

RdbiPgSQL

October 5, 2010

PgSQL

Return an object of type PgSQL

Description

PgSQL generates an object of type PgSQL

Usage

PgSQL ()

Details

PgSQL is called for its side effects. First, it returns an object of type PgSQL, so that the generic function `dbConnect` knows which specialization to use. Second, calling PgSQL autoloads the Rdbi.PgSQL package.

Value

An object of class PgSQL.

Author(s)

Timothy H. Keitt

References

<http://rdbi.sourceforge.net/>

See Also

[autoload](#)

dbAppendTable.PgSQL.conn

Append data to a PostgreSQL table

Description

dbAppendTable appends data to a table.

Usage

```
## S3 method for class 'PgSQL.conn':  
dbAppendTable(conn, ...)
```

Arguments

conn	A connection object
...	Other arguments, described in details

Details

Other arguments:

- nameThe table name
- dataData to be appended

When passed a data frame, column names in the data frame are matched to column names in the database table so that you can append to a subset of the columns.

Author(s)

Timothy H. Keitt

References

<http://rdbi.sourceforge.net/>

See Also

[dbWriteTable](#)

dbAppendTable	<i>Append data to a PostgreSQL table</i>
---------------	--

Description

dbAppendTable appends data to a table.

Details

Other arguments:

- nameThe table name
- dataData to be appended

When passed a data frame, column names in the data frame are matched to column names in the database table so that you can append to a subset of the columns.

Author(s)

Timothy H. Keitt

References

<http://rdbi.sourceforge.net/>

See Also

[dbWriteTable](#)

dbClearResult.PgSQL.result	<i>Clear results</i>
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Description

dbClearResult clears all resources associated with a PgSQL.result object.

Usage

```
## S3 method for class 'PgSQL.result':  
dbClearResult(result)
```

Arguments

result A result object

Details

Result object do not need to be explicitly cleared as their resources will automatically be freed during garbage collection. This function forces the resource to be immediately released.

Author(s)

Timothy H. Keitt

References

<http://rdbi.sourceforge.net/>

See Also

[dbSendQuery](#)

dbColumnInfo.PgSQL.result

Return column information

Description

dbColumnInfo return information about table columns stored in a result object.

Usage

```
dbColumnInfo.PgSQL.result (result)
```

Arguments

result	A result object
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Details

This function is used internally to get column type information.

Value

A data frame with one row for each column in the result, and one column for each type attribute returned.

Author(s)

Timothy H. Keitt

References

<http://rdbi.sourceforge.net>

See Also

[dbSendQuery](#)

dbConnect.PgSQL *Connect to PostgreSQL backend*

Description

dbConnect establishes a connection to the PostgreSQL database when passed a PgSQL object.

Usage

```
## S3 method for class 'PgSQL':  
dbConnect(dbObj, ...)
```

Arguments

dbObj	An object of class PgSQL
...	Additional arguments to pass to the database

Details

The first argument must be an object of class PgSQL. See the function [PgSQL](#) for details. Additional arguments can be passed after the database object. The most important of these will be 'host', 'dbname' and 'user'. Check your PostgreSQL documentation for a full list of options.

Value

A connection object

Author(s)

Timothy H. Keitt

References

<http://rdbi.sourceforge.net/>

See Also

[PgSQL](#)

dbConnectionInfo.PgSQL.conn

Return connection information

Description

dbConnectionInfo returns information about a connection.

Usage

```
## S3 method for class 'PgSQL.conn':
dbConnectionInfo(conn)
```

Arguments

conn A connection object

Value

status	Connection status; zero indicates valid connection
last.message	Last message generated by the connection
database.name	The database name
host.name	The database host name
options	Additional connection options
user.name	The user name
password	The password used to connect
port	The port number
tty	The tty associated with the connection
socket	The socket number
client.encoding	Binary encoding
backend.pid	The PID of the backend process

Author(s)

Timothy H. Keitt

References

<http://rdbi.sourceforge.net>

See Also

[dbConnect](#)

```
dbDisconnect.PgSQL.conn
```

Drop a connection

Description

`dbDisconnect` disconnects from the backend and frees all resources associated with the connection.

Usage

```
## S3 method for class 'PgSQL.conn':  
dbDisconnect(conn)
```

Arguments

`conn` A connection object

Details

Some attempt is made to disconnect connection object when exiting R. Your mileage may vary.

Author(s)

Timothy H. Keitt

References

<http://rdbi.sourceforge.net/>

See Also

[dbConnect](#)

```
dbGetQuery.PgSQL.conn
```

Submit a query and fetch result

Description

`dbGetQuery` sends a query to the backend and fetches the result as a data frame.

Usage

```
## S3 method for class 'PgSQL.conn':  
dbGetQuery(conn, ...)
```

Arguments

`conn` A connection object
`...` A query string

Details

All arguments after the connection object will be pasted together and passed to the backend as a query string.

Value

A data frame with the result of the query.

Author(s)

Timothy H. Keitt

References

<http://rdbi.sourceforge.net/>

See Also

[dbSendQuery](#)

dbGetResult.PgSQL.result

Fetch results from a query

Description

dbGetResult returns results stored in a result object.

Usage

```
## S3 method for class 'PgSQL.result':  
dbGetResult(result, as.matrix)
```

Arguments

result	A result object
as.matrix	A boolean indicating whether the results will be returned as a matrix

Details

Results are returned as a data frame. Some SQL types will be converted to R numeric or logical types. Others will be returned as strings. A generic conversion mechanism is in the works.

Value

A data frame.

Author(s)

Timothy H. Keitt

References

<http://rdbi.sourceforge.net/>

See Also

[dbSendQuery](#)

dbListTables.PgSQL.conn

List tables in a database

Description

dbListTables lists the tables associated with a database connection.

Usage

```
## S3 method for class 'PgSQL.conn':  
dbListTables(conn, ...)
```

Arguments

conn	A connection object
...	Other arguments, described in details

Details

Other arguments:

pattern An SQL matching pattern, defaults to NULL

all If true, also list system tables, defaults to FALSE

Value

A list of table names.

Author(s)

Timothy H. Keitt

References

<http://rdbi.sourceforge.net/>

See Also

[dbConnect](#)

`dbReadTable.PgSQL.conn`*Read a PostgreSQL table*

Description

`dbReadTable` fetches all values in a table and returns them in a data frame.

Usage

```
dbReadTable.PgSQL.conn(conn, ...)
```

Arguments

<code>conn</code>	A connection object
<code>...</code>	Other arguments, described in <code>details</code>

Details

The `...` arguments:

table.name The name of the table

row.names A vector of row names, defaults to `NULL`

col.names A vector of column names, defaults to `NULL`

as.is List character-type columns that should not be converted to factors, defaults to `FALSE`

as.matrix If all columns of the resulting data.frame are the same, will attempt to convert the data.frame to a matrix before returning it

The `as.is` argument act like its equivalent in `read.table`.

Value

A data frame, unless `as.matrix` is specified and all the columns are identically typed in which case a matrix is returned.

Author(s)

Timothy H. Keitt

References

<http://rdbi.sourceforge.net/>

See Also

[dbWriteTable](#)

```
dbResultInfo.PgSQL.result
```

Get result information

Description

dbResultInfo return information about a result object.

Usage

```
## S3 method for class 'PgSQL.result':  
dbResultInfo(result)
```

Arguments

result A result object

Value

status Result status code
status.string Result status string
error.message Error message generated by query
rows Number of rows in the result
columns Number of columns in the result
is.binary If true, result is binary
command.response Response from backend
command.tuples Not sure what this is

Author(s)

Timothy H. Keitt

References

<http://rdbi.sourceforge.net/>

See Also

[dbSendQuery](#)

`dbSendQuery.PgSQL.conn`*Send a query to the backend*

Description

`dbSendQuery` sends a query to the PostgreSQL server.

Usage

```
## S3 method for class 'PgSQL.conn':  
dbSendQuery(conn, ...)
```

Arguments

<code>conn</code>	A connection object
<code>...</code>	A query string

Details

Arguments past the connection object will be pasted together and sent to the backend for processing.

Value

A result object.

Author(s)

Timothy H. Keitt

References

<http://rdbi.sourceforge.net>

See Also

[dbResultInfo](#)

`dbWriteTable.PgSQL.conn`*Write a data frame to a database*

Description

`dbWriteTable` writes the contents of a data frame into a PostgreSQL table.

Usage

```
## S3 method for class 'PgSQL.conn':  
dbWriteTable(conn, ...)
```

Arguments

`conn` A connection object
`...` Other arguments, described in `details`

Details

Other arguments:

- `data` A data frame
- `name` The table name, defaults to `deparse(substitute(data))`
- `no.clobber` If true, don't delete existing table of same name, defaults to TRUE
- `write.row.names` If true, add an additional column containing row names, defaults to FALSE

Author(s)

Timothy H. Keitt

References

<http://rdbi.sourceforge.net/>

See Also

[dbReadTable](#)

`psql`

Run the PostgreSQL monitor

Description

`psql` simply runs the PostgreSQL monitor application "psql".

Usage

`psql (conn)`

Arguments

`conn` A database connection object

Author(s)

Timothy H. Keitt

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