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Connect to SQLite via RODBC



I am trying to connect to a sqlite database via the RODBC package.

1.) I have installed the SQLite ODBC driver from <http://www.ch-werner.de/sqliteodbc/> and set it up using the ODBC Data Source Administrator in Windows 7. Settings are Lock Timeout 20ms, Sync Mode NORMAL, and "Don't Create Database" checked. I can see my data source in the "User DSN" tab as a SQLite3 ODBC Driver.

2.) In R I am running the following commands to connect to the database. No problems so far. Looks like it is set up correctly.

```
library(RODBC)
con <- odbcConnect("dbss")
odbcGetInfo(con)

DBMS_Name
"SQLite"
DBMS_Ver
"3.8.2"
Driver_ODBC_Ver
"03.00"
```

```

Data_Source_Name
  "dbss"
Driver_Name
"sqlite3odbc.dll"
Driver_Ver
  "0.996"
ODBC_Ver
  "03.80.0000"
Server_Name
  "U:\\Research\\data\\smartsystemtic\\db.sqlite"

```

3.) However if I want to query a table or just show the tables I am running into problems. I can see (using SQLite Studio) that I have a table called "School" with 4 columns and 3 rows.

```

> sqlQuery(con, paste("SELECT * FROM School"))
[1] SchID      Location Authority SchSize
<0 rows> (or 0-length row.names)

```

where I know that there are 3 rows looking at SQLite Studio.

4.) Also I get

```

> sqlTables(con)
[1] TABLE_CAT TABLE_SCHEM TABLE_NAME TABLE_TYPE REMARKS
<0 rows> (or 0-length row.names)

```

while in SQLite Studio I see 4 tables for the database.

Could you give me any pointers in what I am doing wrong? Thank you.

r odbc rodbc

asked Feb 14 '14 at 9:43



Wolfgang Wu

464 2 10

1 The usual way of connecting to SQLite from R is using the `RSQLite` package. Can you successfully return results using that package? – [Richie Cotton](#) Feb 14 '14 at 10:33

Yes, I can. Maybe this will be the way to go. I am more familiar with the RODBC package and I was hoping that I might just have a small setting wrong. The RODBC vignette/documentation says it supports SQLite.

– [Wolfgang Wu](#) Feb 14 '14 at 10:45

Wild guess: Is it a 32/64-bit problem? Have you tried it in both 32-bit and 64-bit R? – [Richie Cotton](#) Feb 14 '14 at 11:30

On a similar system I was not able to get it work ... use the RSQLite package ... RODBC and DBI based package functions are not sooooo different: It might be more efficient to simply switch to the package that perfectly works with SQLite and learn slightly different functions. – [petermeissner](#) Mar 5 '14 at 13:35

- 1 Wolfgang Wu, did you solve the problem? I have the exact same trouble. Since I am operating with another mysql database through odbc, I wish to only use one type of drivers.. – [AdAbsurdum](#) May 19 '14 at 12:18

2 Answers

Wolfgang,

Tommy O'Dell's answer [here](#) worked for me.

I included `believeNRows = FALSE, rows_at_time = 1` when opening the ODBC connection to SQLite.

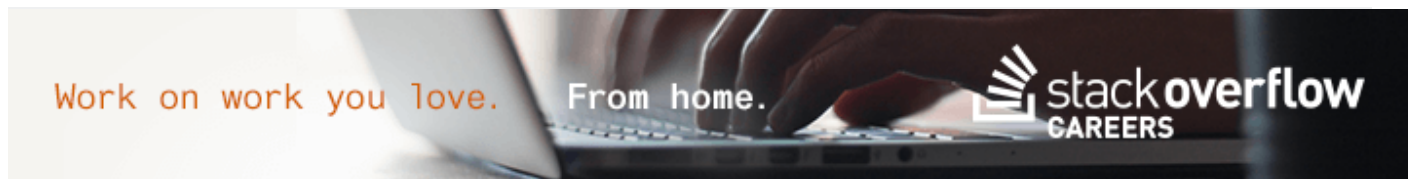
answered Aug 27 '14 at 5:12



[Felix Lechner](#)

378 4 10

I found I needed the `believeNRows = FALSE`, but not the `rows_at_time = 1`. I'm glad for the latter, as it would seem to be a big performance hit. – [dsz](#) Jun 17 '15 at 0:03



I have been able to access my SQLite db using the RODBC package. I have at least 5.4 million rows in each of my 10 tables in the db. The main difference I see from your (@Wolfgang Wu) setup and code is that the SQLite 3 Datasource driver I used was accessed within the System DSN tab. I installed the 64-bit driver linked from: <http://www.ch-werner.de/sqliteodbc/>

Here are my commands and results.

```
#####
# Create SQL tables from same-name r dataframes
#####

db <- dbConnect(SQLite(), dbname = "./slds.sqlite")

# student record - stu, crs, dis, enr, prog, sped, addr
# assessments - crct, crctm, eoct

for (i in 1:dim(r)[1]) {
  dbWriteTable(conn = db, name = paste0(r[i, 1]), value = get(r[i, 1]),
    row.names = FALSE, overwrite = TRUE)
}

# FYI - the r matrix is as follows:

# > r
#      [,1]    [,2]
# [1,] "stu"   "Student"
# [2,] "crs"   "Course"
# [3,] "dis"   "Discipline"
# [4,] "enr"   "Enroll"
# [5,] "addr"  "Address"
# [6,] "prog"  "Programs"
# [7,] "sped"  "Sp. Ed. Events"
# [8,] "crct"  "CRCT(-M)"
# [9,] "crctm" "CRCT(-M)"
# [10,] "eoct" "EOCT"

#####
# Connect, access, show results
#####

slds <- odbcConnect("slds_dews", believeNRows = FALSE, rows_at_time = 1)
table_list <- sqlTables(slds)

table_list[, "TABLE_NAME"]
[1] "stu" "crs" "dis" "enr" "addr" "prog" "sped" "crct" "crctm"
    "eoct"

odbcGetInfo(slds)
      DBMS_Name
      "SQLite"
      DBMS_Ver
      "3.8.7.4"
```

```
Driver_ODBC_Ver
"03.00"
Data_Source_Name
"slds_dews"
Driver_Name
"sqlite3odbc.dll"
Driver_Ver
"0.9991"
ODBC_Ver
"03.80.0000"
Server_Name
"H:\\slds.sqlite"
```

answered Feb 27 '15 at 15:55



Yossarian

1