

# VISUAL message center

## PostgreSQL

### Installation Guide

8.3

VMC-GEN

**tango04**  
Computing Group

Solutions for Advancing People

## PostgreSQL Installation Guide

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## How to Use this Guide

This chapter explains how to use Tango/04 User Guides and understand the typographical conventions used in all Tango/04 documentation.

### Typographical Conventions

The following conventional terms, text formats, and symbols are used throughout Tango/04 printed documentation:

Convention	Description
<b>Boldface</b>	Commands, on-screen buttons and menu options.
<i>Blue Italic</i>	References and links to other sections in the manual or further documentation containing relevant information.
<i>Italic</i>	Text displayed on screen, or variables where the user must substitute their own details.
Monospace	Input commands such as System i commands or code, or text that users must type in.
UPPERCASE	Keyboard keys, such as CTRL for the Control key and F5 for the function key that is labeled F5.
	<b>Notes</b> and useful additional information.
	<b>Tips</b> and hints that will improve the users experience of working with this product.
	<b>Important</b> additional information that the user is strongly advised to note.
	<b>Warning</b> information. Failure to take note of this information could potentially lead to serious problems.

## Chapter 1

## Introduction

In recent versions of VISUAL Message Center, the number of tools that require a database have increased. New features such as BSM in the SmartConsole or Data Collection for Graphs in ThinkServer require an advanced database for storing messages and events in an efficient and secure way. In the past we have used MS Access a default database for the Windows Event Log, however, MS Access does not give the desired performance with the vast processed by VISUAL Message Center nowadays.

In our search for a new database we have exhaustively tested a number of databases for performance and looked for databases that could be distributed without any additional license or final user responsibilities. In the end we have chosen to work with PostgreSQL.

Any VISUAL Message Center products that require a database are compatible with PostgreSQL and its ODBC driver. During installation of the products you will be offered the opportunity to install or configure a PostgreSQL database.

Tango/04 offers PostgreSQL with your VISUAL Message Center products in order to make it easier to work with a database, save you the time of separately installing a database, and to offer you a simple powerful database by default.

**Note**

You are not obliged to use PostgreSQL. VISUAL Message Center is also compatible with many commercial databases, among which Oracle, SQL Server, DB2, and more. For details regarding what databases are supported by Tango/04 products see the Tango/04 Supported Databases document.

# Installed Products & System Requirements

The PostgreSQL database offered with VISUAL Message Center includes only those products that are relevant to Tango/04 applications. The following products are installed by default with your VISUAL Message Center PostgreSQL installation:

- **PostgreSQL Database Server:** the Database Server is installed as a service on your local machine. Before installation you must define the root user ID and password and indicate the listener port.
- **PostgreSQL ODBC Driver:** the driver for creating a DSN from Tango/04 applications to your PostgreSQL database.
- **PgAdmin:** an advanced administrator tool that offers a clear interface for managing your database server. It gives you easy access to databases defined on your database server and to explore the properties of the defined databases.

For further information about PostgreSQL products we suggest you visit the PostgreSQL Web site [www.postgresql.org](http://www.postgresql.org). There you will also find information about system requirements.



### Note

During the VISUAL Message Center PostgreSQL installation some internal programs are executed for checking, for example, what version of PostgreSQL you have installed, or the version of the PostgreSQL database server. Depending on your operating system, for example in the case of Windows 2003, some alerts may appear. This is normal.

Depending on your situation, the installation of PostgreSQL during the VISUAL Message Center installation may be different. Here we will explain the installation flow for three different scenarios:

- There is an existing installation of VISUAL Message Center PostgreSQL
- There is an existing installation of PostgreSQL
- There is no VISUAL Message Center product or PostgreSQL

Ideally the PostgreSQL database server will only be used by VISUAL Message Center products.

### 3.1 Scenario 1: There is an existing installation of VISUAL Message Center-PostgreSQL

When you install a VISUAL Message Center product the installation detects automatically whether you have a previous installation of VISUAL Message Center PostgreSQL. If so, it will add the DSN connections from the existing database server configuration to your PostgreSQL database.

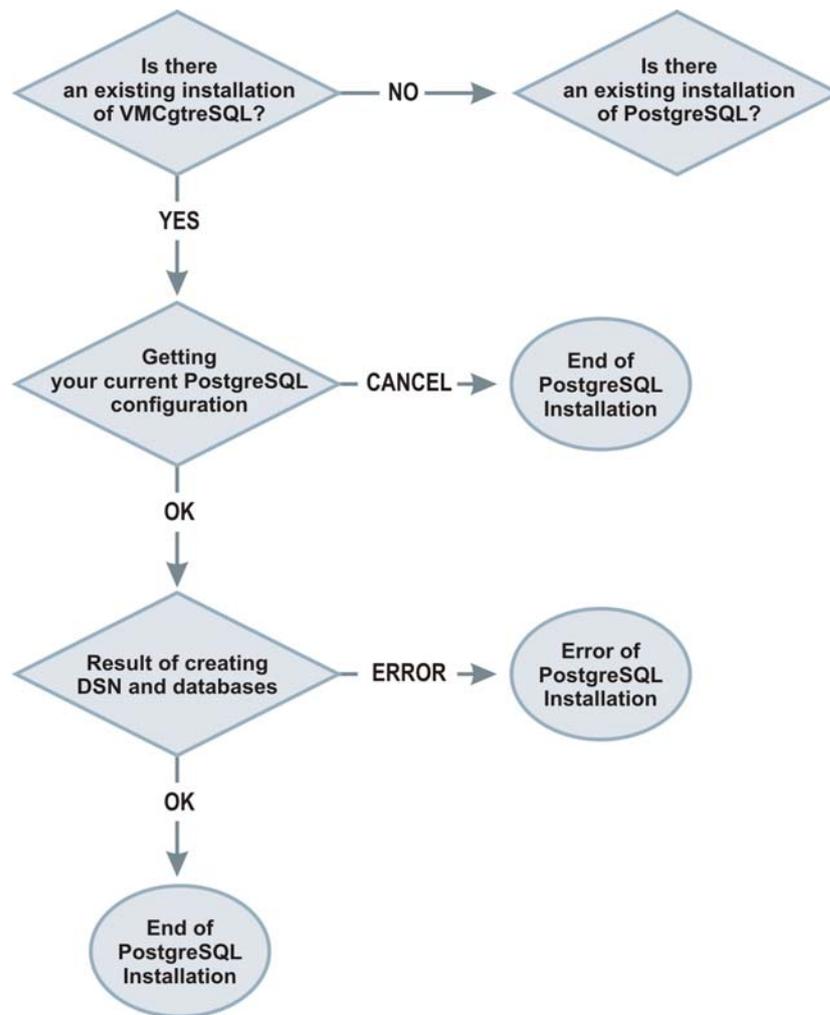


Figure 1 – Workflow if an installation of VISUAL Message Center PostgreSQL exists

## 3.2 Scenario 2: There is an existing PostgreSQL installation

The installation first checks if there is an existing installation of VISUAL Message Center PostgreSQL. If not, it also checks that there is another version of PostgreSQL installed on the system already.

If you already have a different PostgreSQL installed, the installation will check what version is installed and, if it is older than version 8.1 and, depending on the VISUAL Message Center product you are installing, a new system DSN will be added to your system and a new database will be inserted in your PostgreSQL database server.

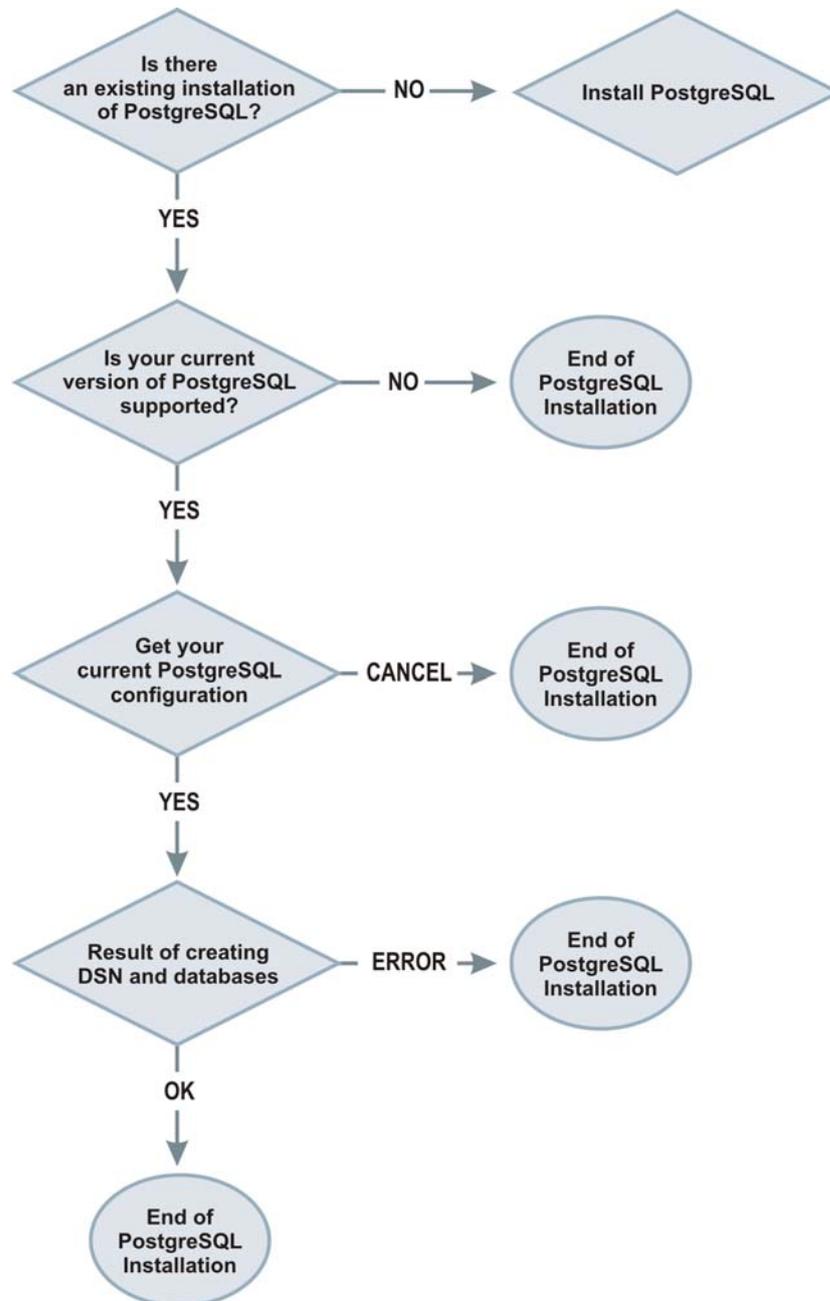


Figure 2 – Workflow if an installation of PostgreSQL exists

### 3.3 Scenario 3: No VISUAL Message Center product or PostgreSQL exists on your system

If this is the first time you install a VISUAL Message Center product, and no PostgreSQL exists on your system, you will be able to install PostgreSQL on your system during the VISUAL Message Center installation.

It is also possible for the user to decide not to install any database at all. Note that this is not a recommended situation. Some VISUAL Message Center products will not work as desired if they are not connected to a database.

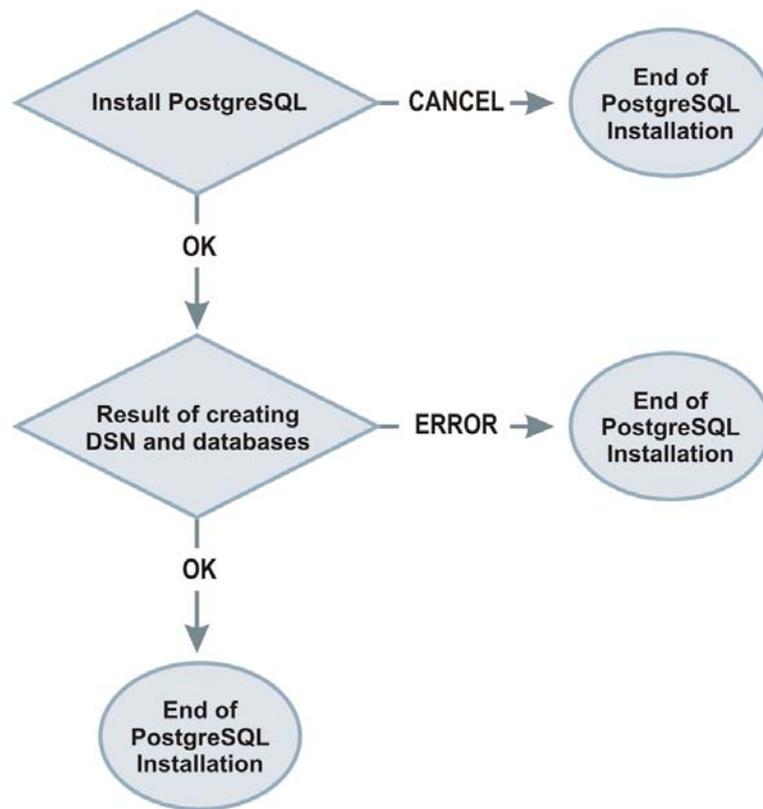


Figure 3 – Workflow if no PostgreSQL exists

For security reasons the DSN does not store the user ID and password used to make the connection and you will be required to introduce them the first time you select a DSN in any VISUAL Message Center product. Some VISUAL Message Center products store the connection string of your DSN using cryptography techniques so you only need to introduce your connection details the first time you connect to the product.

**Important**

Please store the User ID and Password in a safe place. You will need them in the future for creating ODBC connections to the database and for accessing the administrator tool. If you lose the information there is no way to recover the information from Tango/04.

**Note**

During installation you will be asked to select the folder where you want to install PostgreSQL. When choosing a folder bear in mind that both the data and the applications will be stored in the same folder. You may want to consider selecting a folder that is not your default Windows folder

## 4.1 Clean installation

By clean installation we mean a new deployment of VISUAL Message Center where no previous installation of PostgreSQL exists.

The goals of this installation are to:

1. Install a new PostgreSQL database server on the user's local machine.
2. Create as many databases as required by the VISUAL Message Center product that is being installed.
3. Create as many DSN connectors as databases have been created by the product which is being installed.

The VISUAL Message Center PostgreSQL installation uses the default PostgreSQL installation tool to perform the creation of the database server. The VISUAL Message Center PostgreSQL installation will adjust the default PostgreSQL installation to create the most suitable configuration for working with VISUAL Message Center products.

## 4.1.1 Installing PostgreSQL

- Step 1.** Before starting, the installation program will check if your system already has a PostgreSQL database deployed by a VISUAL Message Center product. In a new installation no PostgreSQL database will be found. The following message will appear. Click **Yes** to continue.

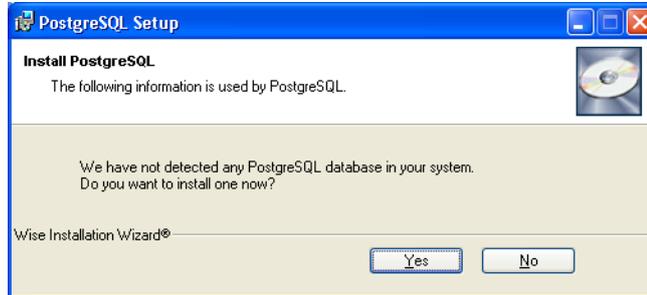


Figure 4 – Message indicating no PostgreSQL exists in your system



### Note

If you do not want to use PostgreSQL see [section 4.3 - PostgreSQL installation not required](#) on [page 12](#).

- Step 2.** The PostgreSQL installation wizard will appear to help you through the PostgreSQL installation. Click **Next** to continue.

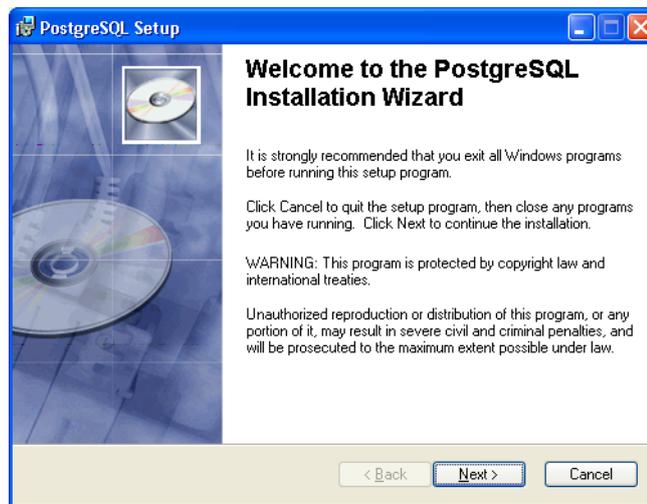


Figure 5 – PostgreSQL installation Wizard welcome screen

- Step 3.** In the following screen select the folder where you want to install the PostgreSQL database server. Click **Next** to continue.

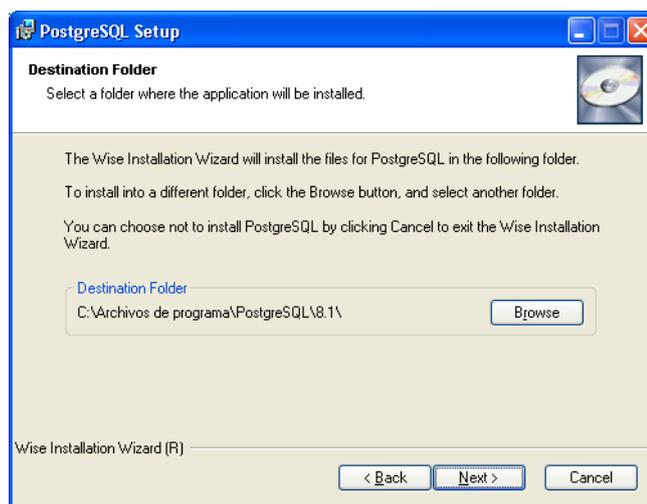


Figure 6 – Select destination directory

**Step 4.** Next you will enter some basic settings for your PostgreSQL database server. You should define the user ID and password, and a server listener port as well. Click **Next** to start the default PostgreSQL installation program

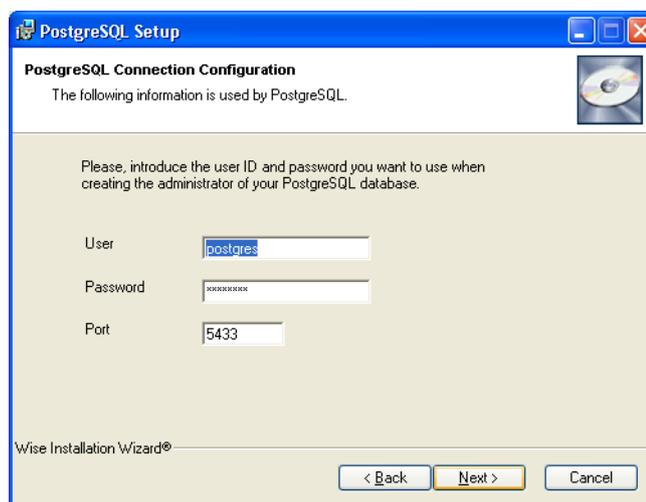


Figure 7 – Enter user details

**Step 5.** You are now ready to install PostgreSQL. Click **Next** to continue.

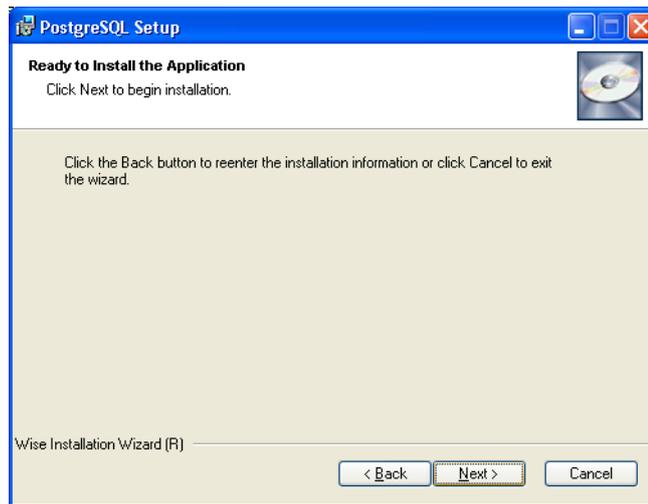


Figure 8 – You are ready to install PostgreSQL



**Note**

The default PostgreSQL installation program is launched in the following step . If you are working with a secure server, a warning will appear indicating that a new program will be executed. Click **OK** to continue.

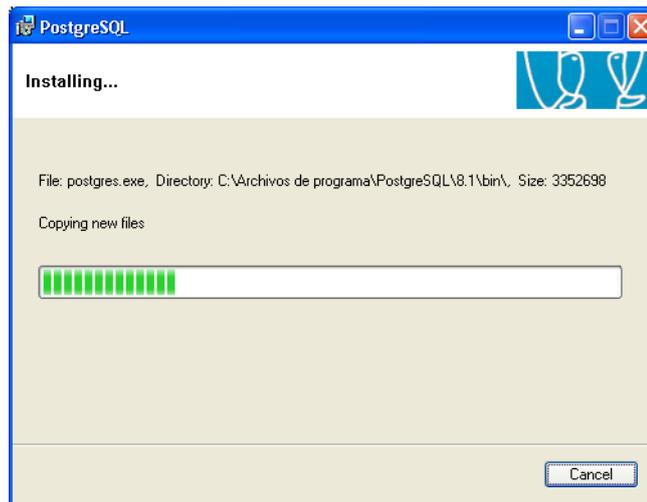


Figure 9 – PostgreSQL installation in progress

**Step 6.** Depending on the VISUAL Message Center product you are installing, when the default PostgreSQL installation finishes, the installation program will create a new database on your newly created PostgreSQL database server, as well as the DSN drivers necessary to connect to them. The following message appears only after all DSN and databases have been created correctly. Click **OK** to continue.

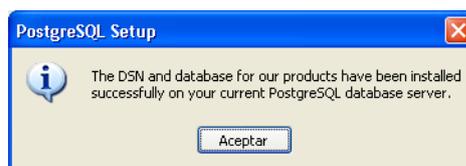


Figure 10 – Installation successful

- Step 7.** A final message appears indicating that the installation of PostgreSQL database server has completed, and then you are ready to continue installing your VISUAL Message Center application.

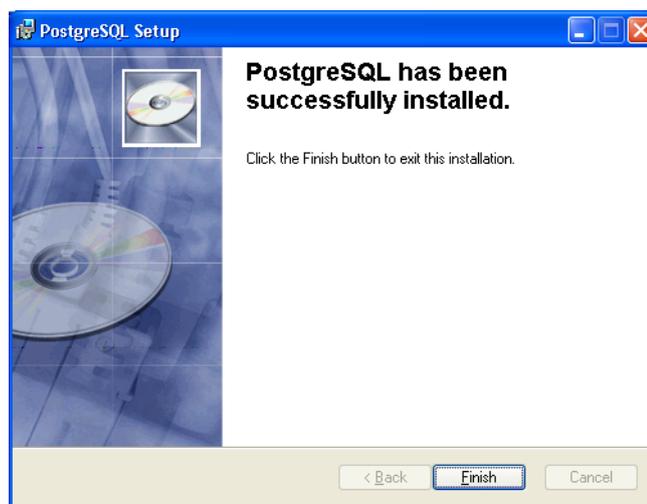


Figure 11 – Installation complete

## 4.2 Installation with existing VMCPstgreSQL

After installing a VISUAL Message Center product you should have the default PostgreSQL database too. In this case, your system is ready to install another VISUAL Message Center product using the same PostgreSQL database server. It creates a central data repository for your VISUAL Message Center products.

In this scenario the following changes are made for PostgreSQL installation:

- Create as many databases as required by the VISUAL Message Center product that is being installed.
- Create as many DSN connectors as databases have been created by the product which is being installed.

### 4.2.1 Checking previous PostgreSQL installations

Before starting, the installation program will check if your system already has an existing PostgreSQL database deployed by another VISUAL Message Center product. In this scenario, the installation program will recognize the existing installation of VISUAL Message Center PostgreSQL and it will not ask you to install PostgreSQL again.

### 4.2.2 Configuring PostgreSQL

In the previous step, the installation program has detected an existing VISUAL Message Center PostgreSQL installation and we assume that the user is going to use it for installing the new VISUAL Message Center product. Therefore the installation program will ask you for your user ID and password to connect to your PostgreSQL database server and it will create the DSN and databases related to the VISUAL Message Center product.

- Step 1.** The default database created when installing VISUAL Message Center PostgreSQL is called **postgres**. When creating your ODBC connection use the default database **postgres** and the default listener port **5433**.

**Note**

If you have changed any of these settings you must also adjust them here.

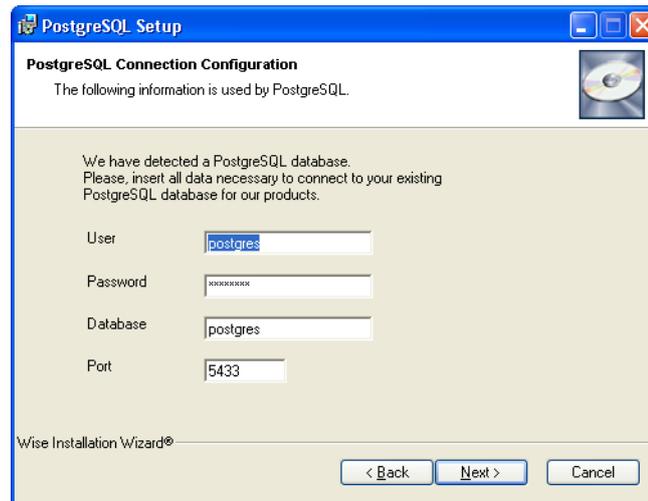


Figure 12 – PostgreSQL detected

**Step 2.** The following message appears to indicate that the DSN and databases have been created properly.

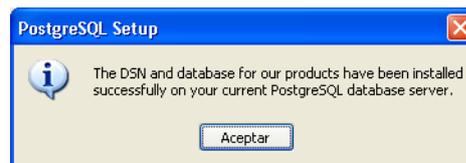


Figure 13 – Installation successful

**Step 3.** If the connection details you entered above do not match the existing PostgreSQL Database Server installation or changes were made to the database server (for example, a change to the listener port or the default **postgres** database has been removed) an error message appears.

In this case, the user must configure manually the DSN and databases necessary to work with the VISUAL Message Center product installed.



Figure 14 – Error message

## 4.3 PostgreSQL installation not required

Another possible scenario is when the user does not want to install VISUAL Message Center products' default database, for example when the user would prefer to use a different database server.

In this case, the user's system should already have a database installed or be connected to a database before installing the VISUAL Message Center program. The user must configure manually the connection settings to the different VISUAL Message Center products. See each product manual for details on how to connect to a database and what databases are supported by the product.

You can cancel the VISUAL Message Center PostgreSQL installation by pressing the cancel button or selecting No when asked if you want to install a PostgreSQL database.

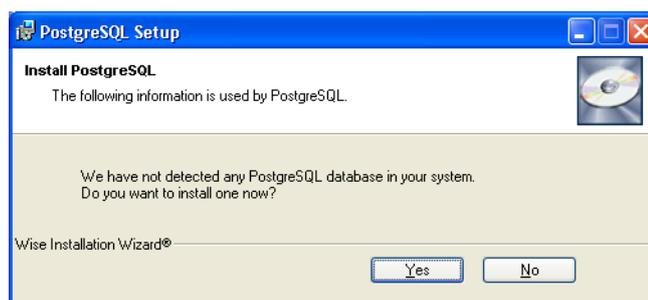


Figure 15 – PostgreSQL not detected



**Warning**

Some VISUAL Message Center products need to be connected to a database in order to work. If you do not install any database at all with these products, you will find unexpected results.

## 4.4 Installation with other PostgreSQL

You may already have a PostgreSQL database server on your system that was not installed with a VISUAL Message Center product. You will most likely be able to use it for VISUAL Message Center.

If the existing version is equal to or newer than that deployed by VISUAL Message Center products, you can use it to create the databases and DSN connections required by the VISUAL Message Center product which is being installed.

If the existing version is older than that deployed by VISUAL Message Center products, you can update it with the VISUAL Message Center version. In this case the VISUAL Message Center PostgreSQL installation will use the properties of the existing database and you must enter the connection details and listener port used in the existing database server.



**Warning**

If you are using a PostgreSQL database server version previous to 8.1 VISUAL Message Center products will not be able to connect to your database because some changes were made to the ODBC drivers in version 8.1.

### 4.4.1 Check for existing PostgreSQL installations

Before starting, the installation program will check if your system already has a PostgreSQL database installed. In this scenario, the installation program will find the PostgreSQL installation and it will recognize that it is not a VISUAL Message Center PostgreSQL. If the existing PostgreSQL version is older than that installed with VISUAL Message Center you will be asked to update it .

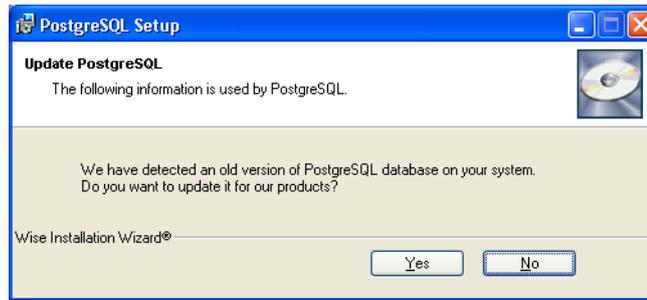


Figure 16 – Older version of PostgreSQL detected

If you choose to update the installation of PostgreSQL will start and you will be presented with the screens as described in [section 4.1.1 - Installing PostgreSQL](#) on [page 8](#).

## 4.4.2 Configuring PostgreSQL

Depending on what you use your current PostgreSQL database for; it may not be a good idea to share it with VISUAL Message Center products. Check with your Database Administrator for possible incompatibilities (for example the names of the existing databases and VISUAL Message Center databases) between your existing database and the VISUAL Message Center databases.

**Step 1.** The PostgreSQL installation wizard will first ask you if you want to create any VISUAL Message Center products databases on your PostgreSQL database server.



**Note**

VISUAL Message Center will only use the default PostgreSQL database server for creating new databases for VISUAL Message Center products. No changes will be made to any existing databases.

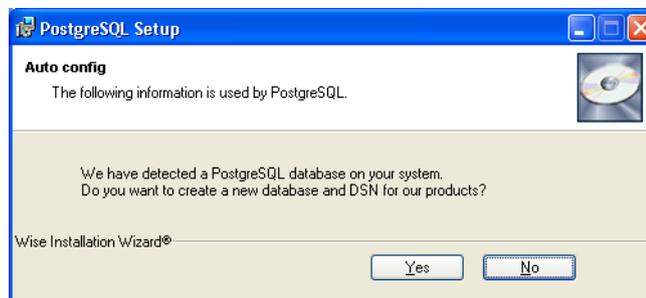


Figure 17 – PostgreSQL detected

**Step 2.** Enter your current PostgreSQL database server user ID and password. It is also necessary to enter the database server listener port and the default database. (It will only be used to create new databases; no changes are made to any existing databases).

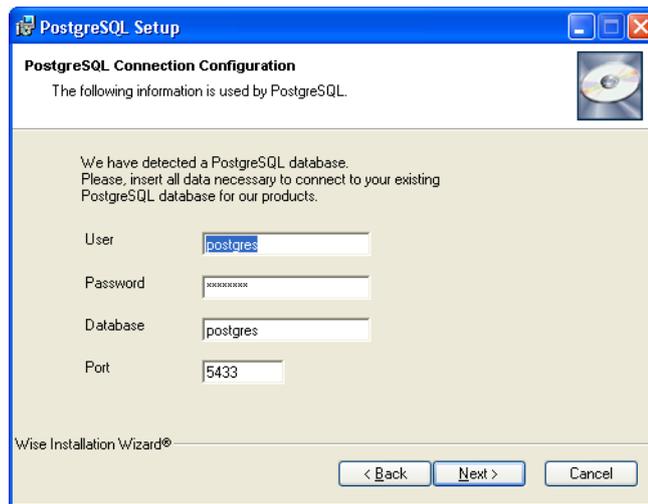


Figure 18 – PostgreSQL detected, enter details

**Step 3.** The DSN and databases will be created according to the parameters defined in the previous step. The DSN and databases created are related to the VISUAL Message Center product which is being installed.

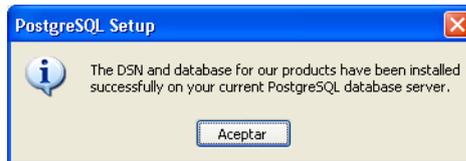


Figure 19 – Installation successful

**Step 4.** The following error message will appear if the configuration properties of your existing PostgreSQL database server do not match the data you introduced in the previous step (for example, if you entered a non-authorized ID, a wrong password, or a non-existing database).

In this case, the user must configure manually the DSN and databases necessary to work with the VISUAL Message Center product installed.



Figure 20 – Error message

## Chapter 5

# Creating your DSN and VISUAL Message Center Databases Manually

By default VISUAL Message Center installs PostgreSQL database server and it also creates the DSN and databases required for the VISUAL Message Center products being installed.

If any error occurs during the installation the DSN and databases will not be created, and you will have to create them manually.

**Important**

It is important to make sure that your PostgreSQL database server installation has been completed before trying to configure the DSN or create VISUAL Message Center databases.

The most common reason why the default VISUAL Message Center PostgreSQL installation does not create the DSN and databases is that errors were made when defining the local settings of your existing PostgreSQL database. (It is possible to introduce an invalid ID, password, database or non-PostgreSQL listener port).

## 5.1 Creating a VISUAL Message Center product database

There are several ways to create a new database in your PostgreSQL database server, but we recommend you use the pgAdmin tool. For more details see [Chapter 2 - Installed Products & System Requirements](#) on [page 2](#).

- Step 1.** From the **Windows Start** menu, select **Programs, PostgreSQL 8.3** and then select **pgAdmin III**.
- Step 2.** After you enter your PostgreSQL database server password, the PostgreSQL manager will open.
- Step 3.** Here you can see how many databases are created. You should find a default database called `postgres`. If you have installed any VISUAL Message Center products you will also find more databases (In the figure below, the database `vmcsmartconsole` exists because VISUAL Message Center SmartConsole has been installed).

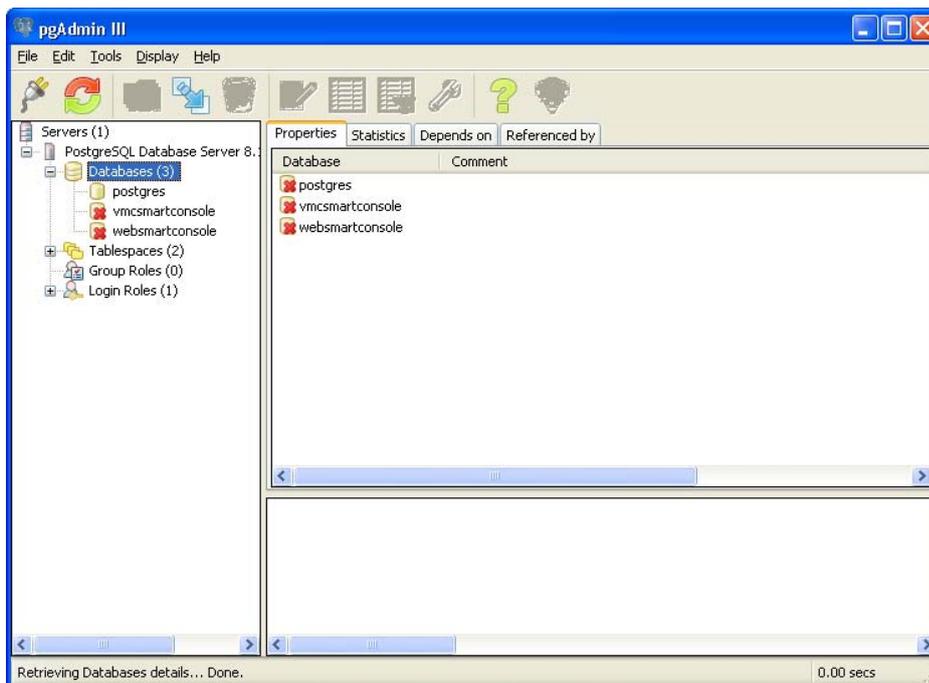


Figure 21 – pgAdmin III PostgreSQL Manager

**Step 4.** In the PostgreSQL Database Server tree right-click **Databases** and select **New Database**. The following window appears.

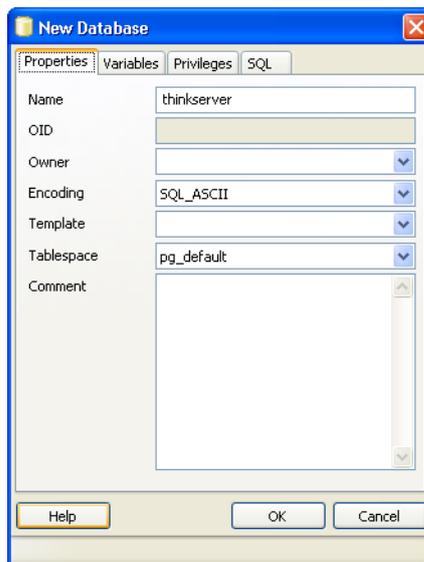


Figure 22 – New database properties

**Step 5.** Define the properties for your new database. Click **OK** to continue.

**Step 6.** Check if your new database has been created. It should appear under Databases in the PostgreSQL Database Server tree.

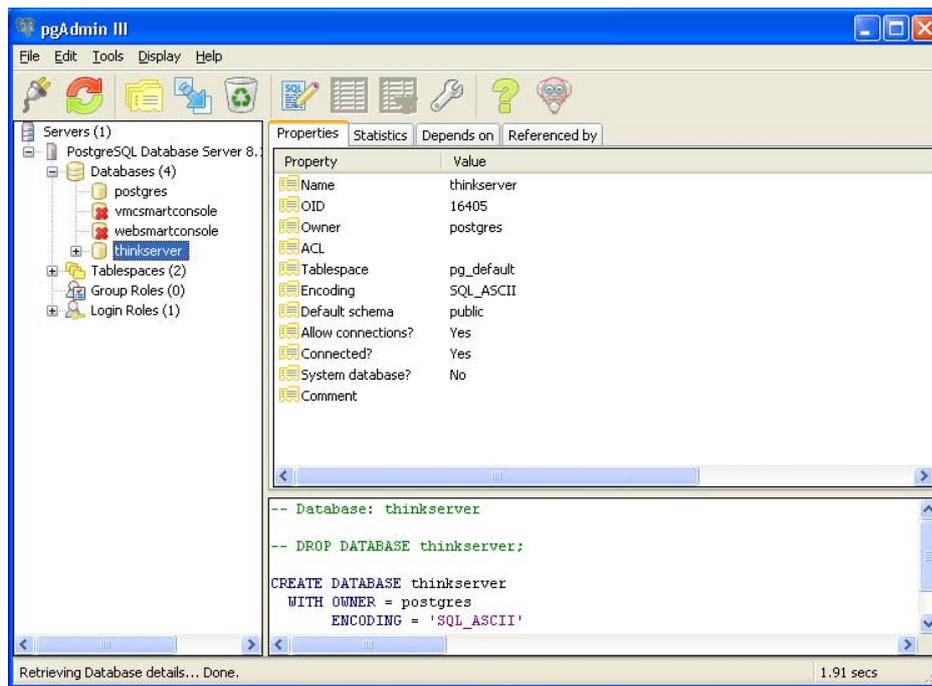


Figure 23 – PostgreSQL database server tree

## 5.2 Creating a DSN

The most common way for creating a DSN is through the Administrative Tools of your Windows system.

- Step 1.** Open the **Control Panel** and double-click the **Administrative Tools** icon, then double-click the **ODBC Data Sources** icon and select the **System DSN** tab.



**Tip**

We recommend you create a new database following the steps defined in the last section and use it to create the DSN.

- Step 2.** In System DSN tab, you will find the DSN defined in your system. Some of them were created by the VISUAL Message Center PostgreSQL installation. (In the following image t4\_adm\_psql\_local is the root DSN created by the VISUAL Message Center PostgreSQL installation and t4\_bsm\_psql\_local is the DSN created by a specific VISUAL Message Center product).

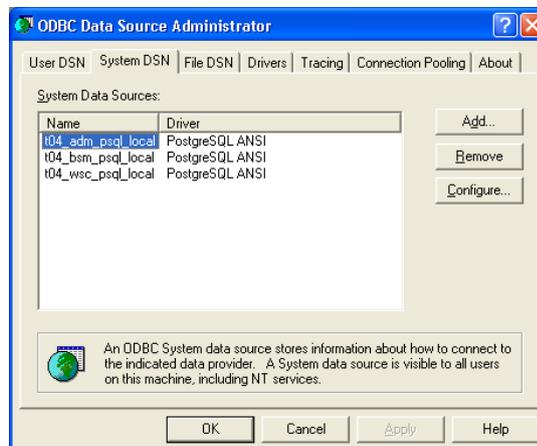


Figure 24 – t4\_adm\_psql\_local is the root DSN created by the VISUAL Message Center PostgreSQL installation and t4\_bsm\_psql\_local and t4\_wsc\_psql\_local are DSNs created by specific VISUAL Message Center products.

- Step 3.** Click the **Add** button to create a new DSN in your system. Select the driver **PostgreSQL ANSI** to create a PostgreSQL database that is compatible with VISUAL Message Center products.



Figure 25 – Create new data source

- Step 4.** In the next window define the properties of your DSN. The properties include:

- The DSN name,
- The database you want to connect to,
- The server and port which will process the requests, and
- The user ID and password of the PostgreSQL database server.

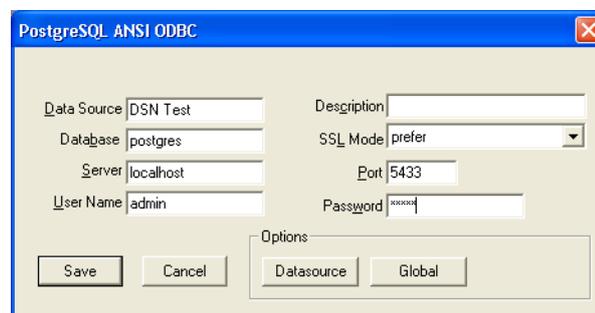


Figure 26 – DSN properties



**Note**

The VISUAL Message Center PostgreSQL installation uses port number 5433 by default. The default installation of PostgreSQL uses 5432. Check with your Database Administrator if you are not sure which port to use.

- Step 5.** By default when you create a PostgreSQL ANSI DSN the option “LF <-> CR/LF conversion” is selected. It is necessary to change this value because it could change the format of some VISUAL Message Center messages and generate unexpected results.

To change the option “LF <-> CR/LF conversion” click the **Datasource** button and open **Page 2**. Deselect the **LF <-> CR/LF conversion** check box.

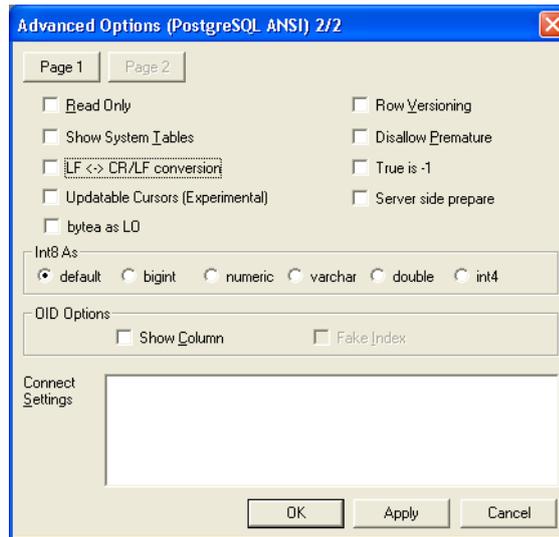


Figure 27 – Advanced Options

**Step 6.** After creating the DSN in the System DSN tab of the ODBC Data Source Administrator you should check that the new database is created and ready.

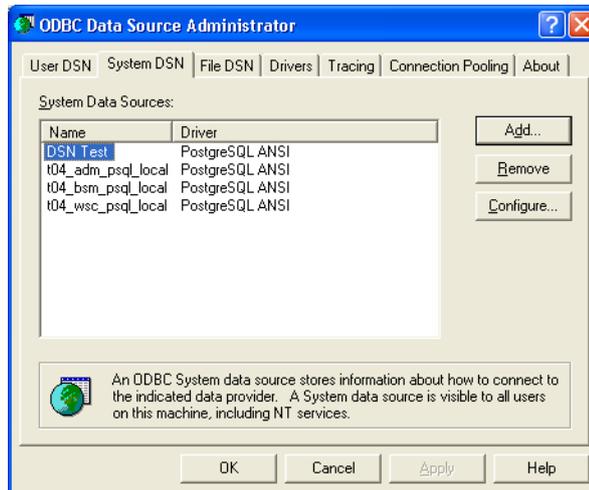


Figure 28 – Check the new database is created correctly

Now you can select the newly created DSN for any VISUAL Message Center product.

Uninstalling PostgreSQL is slightly less straightforward than uninstalling a standard application. In order to completely uninstall PostgreSQL, there are some extra steps required which we will explain here.

## 6.1 Uninstall PostgreSQL

We begin by uninstalling PostgreSQL as we would any other application:

- Step 1.** Open the **Control Panel** and double-click to the **Add or Remove Programs** icon
- Step 2.** Select **PostgreSQL 8.3** from the list of currently installed programs
- Step 3.** Click the **Remove** button and follow the uninstall steps.

## 6.2 Remove the PostgreSQL user

When PostgreSQL is installed, it creates a windows user in order to manage access to the PostgreSQL service.

This user is not removed automatically during the uninstall process and therefore must be removed manually, in order to avoid future installation errors when the installation process would attempt to create a user which exists already.

There are two possible PostgreSQL users:

- A typical PostgreSQL setup will create a user called `postgres` by default.
- A Tango/04 customized PostgreSQL setup creates a user called `t4postgres` instead.

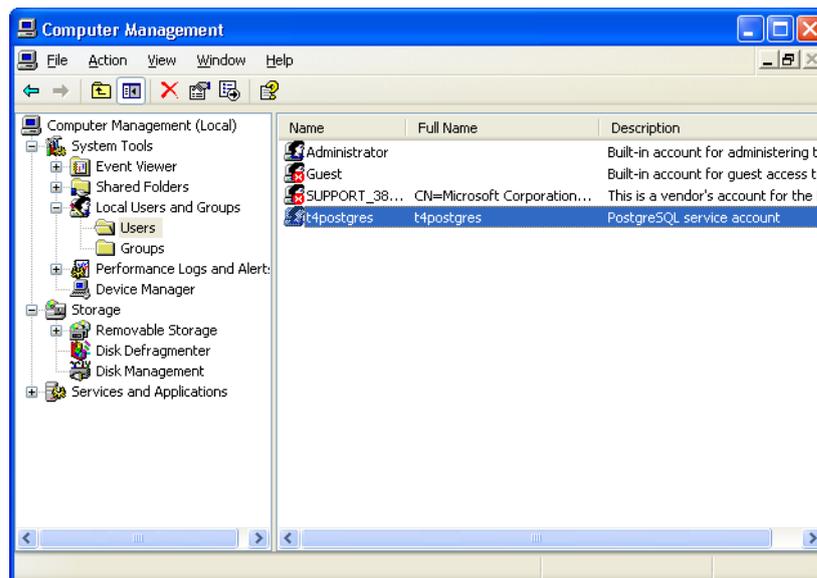


Figure 29 – Tango/04 customized PostgreSQL user

The process for removing these users is the same for either:



#### Note

Administrator privileges are required to remove a user from the system.

- Step 1.** Open the **Control Panel** and double-click the **Administrative Tools** icon, then double-click on **Computer Management**.
- Step 2.** In the left column, expand the **System Tools** tree, and then the **Local Users and Groups** tree and select **Users**.
- Step 3.** Right-click either: **postgres**; or **t4postgres** in the list.
- Step 4.** Select **Delete** from the context menu and click **Yes** in the confirmation dialog box that appears.

## 6.3 Delete the PostgreSQL folder

When uninstalled, PostgreSQL removes all application files, but not the files related to any created databases.

For a complete uninstall we must remove these files manually:

- Step 1.** Open the **C:\Program Files** folder (or the one in which PostgreSQL was installed in).
- Step 2.** Select the **PostgreSQL** folder and delete it.



#### Tip

If more than one version of PostgreSQL is installed, it is possible to keep some of the installed versions. By default, PostgreSQL installs every version in a separate folder inside the PostgreSQL folder, organised by version number. In this case, simply delete only the folder which corresponds to the version you wish to uninstall.

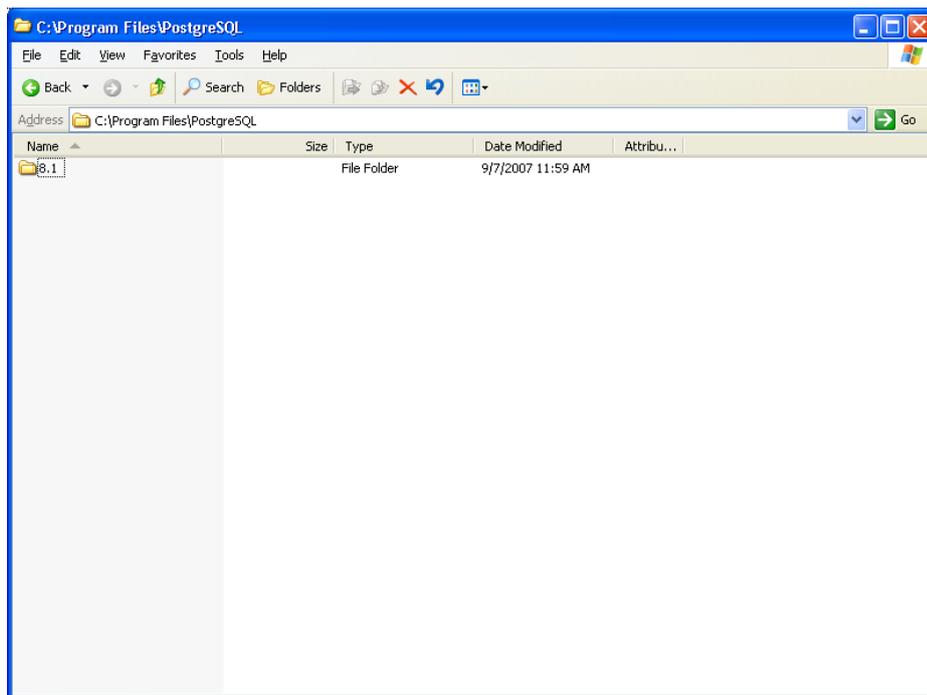


Figure 30 – PostgreSQL folders are organized by version number

## 6.4 Notes



### Note

The PostgreSQL installation will create a Windows local user named T4Postgres. T4Postgres does not have Administrator rights and will execute PostgreSQL as a NT Service. When you uninstall PostgreSQL from your system, this user is not removed by default.

Before re-installing VISUAL Message Center PostgreSQL make sure you first remove the user T4Postgres, otherwise an error will occur.



### Note

When you uninstall a PostgreSQL database from your system, the directory where it was located may contain a Data folder.

Before installing PostgreSQL database in the same location make sure you first remove the Data folder, otherwise an error will occur.

## Appendix A

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## About Tango/04 Computing Group

Tango/04 Computing Group is one of the leading developers of systems management and automation software. Tango/04 software helps companies maintain the operating health of all their business processes, improve service levels, increase productivity, and reduce costs through intelligent management of their IT infrastructure.

Founded in 1991 in Barcelona, Spain, Tango/04 is an IBM Business Partner and a key member of IBM's Autonomic Computing initiative. Tango/04 has more than a thousand customers who are served by over 35 authorized Business Partners around the world.

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