_open("path/to/rxdb")
df<-redatam_query(dic,"tbl1<-freq person.sexo")
# Accessing the tbl1 object from environment
redatamx::outputs$tbl1
# Accessing the output from Global Environment
print(df)

## End(Not run)
```

redatam_close *Close dictionary*

Description

Close a REDATAM database.

Usage

```
redatam_close(dic)
```

Arguments

dic	Dictionary identifier (returned by redatam_open())

Value

No return value.

Author(s)

Jaime Salvador

Examples

```
## Not run:
dic<-redatam_open("path/to/rxdb")
# run some queries using 'redatam_query' or 'redatam_run'
# close de dictionary
redatam_close(dic);

## End(Not run)
```

redatam_create *Create Redatam database*

Description

Create a new Redatam database.

Usage

```
redatam_create(schema_name, config_name)
```

Arguments

schema_name	Dictionary schema in json format
config_name	Configuration in json format

Value

No return value.

Author(s)

Jaime Salvador

Examples

```
## Not run:
redatam_create("path/to/schema.json","path/to/config.json")

## End(Not run)
```

`redatam_entities` *List entities*

Description

List the entities in a databse.

Usage

```
redatam_entities(dic)
```

Arguments

`dic`	Dictionary identifier (returned by redatam_open())

Value

Data frame that contains all the entities in the database.

Author(s)

Jaime Salvador

Examples

```
## Not run:
dic<-redatam_open("path/to/rxdb")
redatam_entities(dic);

## End(Not run)
```

redatam_info *Get extended Redatam API information*

Description

Returns extended information about datasources and datasets available.

Usage

```
redatam_info()
```

Value

String with the Redatam extended information.

Author(s)

Jaime Salvador

Examples

```
redatam_info()
```

redatam_open *Open dictionary*

Description

Open a REDATAM database. This function returns an ID than can be used in functions to query data.

Usage

```
redatam_open(dictionary_name)
```

Arguments

`dictionary_name`
: Dictionary file name

Value

ID than can be used in functions to query data.

Author(s)

Jaime Salvador

Examples

```
## Not run:
dic<-redatam_open("path/to/rxdb")

## End(Not run)
```

`redatam_query` *Execute a Redatam command from text*

Description

Execute a Redatam command: TABLE or AREALIST. This function removes all the rows that contain total, na or mv values. Additionally, this function removes the "mask" columns.

Usage

```
redatam_query(dic, spc, tot.omit = TRUE)
```

Arguments

`dic`	Dictionary identifier
`spc`	Program text in SPC format
`tot.omit`	Omit rows containing total, na y mv values

Value

If the program contains more than one table, the method returns the last table (in the SPC program) as a data frame. All the tables are registered (as data frames) in a custom environment called 'redatam::outputs'.

Author(s)

Jaime Salvador

Examples

```
## Not run:
dic<-redatam_open("path/to/rxdb")
df<-redatam_query(dic,"freq person.sexo")
print(df)

## End(Not run)
```

redatam_run *Execute a Redatam command from file*

Description

Execute a Redatam command: TABLE or AREALIST. This function removes all the rows that contain total, na or mv values. Additionally, this function removes the "mask" columns.

Usage

```
redatam_run(dic, file_name, tot.omit = TRUE)
```

Arguments

dic	Dictionary identifier
file_name	Program file name
tot.omit	Omit rows containing total, na y mv values

Value

If the program contains more than one table, the method returns the last table (in the SPC program) as a data frame. All the tables are registered (as data frames) in a custom environment called 'redatam::outputs'.

Author(s)

Jaime Salvador

Examples

```
## Not run:
dic<-redatam_open("path/to/rxdb")
df<-redatam_run(dic,"/path/to/nmir_test.spc")
print(df)

## End(Not run)
```

redatam_save *Save dictionary*

Description

Save a REDATAM database. This function can be used to save a dictionary.

Usage

```
redatam_save(dic, name = "")
```

Arguments

dic	Dictionary identifier (returned by redatam_open())
name	Dictionary file name

Value

No return value.

Author(s)

Jaime Salvador

Examples

```
## Not run:
dic<-redatam_open("path/to/rxdb")
...
redatam_save(dic,"path/to/new/dictionary.rxdb")

## End(Not run)
```

redatam_variables *List variables for entity*

Description

List the variables in an entity.

Usage

```
redatam_variables(dic, entity_name)
```

Arguments

dic	Dictionary identifier (returned by redatam_open())
entity_name	Entity's name

Value

Data frame that contains all the variables from the 'entity_name'.

Author(s)

Jaime Salvador

Examples

```
## Not run:
dic<-redatam_open("path/to/rxdb")
redatam_variables(dic, "person")

## End(Not run)
```

---

redatam_version *Get the Redatam API version*

Description

Returns the current version of the native Redatam API.

Usage

```
redatam_version()
```

Value

String with the Redatam Engine version.

Author(s)

Jaime Salvador

Examples

```
redatam_version()
```

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