

Installing PostgreSQL 9.1 to Windows 7 from the Binary Zip Distribution

Today I was helping a colleague of mine to install and configure PostgreSQL 9.1 to his laptop which was running on Windows 7. We had several problems with the one click installer and after the installation process was finished, we could not start the PostgreSQL database.

Since we could not solve this problem in a reasonable amount of time, we had to use the binary zip distribution. The installation process was quite straightforward but it took some time because I could not find a decent tutorial about it. This blog entry is written to fill that void. Also, even though this blog entry describes the installation process of PostgreSQL 9.1, these instructions should be valid for older versions of PostgreSQL as well.

The required steps are described with more details in later Sections of this blog entry.

Preparing the PostgreSQL 9.1 Installation

This process has two steps:

1. Download and install the Microsoft Visual C++ 2008 redistributable package.
2. Download and unpack the PostgreSQL binary distribution.

These steps are described with more details in the following.

The first step (installing the Microsoft Visual C++ 2008 redistributable package) might not be required anymore. One reader said that [he was able to run PostgreSQL without installing it](#). However, another reader claimed that [he had to install Microsoft Visual C++ 2013 redistributable package](#) before he could run PostgreSQL 9.5.

Nevertheless, I will leave it here because you still need to do it if you install older PostgreSQL versions by using the binary zip distribution. I am not sure which PostgreSQL versions require the Microsoft Visual C++ 2008 distributable package, but if I remember correctly, I had to install it when I installed PostgreSQL 9.1.

Downloading the Microsoft Visual C++ 2008 Redistributable Package

The first step is to download and install the [Microsoft Visual C++ 2008 redistributable package](#).

Downloading and Unpacking the PostgreSQL binary distribution

The second step is to [download the binary zip distribution](#).

After you have downloaded the binary zip distribution, you can unzip the binary distribution to the preferred directory. When this is done, the target directory should contain a directory called *'pgsql'*. This directory contains the binaries of PostgreSQL 9.1. I will refer this directory simply as *POSTGRESQL_ROOT* (Remember to replace the string *POSTGRESQL_ROOT* with the actual directory path of your installation when following these instructions).

The next step is to create the data and log directories for your PostgreSQL installation. This is done by creating the following directories to the *POSTGRESQL_ROOT* directory:

- The *'data'* directory contains the data files of your PostgreSQL installation.
- The *'log'* directory contains the logs of your PostgreSQL installation.

You have now finished the needed preparations and can move on to the next phase of the installation process.

Configuring the PostgreSQL 9.1 Installation

The next step is to create a new PostgreSQL database cluster. You can do this by using the [initdb command](#) which is found from the `POSTGRESQL_ROOT/bin` directory. You can create the database cluster by running the following command from the `bin` directory of your PostgreSQL installation:

```
initdb -U postgres -A password -E utf8 -W -D POSTGRESQL_ROOT\data
```

The command line parameters of the `initdb` command are described in following:

- `-U postgres` means that the superuser account of your database is called '`postgres`'.
- `-A password` means that password authentication is used.
- `-E utf8` means that the default encoding will be UTF-8.
- `-W` means that you will enter the superuser password manually.
- `-D POSTGRESQL_ROOT\data` specifies the data directory of your PostgreSQL installation.

After you have successfully created the database cluster, your PostgreSQL installation is ready to be used. You can start and stop your database instance by using the following commands:

The database can be started by running the following command:

```
"POSTGRESQL_ROOT/bin/pg_ctl" -D "POSTGRESQL_ROOT/data" -l "POSTGRESQL_ROOT/log/pgsql.log" start
```

The database can be stopped by running the following command:

```
"POSTGRESQL_ROOT/bin/pg_ctl" -D "POSTGRESQL_ROOT/data" -l "POSTGRESQL_ROOT/log/pgsql.log" stop
```

To make things as easy as possible, you should create new shortcuts to your desktop and use them for starting and stopping the database server.

Note: If you want to run PostgreSQL as a service, you should run the following command:

```
POSTGRESQL_ROOT/bin/pg_ctl.exe register -N "postgresql" -U "NT  
AUTHORITY\NetworkService" -D "POSTGRESQL_ROOT/data" -w
```

After you have done this, you can start the service by using the *Services* panel.

Congratulations

Your PostgreSQL 9.1 installation should now be functional. The next step is to start the database server by using the created shortcut and verify that you can connect to your database instance. You can use the [PgAdmin database management tool](#) for this task and congratulate yourself for a job well done.