Package ‘TSsql’

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Title Generic SQL Helper Functions for 'TSdbi' SQL Plugins
Description Standard SQL query functions used by
   SQL plugins packages for the 'TSdbi' interface to time series databases.
   It will mainly be used by other packages rather than directly by end
   users. The one exception is the function 'TSquery' which can be used to
   construct a time series from a database containing observations over
   time (e.g. balance statements for multiple years), but where the database
   is not specifically designed to store time series (as with other
   'TSdbi' SQL plugin packages).
   Comprehensive examples of all the 'TS*' packages is provided in the
   vignette Guide.pdf with the 'TSdata' package.
Depends R (>= 2.8.0)
Imports methods, DBI, tframe (>= 2015.1-1), TSdbi (>= 2015.1-1),
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createTSdbTables

Create and Remove Time Series Database Tables

Description

Create or remove all the TS database tables.

Usage

createTSdbTables(con, index=FALSE)
removeTSdbTables(con, yesIknowWhatIamDoing=FALSE, ToLower=FALSE)

Arguments

- **con**: A database connection object (NOT a TSconnect object).
- **yesIknowWhatIamDoing**: logical to help prevent accidents.
- **index**: logical to indicate if table date indexes should be added.
- **ToLower**: logical indicating if table names should be converted to lower case.

Details

The function `createTSdbTables()` creates tables on the database to store time series data. Typically this is done only on initial setup, and might be done by a database administrator and not by an end user. (It is used for examples and testing but will rarely be used otherwise.) Adding date indexes (index=TRUE) will typically speed searching but may dramatically slow down writing to the database (but for small databases it will not make much difference either way).

The function `removeTSdbTables` removes all the TS database tables. **WARNING**: use these function only if you know what you are doing. They destroy the whole database and all stored series. The function `removeTSdbTables` needs to work around the problem that different db engines treat capitalized table names differently. For example, MySQL uses table name Meta while Posgresql converts to meta. The argument `ToLower` indicates if table names should be converted to lower case.

The `con` needs to be specified. A default `con` is not used on purpose to help avoid accidental use. The argument `yesIknowWhatIamDoing` defaults to FALSE and must be set to TRUE or the function will return an error. Beware that dropping tables will destory the integrity of the of the database, and would usually only be done when you are initialing a TS database. Database permission may also be set to prevent users from dropping tables. If that is the case, then this function will return a failure error.

Value

- logical to indicate success.

See Also

dbConnect, TSdates, TSget, TSput
**TSquery**

*Construct Time Series Data From a Database*

**Description**

Construct a time series from a database

**Usage**

```r
TSquery(select = "select", dateField = "datefield", table = "table", where = null, frequency = "monthly", NaNas = 0, names = NULL, con = options()$connection)
```

**Arguments**

- `select` character string used to construct query.
- `dateField` character string used to construct query.
- `table` character string used to construct query.
- `where` character string used to construct query.
- `frequency` character string used to specify frequency of the result (only "daily", "monthly" or "annual" are currently supported).
- `NaNas` value to be used to replace NAs in the returned series.
- `names` optional vector of character strings to be used for the returned series. If not NULL, it must have length equal to the number of series returned.
- `con` A database connection.

**Details**

This function is unlike other functions in this package (and may eventually be moved to a separate package). It constructs a time series from a database (using a connection) and a query generated with the function arguments. An example query might be something like

```r
z <- TSquery(select = "SUM(amount)", dateField = "datefield", where = "term > 10", table = "term", frequency = "annual", NaNas = 0, names = NULL, con = options()$connection)
```

**Value**

A time series or time series matrix.

**See Also**

- [TSget](#)
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