
INSTALLATION MANUAL

POSTGRESQL9

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Introduction

Photo Supreme is “Digital Asset Management” software. Photo Supreme makes it possible to manage your image files by categorizing them. It will categorize the files based on the available details of the file, this includes technical photo details, but also the location of the file on disk, etc. Apart from those properties you can add tags to the images, enrich the files with descriptions, or add custom information. This may sound like a very time-consuming task, but once you’ve worked yourself through that, you will benefit from the many advantages. With Photo Supreme at hand you will be able to quickly retrieve your images using all kinds of criteria or combinations.

The PostgreSQL version of Photo Supreme is available for Windows as well as MacOSX platforms. As its name suggests, this version uses the popular open source database system PostgreSQL. PostgreSQL, is a free and open-source object-relational database management system with an emphasis on extensibility and standards-compliance. As a database server, its primary function is to store data, securely and supporting best practices, and retrieve it later, as requested by other software applications, be it those on the same computer or those running on another computer across a network (including the Internet). It can handle workloads ranging from small single-machine applications to large Internet-facing applications with many concurrent users. Recent versions also provide replication of the database itself for security and scalability. *[source: Wikipedia]*

This manual describes how to install and configure the PostgreSQL database. This manual will also describe how to get Photo Supreme up and running with an existing instance of PostgreSQL.

Installing PostgreSQL

If you’re new to PostgreSQL or when you’re installing a complete new PostgreSQL installation then you can use this guideline. This document explains how to install PostgreSQL version 9.x and how to configure the installation for the purpose of running Photo Supreme. The installation of PostgreSQL is fairly straight forward and doable for novice, as well as skilled computer users.

In general; when installing PostgreSQL for the purpose of using Photo Supreme then you must make sure that remote connections are enabled. When you’re planning to install PostgreSQL on a separate (server) configuration then also take note that you have to configure the server’s firewall software to allow access over the PostgreSQL TCP/IP port (default 5432) and grant connections to the pg_ctl.exe program (Windows).

This document assumes that you’ve downloaded the full version of the PostgreSQL software. Photo Supreme is tested with 9.3 but should work with every 9.0 version or up. The PostgreSQL software can be downloaded here.

<http://www.postgresql.org/download>

After downloading the PostgreSQL setup package, you’re ready to install it. When you install the software then use the standard settings. When prompted for a PostgreSQL Data Folder then you I do recommend to specify a folder outside of the PostgreSQL installation folder and where you can easily include it in your backups.

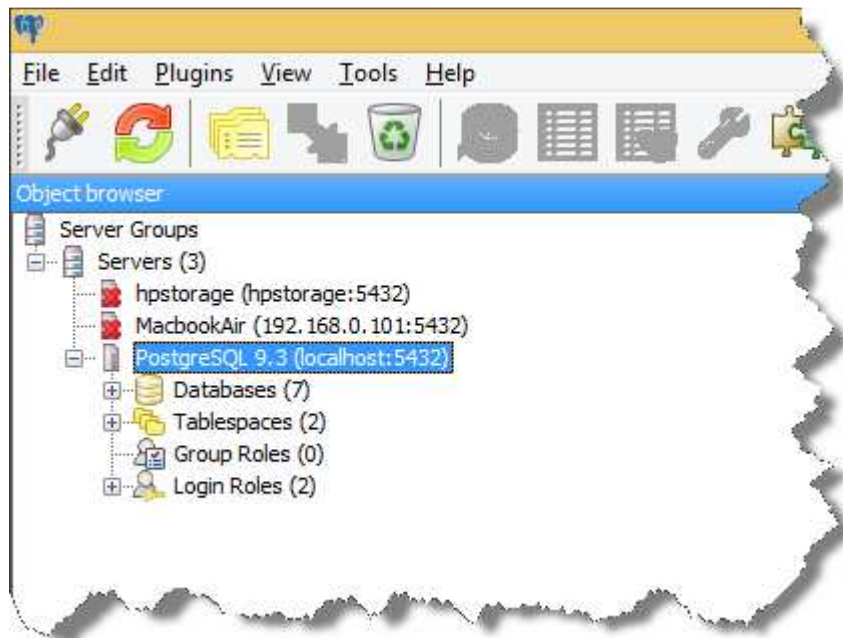
You'll be prompted to enter the super user password. Make sure that you write this password down as you'll need it in the future. Also write down what your PostgreSQL data folder is.

Configuring PostgreSQL

After you've installed the software, it is required that you make a small change to allow remote connections (connections from other computers to the database). To do so we need to customize the file **pg_hba.conf**. The easiest way to edit the file is by using the utility called **pgAdmin III** that is also installed when doing a default installation.

Start pgAdmin iii. In Windows you can find this file in the installation group for PostgreSQL. MacOSX users can find the pgAdmin iii utility in the Applications folder.

After starting pgAdmin iii, it will list your PostgreSQL server instances at the left side. If it's not included then click the power plug icon in the toolbar to attach a connection to your server instance. Double your instance and enter the database password (if prompted) to connect. This is the password that you've entered during the installation process.

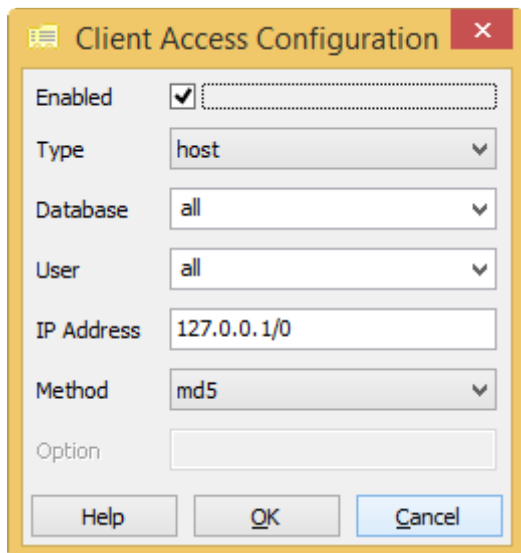


With your instance selected, from the Tools menu, select Server Configuration and then pg_hba

Find the entry for host - all - all - 127.0.0.1/32 - md5

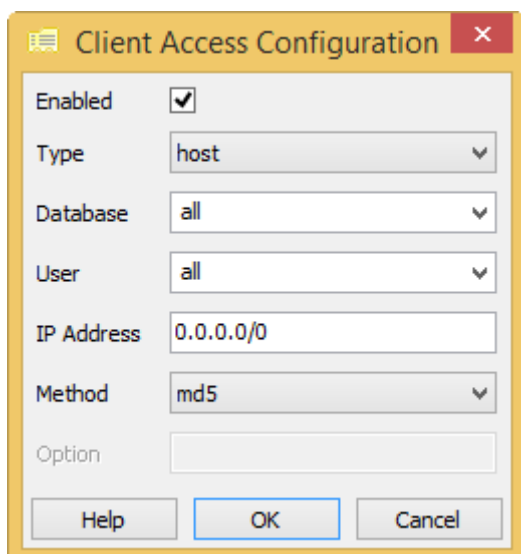
Make sure that it is enabled (checked).

Double click on this entry and change it as shown below:



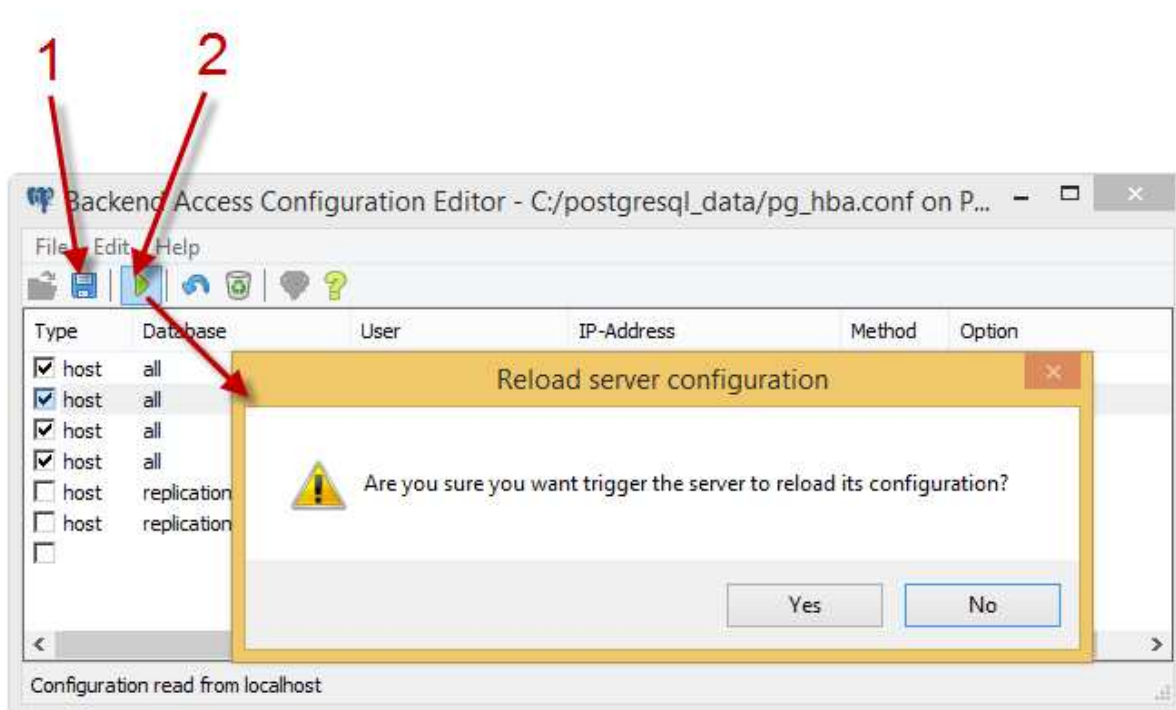
Then click OK to return to the list.

We need to add another entry. To do so, select the last line in the list. This is the empty line with just a check box and no other info. Double click on this last entry. Change the entries as shown below (don't forget to enable the line by ticking the checkbox at the top):



Click OK to return to the list.

These are all changes that we have to make. Save the changes with the Save button in the toolbar. Then, to reload the changed configuration in PostgreSQL, click the run button to reload the changed configuration.



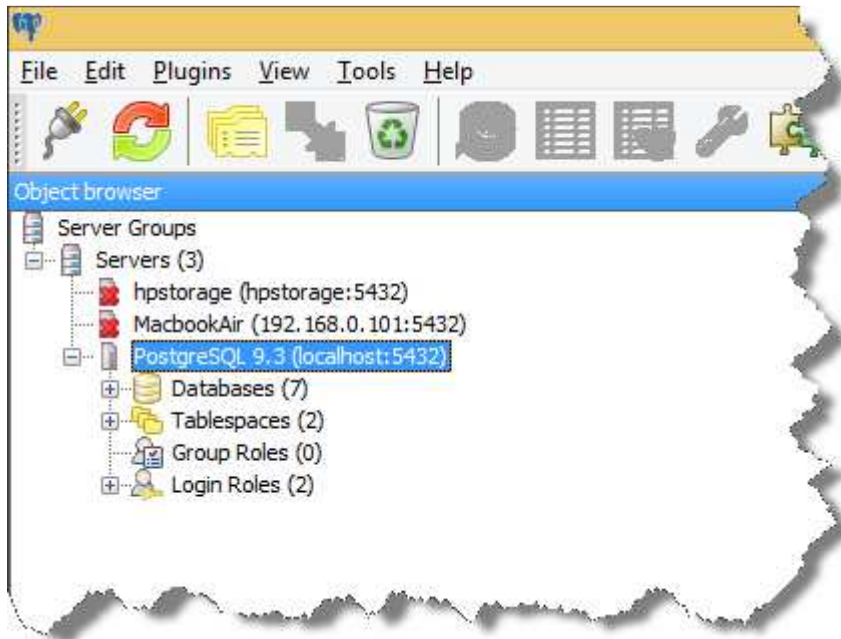
Optional PostgreSQL performance configuration

In the light of modern computer hardware, the default PostgreSQL settings are very conservative. It's recommended to make some changes to gain additional performance. To do so, we'll need to customize the **postgresql.conf** file.

The easiest way to edit the file is by using the utility called **pgAdmin III** that is also installed when doing a default installation.

Start pgAdmin iii. In Windows you can find this file in the installation group for PostgreSQL. MacOSX users can find the pgAdmin iii utility in the Applications folder.

After starting pgAdmin iii, it will list your PostgreSQL server instances at the left side. If it's not included then click the power plug icon in the toolbar to attach a connection to your server instance. Double your instance and enter the database password (if prompted) to connect. This is the password that you've entered during the installation process.



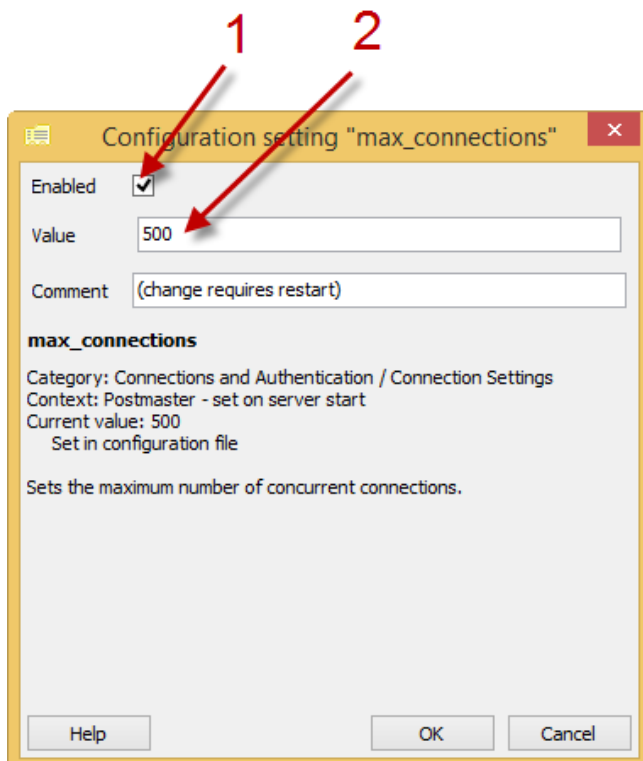
With your instance selected, from the Tools menu, select Server Configuration and then postgresqlconf

The list is unsorted and so finding some of the mentioned options can be a chore.

Some of the performance recommendations depend on your hardware configuration.

[max_connections](#)

Find the configuration setting for max_connections. Double click the entry and make sure that Enabled is **ticked**.



Set `max_connections` to a value, about 20 times the number of concurrent Photo Supreme users that you plan to use this database. E.g. if 5 users will use Photo Supreme concurrently then set it to a value of 100 or higher. Then click OK.

`shared_buffers`

Find the configuration setting for `shared_buffers`. Double click the entry and make sure that Enabled is **ticked**.

Set `shared_buffers` to a value, about 25% of the internal memory of the server hardware. E.g. if your server holds 4GB of internal memory then set it to a value of 1024MB. Then click OK.

`effective_cache_size`

Find the configuration setting for `effective_cache_size`. Double click the entry and make sure that Enabled is **ticked**.

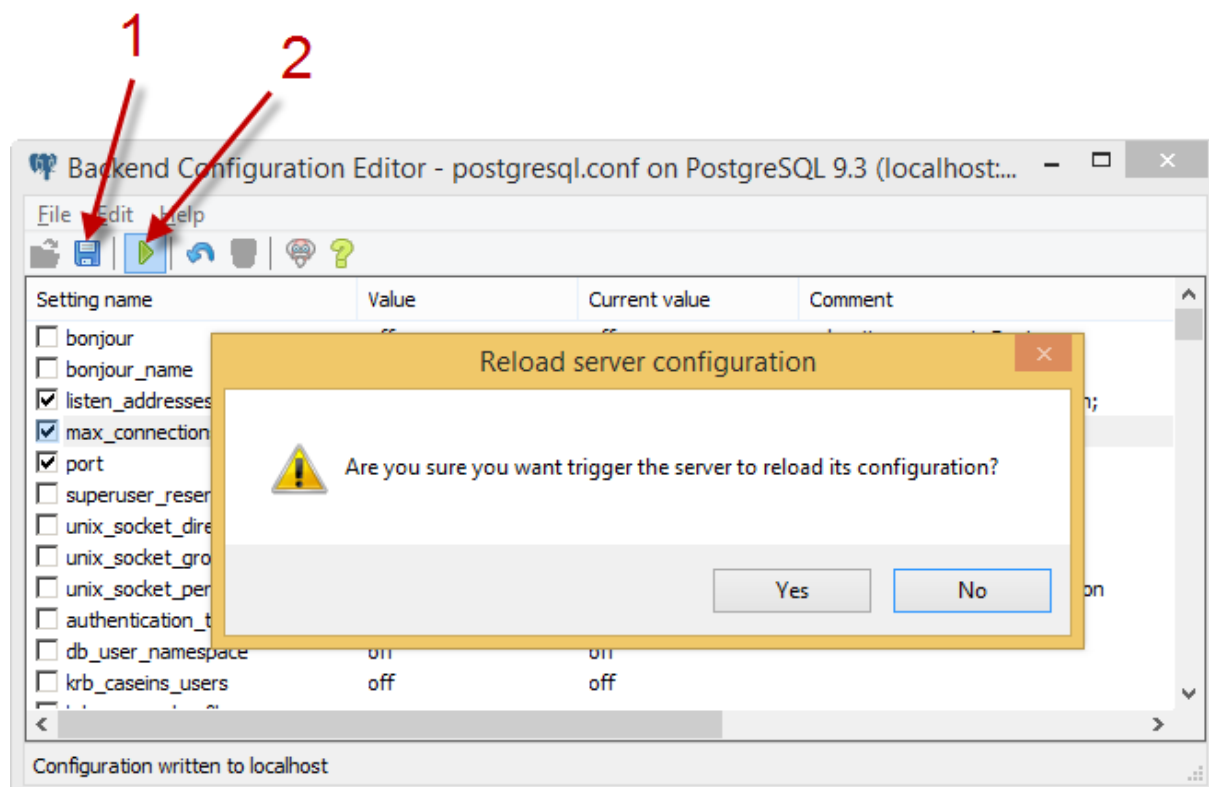
Set `effective_cache_size` to a value, about 50% of the internal memory of the server hardware. E.g. if your server holds 4GB of internal memory then set it to a value of 2048MB. Then click OK.

`work_mem`

Find the configuration setting for `work_mem`. Double click the entry and make sure that Enabled is **ticked**.

Set `work_mem` to 32MB. This setting is a per-operation setting so don't push the limits. Then click OK.

These are all recommended changes to make. Save the changes with the Save button in the toolbar. Then, to reload the changed configuration in PostgreSQL, click the run button to reload the changed configuration.



Restart the PostgreSQL service

In general, the easiest way to restart the PostgreSQL service is by rebooting the machine on which you've installed PostgreSQL.

It's highly recommended that you reboot instead of following the manual instructions below.

If you prefer to start the service manually then follow these instructions:

FOR WINDOWS

On Windows, you can restart the PostgreSQL service from the Services.

1. Open the Control Panel
2. Search the Control Panel for the text "Services" (enter this without quotes in the search box on top)
3. Start the Administrative Tools -> View Local Services
4. Find the postgresql service in the list (on mine it's called postgresql-x64-9.3)
5. Right click on the service and select "Restart"

FOR MACOSX

On MacOSX you can restart the PostgreSQL service from Terminal

1. Start Terminal
2. Enter `sudo -s`
3. Enter your OSX administrator password
4. Stop the service (replace the last two number of the version number with the one that you installed):

```
launchctl stop com.edb.launchd.postgresql-9.3
```

5. Start the service (replace the last two number of the version number with the one that you installed):

```
launchctl start com.edb.launchd.postgresql-9.3
```

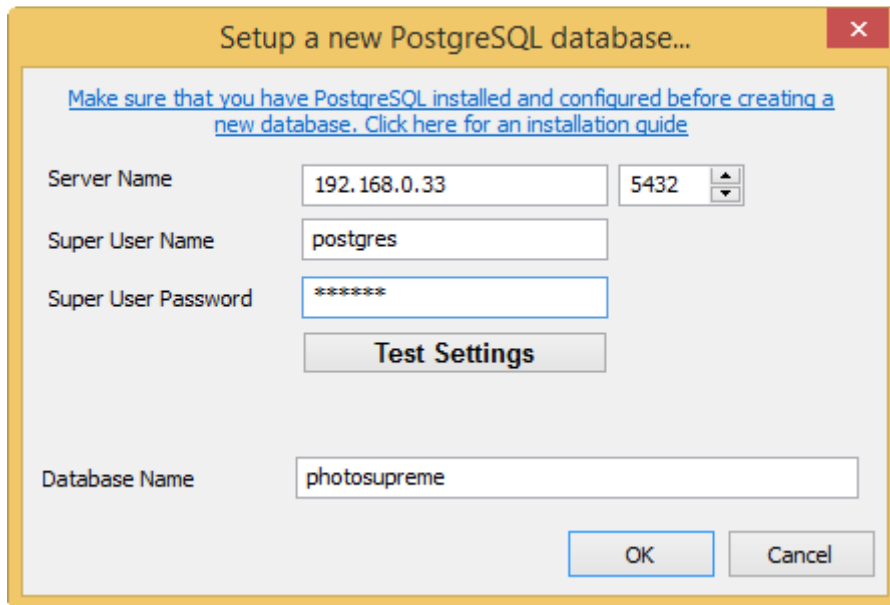
Installing Photo Supreme for PostgreSQL

Now that you've installed PostgreSQL, you're ready to install Photo Supreme. If you already had PostgreSQL installed before installing it for Photo Supreme, then please read the chapter above and make sure that your database is configured correctly.

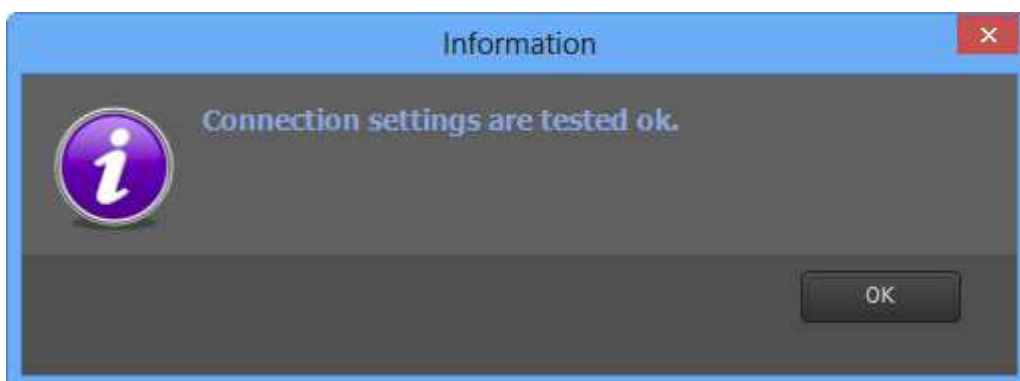
Download the software from our website <http://www.idimager.com> and double click the downloaded setup package. That starts the installation process. The installation process is

straight forward, so nothing special there. At the end of the installation, you can launch Photo Supreme.

Since this is the first time that you run Photo Supreme for PostgreSQL, it will ask you to setup a new database for Photo Supreme. This will be your Catalog database.

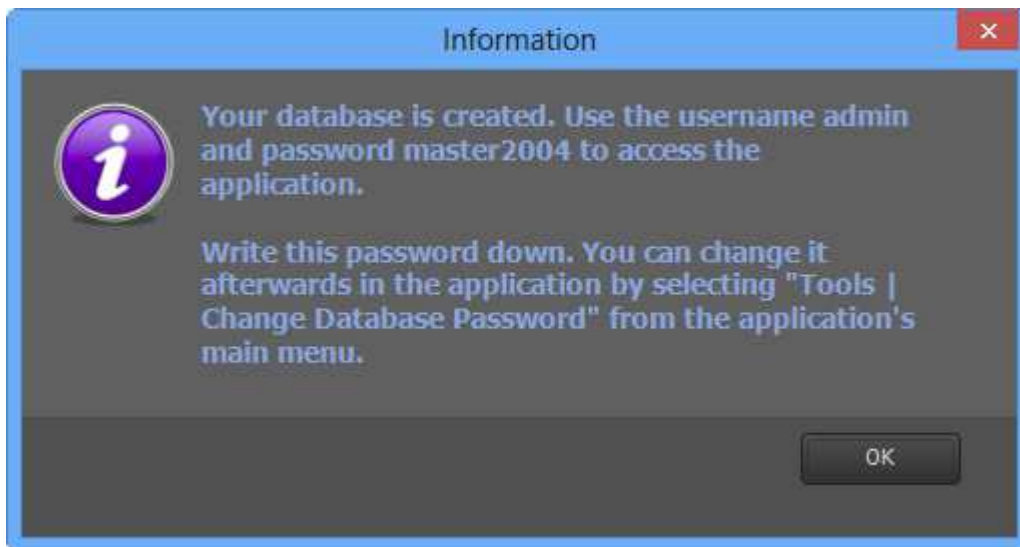


1. Enter the Hostname or TCP/IP address of the server/computer that runs the database instance
2. Enter the PostgreSQL Super User password. This is the password that you've entered during the installation process. If you don't know this password then ask your database or network administrator.
3. Click "Test Settings" to verify that the software can establish a connection with the PostgreSQL database. If all is well you should get this message.



4. Optionally name your database. Default is "photosupreme" and if you're planning to run just one catalog database then it's recommended to keep the name unchanged.

- Click OK and let Photo Supreme create your database. Once the database is created, you'll get this message:



- Keep the admin password in your records. This is the application password needed to open Photo Supreme. This is not the database password, nor is it the PostgreSQL Super User password. Click OK to confirm the message.
- By default you'll get the login dialog. The default password is pre-filled. Just click OK to enter



- Congratulations. You are now ready to use Photo Supreme with PostgreSQL.**