

# RdbiPgSQL

April 19, 2009

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PgSQL

*Return an object of type PgSQL*

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## 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 <code>details</code>

## 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](#)

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dbAppendTable	<i>Append data to a PostgreSQL table</i>
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### Description

dbAppendTable appends data to a table.

### 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](#)

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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
--------	-----------------

**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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dbConnect.PgSQL      *Connect to PostgreSQL backend*

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### 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](#)

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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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