

Package: rrdb (via r-universe)

July 18, 2024

Type Package

Title A Simple Round Robin Database

Version 0.0.1

Date 2024-04-18

Description A simple round robin database for storing fixed length histories of timeseries data. Inspired by whisperDB, but not feature or structure compatible.

License GPL (>= 3)

Encoding UTF-8

Depends R (>= 4.0.0)

Imports xts, zoo

BugReports <https://github.com/waternumbers/rrdb/issues>

URL <https://waternumbers.github.io/rrdb/>,
<https://github.com/waternumbers/rrdb>

RoxygenNote 7.3.1

Suggests tinytest, knitr, rmarkdown

VignetteBuilder knitr

Language en-GB

Repository <https://waternumbers.r-universe.dev>

RemoteUrl <https://github.com/waternumbers/rrdb>

RemoteRef HEAD

RemoteSha ff1934c53ae3afd648ac30ee89ea18f0abac8aaa

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|-----------|--------------------------|
| create_db | <i>Create a database</i> |
|-----------|--------------------------|

Description

Create a round robin database for a series of numeric data collected at regular time intervals

Usage

```
create_db(fn, tz_step, n, m, tz_origin = 0, size = 8)
```

Arguments

| | |
|-----------|--|
| fn | file name |
| tz_step | step of time series data in seconds |
| n | number of steps to store |
| m | number of data points at each time step |
| tz_origin | origin of time steps in seconds |
| size | size in bits of the written numeric data |

Details

The value tz_origin can be thought of as the offset from 1970-01-01 00:00:00 (0 epoch time) of the closest observation time e.g. is observations were recorded hourly at 5 minutes past the hour tz_step=3600 and tz_origin = 300

Value

invisible(TRUE) but called for the bi-product of creating the file

| | |
|---------|------------------------------------|
| read_db | <i>Read data from the database</i> |
|---------|------------------------------------|

Description

Reads data for a specified time window from the database

Usage

```
read_db(fn, strt, fnsh, tz = "UTC")
```

Arguments

| | |
|------|--|
| fn | file name |
| strt | POSIXct (or interger) object for the start of the period |
| fnsh | POSIXct (or interger) object for the end of the period |
| tz | time zone used for the output |

Value

an xts object containing any data in the time period

| | |
|-----------|--------------------------------------|
| update_db | <i>Update the data in a database</i> |
|-----------|--------------------------------------|

Description

Adds data to the database overwriting existing data in a round robin fashion

Usage

```
update_db(fn, D, check = TRUE)
```

Arguments

| | |
|-------|---|
| fn | file name |
| D | the xts data object to write to the file |
| check | should the age of the overwritten data be checked |

Value

Invisible(TRUE) but Called for the bi-product of updating the data

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