

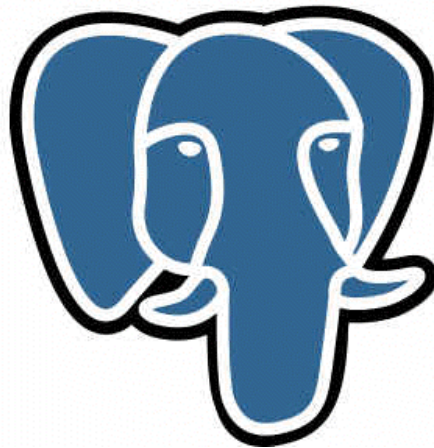
AC Lab System

PostgreSQL Migration Guide – Part II

Enterprise Solution

SQL Installation and Configuration

PostgreSQL



*Mark Wainwright Analytical Centre
Dong Ming Zheng*



In this guide, we intend to cover the full details of PostgreSQL installation and configuration to work with ACLS. The guide is written mainly for IT administrator, or the party which is responsible to install and commission hosting servers for ACLS.

1. Enterprise Option

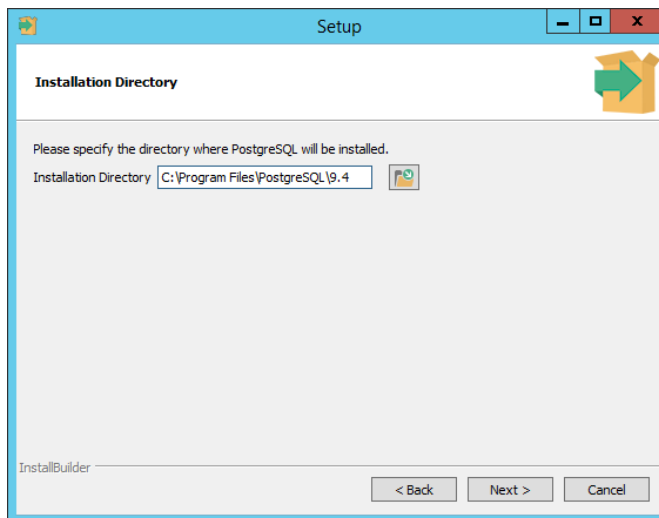
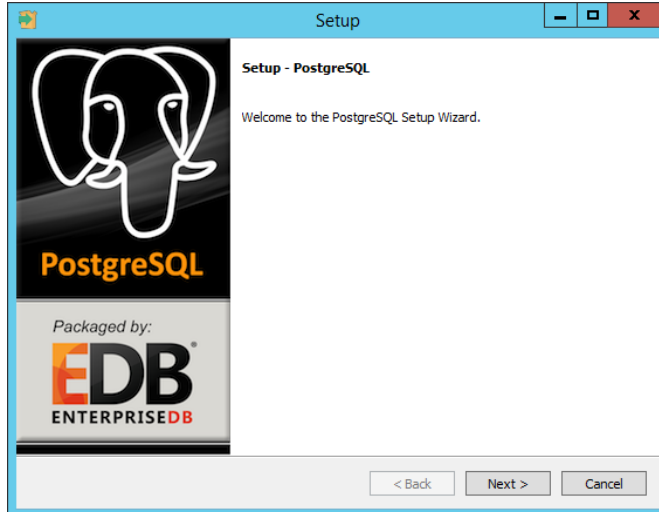
In Part I, it is clearly stated that the enterprise of ACLS needs a separate SQL server which runs all the databases of multiple ACLS instances.

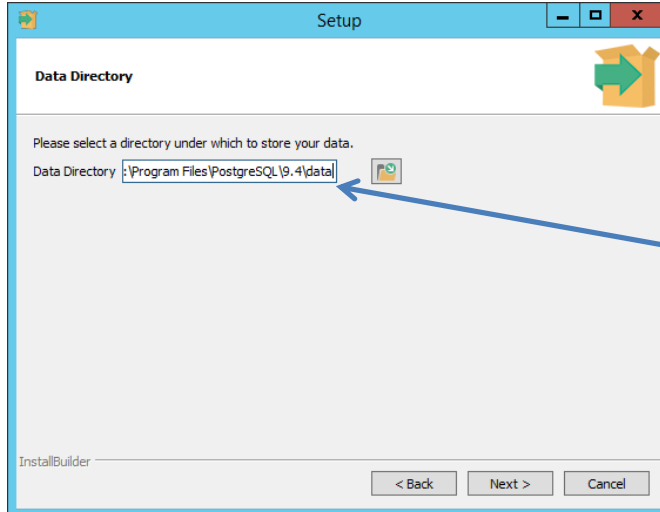
❖ Install ACLS PostgreSQL (9.4.4.3) onto SQL Server

You can download PostgreSQL at official PostgreSQL site <http://www.enterprisedb.com/products-services-training/pgdownload#windows> or the packages at ACLS site <http://www.analytical.unsw.edu.au/for-users/ac-lab-system>.

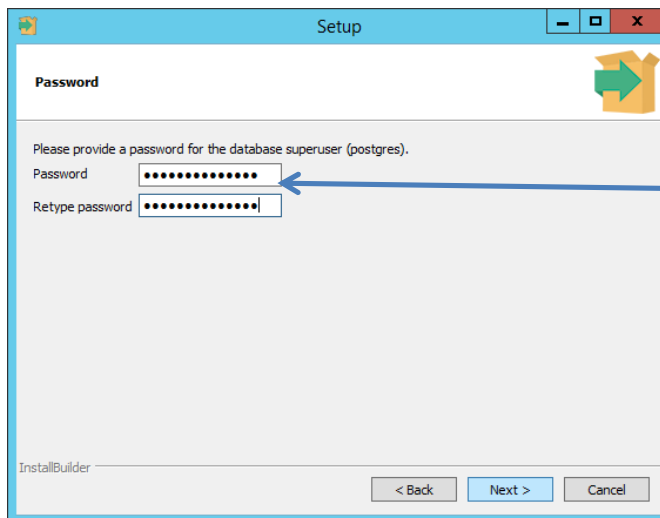
64 bit package is required for Windows OS 2012 R2. Double click on *postgresql-9.4.4-3-windows-x64* to start installation.

The following diagrams show every step for the PostgreSQL installation.





You can choose the other drive to keep SQL bases. For example, `d:\aclssql\data`



Please go to GUID site to create a special password for SQL access. GUID calculator can be found at <https://www.guidgenerator.com/online-guid-generator.aspx>

Please keep SQL password securely and provide it to us build ACLS app for your ACLS.



Setup

Port

Please select the port number the server should listen on.

Port

InstallBuilder

< Back Next > Cancel

Setup

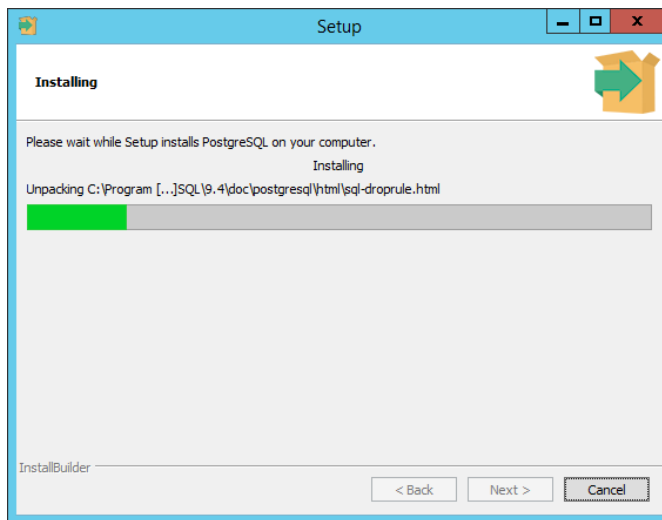
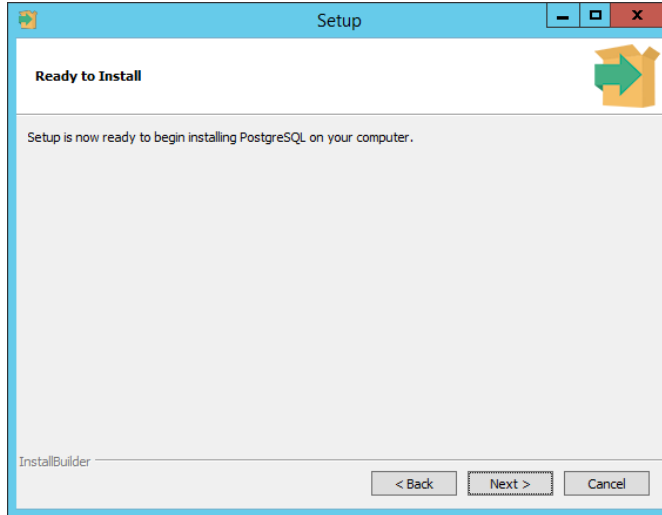
Advanced Options

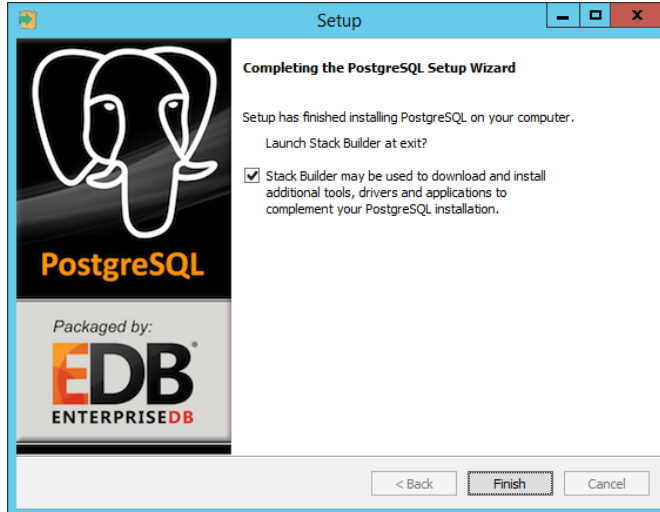
Select the locale to be used by the new database cluster.

Locale

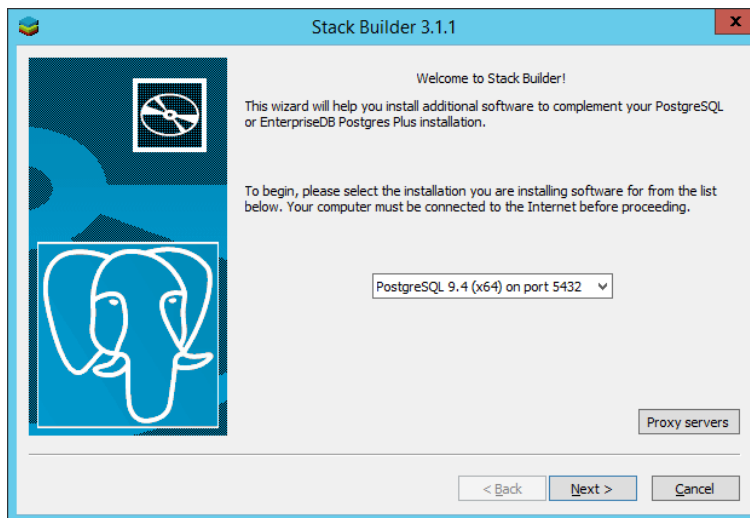
InstallBuilder

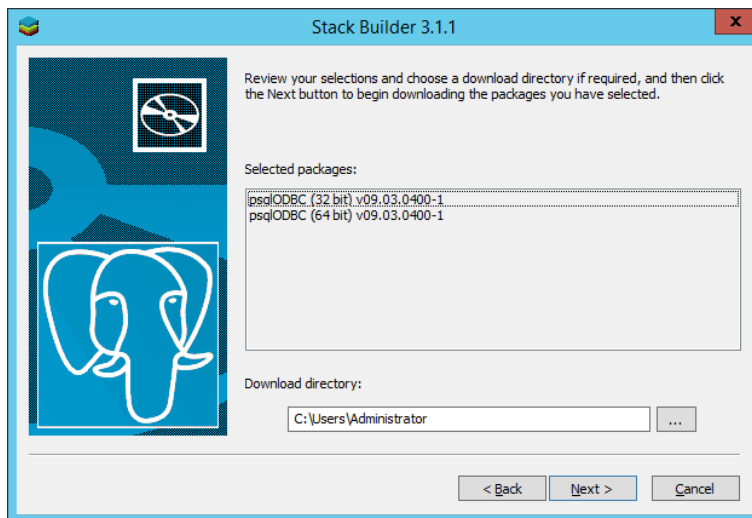
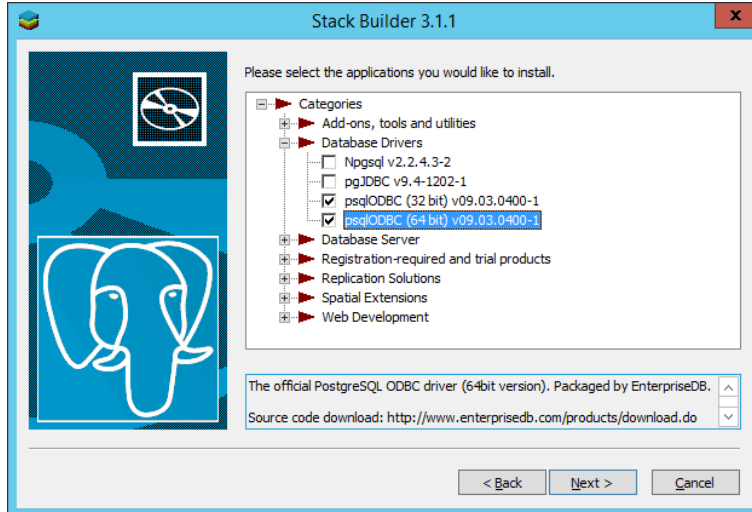
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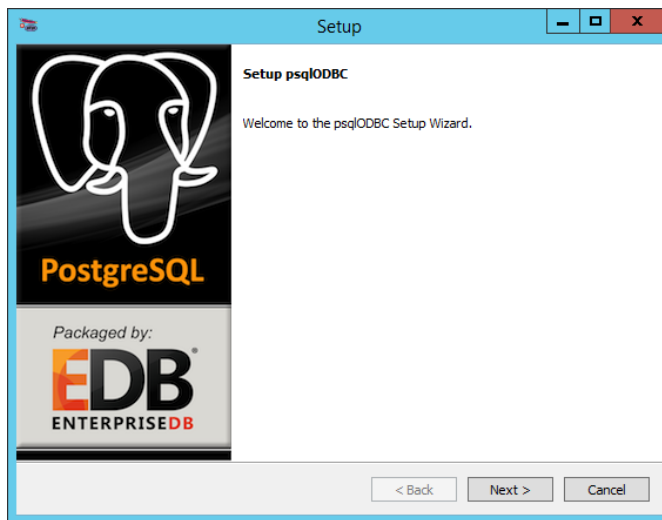
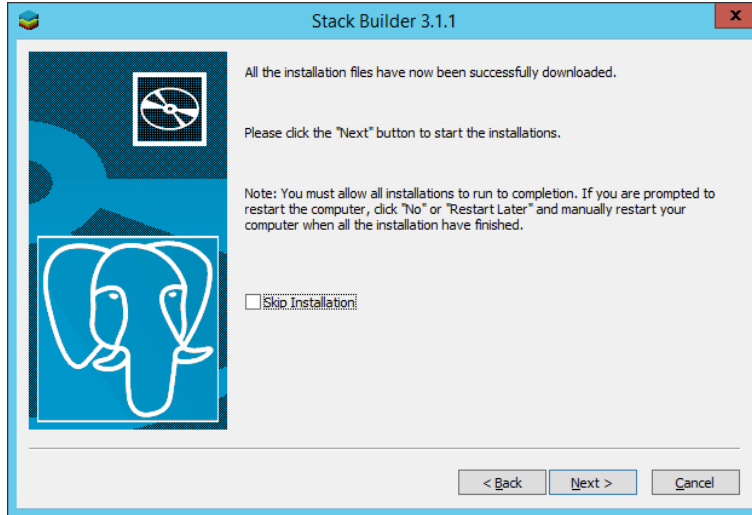


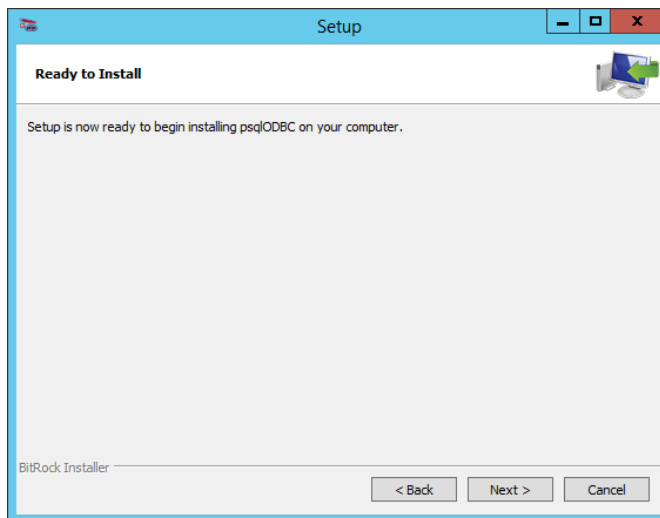
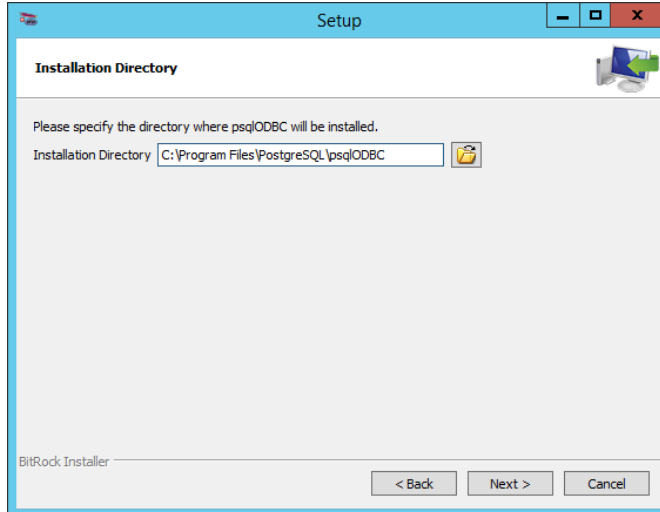


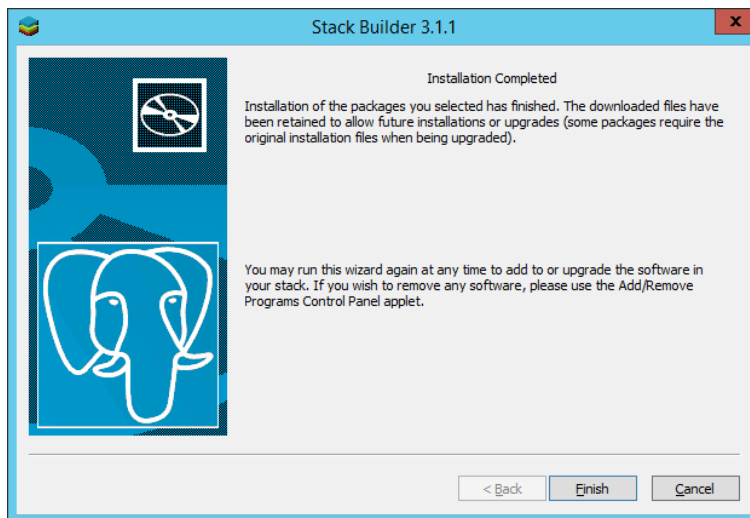
Continue as the above page to install ODBC driver.











PostgreSQL installation is completed.

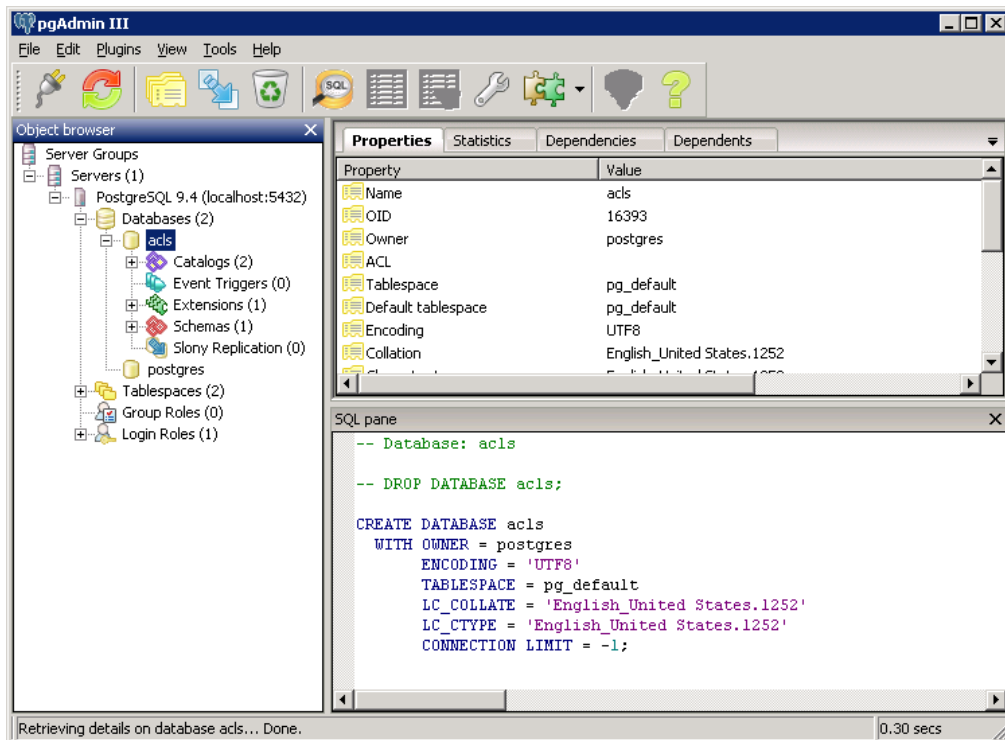
❖ **ACLS Default Database Configuration**

PostgreSQL package comes with the graphic administrator console, pgAdmin III

ACLS



Run pgAdmin III and connect to SQL with the correct password, then create a default database, using name 'acls'



Configuration of PostgreSQL default database is completed

❖ Network Access to PostgreSQL



Through the local pgAdmin III, you connect to SQL locally. As the SQL server set up for remote access over the local network, it is a must to set up network access to SQL on SQL server as ACLS instance on the other server can access the database remotely.

The step to enable network access is straightforward. Go to SQL data folder, ..\data, modify the pg_hba.conf file to add the following lines to the bottom of the file, then save and exit.

```
host all all 192.168.0.5 trust
```

192.168.0.5 is the ACLS instance server IP address. That is it. However, don't forget to set up firewall exception to allow port 5432 connection with ACLS instance server IP, as the example above, 192.168.0.5.

You can set up multiple IP as trust connection so your local DBA (database administrator) can view the data stored in ACLS anytime from his own desktop.

❖ **Navicat for PostgreSQL**

Navicat for PostgreSQL is an easy-to-use graphical tool for PostgreSQL database administration. Create and execute queries and functions with a powerful SQL Editor, and manage your data with versatile data editing tools. Navicat for PostgreSQL connects you to any local/remote PostgreSQL database servers from version 7.3 or above, and supports all PostgreSQL database objects.

From writing simple SQL queries to developing complex databases, Navicat for PostgreSQL is designed with a wide range of users in mind, from those new to PostgreSQL to seasoned developers. Major features include the SQL Builder/Editor,

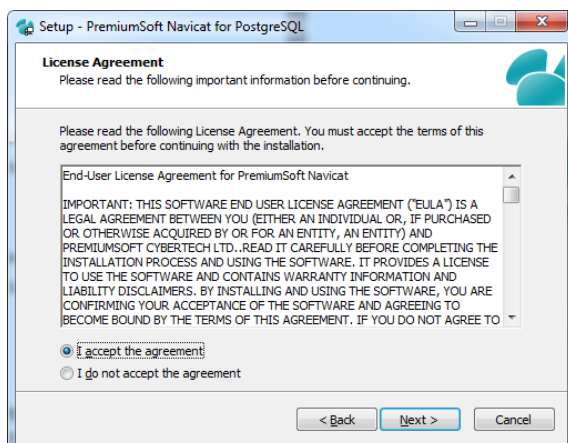
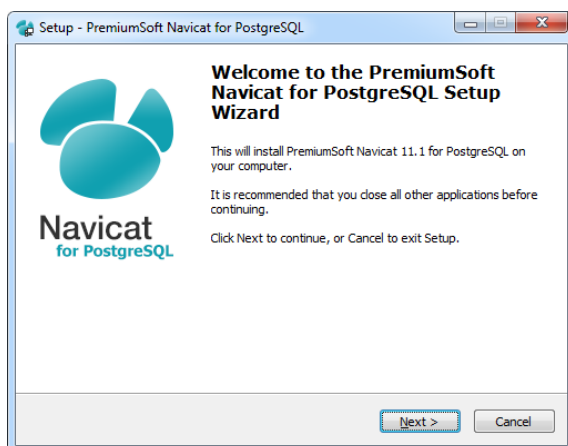


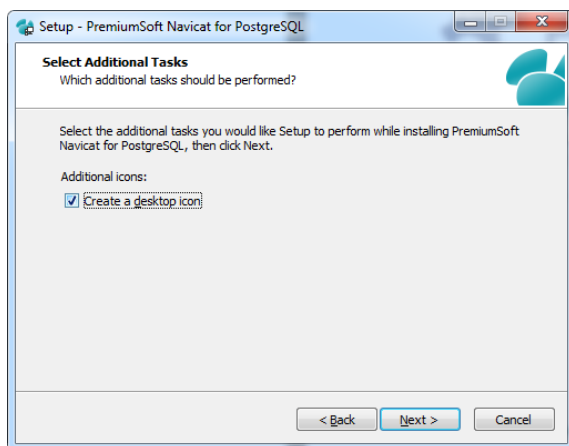
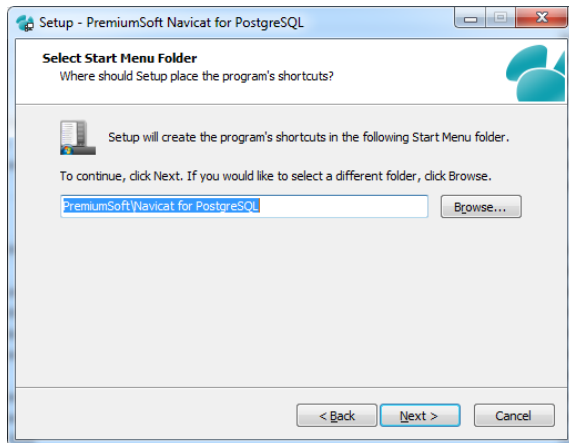
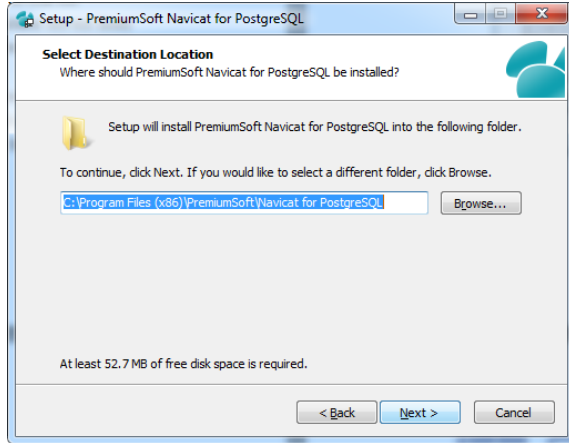
a Data Modeling Tool, Data Transfer, Import/Export, Data/Structure Synchronization, Report, and much more.

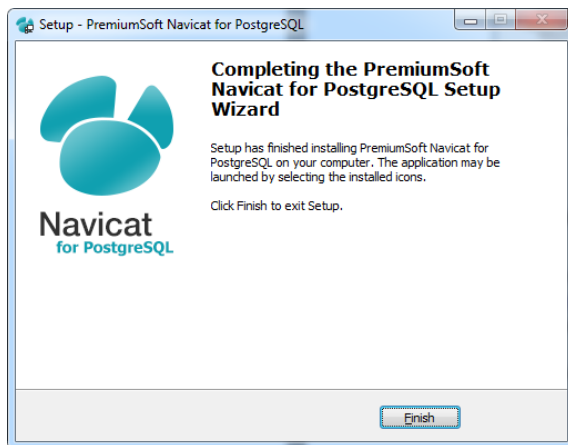
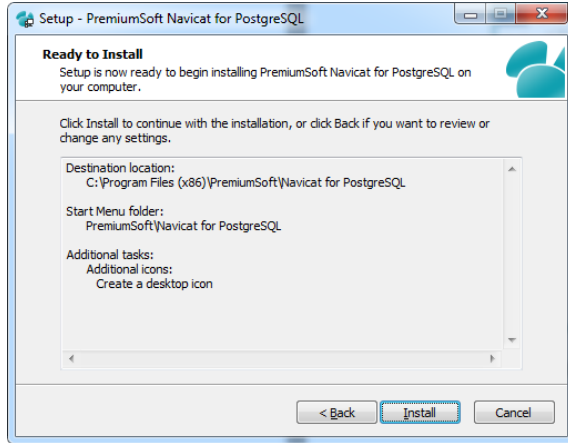
It is highly recommended to install Navicat for PostgreSQL app to view the data and backup. If you are a SQL DBA, you can also use Navicat for reindexing and data repair.

You can download and purchase Navicat for PostgreSQL at <http://www.navicat.com/products/navicat-for-postgresql>.

- **Installation of Navicat is straightforward:**





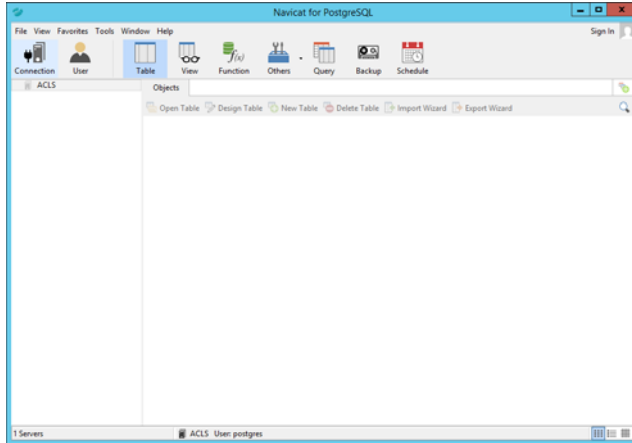


- **Connecting to SQL:**

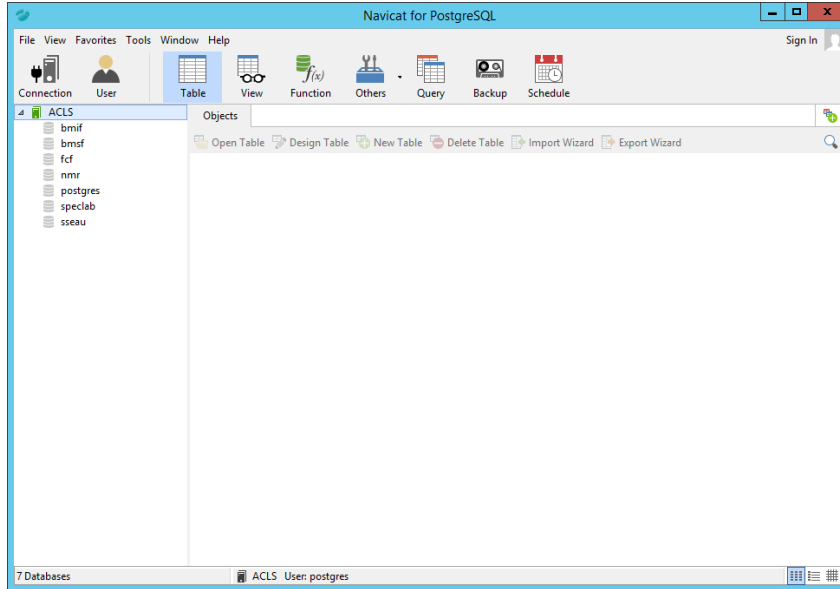
Navicat is a powerful SQL graphic tool to manage, maintain and backup SQL databases.

Click on 'Connect' to set up SQL connection.

ACLS



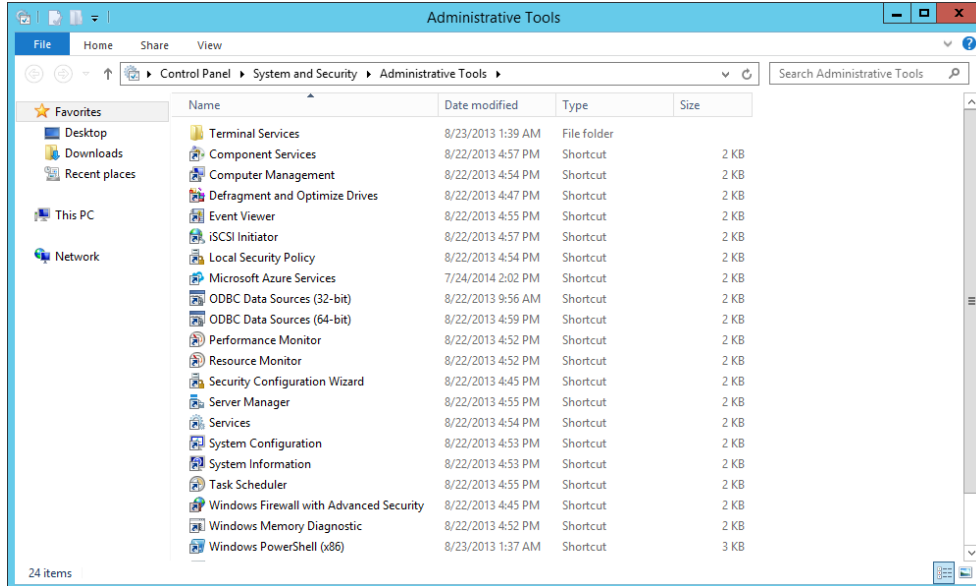
Once Test Connection works, click on 'OK' to save it. Here are the examples of multiple SQL databases running at UNSW.



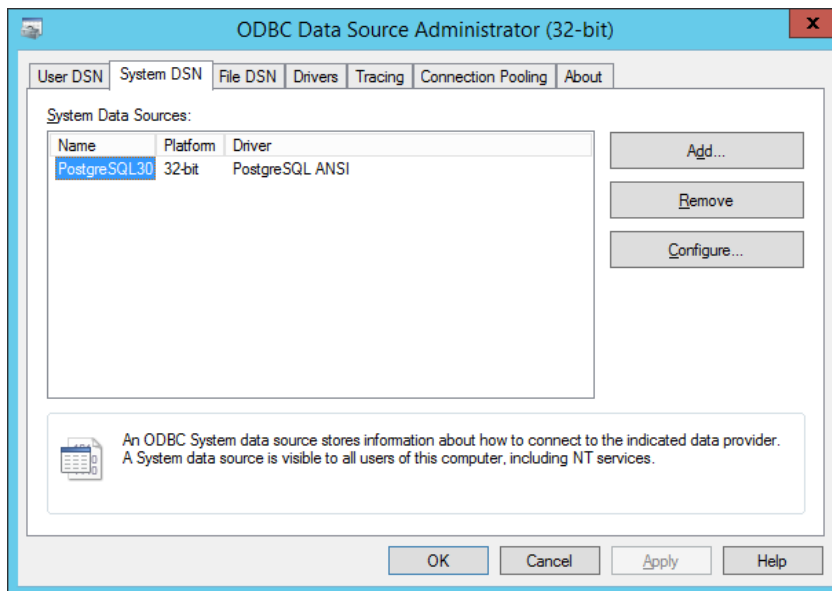
❖ Install ODBC driver to ACLS instance server

Please download the ACLS ODBC driver from ACLS site at <http://www.analytical.unsw.edu.au/for-users/ac-lab-system>. Double click on the driver installer psqlodbc to install the driver.

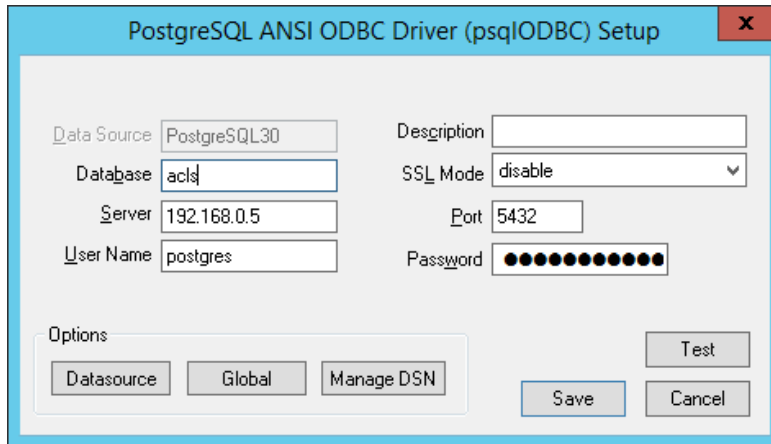
Upon installation, you need to go to Control Panel -> Administrative Tools.



Click on 'ODBC Data Source (32-bit)' to open the page as shown below.



Go to System DSN to add PostgreSQL ODBC connection.



Please click on ‘Test’ to confirm if the connection works. If yes, click on save. If not, please contact us for assistance.

This is all for enterprise PostgreSQL installation and configuration. Please refer to ACLs installation guide to install ACLs and ACLs installer is provided in a separate mail.

❖ Support

Should you need any assistance, please contact us at dm.zheng@unsw.edu.au anytime.