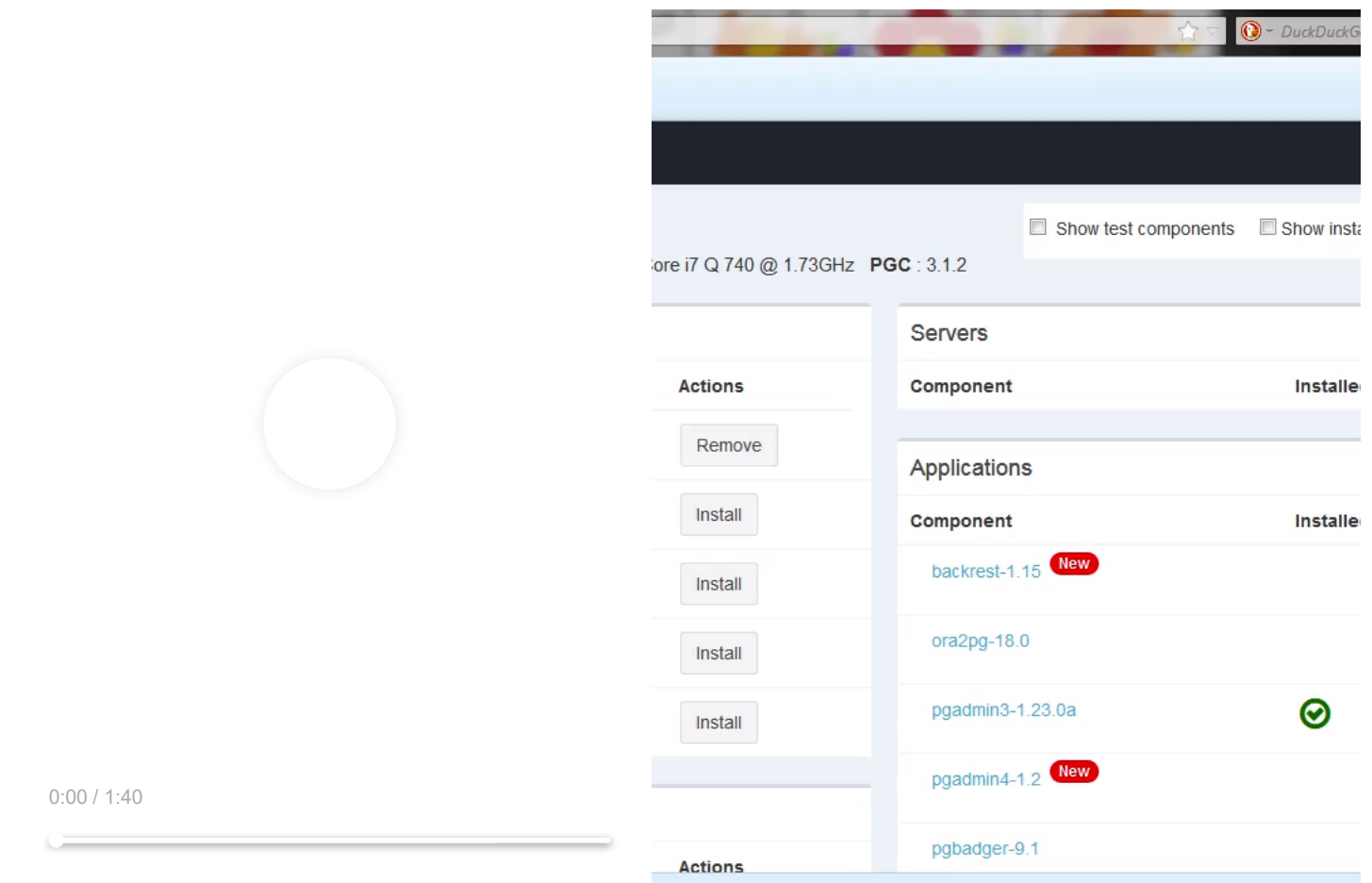


PostgreSQL+PostGIS, 'BigSQL' implementation

This page provides a walkthrough of installing and using an alternative version of Postgres and PostGIS, on a PC - the same procedure should work for MacOS and Linux, too.

1. Start by downloading and installing Postgres, from <https://www.bigsql.org/> (<https://www.bigsql.org/>). When you launch the installer, it will install PostgreSQL, and also start the database 'localhost' server for you. After this, it will offer to bring up a browser-based console for monitoring the server, and for installing additional libraries (such as PostGIS) - accept it.
2. When the 'BigSQL Manager' browser page comes up, use it to install PostGIS, like so:



If the above doesn't work [eg. the browser page doesn't show anything], you can install PostGIS (<https://www.openscg.com/bigsql/docs/postgis/postgis.jsp/>) using the 'pgc' command line utility:

Install and Enable PostGIS

Using PostGIS with BigSQL is easy, simply install the **PostGIS** extension via pgc command line or BigSQL Manager and then enable the extension in the database you want to use PostGIS functions. First, install PostGIS for your version of Postgres. For example, to install PostGIS with PostgreSQL v9.6 run the following:

```
C:\Program Files\PostgreSQL>pgc install postgis23-pg96
['postgis23-pg96']
Get:1 http://s3.amazonaws.com/pgcentral postgis23-pg96-2.3.0-win64
Unpacking postgis23-pg96-2.3.0-win64.tar.bz2
```

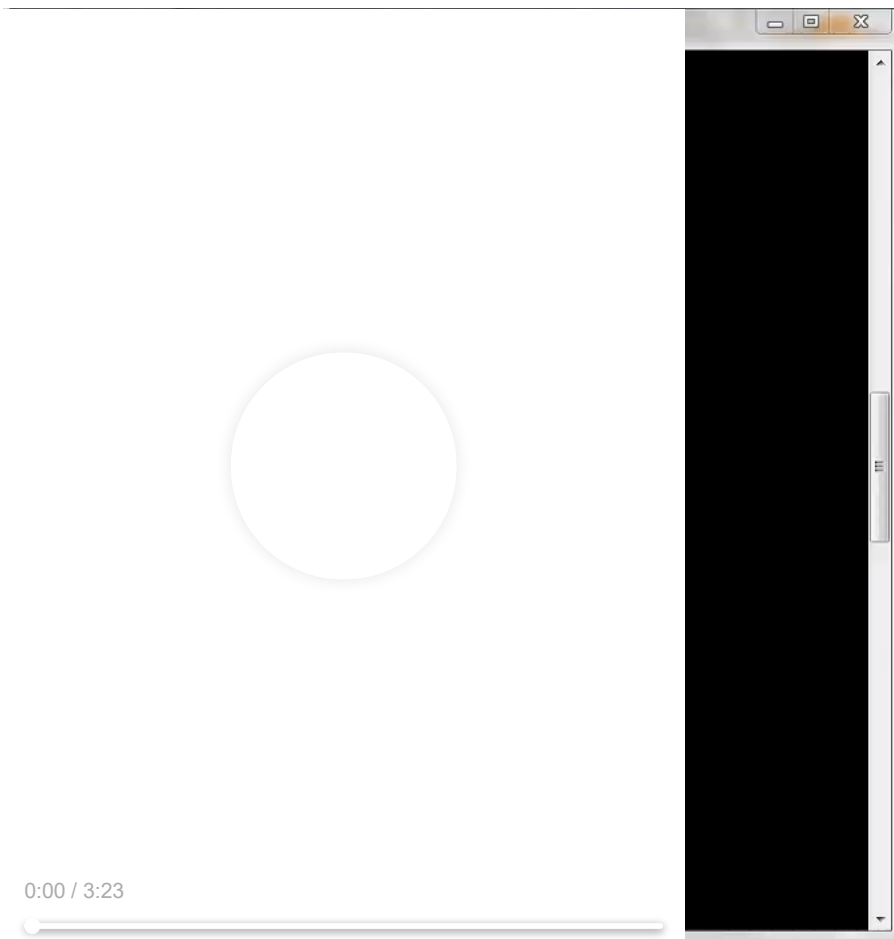
Now you have everything you need, to start doing spatial operations.

A new DB (such as for HW2) can be created in two ways: using the 'psql' shell command, or using the 'pgadmin' GUI. Here is how to create a sample DB, using psql (the create_postgis_sample_db.sql script ships with the installation):

```
c:\PostgreSQL\pg96\bin>psql -U postgres -d template1 -f ../share/doc/postgresql
\extension\create_postgis_sample_db.sql
CREATE DATABASE
WARNING: Console code page (437) differs from Windows code page (1252)
8-bit characters might not work correctly. See psql reference
page "Notes for Windows users" for details.
You are now connected to database "postgres" as user "postgres".
CREATE EXTENSION
CREATE EXTENSION
CREATE EXTENSION
CREATE EXTENSION
CREATE EXTENSION
CREATE EXTENSION
CREATE EXTENSION
c:\PostgreSQL\pg96\bin>
```

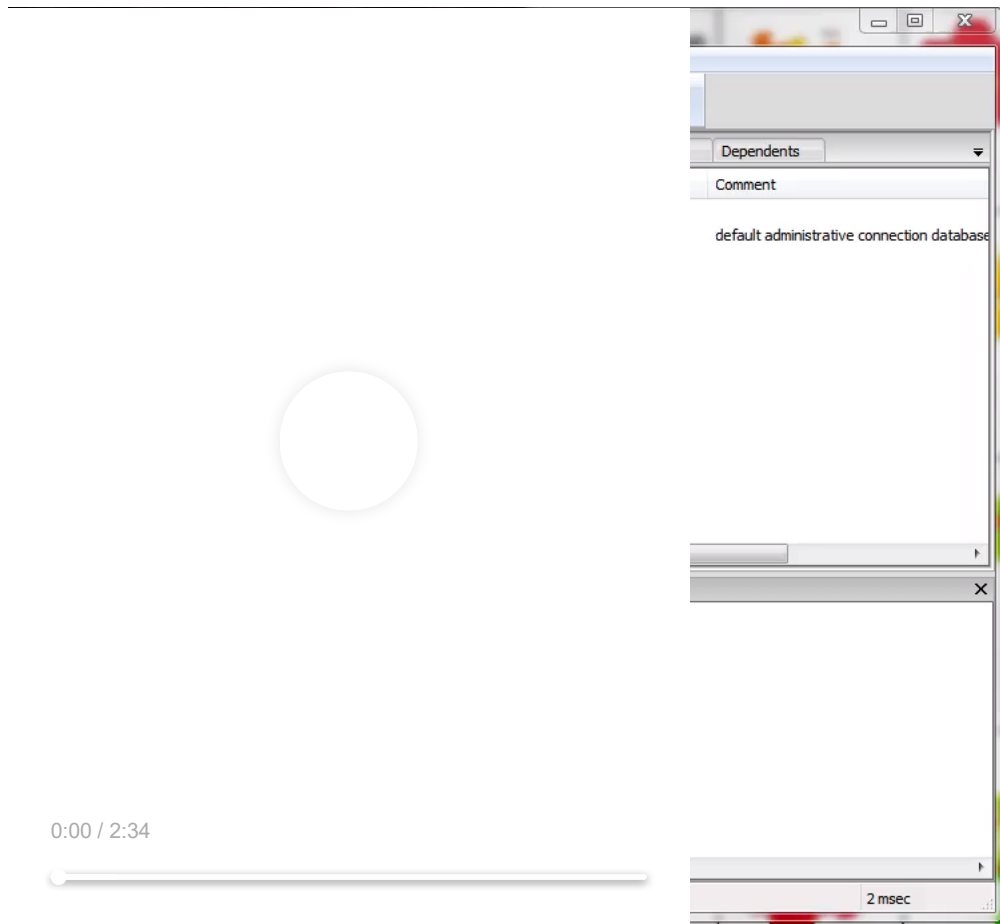
In the above screenshot, note that I'm in the 'bin' directory of Postgres (C:/PostgreSQL/pg96/bin) - that is where all the executables (including psql) are.

3. Next, use 'pgc' (another console command, for provisioning/management) to verify that the DB server is running, and to launch the pgadmin GUI. Once pgadmin comes up, do File -> Add Server to specify our localhost server that is already running. After this, we can create a new DB (in the Object Browser, do Databases -> New Database) for doing the homework - I'm calling it spatialHW:



Now we can execute spatial SQL queries (including table creation and data insertion) that will be associated with our new DB ('spatialHW').

4. Here's how you can create and run SQL queries (in your DB, do (right mouse button) CREATE Script); fyi - you can save your typed-in query commands as a .sql text file:



Hope the above steps provide sufficient detail for you to be able to install, launch and use BigSQL's Postgres DB and PostGIS layer. Good luck!
