



CONNECTING TO THE CLASS DATABASE VIA RODBC AND POSTGRES SQL DRIVERS


This is an independent exercise to connect you to the class database if your instructor has setup a course database for you to use. If there has not been a database set up for you, you will not need to do this activity. You only have read access to the database. *Note that if you are trying to connect via RODBC on your personal PC, you will need to download the PostgreSQL ODBC driver from the web.*

 **PURPOSE**


The purpose of this activity is to help familiarize you with reading in external data frames for analysis in R.

 **LEARNING OBJECTIVE**

Create a direct connection to PostgreSQL with R

 **REQUIRED RESOURCES**

- o R Studio
- o PostgreSQL ODBC driver

 **TIME ALLOCATED**

20 minutes in class

TASKS



We will connect directly to the class PostgreSQL database using the RODBC package.

A. Connecting with PhpPgAdmin

If your instructor has set up a read-only access to the database you will need to write down the password:

User name= XXXXXXXX [get from instructor]

Password = XXXXXXXX [get from instructor]

B. Reading from PostgreSQL into R Using RODBC

We can issue SQL statements and return data frames. Or we can process the entire data frame in R using its subset tools. This will depend on how large the file is; R can sometimes be a “memory hog.” You can execute any of the SQL queries we have reviewed, including the GROUP BY options.

To install the PostgreSQL RODBC driver, go to **Control Panel, Administrative tools** and open the **ODBC Data Sources**. The ODBC Data Source Administrator window will open. Select the **User DSN** tab and click on **Add...** (See Figure 37.)

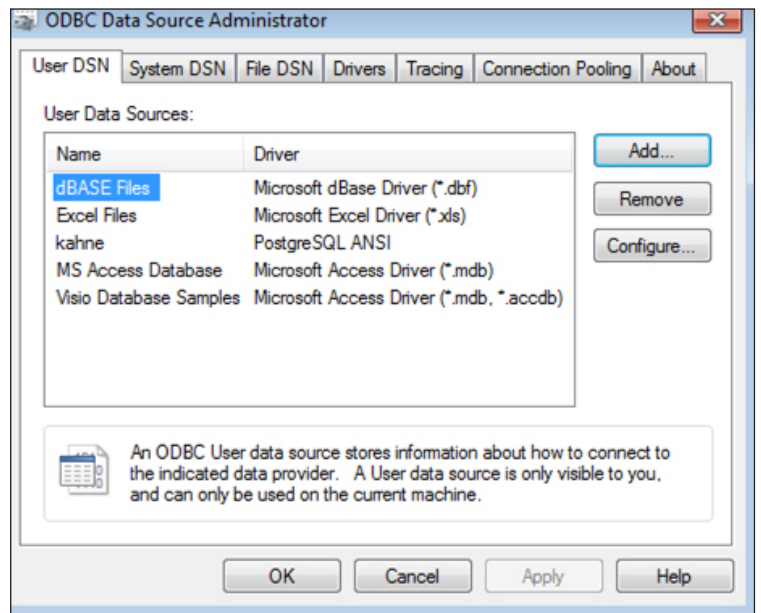


Figure 37 ODBC Data Source Administrator pop-up window

Scroll to the PostgreSQL ANSI(x64) driver, highlight the driver and click **Finish**.

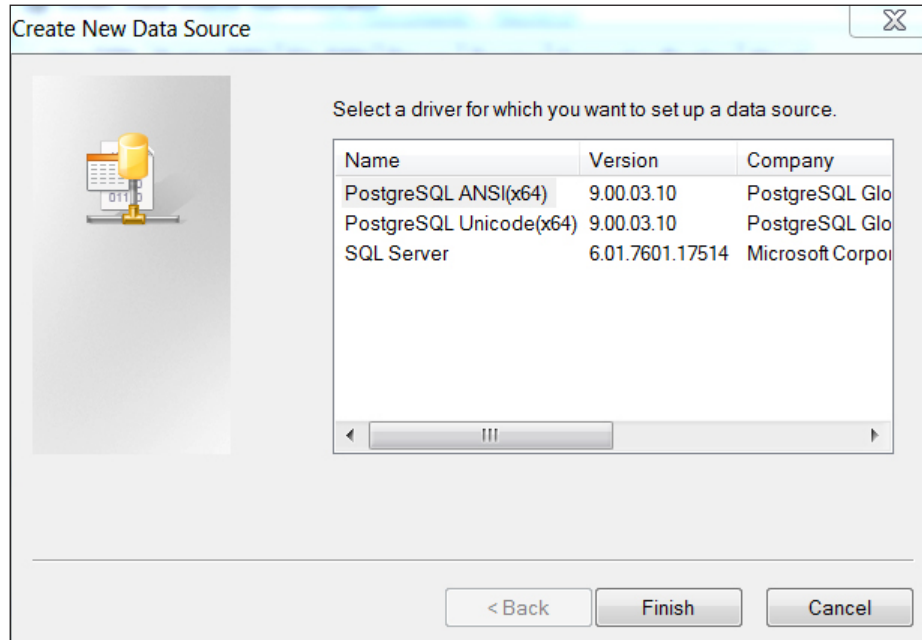


Figure 38 PostgreSQL ANSI driver pop-up window

The PostgreSQL ANSI(x64) ODBC Driver (psqlODBC) Setup window will appear (see Figure 38) and require you to input information to complete the installation.

The following are the options:

Datasource= A name you choose for the driver. Keep it simple, no spaces.

Database= the name of the database (i.e., ce510)

Server= ip of server with database (i.e., db.cecs.pdx.edu)

User name= xxxxxxx

Description = optional

SSL mode = allow

Port= 5432

Password = xxxxxxx

In R Studio, download and install the package **RODBC**

DELIVERABLE



None – you will need this for all future work in the class.

ASSESSMENT



Participation points for this activity