

## **PostgreSQL 9.5 Installation Guide**

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## PostgreSQL Installation Guide

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# **1** Introduction

The PostgreSQL installers created by EnterpriseDB are designed to make it quick and simple to install PostgreSQL on your computer. The installer provides:

- a distribution-independent PostgreSQL installation.
- the popular open-source PostgreSQL administration tool, pgAdmin.
- the StackBuilder package manager (used to download and install drivers, tools and applications to complement your PostgreSQL installation).

The sections that follow provide information about using the PostgreSQL 9.5 installer:

- How to satisfy hardware requirements and software prerequisites before installing PostgreSQL.
- Step-by-step instructions explaining the installation options available with the setup wizard.
- How to use Stack Builder to install modules that provide enhanced functionality for PostgreSQL 9.5.
- How to perform a simple text-mode installation on a Linux or Mac system.
- Information about performing an unattended mode installation from a command line or client application on Linux, Mac or Windows.
- Detailed information about uninstalling PostgreSQL.

## 1.1 Typographical Conventions Used in this Guide

Certain typographical conventions are used in this manual to clarify the meaning and usage of various commands, statements, programs, examples, etc. This section provides a summary of these conventions.

In the following descriptions a *term* refers to any word or group of words that are language keywords, user-supplied values, literals, etc. A term's exact meaning depends upon the context in which it is used.

- *Italic font* introduces a new term, typically, in the sentence that defines it for the first time.
- Fixed-width (mono-spaced) font is used for terms that must be given literally such as SQL commands, specific table and column names used in the examples, programming language keywords, etc. For example, SELECT \* FROM emp;
- Italic fixed-width font is used for terms for which the user must substitute values in actual usage. For example, DELETE FROM table\_name;
- A vertical pipe | denotes a choice between the terms on either side of the pipe. A vertical pipe is used to separate two or more alternative terms within square brackets (optional choices) or braces (one mandatory choice).
- Square brackets [] denote that one or none of the enclosed term(s) may be substituted. For example, [ a | b ], means choose one of "a" or "b" or neither of the two.
- Braces {} denote that exactly one of the enclosed alternatives must be specified. For example, { a | b }, means exactly one of "a" or "b" must be specified.
- Ellipses ... denote that the proceeding term may be repeated. For example, [ a |
  b ] ... means that you may have the sequence, "b a a b a".

# **2 Requirements Overview**

PostgreSQL 9.5 is certified on the following platforms:

32 bit Windows:

Windows Server 2008 R1

64 bit Windows:

Windows 2008 R1

Windows 2012 R1 and R2

32 bit Linux:

Amazon Linux

CentOS 6.x and 7.x

Red Hat Enterprise Linux 6.x and 7.x

Ubuntu 14.04 LTS

#### 64 bit Linux:

Amazon Linux

CentOS 6.x and 7.x

Red Hat Enterprise Linux 6.x and 7.x

SLES 12.x

Ubuntu 14.04 LTS

MAC OS X:

OS X Server 10.8, 10.9, and 10.10

## 2.1 Hardware Requirements

The following installation requirements assume you have selected the default options during the installation process. The minimum hardware required to install and run PostgreSQL are:

- a 1 GHz processor
- 1 GB of RAM
- 512 MB of HDD

Please note that additional disk space is required for data.

## 2.2 Software Prerequisites

## **User Privileges**

On a Linux or Mac system, you must have superuser privileges to perform a PostgreSQL installation. To perform an installation on a Windows system, you must have administrator privileges.

If you are installing PostgreSQL into a Windows system that is configured with User Account Control (UAC) enabled, you can assume sufficient privileges to invoke the graphical installer by right clicking on the name of the installer and selecting Run as administrator from the context menu. If prompted, enter an administrator password to continue.

## **SELinux Permissions**

Before installing PostgreSQL on a system that is running SELinux, you must set SELinux to permissive mode.

The following example works on Redhat Enterprise Linux, Fedora Core or CentOS distributions. Use comparable commands that are compatible with your Linux distribution to set SELinux to permissive mode during installation and return it to enforcing mode when installation is complete.

Before installing PostgreSQL, set SELinux to permissive mode with the command:

# setenforce Permissive

When the installation is complete, return SELinux to enforcing mode with the command:

# setenforce Enforcing

### Linux-specific Software Requirements

You must install xterm, konsole, or gnome-terminal before executing any consolebased program installed by the PostgreSQL installer.

#### Windows-specific Software Requirements

Be sure to apply Windows operating system updates before invoking the PostgreSQL installer. If (during the installation process) the installer encounters errors, exit the installation, and ensure that your version of Windows is up-to-date before restarting the installer.

#### Mac OS X-specific Software Requirements

PostgreSQL installation on Mac OS X differs slightly from other platforms as the distribution is in a different format, and some additional configuration may be required.

The Mac OS X installer is an App Bundle (a set of files and directories in a prescribed format). To ensure the App Bundle can be downloaded, it is packaged inside a disk image (.dmg) file. To extract the installer, simply mount the disk image and copy the installer to the desired location, or run it directly from the disk image.

By default, Mac OS X ships with shared memory settings that are too low for running PostgreSQL. The installer will detect this, and if possible, reconfigure shared memory and then prompt you to reboot the system and rerun the PostgreSQL installer. For more information, please see the README file in the distribution disk image.

# 3 Installing PostgreSQL with the Graphical Installation Wizard

The graphical installation wizard provides a quick and easy way to install PostgreSQL 9.5. As the installation wizard's easy-to-follow dialogs lead you through the installation process, specify information about your system. When the dialogs are complete, the setup wizard will perform an installation based on the selections made during the setup process.

Note that if you are invoking the graphical installer to perform a system upgrade, the installer will preserve the configuration options specified during the previous installation.

When the PostgreSQL installation finishes, you will be offered the option to invoke the Stack Builder package manager. Stack Builder provides an easy-to-use graphical interface that downloads and installs applications, drivers and utilities and their dependencies. See <u>Section 4</u> for more information about using Stack Builder.

The graphical PostgreSQL installer is available from the EnterpriseDB website at:

http://www.enterprisedb.com/downloads/postgres-postgresql-downloads

After navigating to the Product Downloads page, select the PostgreSQL tab, and then choose the PostgreSQL installer that corresponds to your platform. When the download completes, extract the files using a system-specific file extractor.

Section 3.1 demonstrates using the setup wizard to install PostgreSQL on a Windows system. You can follow the same procedure to install PostgreSQL on a Linux or Mac system.

## 3.1 Invoking the Graphical Installer

To perform an installation using the graphical installation wizard, you must have superuser or administrator privileges. To start the installation wizard, assume administrator privileges, and double-click the installer icon; if prompted, provide a password.

Note that in some versions of Windows, you can invoke the installer with Administrator privileges by right clicking on the installer icon and selecting Run as Administrator from the context menu.



The PostgreSQL setup wizard (shown in Figure 3.1) opens:

*Figure 3.1 – The PostgreSQL setup wizard welcome dialog.* 

Click Next to continue. The Installation Directory window (Figure 3.2) opens.

Setup 🗖	
Installation Directory	
Please specify the directory where PostgreSQL will be installed.	
Installation Directory /opt/PostgreSQL/9.5	
InstallBuilder	
< Back Next > Canc	el

*Figure 3.2 – The Installation Directory dialog.* 

Accept the default installation directory, or specify an alternate location and click Next to continue.

2	Setup	_ <b>_ N</b>
Data Directory		
Please select a directory under wh	nich to store your data.	
Data Directory /opt/PostgreSQL/9		
InstallBuilder		
	< Back	Next > Cancel

The Data Directory window opens, as shown in Figure 3.3.

*Figure 3.3 - The Data Directory dialog.* 

Accept the default location or specify the name of the alternate directory in which you wish to store the data files, and click Next to continue.

The Password window opens, as shown in Figure 3.4.

Setup	_ O X
Password	
Please provide a password for the database superuser (postgres) user account (postgres) will be created if not present.	. A locked Unix
Password	
Retype password	
InstallBuilder	
< Back Next >	> Cancel

Figure 3.4 – The Password dialog.

PostgreSQL uses the password specified on the Password window for both the database superuser and the PostgreSQL service account.

PostgreSQL runs as a service in the background; the PostgreSQL service account is named postgres. If you have already created a service account with the name postgres, you must specify same password as the existing password for the postgres service account.

The specified password must conform to any security policies existing on the PostgreSQL host. After entering a password in the Password field, and confirming the password in the Retype Password field, click Next to continue.

3	Setup	
Port		
Please select the port number the Port 5432	ne server should listen on.	
InstallBuilder		
	< Back	Next > Cancel

Figure 3.5 - The Port dialog.

Use the Port field to specify the port number on which the server should listen. The default listener port is 5432 (shown in Figure 3.5). Click Next to continue.

Setup	
Advanced Options	
Select the locale to be used by the new database cluster.	
Locale [Default locale]	
InstallBuilder < Back Next >	Cancel

Figure 3.6 – The Advanced Options dialog.

Use the Locale field to specify the locale that will be used by the new database cluster. The Default locale is the operating system locale (shown in Figure 3.6). Click Next to continue.

Setup	
Ready to Install	
Setup is now ready to begin installing PostgreSQL on your computer.	
InstallBuilder	
< Back Next >	Cancel

Figure 3.7 – The Ready to Install dialog.

The wizard will inform you that it has the information required to install PostgreSQL (see Figure 3.7); click Next to continue.

Setup	- O X
Installing	
Please wait while Setup installs PostgreSQL on y	our computer.
Installing	J
Initialising the database cluster (this may take a	few minutes)
·	
InstallBuilder	Back Next > Cancel

*Figure 3.8 – The Installing dialog.* 

During the installation, the setup wizard confirms the installation progress of PostgreSQL via a series of progress bars (see Figure 3.8).

Before the setup wizard completes the PostgreSQL installation, it offers to Launch Stack Builder at exit (see Figure 3.9).



Figure 3.9 – The installation wizard offers to Launch Stack Builder at exit.

You can optionally un-check the Stack Builder box and click Finish to complete the PostgreSQL installation or accept the default and proceed to Stack Builder.

The Stack Builder utility provides a graphical interface that downloads and installs applications and drivers that work with PostgreSQL. You can invoke Stack Builder at installation time or (after the installation completes) through the PostgreSQL 9.5 menu. For more information about Stack Builder, see <u>Section 4</u>, *Using Stack Builder*.

# 4 Using Stack Builder

The Stack Builder utility provides a graphical interface that simplifies the process of downloading and installing modules that complement your PostgreSQL installation. When you install a module with Stack Builder, Stack Builder automatically resolves any software dependencies.

Stack Builder requires Internet access; if your installation of PostgreSQL resides behind a firewall (with restricted Internet access), Stack Builder can download program installers through a proxy server. The module provider determines if the module can be accessed through an HTTP proxy or an FTP proxy; currently, all updates are transferred via an HTTP proxy and the FTP proxy information is not used.

You can invoke Stack Builder at any time after the installation has completed by selecting the Application Stack Builder menu option from the PostgreSQL 9.5 menu. Enter your system password (if prompted), and the Stack Builder welcome window opens (shown in Figure 4.1).

<b>\$</b>	Stack Builder 3.1.1	X
	Welcome to Stack Builder!         This wizard will help you install additional software to complement your PostgreSQL or EnterpriseDB Postgres Plus installation.         To begin, please select the installation you are installing software for from the list below. Your computer must be connected to the Internet before proceeding.         PostgreSQL 9.5 on port         Proxy serve         < Back       Next >         Cancel	

Figure 4.1 – The Stack Builder welcome window.

Use the drop-down listbox on the welcome window to select your PostgreSQL installation.

If the selected PostgreSQL installation has restricted Internet access, use the Proxy Servers button on the Welcome window to open the Proxy servers dialog (shown in Figure 4.2).

<b>\$</b>	Proxy servers
HTTP proxy	Port
FTP proxy	Port
	<u>C</u> ancel <u>O</u> K

*Figure 4.2 – The Proxy servers dialog.* 

Enter the IP address and port number of the proxy server in the HTTP proxy or FTP proxy fields on the Proxy servers dialog. Currently, all Stack Builder modules are distributed via HTTP proxy (FTP proxy information is ignored). Click OK to continue.

\$ Stack Builder 3.1.1	X
Please select the applications you would like to install.	21

*Figure 4.3 – The Stack Builder module selection window.* 

The tree control on the Stack Builder module selection window (shown in Figure 4.3) contains a node for each module category; click on a category heading to expose the modules within that category (as shown in Figure 4.4).



Figure 4.4 – Expand the tree control to view available modules.

Each entry within the tree control is the name of a module that can be installed with Stack Builder.

- If the module is installed, you will see the word (installed) to the right of the module name.
- If a module name is in **bold** type, the installer has detected a mismatch between the available version and the installed version.
- Boxes next to the modules that are already installed, but eligible for update are automatically checked.

To add new modules to the selected PostgreSQL installation, check the box to the left of the module name and click Next.

The Selected packages window confirms the packages selected (Figure 4.5).

<b>\$</b>	Stack Builder 3.1.1	×
	Review your selections and choose a download directory if required, and then click the Next button to begin downloading the packages you have selected. Selected packages:	
	Apache/PHP v2.4.16-5.5.30-1	
$\langle \rangle$		
	Download directory:	
	/root	
	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel	

*Figure 4.5 - A summary window displays a list of selected packages.* 

The package installers are downloaded to the directory specified in the Download directory field. Use the button to the right of the Download directory field to open a file selector, and choose an alternate location in which to store the downloaded installers.

Click Next to connect to the server and download the required installation files. (see Figure 4.6).

Downloading
Downloaded 5328 of 34082 KB (1065 KB/Sec)
Elapsed time : 0:00:06
Cancel

*Figure 4.6 – Stack Builder is downloading installation files for the specified packages.* 

When the downloads complete, a window opens confirming that the installation files have been downloaded and are ready for installation (see Figure 4.7).

<b>\$</b>	Stack Builder 3.1.1	3
	All the installation files have now been successfully downloaded. Please click the "Next" button to start the installations. Note: You must allow all installations to run to completion. If you are prompted to restart the computer, click "No" or "Restart Later" and manually restart your computer when all the installation have finished.	
	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel	

*Figure* – 4.7 - *Confirmation that the download process is complete.* 

You can check the box next to Skip Installation, and select Next to exit Stack Builder without installing the downloaded files, or leave the box unchecked and click Next to start the installation process.

Each downloaded installer has different requirements. As the installers execute, they may prompt you to confirm acceptance of license agreements, to enter passwords, and enter configuration information.

During the installation process, you may be prompted by one (or more) of the installers to restart your system. Select No or Restart Later until all installations are completed. When the last installation has completed, re-boot the system to apply all of the updates.

You may occasionally encounter packages that don't install successfully. If a package fails to install, Stack Builder will alert you to the installation error with a popup dialog, and write a message to the log file in a platform-specific location:

On Windows: %TEMP%

On Linux: /tm	p	
<b>\$</b>	Stack Builder 3.1.1	×
	Installation Completed Installation of the packages you selected has finished. The downloaded files have been retained to allow future installations or upgrades (some packages require the original installation files when being upgraded). You may run this wizard again at any time to add to or upgrade the software in your stack. If you wish to remove any software, please use the Add/Remove Programs Control Panel applet.	
	< <u>B</u> ack <u>Finish</u> <u>C</u> ancel	

*Figure 4.8 - Stack Builder confirms the completed installation.* 

When the installation is complete, Stack Builder will alert you to the success or failure of the installations of the requested packages (see Figure 4.8). If you were prompted by an installer to restart your computer, re-boot now.

Please note: The modules supported by Stack Builder are subject to change and vary by platform.

## 5 Invoking the Installer from the Command Line

The command line options of the PostgreSQL installer offer functionality in situations where a graphical installation may not work because of limited resources or privileges. You can:

- Include the --mode text option when invoking the installer to perform an installation from the command line.
- Include the --mode unattended option when invoking the installer to perform an installation without user input.

Please Note: If you are invoking the installer from the command line to perform a system upgrade, the installer will ignore command line options, and preserve the configuration of the previous installation.

## 5.1 Performing a Text Mode Installation

To specify that the installer should run in text mode, include the -mode text command line option when invoking the installer. Text-mode installations are useful if you need to install on a remote server using ssh tunneling (and have access to a minimal amount of bandwidth), or if you do not have access to a graphical interface.

In text mode, the installer uses a series of command line questions to establish the configuration parameters. Text-mode installations are valid only on Linux or Mac systems.

You must assume superuser privileges before performing a text-mode installation. At any point during the installation process, you can press Ctrl-C to abort the installation. To perform a text-mode installation on a Linux system, navigate to the directory that contains the installation binary file and enter:

# ./postgres-version-platform.run --mode text

When the installation begins, the text mode installer welcomes you to the Setup Wizard (shown in Figure 5.1).

root@localhost:/home/susan/Desktop	
<u>F</u> ile <u>E</u> dit <u>V</u> iew <u>S</u> earch <u>T</u> erminal <u>H</u> elp	
[root@localhost Desktop]# ./postgresql-9.5.0-rc1-linux-x64.runmode text	^
Welcome to the PostgreSQL Setup Wizard.	
Please specify the directory where PostgreSQL will be installed.	
Installation Directory [/opt/PostgreSQL/9.5]:	~

Figure 5.1 – The text mode installer welcomes you to the Setup Wizard.

Press Enter to continue.

root@localhost:/home/susan/Desktop	-0×
<u>F</u> ile <u>E</u> dit <u>V</u> iew <u>S</u> earch <u>T</u> erminal <u>H</u> elp	
Please select a directory under which to store your data.	
Data Directory [/opt/PostgreSQL/9.5/data]:	7

### *Figure 5.2 – Specify an installation directory for PostgreSQL.*

By default, PostgreSQL data is installed in /opt/PostgreSQL/9.5. Enter an alternate location, or press Enter to accept the default and continue (see Figure 5.2).

		root@localhost:/home/susan/Desktop	
<u>F</u> ile <u>E</u> dit	<u>V</u> iew <u>S</u> earch	<u>T</u> erminal <u>H</u> elp	
		ord for the database superuser (postgres). A locked Un: ) will be created if not present.	ix
Password Retype pas			3

*Figure 5.3 - Enter password information for the service account.* 

You must provide a password for the database superuser (see Figure 5.3). The specified password must conform to any security policies (minimum length, use of special characters, and so on) in place on the host.

After entering a password in the Password field, confirm the password and press Enter to continue.



Figure 5.4 - Specify a listener port for the service.

When prompted, enter the Port that the PostgreSQL service will monitor for connections (see Figure 5.4). By default, PostgreSQL chooses the first available port after port 5432.

	root@localhost:/home/susan/Desktop	-0×
<u>File Edit View Search</u>	<u>T</u> erminal <u>H</u> elp	
[716] zu_ZA [717] zu_ZA.iso88591 [718] zu_ZA.utf8 Please choose an optio	n [1] :	

*Figure 5.5 - Select an installation locale.* 

Specify a Locale by entering a locale number from the list shown. Accept the Default locale value to instruct the installer to use the system locale as the server locale.

root@localhost:/home/susan/Desktop	-0×
<u>F</u> ile <u>E</u> dit <u>V</u> iew <u>S</u> earch <u>T</u> erminal <u>H</u> elp	
Setup is now ready to begin installing PostgreSQL on your computer.	<u>^</u>
Do you want to continue? [Y/n]:	~

Figure 5.6 - Setup is ready to begin the installation process.

When the setup wizard has gathered the information that it needs to perform the installation, it will prompt you that it is ready to begin installing PostgreSQL (see Figure 5.6). Press Enter to continue.

			root@localhost:/home/susan/Desktop	
<u>F</u> ile <u>I</u>	<u>E</u> dit <u>V</u> iew	<u>S</u> earch	<u>T</u> erminal <u>H</u> elp	
				<u>^</u>
Please	wait whil	e Setup	o installs PostgreSQL on your computer.	
Insta	lling			
0%	reeing	50%	100%	
#####	##########	######	·····	~

*Figure 5.7 - A progress bar marks the installation process.* 

The setup wizard informs you when the installation is complete (see Figure 6.15).

stop root@localhost:/home/susan/Desktop	O X)	
<u>F</u> ile <u>E</u> dit <u>V</u> iew <u>S</u> earch <u>T</u> erminal <u>H</u> elp		
Setup has finished installing PostgreSQL on your computer.		
[root@localhost Desktop]#	V	

*Figure 5.8 - The text mode installation is complete.* 

## 5.2 Performing an Unattended Installation

To specify that the installer should run without user interaction, include the --mode unattended command line option. In unattended mode, the installer uses one of the following sources for configuration parameters:

- command line options (specified when invoking the installer)
- parameters specified in an option file
- PostgreSQL installation defaults

Unattended installations are supported on Linux, Mac and Windows systems.

You can embed the non-interactive PostgreSQL installer within another application installer; during the installation process, a progress bar displays for the user (shown in Figure 5.9).



Figure 5.9 - Using --mode unattended displays a progress bar to the user.

You must have superuser privileges to install PostgreSQL using the --mode unattended option on a Linux or Mac system. On a Windows system, administrative privileges are required. If you are using the --mode unattended option to install PostgreSQL with another installer, the calling installer must be invoked with superuser or administrative privileges.

To start the installer in unattended mode, specify the --mode unattended option on the command line.

### **On** Windows

To start the installer in unattended mode on a Windows system, navigate to the directory that contains the executable file, and enter:

postgres-version-windows.exe --mode unattended --superpassword
database\_superuser\_password --servicepassword system\_password

Include the --servicepassword option to specify an operating system password for the user installing PostgreSQL. Omitting the option may lead to authentication problems on some Windows systems, and enforced password policies may not accept the default password (postgres).

### On Linux

To install in unattended mode on a Linux machine, navigate to the directory that contains the PostgreSQL installer and enter:

```
./ppasmeta-9.5.x.x-linux.run --mode unattended --superpassword
database_superuser_password
```

The --superpassword option specifies a password for the database superuser. If you omit the option, the database superuser password defaults to postgres. The default password can be easily guessed by a potential intruder; be sure to provide a stronger password with the --superpassword option.

## Using a Configuration File

You can control configuration parameters for PostgreSQL by specifying options at the command line, or by including the parameters in a configuration file. Specify the parameters within the configuration file in option=value pairs (shown in Figure 5.10).



Figure 5.10 - A sample configuration parameter file.

When you invoke the installer, include the --optionfile parameter, and the complete path to the configuration parameter file:

```
# ./postgres-version-platform.run --optionfile
/$HOME/config param
```

For more information about the command line options supported during an unattended installation, see <u>Section 6</u>, *Reference - Command Line Options*.

## 6 Reference – Command Line Options

You can optionally include the following parameters for an PostgreSQL installation on the command line, or in a configuration file when invoking the PostgreSQL installer.

--create shortcuts

Use the --create\_shortcuts parameter to specify whether menu shortcuts should be created. Default is yes.

--datadir data directory

Use the --datadir parameter to specify a location for the cluster's data directory. *data\_directory* is the name of the directory; include the complete path to the desired directory.

--debuglevel { 0 | 1 | 2 | 3 | 4 }

Use the --debuglevel parameter to set the level of detail written to the *debug\_log* file (see --debugtrace). Higher values produce more detail (and a longer trace file). The default is 2.

--debugtrace debug\_log

Use the --debugtrace parameter to troubleshoot installation problems. *debug\_log* is the name of the file that contains installation troubleshooting details.

```
--disable-stackbuilder {yes|no}
```

You can use the --disable-stackbuilder parameter to indicate that the installer should not create an entry for the Stack Builder utility on the Application menu, or offer to launch StackBuilder when the installation completes. For more information about Stack Builder, see <u>Section 4</u>, *Using Stack Builder*.

```
--extract-only {yes|no}
```

Include the --extract-only parameter to indicate that the installer should extract the PostgreSQL binaries without performing an installation. Superuser privileges are not required for the --extract-only option. The default value is no.

--help

Include the --help parameter to view a list of the optional parameters.

```
--installer-language {en|es|fr}
```

Include the --installer-language parameter to specify an installation language. The following values are supported:

- en (English)
- es (Spanish)
- fr (French)

The default is en (English).

--install\_plpgsql

Include --install\_plpgsql to specify whether the installer should install pl/pgsql in template1. Default is yes.

```
--install runtimes { yes | no }
```

Windows only. Include --install\_runtimes to specify whether the installer should install the Microsoft Visual C++ runtime libraries. Default is yes.

```
--locale locale
```

Specifies the locale for the PostgreSQL cluster. By default, the installer will use to the locale detected by initdb.

```
--mode {qt | gtk | xwindow | text | unattended}
```

Use the --mode parameter to specify an installation mode. The following modes are supported:

qt - Specify qt to tell the installer to use the Qt graphical toolkit

gtk – Specify gtk to tell the installer to use the GTK graphical toolkit.

xwindow – Specify xwindow tell the installer to use the X Window graphical toolkit.

text – Specify text to perform a text mode installation in a console window. This is a Linux-only option.

unattended – Specify unattended to specify that the installer should perform an installation that requires no user input during the installation process.

```
--optionfile config file
```

Use the --optionfile parameter to specify the name of a file that contains the installation configuration parameters. *config\_file* must specify the complete path to the configuration parameter file.

--prefix installation dir

Use the --prefix parameter to specify an installation directory for PostgreSQL. The default installation directory on a Linux or Mac system is:

/opt/PostgreSQL/9.5

The default installation directory on a Windows system is:

```
C:\Program Files\PostgreSQL\9.5
```

--serverport port number

Use the --serverport parameter to specify a listener port number for PostgreSQL.

If you are installing PostgreSQL in unattended mode, and do not specify a value using the --serverport parameter, the installer will use port 5432, or the first available port after port 5432 as the default listener port.

--serviceaccount user account name

Use the --serviceaccount parameter to specify the name of the user account that owns the server process. The default value of --serviceaccount is set to postgres.

Please note that for security reasons, the --serviceaccount parameter must specify the name of an account that does not hold administrator privileges.

--servicename service name

Use the --servicename parameter to specify the name of the PostgreSQL service. The default is postgresql-9.5.

--servicepassword user password

Windows only. Use --servicepassword to specify the OS system password. If unspecified, the value of --servicepassword defaults to the value of --superpassword.

```
--superaccount super_user_name
```

Use the --superaccount parameter to specify the user name of the database superuser. The default value of --superaccount is set to postgres.

```
--superpassword superuser password
```

Use -- superpassword to specify the database superuser password. If you are installing in non-interactive mode, -- superpassword defaults to postgres.

--unattendedmodeui { none | minimal | minimalWithDialogs }

Use the --unattendedmodeui parameter to specify the installer's behavior during an unattended installation.

Include --unattendedmodeui none to specify that the installer should not display progress bars during the PostgreSQL installation.

Include --unattendedmodeui minimal to specify that the installer should display progress bars during the installation process. This is the default behavior.

Include --unattendedmodeui minimalWithDialogs to specify that the installer should display progress bars and report any errors encountered during the installation process (in additional dialogs).

--version

Include the --version parameter to retrieve version information about the installer:

PostgreSQL 9.5 --- Built on 2013-06-19 18:41:19 IB: 7.2.1-201106070924

# 7 Language Pack Installers

EnterpriseDB Language Pack installers contain supported languages that may be used with the Advanced Server and PostgreSQL database installers. The Language Pack installer allows you to create languages for PL/Perl, PL/Tcl, and PL/Python without installing supporting software from third party vendors.

The Language Pack installer includes:

- Tcl with TK, version 8.5
- Perl, version 5.20
- Python, version 3.3

You can use Stack Builder to invoke the Language Pack installer. For information about using Stack Builder, see Section  $\underline{4}$ .

The Perl package contains the cpan package manager, and Python contains pip and easy\_install package managers. There is no package manager for Tcl/TK.

## Configuring Language Pack on Linux

On Linux, the installer places the languages in:

/opt/EnterpriseDB/LanguagePack/9.5/

If you are installing Language Pack on a Linux system, use your editor of choice to modify the plLanguages.config file, and modify the entries to include the locations of each language:

```
EDB_PERL_VERSION=5.20
EDB_PYTHON_VERSION=3.3
EDB_TCL_VERSION=8.5
```

EDB\_PERL\_PATH=/opt/EnterpriseDB/LanguagePack/9.5/Perl-5.20 EDB\_PYTHON\_PATH=/opt/EnterpriseDB/LanguagePack/9.5/Python-3.3 EDB\_TCL\_PATH=/opt/EnterpriseDB/LanguagePack/9.5/Tcl-8.5

After modifying the plLanguages.config file, restart the server for the changes to take effect; for information about restarting the server, consult the PostgreSQL core documentation available at:

http://www.enterprisedb.com/products-servicestraining/products/documentation/enterpriseedition

#### **Configuring Language Pack on Windows**

On Windows, the Language Pack installer places the languages in:

C:\EnterpriseDB\PostgreSQL\LanguagePack\9.5\x64

After installing Language Pack, you must set the following variables:

set PYTHONHOME=C:\EnterpriseDB\PostgreSQL\LanguagePack\9.5\x64\Python-3.3

Use the following commands to add Python, Perl and Tcl to your search path:

```
set PATH=C:\EnterpriseDB\PostgreSQL\LanguagePack\9.5\x64\Python-
3.3\bin:C:\EnterpriseDB\PostgreSQL\LanguagePack\9.5\x64\Perl-
5.20\bin:C:\EnterpriseDB\PostgreSQL\LanguagePack\9.5\x64\Tcl-
8.5\bin:%PATH%
```

After performing the system-specific steps required to configure Language Pack on Windows, restart the Advanced Server database server; for information about restarting the server, consult the PostgreSQL core documentation available at:

> http://www.enterprisedb.com/products-servicestraining/products/documentation/enterpriseedition

#### **Configuring Language Pack on OSX**

If you are installing Language Pack on a PostgreSQL host on OSX, the Language Pack installer places the languages in:

/Library/PostgreSQL/LanguagePack/9.5

After installing Language Pack, you must set the following variables:

export PERLHOME=/Library/PostgreSQL/LanguagePack/9.5/Perl-5.20
export PYTHONHOME=/Library/PostgreSQL/LanguagePack/9.5/Python-3.3
export TCLHOME=/Library/PostgreSQL/LanguagePack/9.5/Tcl-8.5

Use the following commands to add Python, Perl and Tcl to your search path:

export PATH=\$PYTHONHOME/bin:\$PERLHOME/bin:\$TCLHOME/bin:\$PATH export DYLD\_LIBRARY\_PATH=\$PYTHONHOME/lib:\$DYLD\_LIBRARY\_PATH export DYLD\_LIBRARY\_PATH=\$PERLHOME/lib/CORE:\$DYLD\_LIBRARY\_PATH export DYLD\_LIBRARY\_PATH=\$TCLHOME/lib:\$DYLD\_LIBRARY\_PATH After performing the system-specific steps required to configure Language Pack on OSX, restart the Advanced Server database server; for information about restarting the server, consult the PostgreSQL core documentation available at:

http://www.enterprisedb.com/products-servicestraining/products/documentation/enterpriseedition

#### Known Language Pack Restrictions:

(1) The current set of installers can only be installed in a fixed location. The packages are not relocatable.

- (2) There is no package manager for Tcl.
- (3) The installer will only extract in the stated installation path.

#### Known Bugs:

(1) On Windows, the pythonw.exe, pyw.exe and other binaries may produce an error, reporting fault module in a MSVCR120.dll.

# 8 Un-Installing PostgreSQL

The PostgreSQL installer creates an uninstaller in the installation directory. On Linux or Mac, the name of the uninstaller is:

uninstall-postgresql

and it is located in:

/opt/PostgresPlus/9.5

On Windows, the uninstaller is named:

uninstall-postgresql.exe

and it is located in:

C:\Program Files\PostgreSQL\9.5

## 8.1 Un-installing PostgreSQL on a Windows System

You can also use the graphical interface provided by Windows to uninstall PostgreSQL 9.5. Navigate through the Windows Control Panel to open the Windows Uninstall or change a program dialog (shown in Figure 7.1).



*Figure 7.1 - The Uninstall or change a program dialog.* 

Right click on PostgreSQL 9.5, and select Uninstall/Change from the context menu. When prompted, confirm that you wish to uninstall PostgreSQL (see Figure 7.2).



Figure 7.2 - A dialog asks you to confirm that you wish to remove PostgreSQL.

Please note that uninstalling PostgreSQL will leave the data directory and database service user intact; when prompted, click OK to continue (see Figure 7.3).



*Figure 7.3 - A popup confirms that the data directory and service user account have not been removed from the host system.* 

A progress bar will keep you informed as PostgreSQL is removed.



Figure 7.4 - An Info dialog confirms the uninstallation.

When PostgreSQL has been removed, an Info dialog opens to confirm (as shown in Figure 7.4). Click OK to exit.

# 9 Installation Troubleshooting

## --mode unattended Authentication Errors

Authentication errors from component modules during unattended installations may indicate that the specified values of --servicepassword or --superpassword may be incorrect.

## Errors During an PostgreSQL Installation on Windows

If you encounter an error during the installation process on a Windows system, exit the installation, and ensure that your version of Windows is up-to-date. After applying any outstanding operating system updates, re-invoke the PostgreSQL installer.

## Applications Fail to Launch During a PostgreSQL Installation on Linux/Unix

If applications fail to launch (such as Stack Builder or your web browser) during the installation process on a Linux or Unix system, verify that the xdg-open program is on your system. If xdg-open is missing, install the xdg-utils package.

If you are using the GNOME desktop, load the root profile before running the PostgreSQL installation script. To load the root profile, issue the command, su - root instead of su root before installing PostgreSQL.

## 9.1 Installation Log Files

If you encounter any problems during installation, please consult the installation logfile. The log file is created in:

- /tmp on Linux or Mac OS X
- %TEMP% on Windows

The installation log file is called install-postgresql.log. The logfile may contain the superuser password specified during the installation, which should be replaced before sharing the log with anyone.

If you are unable to resolve the problem after reviewing the logfile, please search the <u>EnterpriseDB forums</u> or your favourite search engine for a solution. If you still cannot resolve the issue, please post details of the problem, along with system details and any appropriate parts of the installation logfile to the <u>installer forum</u>.