RdbiPgSQL

November 11, 2009

R topics documented:

`dbAppendTable.PgSQL.conn`
Append data to a PgSQL 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:

name The table name

data Data 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` *Append data to a PgSQL table*

Description

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Details

Other arguments:

name The table name

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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
Clear results

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 explicitely 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

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

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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

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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

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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

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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

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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 inicating 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

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

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

conn	A connection object
...	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`

`Internal functions` *Internal function*

Description

These functions are used internally.

Author(s)

Timothy H. Keitt

References

`http://rdbi.sourceforge.net/`

PgSQL *Return an object of type PgSQL*

Description

PgSQL generates an object of type PgSQL

Usage

```
PgSQL()
```

Details

PgSQL is called for it's 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

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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