

# Package: redatamx (via r-universe)

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**Title** R Interface to 'Redatam' Library

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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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**Repository** <https://jaimesalvador.r-universe.dev>

**RemoteUrl** <https://github.com/cran/redatamx>

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outputs	<i>Environment for Outputs Tables</i>
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### 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("c:/nmir/nmiresp.rxd")
df<-redatam_query(dic,"tbl1<-freq person.sex")
# Accessing the tbl1 object from environment
redatam::outputs$tbl1
# Accessing the output from Global Environment
print(tbl1)

## End(Not run)
```

---

redatam_close	<i>Close dictionary</i>
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---

**Description**

Close a REDATAM database.

**Usage**

```
redatam_close(dic)
```

**Arguments**

dic                    Dictionary ID (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 'query' or 'run'  
redatam_close(dic);  
  
## End(Not run)
```

---

redatam_destroy_	<i>Destroy engine</i>
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**Description**

Destroy the Redatam engine. This function is automatically called when the package is unloaded.

**Usage**

```
redatam_destroy_()
```

**Value**

No return value.

**Author(s)**

Jaime Salvador

**Examples**

```
## Not run:  
redatam_destroy_();  
  
## End(Not run)
```

---

redatam_entities	<i>List entities</i>
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---

**Description**

List the entities in a databse.

**Usage**

```
redatam_entities(dic)
```

**Arguments**

dic                    Dictionary ID (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_init_	<i>Initialize engine</i>
---------------	--------------------------

---

**Description**

Initialize the Redatam engine. This function is automatically called when the package is loaded.

**Usage**

```
redatam_init_(pachageDir)
```

**Arguments**

pachageDir	Relative path to Redatm runtime (dll, so or dynlib)
------------	---

**Value**

No return value.

**Author(s)**

Jaime Salvador

**Examples**

```
## Not run:  
redatam_init_("/engine");  
  
## End(Not run)
```

---

redatam_internal_query
------------------------

---

*Execute a Redatam command from text*

---

**Description**

Execute a Redatam command: TABLE or AREALIST.

**Usage**

```
redatam_internal_query(dic, spc)
```

**Arguments**

dic	Dictionary identifier
spc	Program text in SPC format

**Value**

Raw dataset with all values: tot, na, mv, values.

**Author(s)**

Jaime Salvador

**Examples**

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

---

redatam\_internal\_run *Execute a Redatam command from file*

---

**Description**

Execute a Redatam command: TABLE or AREALIST.

**Usage**

```
redatam_internal_run(dic, file_name)
```

**Arguments**

dic	Dictionary identifier
file_name	Program file name

**Value**

Raw dataset with all values: tot, na, mv, values.

**Author(s)**

Jaime Salvador

**Examples**

```
## Not run:  
dic<-redatam.open("rxdb")  
df<-redatam.internal_run(dic,"/path/to/nmir_test.spc")  
  
## End(Not run)
```

---

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

**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 filename
```

**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")

## 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")  
  
## 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
name	Dictionary filename

**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 ID (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.

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**Author(s)**

Jaime Salvador

**Examples**

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