

ODBC (Open Database Communication) between the ElevateDB Database and Excel

The ElevateDB database has the powerful capability of connection to programmes like Excel and Word. For this to work a driver has to first be set up. This only has to be done once. After that in each new Excel file a link to the driver has to be set up. Then wherever actual data is to be displayed a link must be made between cells on the Excel file and a script in the database which supplies the data.

If the driver is already set up on your Server you do not need to do the first step in this document again.

Step 1: Install the ODBC Driver on the Database Server computer

In the Windows Explorer, locate a file with a name like: "213b3edbdaccs.exe" which should have been supplied by your database architect. Note that different versions of the database use different versions of the driver and these start with a different number, if the one you have does not use this exact file-name use one with the same name, except for the first number.

If your version of EDB is "2.11 build 2" you should find "211b2edbdaccs.exe" or if your version of EDB is "2.17 build 1" you should find "217b1edbdaccs.exe" etc.

If there is more than one you should use the one with the highest number, as this will be the most recent version, or check with your architect as to which is the correct one for your system.

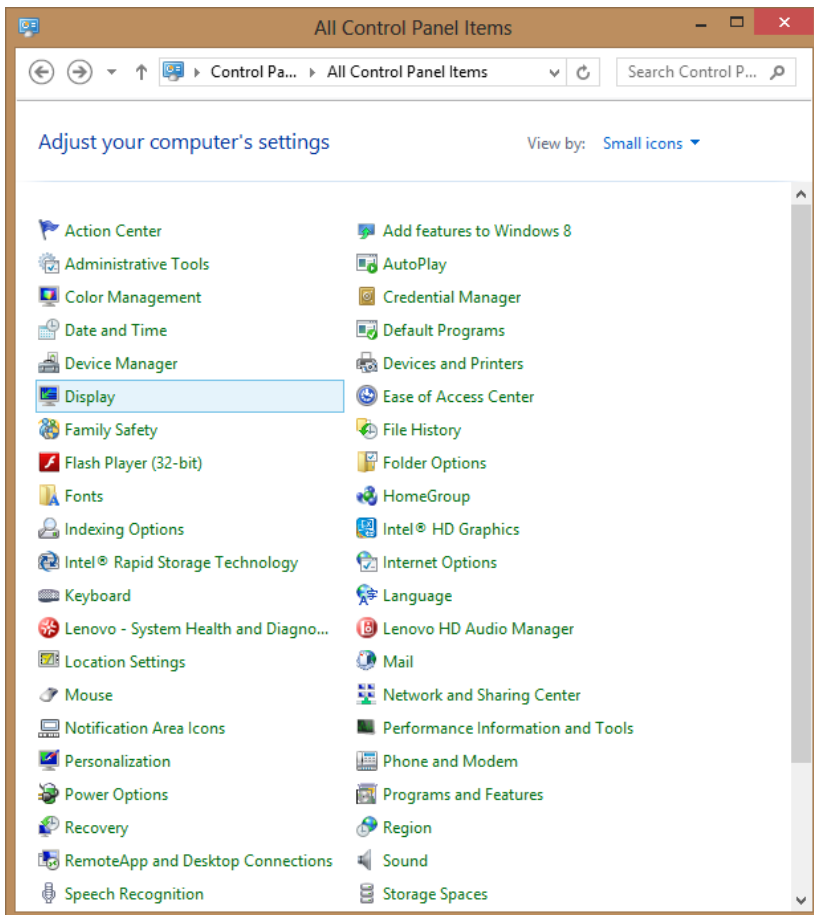
Double-click on this file to run it. It will take you through a normal windows install process, asking a few simple questions. The result should be that a DLL driver file should be added to your hard-disk and Windows should be informed that a new ODBC driver is available.

Step 2 Run ODBCCAD32.exe or ODBCCAD64.exe

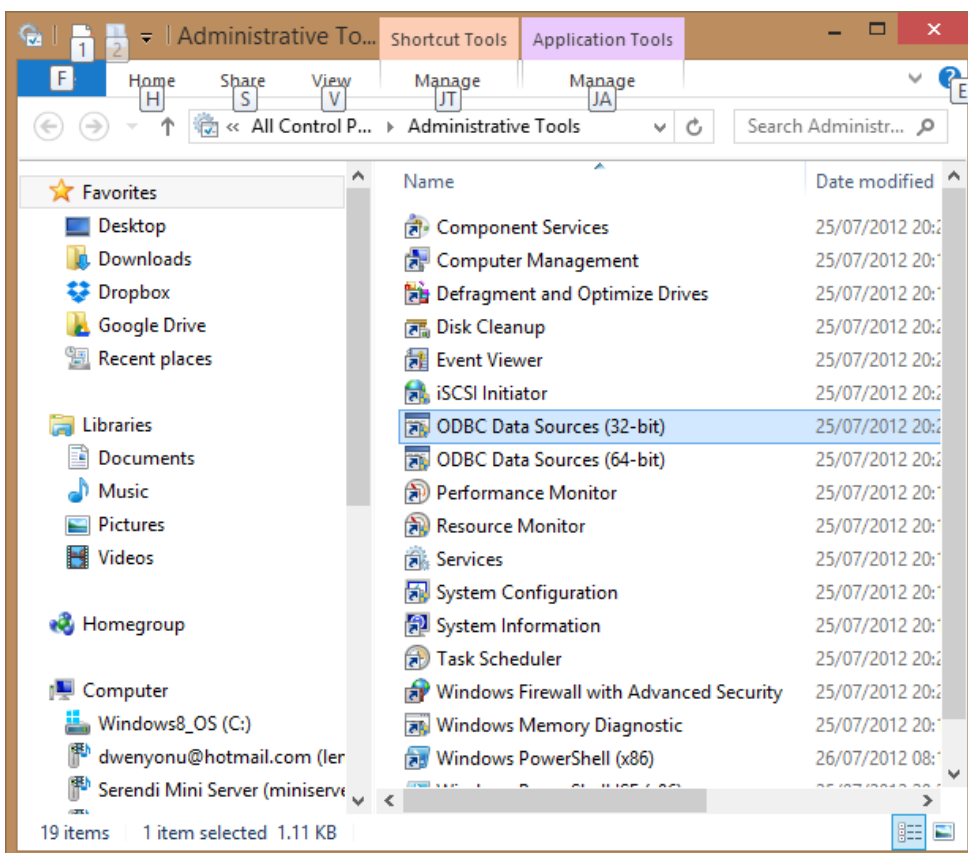
This part is less obvious, as it is a minor part of Windows and is hidden away. On Windows 7 using Run and typing "ODBCCAD32" works, but this doesn't work for Windows 8!

The on-line help from Windows is wrong, but slightly helpful. It tells you to go to Control Panel and find "data sources" then find "ODBC tools", in my version(s) of windows this is no longer correct. However with some rooting around I hope you can find where ODBCCAD32.exe is hidden by your version of windows.

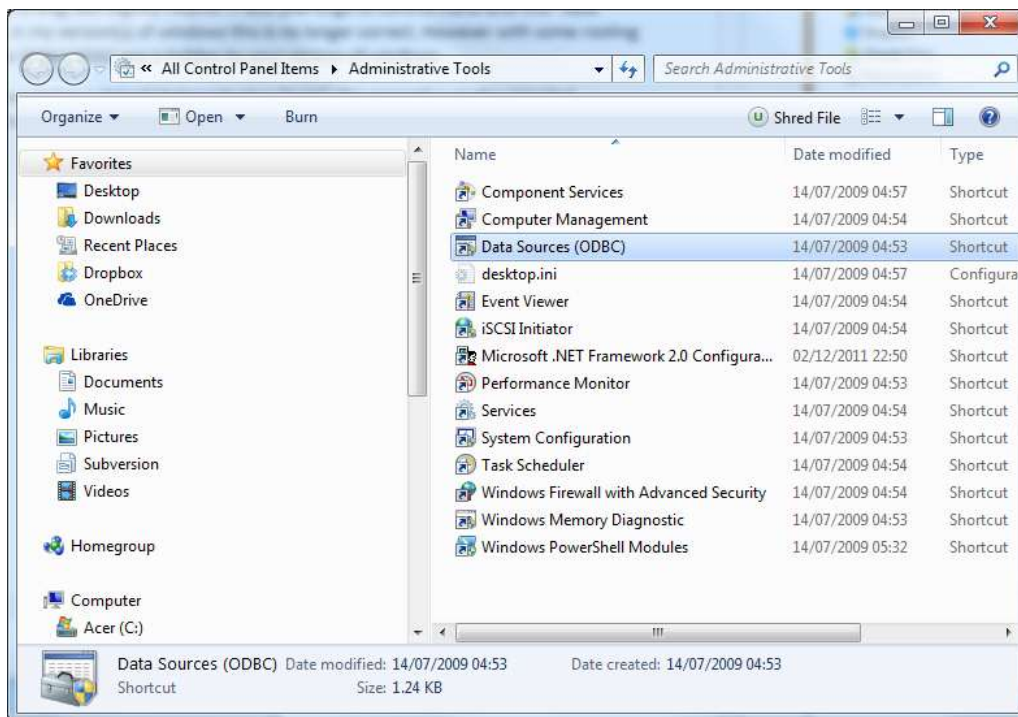
In the Control panel Window shown below I clicked "Administrative Tools", this opened a window labelled "Application tools" (nothing like consistency for Windows!)



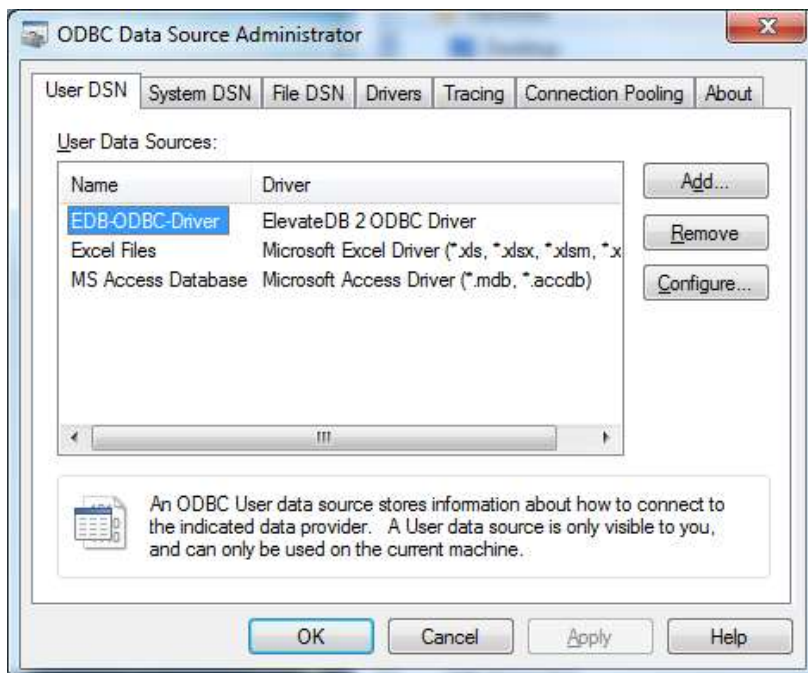
The “Application Tools” window. If you have the 32 bit ODBC driver click “ODBC Data Sources (32 bit).



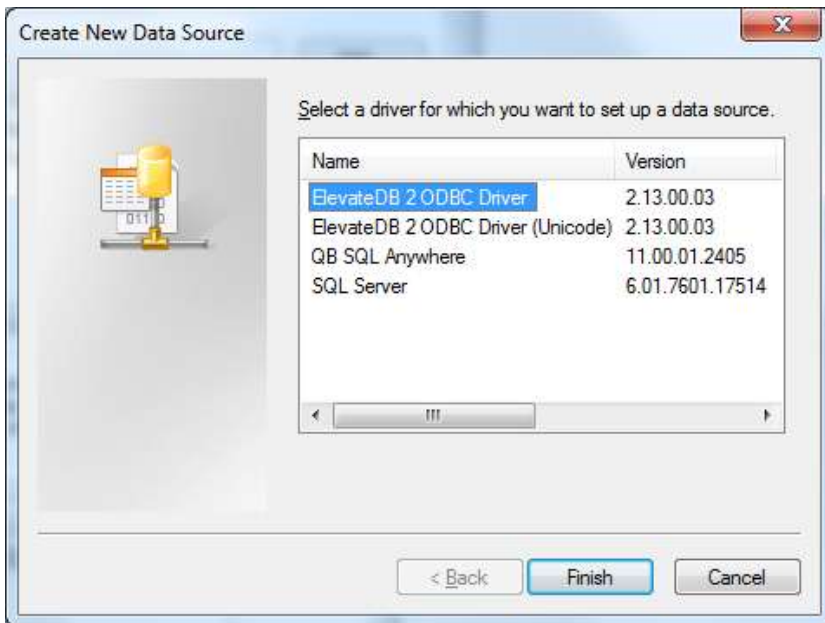
Above: This is the Windows 8 version of the Control Panel, Admin-tools in windows 7 it looks quite different (see below)



Above: Windows 7 version of Administrative Tools control panel window.



Above: shows "ODBCAD32.exe" running. Click the "Add" button.

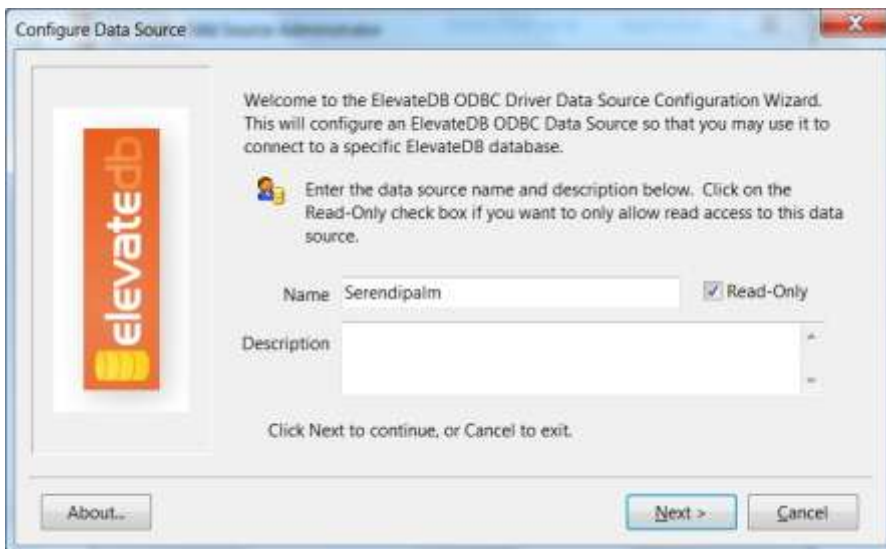


A window similar to the one above should open. Note that it looks different in different versions of Windows.

CAUTION: If you install the 32 bit version of the EDB ODBC Driver and run the 64 bit version of ODBCCAD (or vice-versa) you will not see the EDB ODBC Driver in the list.

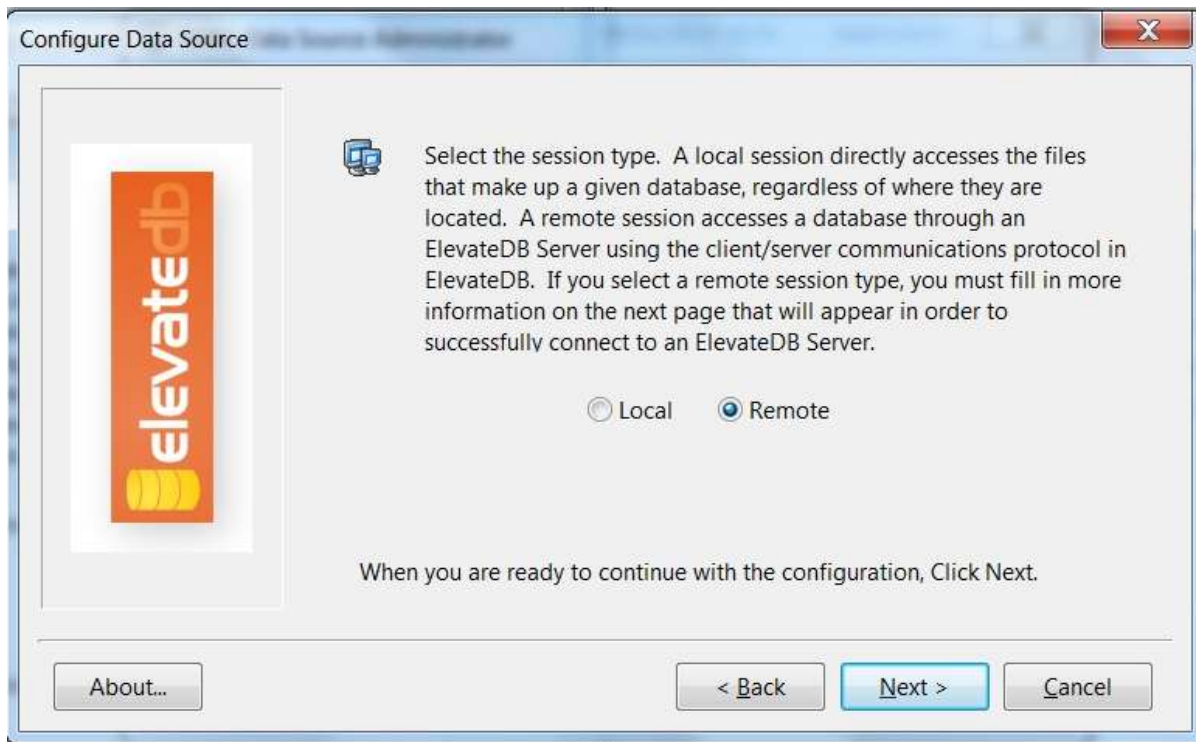
Once you click “finish” the window below should open. However the “Name” field which shows “Serendipalm” (the name of the test database for this document) in the image will be blank.

In the name field type the name you want to use to identify the connection, and click the “Next” button.



In the next screen(s) you pick settings to allow creation of the ODBC driver. The following steps create a driver for a remote database, you can pick other options.

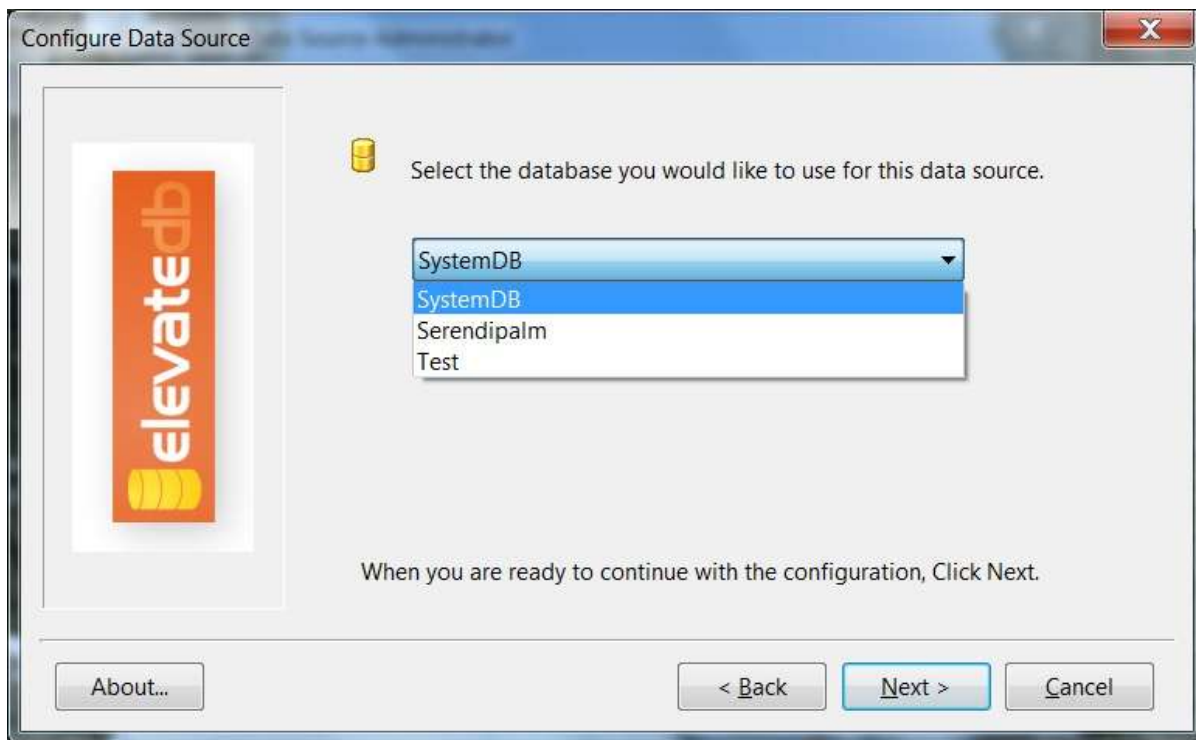
Select the “Remote” option in the next screen, as shown below, and click “Next”.



Enter the User Name for the ODBC session, and its password. This will probably be “Administrator” for most set-ups, but it could be something else. The DB Administrator should know.



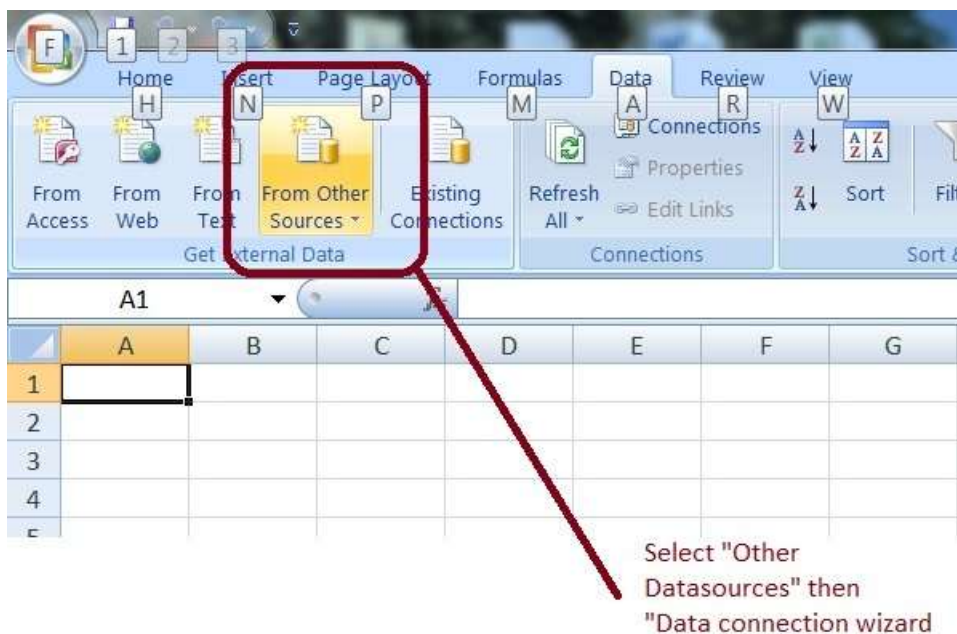
The next screen shows a simple drop-down list in which you can choose which database this ODBC connection will access. You should pick the database you want to connect to from this list.



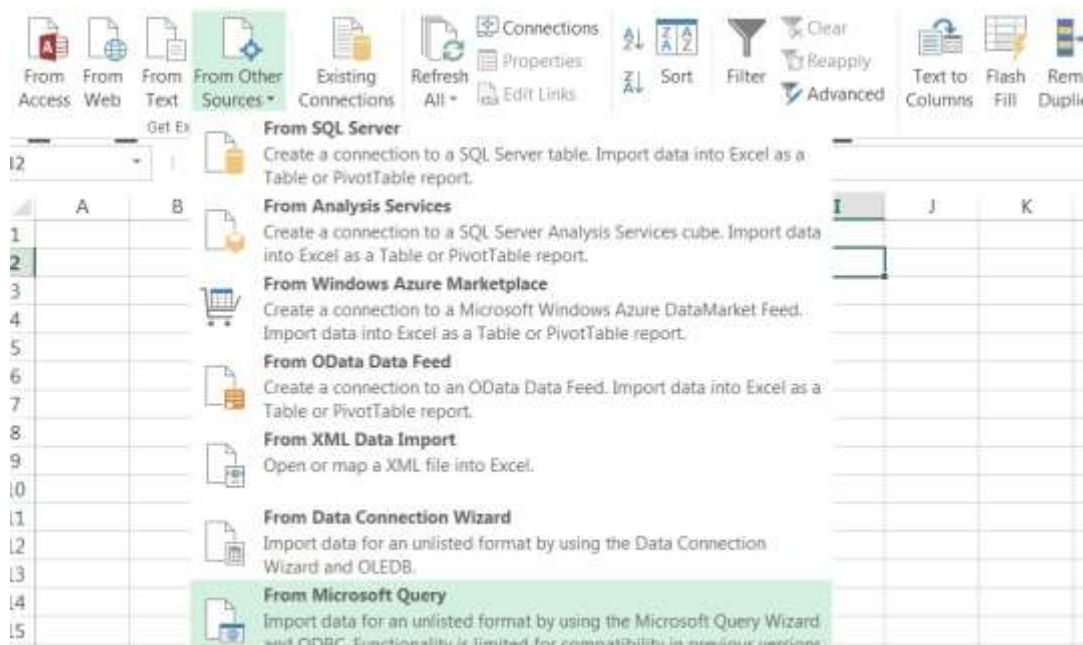
There are other screens which follow this step, but they do not require any input from you. Simply click “Next” until you reach the final screen and click “Finish”.

Step 2: Setting up an Excel Sheet to accept data from your ODBC Data-source

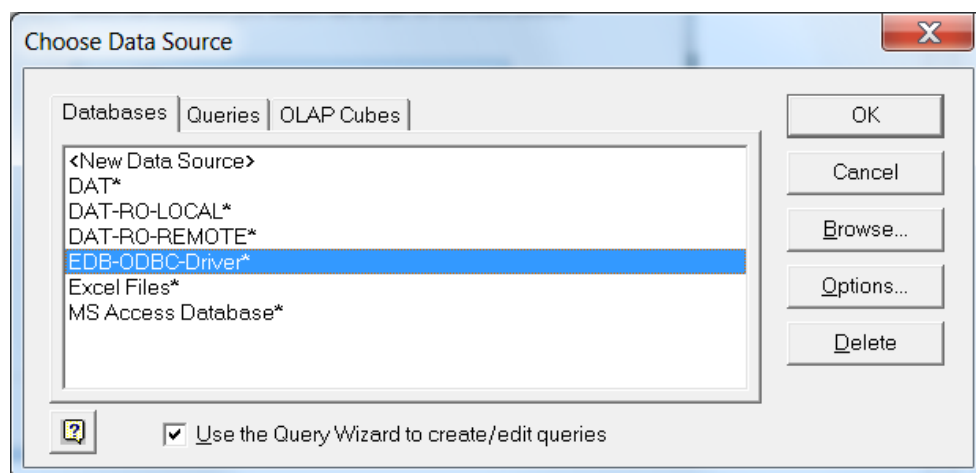
Different versions of Excel have different user-interfaces, so the exact screens you will see will vary from those shown below. However it is quite easy to find “how to” web-pages for this topic. If you Google “How to connect ODBC datasources in Excel 2013” for example you will see excellent documents with accurate pictures for that version of Excel. The images have been pulled from Excel 2007, which is a commonly used version of the product.



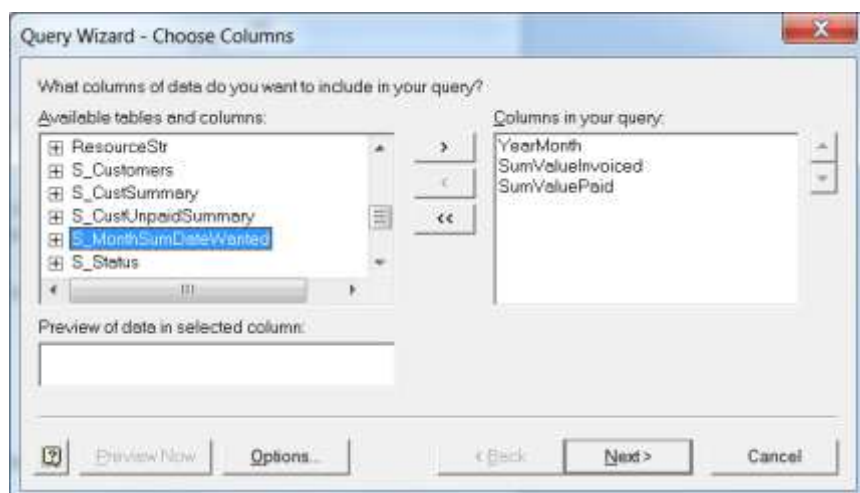
Find the “Data” section of the Excel GUI. Select “From Other Sources”, and in this section select “From Microsoft Query”.



The image above shows selection of the ODBC Option from Word 2013.



"Choose Datasource" window, with the EDB driver selected. Note that this driver will take the name you have entered in step 1 above.



Now a window will show a list of all Table and View objects in the selected Database. Double click on any item to retrieve its columns.

The screen above will then display, allowing you to select data to show in the Excel sheet. You can pick any "View" or "Table" in the database. Good "Views" should have been written which will already contain the data you want to

view. These “Views” are usually given helpful names such as “ODBC_FarmersList”. Check with the database administrator for the particular names you should choose.

After the above window, where you select the data to use there are 3 further screens allowing customization (filtering, sorting and how data is returned). It is normally possible to leave all these screens unchanged if the data you are importing has been formatted intelligently by the DB Admin.

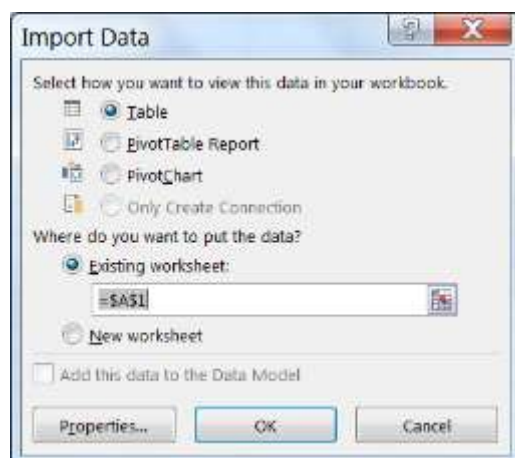
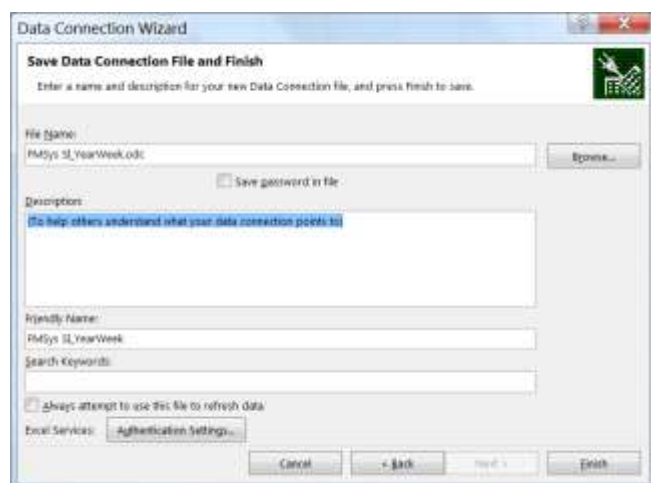
After these three steps you reach a “finish” button. But you haven’t actually finished, you then have to tell Excel how to format the data which is it now ready to import.

Note that it is also possible to write SQL Scripts in Excel itself to download and even upload data into the database, but that is beyond the scope of this document.

Step 3: Pasting the data into Excel

This step is fairly straight forward. There are a series of screens (as in previous steps) all you have to do is to pick the fields you wish to see in the database view you have selected, and then click “next” ignoring subsequent screens which give options for customizing the data.

Excel will then ask you where you want to put the data in the data sheet (i.e. cell A1 or B2 etc.) and whether you want to paste in “raw” data or convert the data into a chart, pivot or other analytic option. These options are mostly quite self-explanatory, or it is possible to find explanations of how to use them on-line.



To simply return data to the current sheet just click “OK” on all the screens.

Useful Tips

In the above “Import Data” step if you click the “Properties” button in the bottom left the window below opens:

Connection Properties

Connection name: Query from EDB-ODBC-Driver

Description:

Usage Definition

Connection type: Database Query

Connection file: Browse...

☐ Always use connection file

Connection string: DSN=EDB-ODBC-Driver;NAME=EDB-ODBC-Driver;DRIVER=C:\Program Files (x86)\ElevateDB 2 DAC-CS\lib\edbdbc64\edbdbc.dll;READONLY=TRUE;TYPE=REMOTE;ADDRESS=46.137.112.205;PORT=12015;COMPRESSION=0;UID=Administrator;DATABASE=Serendipalm

☐ Save password

Command type: SQL

Command text: SELECT S_MonthSumDateWanted.YearMonth, S_MonthSumDateWanted.SumValueInvoiced, S_MonthSumDateWanted.SumValuePaid FROM Serendipalm.S_MonthSumDateWanted S_MonthSumDateWanted

Excel Services: Authentication Settings...

Edit Query... Parameters... Export Connection File...

OK Cancel

Note the "Command Text" of this screen actually contains SQL. Changing this will change the data which is returned. Once data is imported data will be updated (SQL re-run) when the user in Excel goes to the "Data" tab and selects "Connections", "Refresh All".