

Package: dbx (via r-universe)

September 1, 2024

Type Package

Title A Fast, Easy-to-Use Database Interface

Version 0.3.2

Date 2024-06-02

Description Provides select, insert, update, upsert, and delete database operations. Supports 'PostgreSQL', 'MySQL', 'SQLite', and more, and plays nicely with the 'DBI' package.

URL <https://github.com/ankane/dbx>

BugReports <https://github.com/ankane/dbx/issues>

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RoxygenNote 7.2.3

Encoding UTF-8

Imports DBI (>= 1.0.0)

Suggests testthat (>= 1.0.2), urltools (>= 1.7.0), RSQLite (>= 2.1.2), RMariaDB, RMySQL (>= 0.10.20), RPostgres, RPostgreSQL, hms, jsonlite, blob, odbc

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

RemoteUrl <https://github.com/ankane/dbx>

RemoteRef HEAD

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dbxConnect	<i>Create a database connection</i>
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Description

Create a database connection

Usage

```
dbxConnect(  
  url = NULL,  
  adapter = NULL,  
  storage_tz = NULL,  
  variables = list(),  
  ...  
)
```

Arguments

url	A database URL
adapter	The database adapter to use
storage_tz	The time zone timestamps are stored in
variables	Session variables
...	Arguments to pass to dbConnect

Examples

```
# SQLite  
db <- dbxConnect(adapter="sqlite", dbname=":memory:")  
  
## Not run:  
  
# Postgres  
db <- dbxConnect(adapter="postgres", dbname="mydb")  
  
# MySQL  
db <- dbxConnect(adapter="mysql", dbname="mydb")  
  
# Others  
db <- dbxConnect(adapter=odbc(), database="mydb")  
  
## End(Not run)
```

dbxDelete	<i>Delete records</i>
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Description

Delete records

Usage

```
dbxDelete(conn, table, where = NULL, batch_size = NULL)
```

Arguments

conn	A DBIConnection object
table	The table name to delete records from
where	A data frame of records to delete
batch_size	The number of records to delete in a single statement (defaults to all)

Examples

```
db <- dbxConnect(adapter="sqlite", dbname=":memory:")
table <- "forecasts"
DBI::dbCreateTable(db, table, data.frame(id=1:3, temperature=20:22))

# Delete specific records
bad_records <- data.frame(id=c(1, 2))
dbxDelete(db, table, where=bad_records)

# Delete all records
dbxDelete(db, table)
```

dbxDisconnect	<i>Close a database connection</i>
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Description

Close a database connection

Usage

```
dbxDisconnect(conn)
```

Arguments

conn	A DBIConnection object
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Examples

```
db <- dbxConnect(adapter="sqlite", dbname=":memory:")
dbxDisconnect(db)
```

dbxExecute	<i>Execute a statement</i>
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Description

Execute a statement

Usage

```
dbxExecute(conn, statement, params = NULL)
```

Arguments

conn	A DBIConnection object
statement	The SQL statement to use
params	Parameters to bind

Examples

```
db <- dbxConnect(adapter="sqlite", dbname=":memory:")
DBI::dbCreateTable(db, "forecasts", data.frame(id=1:3, temperature=20:22))

dbxExecute(db, "UPDATE forecasts SET temperature = 20")

dbxExecute(db, "UPDATE forecasts SET temperature = ?", params=list(20))

dbxExecute(db, "UPDATE forecasts SET temperature = ? WHERE id IN (?)", params=list(20, 1:3))
```

dbxInsert	<i>Insert records</i>
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Description

Insert records

Usage

```
dbxInsert(conn, table, records, batch_size = NULL, returning = NULL)
```

Arguments

conn	A DBIConnection object
table	The table name to insert
records	A data frame of records to insert
batch_size	The number of records to insert in a single statement (defaults to all)
returning	Columns to return

Examples

```
db <- dbxConnect(adapter="sqlite", dbname=":memory:")
table <- "forecasts"
DBI::dbCreateTable(db, table, data.frame(id=1:3, temperature=20:22))

records <- data.frame(temperature=c(32, 25))
dbxInsert(db, table, records)
```

dbxSelect	<i>Select records</i>
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Description

Select records

Usage

```
dbxSelect(conn, statement, params = NULL)
```

Arguments

conn	A DBIConnection object
statement	The SQL statement to use
params	Parameters to bind

Examples

```
db <- dbxConnect(adapter="sqlite", dbname=":memory:")
DBI::dbCreateTable(db, "forecasts", data.frame(id=1:3, temperature=20:22))

dbxSelect(db, "SELECT * FROM forecasts")

dbxSelect(db, "SELECT * FROM forecasts WHERE id = ?", params=list(1))

dbxSelect(db, "SELECT * FROM forecasts WHERE id IN (?)", params=list(1:3))
```

dbxUpdate	<i>Update records</i>
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Description

Update records

Usage

```
dbxUpdate(
  conn,
  table,
  records,
  where_cols,
  batch_size = NULL,
  transaction = TRUE
)
```

Arguments

conn	A DBIConnection object
table	The table name to update
records	A data frame of records to insert
where_cols	The columns to use for WHERE clause
batch_size	The number of records to update in a single transaction (defaults to all)
transaction	Wrap the update in a transaction (defaults to true)

Examples

```
db <- dbxConnect(adapter="sqlite", dbname=":memory:")
table <- "forecasts"
DBI::dbCreateTable(db, table, data.frame(id=1:3, temperature=20:22))

records <- data.frame(id=c(1, 2), temperature=c(16, 13))
dbxUpdate(db, table, records, where_cols=c("id"))
```

dbxUpsert	<i>Upsert records</i>
-----------	-----------------------

Description

Upsert records

Usage

```
dbxUpsert(  
  conn,  
  table,  
  records,  
  where_cols,  
  batch_size = NULL,  
  returning = NULL,  
  skip_existing = FALSE  
)
```

Arguments

conn	A DBIConnection object
table	The table name to upsert
records	A data frame of records to upsert
where_cols	The columns to use for WHERE clause
batch_size	The number of records to upsert in a single statement (defaults to all)
returning	Columns to return
skip_existing	Skip existing rows

Examples

```
## Not run:  
  
db <- dbxConnect(adapter="postgres", dbname="dbx")  
table <- "forecasts"  
DBI::dbCreateTable(db, table, data.frame(id=1:3, temperature=20:22))  
  
records <- data.frame(id=c(3, 4), temperature=c(20, 25))  
dbxUpsert(db, table, records, where_cols=c("id"))  
  
## End(Not run)
```

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