PostgreSQL/PostGIS Tutorial

Getting Started

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This series of tutorials were created to teach the user how to install and use PostGIS. On this first tutorial the user will learn the basics of Postgres and PostGIS and how to set-up the software in order to have then running.

FAQ

What is PostGIS?

- PostGIS is a plug-in that add spatial capabilities to the PostgreSQL database management system, or DBMS. Both PostgreSQL and PostGIS are open-source based, which means that it distribution are and will always be free.

Why to use PostGIS?

- If you ever worked on a GIS project with dozens of data you know how hard it is to keep everything organized and stored, that's why databases were created. With a spatial database you can easily organize, store, and query spatial data in a safe environment.

What do I need to get started?

There are two software that form the base for system.

The PostgreSQL database system
The PostGIS plug-in

In order to visualize the spatial data you will need a GIS desktop software.

QGIS is also an open-source distribution and highly praised GIS desktop software.

Downloading, Installing and Setting-up.

The first step is to download the PostgreSQL base software.

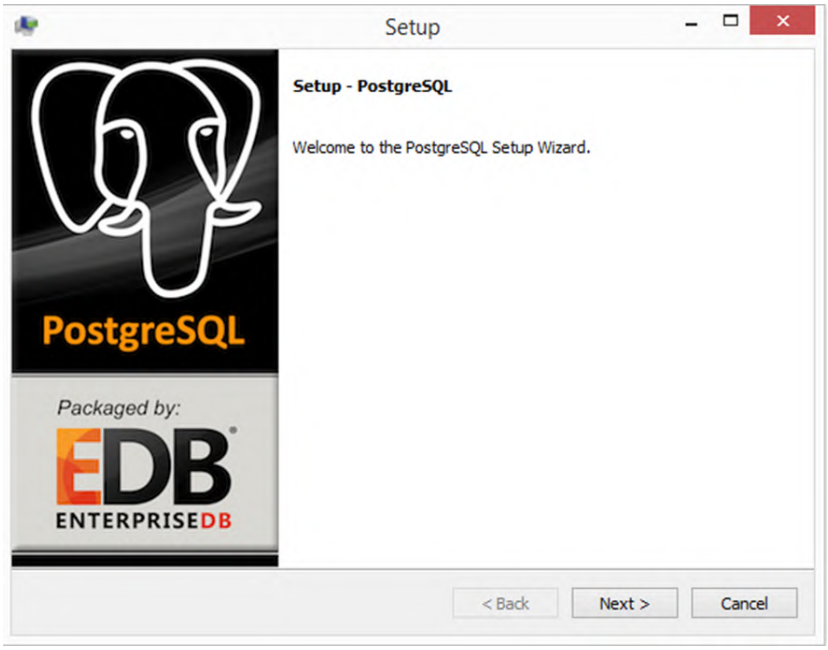
The official website is: http://www.postgresql.org/ there you can find extra documentation about the database management system.

If you wish you can visit http://www.postgis.net where you can find documentation specific to the spatial plug-in.

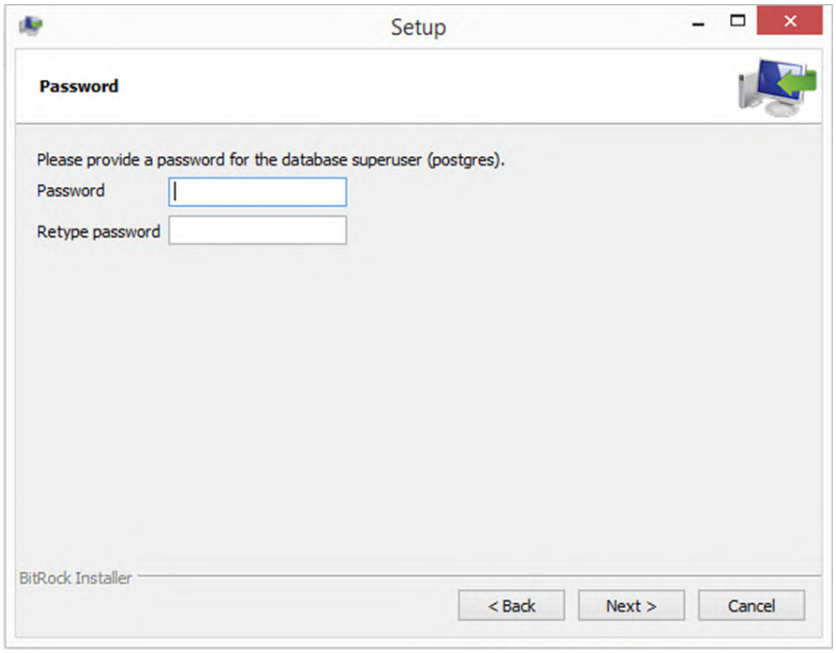
PostgreSQL is distributed by EsnterpiseDB http://www.enterprisedb.com/ . At this link http://www.enterprisedb.com/products-services-training/pgdownload you will find the necessary files to install PostgreSQL in your machine, choose the link that refers to the operation system that you have.

Once you have downloaded the packages let's install it.

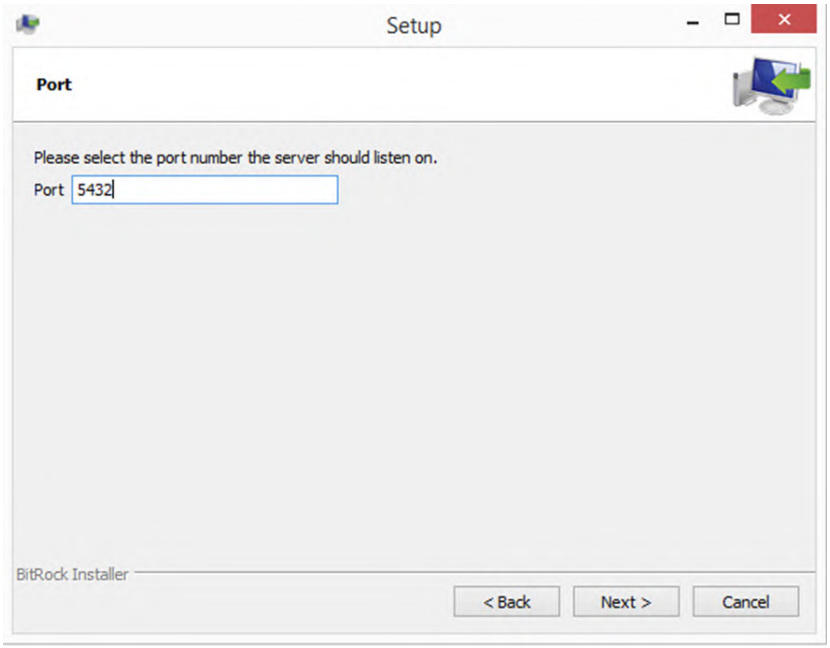
Double click the downloaded file and you shall see this welcome screen, press next until you're requested to provide a password



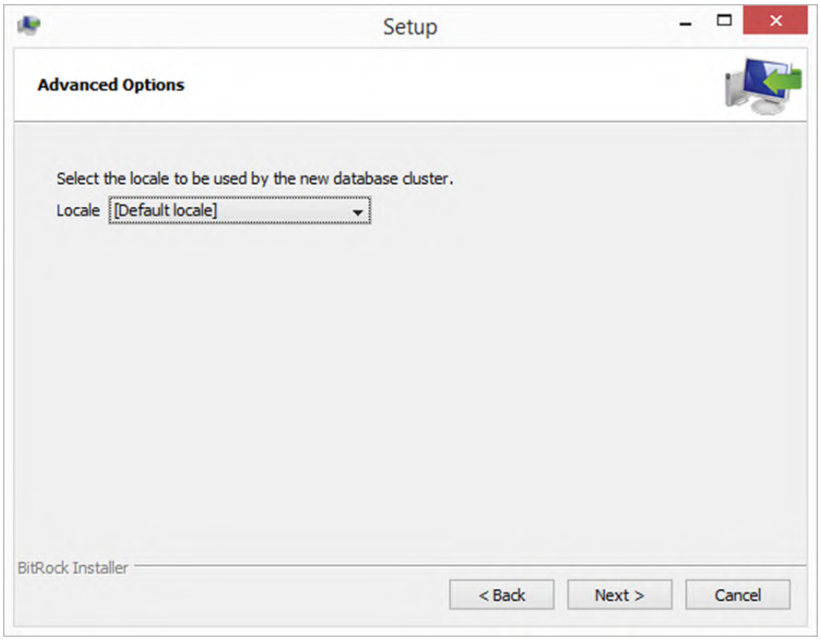
Provide a Password that is easy to remember since the system will request it later. Press next. This password will give all the permissions to work inside the database system, as a super user we can create or even delete databases.



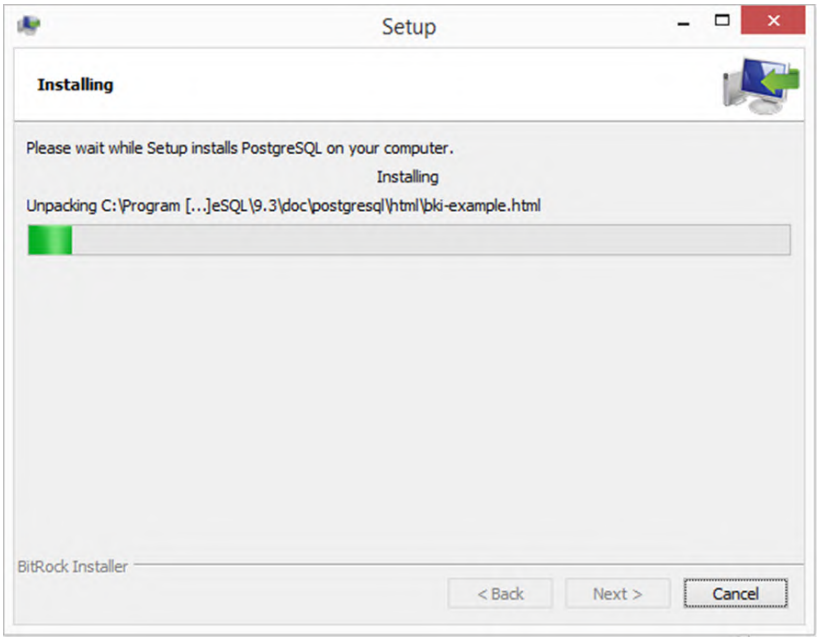
This screen shows the port number PostgreSQL will use to access the database in your computer, leave it with the default value and press next.



Also leave it at default and press next.

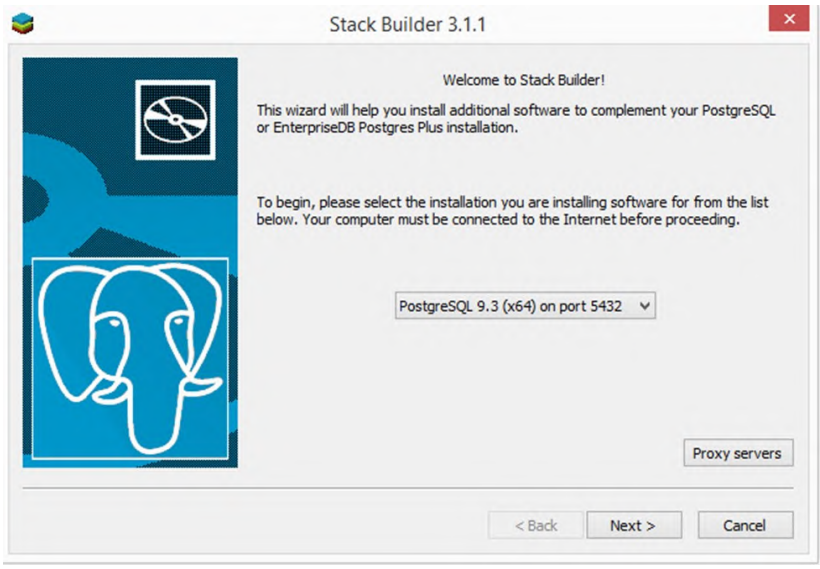


Now the software is installing, this may take a few minutes.

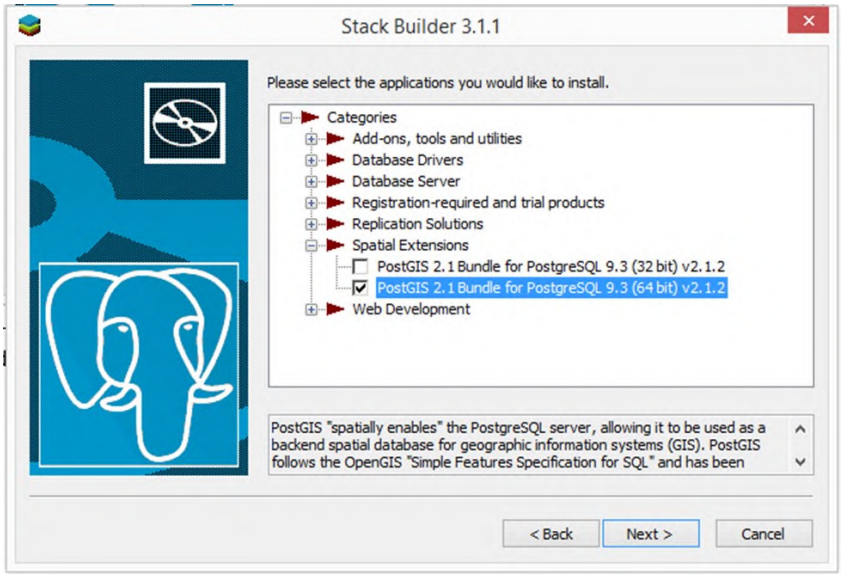


Once the installation is done, you will see this screen asking if you wish to launch the Stack Builder. Stack Builder is add-on from Enterprise DB that allow us to download and install additional plug-ins for PostgreSQL. Since PostGIS is a plug-in we can get the latest version through the Stack Builder. Check the box and press finish.

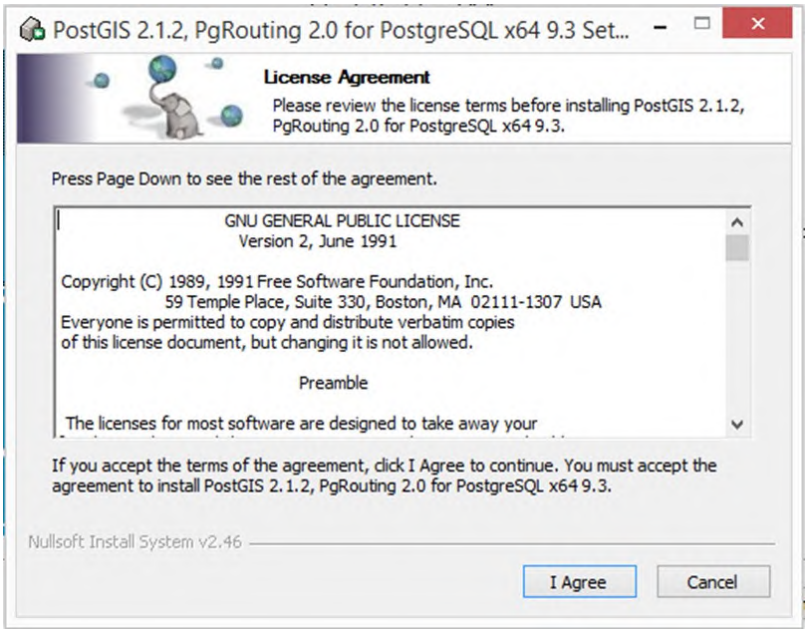
This is the Stack Builder screen, this is where we will download PostGIS. From the drop menu select your version of PostgreSQL and press next.



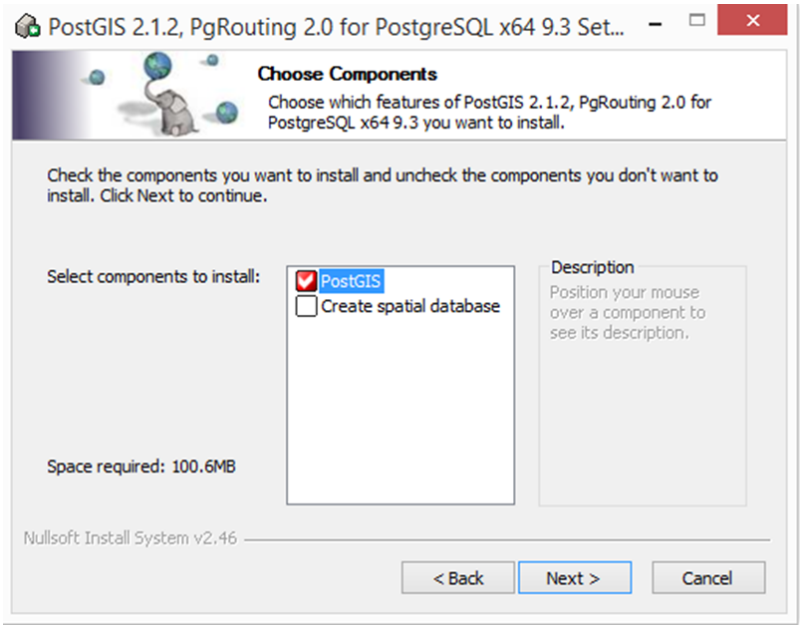
From the Spatial Extension category select PostGIS based on the spec of your machine, then press next. To know if your computer uses 32 or 64bit operating system, double click the My Computer icon on the desk-top or inside the start menu and look for information about which specs you are using.



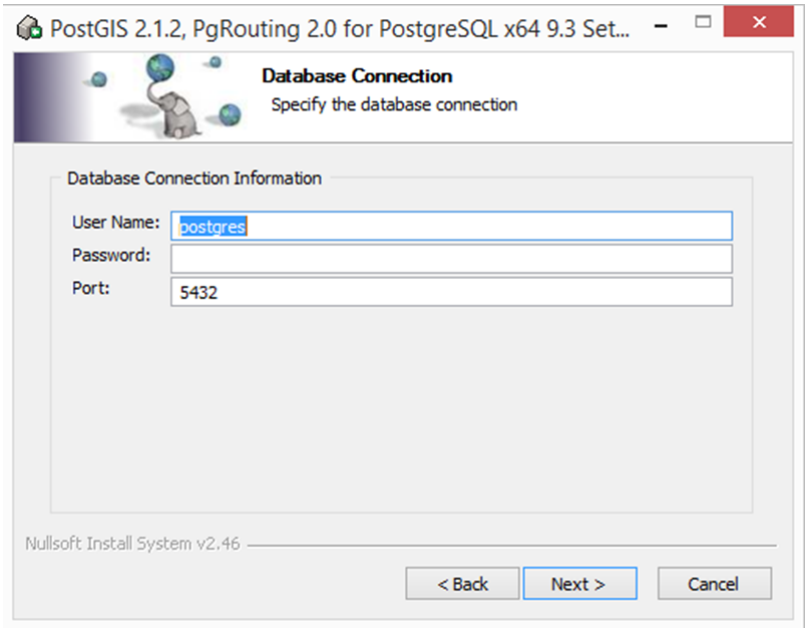
After the download is done press next and we will see this scree, this is the PostGIS installation screen, read and agree with the terms.



Check only the PostGIS box, the other box creates a database inside the system that will be ready to use, but since we will be learning how to create our own database leave it un-check.



Now we have to provide the password for super user that we created previously during the PostgreSQL installation. Press next and the installation process will begin.



Done! Now you have all the required software in your machine in order to start.