

# Package ‘RSQLServer’

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**Type** Package

**Title** SQL Server R Database Interface (DBI)

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**Description** RSQLServer wraps the jTDS Project's JDBC 3.0 SQL Server driver and extends the RJDBC classes and DBI methods. It defines a SQLServerDriver, SQLServerConnection & SQLServerResult S4 classes as extensions of the RJDBC equivalent classes. Most of the DBI methods will simply be calls to methods defined by RJDBC classes. However, the dbConnect and some of the dbGetInfo methods are specific to SQL Server. The jTDS drivers do extend to Sybase SQL Server, but currently, only Microsoft SQL Server is supported by this package.

**License** GPL-2

**Depends** methods, DBI (>= 0.3.1), rJava (>= 0.9-6)

**Imports** RJDBC (>= 0.2-4)

**SystemRequirements** Java (>= 1.3)

**Collate** 'DBDriver.R' 'DBConnection.R' 'DBResult.R' 'RSQLServer.R'  
'Utils.R' 'onLoad.R'

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dbConnect,SQLServerDriver-method

*Connect to/disconnect from a SQL Server database.*

---

### Description

Connect to/disconnect from a SQL Server database.

### Usage

```
## S4 method for signature 'SQLServerDriver'
dbConnect(drv, server, ...)
```

### Arguments

drv	An object generated by <a href="#">SQLServer</a> , or an existing <a href="#">SQLServerConnection</a> . If a connection, the connection will be cloned.
server	The address of the server to connect to.
...	One or more <b>optional connection properties</b> .. Note if you intend to set the useNTLMv2 property to 'true' from the default API value of 'false', you will need to make a specific authentication driver available to the SQL Server driver. See <a href="#">RSQLServer</a> for more details

### Value

a linkS4Class{SQLServerConnection} object

### Examples

```
## Not run:
dbConnect(SQLServer(), 'ServerName')

## End(Not run)
```

---

dbGetInfo,SQLServerConnection-method  
*Get connection info*

---

**Description**

Get connection info

**Usage**

```
## S4 method for signature 'SQLServerConnection'  
dbGetInfo(dbObj, ...)
```

**Arguments**

dbObj            Object of type [SQLServerConnection](#) representing a connection  
...              other arguments to methods. Not used here.

**Value**

a named list containing database product name, database version, user, and whether the connection is read only.

**Examples**

```
## Not run:  
dbGetInfo(dbConnect(SQLServer(), 'DatabaseName'))  
  
## End(Not run)
```

---

dbGetInfo,SQLServerDriver-method  
*Get driver info*

---

**Description**

Get driver info

**Usage**

```
## S4 method for signature 'SQLServerDriver'  
dbGetInfo(dbObj, ...)
```

**Arguments**

dbObj            Object created by [SQLServer](#)  
...              other arguments to methods. Not used here.

**Value**

A list containing the name and driver version used by drv

**Examples**

```
## Not run:  
dbGetInfo(SQLServer())  
  
## End(Not run)
```

---

dbIsValid,SQLServerConnection-method

*Checks whether Connection is closed*

---

**Description**

Checks whether Connection is closed

**Usage**

```
## S4 method for signature 'SQLServerConnection'  
dbIsValid(dbObj, ...)
```

**Arguments**

dbObj            An object inheriting from [SQLServerConnection](#).  
...              other parameters. Not used.

**Value**

logical TRUE if the connection is closed and vice-versa

---

dbIsValid,SQLServerResult-method

*Checks whether ResultSet is closed*

---

### Description

Checks whether ResultSet is closed

### Usage

```
## S4 method for signature 'SQLServerResult'  
dbIsValid(dbObj)
```

### Arguments

dbObj            An object inheriting from [SQLServerResult](#).

### Value

logical TRUE if the result set is closed and vice-versa

---

dbListConnections,SQLServerDriver-method

*List active connections*

---

### Description

List active connections

### Usage

```
## S4 method for signature 'SQLServerDriver'  
dbListConnections(drv, ...)
```

### Arguments

drv            Object created by [SQLServer](#)  
...            Other arguments passed on to methods. Not used here.

### Value

An empty list as JDBC driver doesn't maintain a list of active connections

**Examples**

```
## Not run:
dbListConnection(SQLServer())

## End(Not run)
```

---

dbSendQuery,SQLServerConnection,character-method  
*Send query to SQL Server*

---

**Description**

This is basically a copy of RJDBC's [dbSendQuery](#) method for JDBCConnection.

**Usage**

```
## S4 method for signature 'SQLServerConnection,character'
dbSendQuery(conn, statement, ...,
            list = NULL)
```

**Arguments**

conn	connection object
statement	SQL statement to execute
...	additional arguments to prepared statement substituted for "?"
list	undocumented

**Value**

a [SQLServerResult](#) object

---

dbUnloadDriver,SQLServerDriver-method  
*Unload SQLServer driver*

---

**Description**

Not implemented. Simply returns TRUE. See [JDBCDriver-methods](#).

**Usage**

```
## S4 method for signature 'SQLServerDriver'
dbUnloadDriver(drv, ...)
```

**Arguments**

drv                    Object created by [SQLServer](#)  
 ...                    any other arguments are passed to the driver. Not used here.

**Value**

Always logical TRUE.

**Examples**

```
## Not run:
drv <- SQLServer()
dbUnloadDriver(drv)

## End(Not run)
```

---

RSQLServer

*RSQLServer*


---

**Description**

Wrapper around RJDBC DBI applied specifically to SQL Server. You will need the [Java Runtime Environment](#).

**Details**

If you intend to use integrated security (Windows Authentication) to authenticate your server session, you will need to download [JTDS](#) and copy the native single sign on library (ntlmauth.dll) to any file on your system's PATH (e.g. `Sys.getenv("PATH")`). This functionality seems a little flaky in my testing, but it could just be my setup. Full installation instructions are available in the README.SSO file in the JTDS download bundle.

---

SQLServerConnection-class

*An S4 class to represent a SQL Server connection*


---

**Description**

This class extends the [JDBCConnection](#) class to represent a SQL Server connection.

**Slots**

jc Java object representing the connection.  
 identifier.quote quote character for a SQL Server identifier can be a single quotation mark (`\'`), a left or right bracket (`[]`), or a double quotation mark (`\"`). Usually inherited from [SQLServerDriver](#).

---

SQLServerDriver-class *An SA class to represent a SQL Server driver*

---

### Description

This class extends the [JDBCDriver](#) class to represent a SQL Server driver used to access SQL Server databases. This should always be initialised with `SQLServer()`. `JDBCdriver` extends `DBIDriver`. The package uses the `jTDS` driver set.

### Usage

```
SQLServer(identifier.quote = "[")
```

### Arguments

`identifier.quote`  
quote character for a SQL Server identifier can be a single quotation mark (`\'`), a left or right bracket (`[`), defaults to `[`), or a double quotation mark (`\"`).

### Value

An object of class [SQLServerDriver](#).

### Slots

`identifier.quote` quote character for a SQL Server identifier can be a single quotation mark (`\'`), a left or right bracket (`[`), defaults to `[`), or a double quotation mark (`\"`).

`jdrev` Java object reference to an instance of the SQL Server driver if the driver can be instantiated by a default constructor. This object is only used as a fall-back when the driver manager fails to find a driver.

### References

[jTDS project](#)

### Examples

```
## Not run:  
SQLServer()  
  
## End(Not run)
```



---

SQLServerResult-class *An S4 class to represent a SQL Server result set*

---

**Description**

This class extends the [JDBCResult](#) class to represent a SQL Server result set

**Slots**

jr Java reference to the JDBC result set

md Java reference to the JDBC result set meta data

pull Java reference to the JDBC result pull helper class (can be null reference before first pull)

stat Java reference to the JDBC statement which generated this result

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