

Package ‘redatamx’

April 5, 2025

Title R Interface to 'Redatam' Library

Version 1.1.2

Maintainer Jaime Salvador <jaime.salvador@ideasybits.com>

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.

Copyright See COPYRIGHTS for details.

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

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

Config/Needs/website rmarkdown

Author Jaime Salvador [aut, cre] (<<https://orcid.org/0000-0002-3564-8929>>),
CELADE [cph]

Repository CRAN

Date/Publication 2025-04-05 11:20:02 UTC

Contents

outputs	2
redatam_close	3
redatam_create	3
redatam_entities	4
redatam_info	5
redatam_load_plugin	5
redatam_open	6
redatam_query	7
redatam_run	8
redatam_save	9
redatam_variables	9
redatam_version	10

Index	11
--------------	-----------

outputs	<i>Environment for Outputs Tables</i>
---------	---------------------------------------

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`, `TABLIS` 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	<i>Close dictionary</i>
---------------	-------------------------

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	<i>Create Redatam database</i>
----------------	--------------------------------

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 database.

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	<i>Get extended Redatam API information</i>
--------------	---

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_load_plugin	<i>Load a custom plugin</i>
---------------------	-----------------------------

Description

Load a custom plugin into internal registry. This function is used to add a custom plugin that implements a data source (to create database from custom format) or data set (to save outputs in custom format).

Usage

```
redatam_load_plugin(filePath)
```

Arguments

filePath	Full path to .dll (windows), .so (linux) or .dylib (macOs)
----------	--

Value

no return.

Author(s)

Jaime Salvador

Examples

```
## Not run:  
redatam_load_plugin("path/to/custom/plugin")  
  
## End(Not run)
```

redatam_open	<i>Open dictionary</i>
--------------	------------------------

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	<i>Execute a Redatam command from text</i>
---------------	--

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	<i>Execute a Redatam command from file</i>
-------------	--

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	<i>Save dictionary</i>
--------------	------------------------

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	<i>List variables for entity</i>
-------------------	----------------------------------

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()
```

Index

* **datasets**

outputs, [2](#)

outputs, [2](#)

redatam_close, [3](#)

redatam_create, [3](#)

redatam_entities, [4](#)

redatam_info, [5](#)

redatam_load_plugin, [5](#)

redatam_open, [6](#)

redatam_query, [7](#)

redatam_run, [8](#)

redatam_save, [9](#)

redatam_variables, [9](#)

redatam_version, [10](#)