Greenplum
The Data Computing Division of EMC

EMC²
where information lives®

P/N: 300-012-433
Rev: A01
Updated: March 8, 2011 3:37

Greenplum Database 4.1 Connectivity Tools for Windows

Greenplum provides database drivers and a C API for connecting to Greenplum Database. In this version 4.1 distribution, the following connectivity tools are provided for Windows Advanced Server 2003:

- psqlODBC
- PostgreSQL JDBC Interface
- libpq

psqlODBC

psqlODBC is the official PostgreSQL ODBC Driver. The driver is currently maintained by a number of contributors to the PostgreSQL project at http://pgfoundry.org/projects/psqlodbc. It is developed and supported through the pgsql-odbc@postgresql.org mailing list. psqlODBC is released under the Library General Public Licence, or LGPL.

PostgreSQL JDBC Interface

The PostgreSQL JDBC interface is the official PostgreSQL JDBC driver. The driver is currently maintained by a number of contributors to the PostgreSQL project at http://jdbc.postgresql.org. JDBC is a core API of Java 1.1 and later. It provides a standard set of interfaces to SQL-compliant databases. PostgreSQL provides a type 4 JDBC driver. Type 4 indicates that the driver is written in Pure Java, and communicates in the database system's own network protocol. Because of this, the driver is platform independent; once compiled, the driver can be used on any system. The PostgreSQL JDBC Interface has not been modified from the original PostgreSQL distribution.

libpq

`libpq` is the C application programmer's interface (API) to PostgreSQL (and Greenplum Database). `libpq` is a set of library functions that allow client programs to pass queries to the PostgreSQL backend server and to receive the results of these queries.

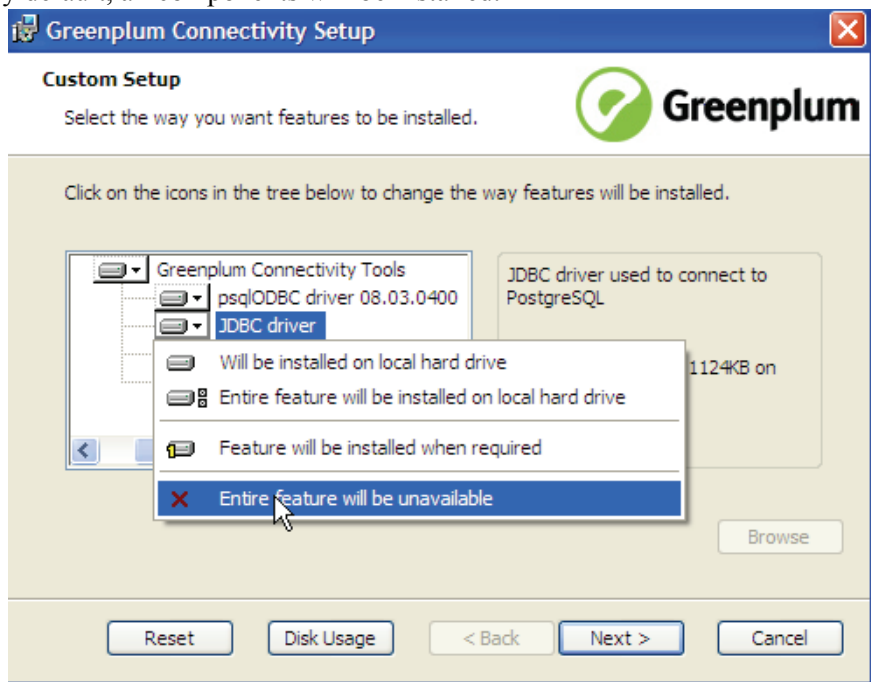
For more information on using `libpq`, see libpq - C Library in the PostgreSQL documentation.

Running the Connectivity Tools Installer

You can choose to install all connectivity tools or a subset. After installing, some connectivity tools require additional installation or configuration steps.

To install the Greenplum Database Connectivity Tools

1. Download the `greenplum-connectivity-4.1.x.x-WinXP-x86_32.msi.zip` package from http://gpn.greenplum.com.
2. Unzip the installer package using a program such as Winzip.
3. Double-click on the `greenplum-connectivity-4.1.x.x-WinXP-x86_32.msi` package to launch the installer.
4. Click **Next** on the Welcome screen.
5. Click **I Agree** on the License Agreement screen.
6. On the **Custom Setup** screen, deselect the components you do not want to install. By default, all components will be installed.



7. By default, the Greenplum Database connectivity tools will be installed into `C:\Program Files\Greenplum\greenplum-drivers-4.1.x.x`. Click **Browse** to choose another location.
8. Click **Next** when you have chosen the components and install path you want.
9. Click **Install** to begin the installation.
10. Click **Finish** to exit the installer.

About Your Installation

Your Greenplum Database connectivity tools installation contains the following files and directories:

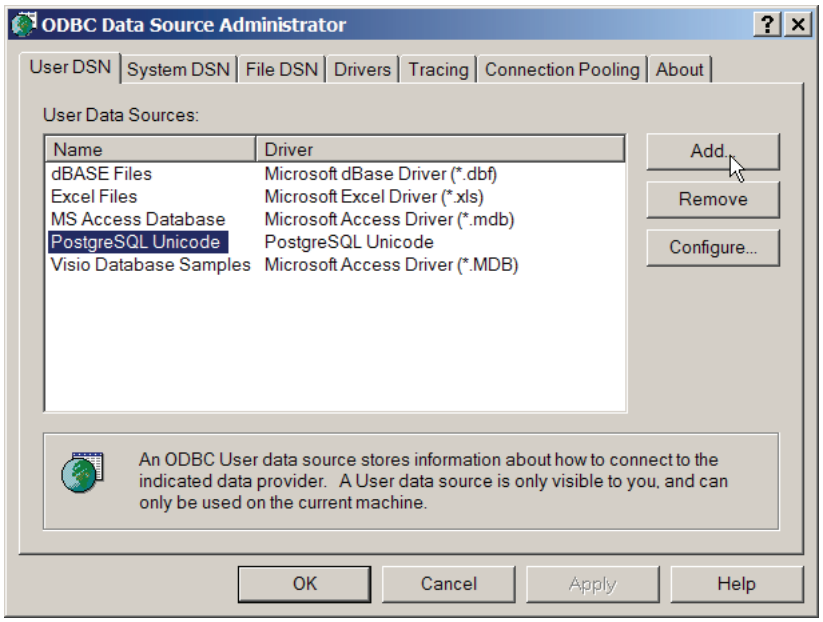
- `GP_ConnectWin.pdf` — the documentation file for connectivity tools
- `greenplum_connectivity_path.bat` — script to set environment variables. This script is run automatically as part of the installation.
- **drivers** — PostgreSQL ODBC and JDBC database drivers
- **include** — libpq C header files
- **lib** — shared object files and other library files to support the drivers

Creating an ODBC Data Source

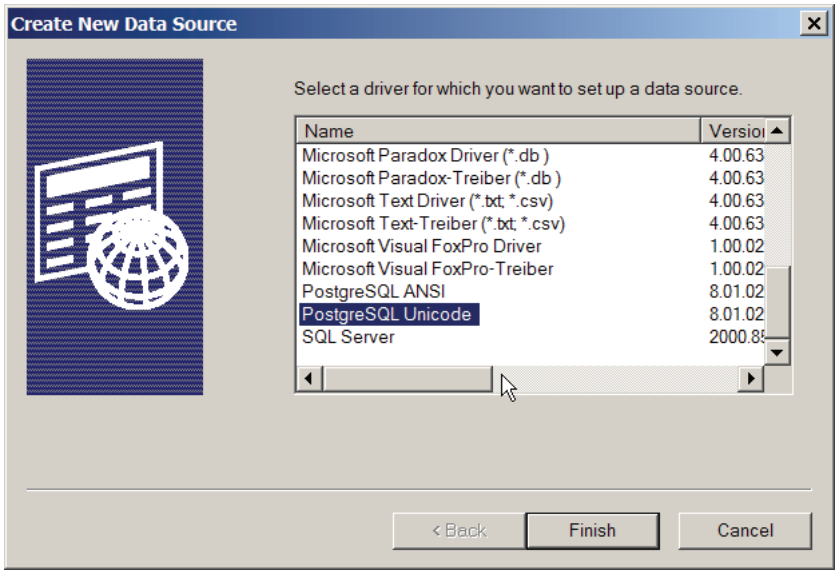
A data source configures your ODBC driver to connect to a particular database. For Greenplum Database you should configure your data source to connect to the master instance.

To configure a data source

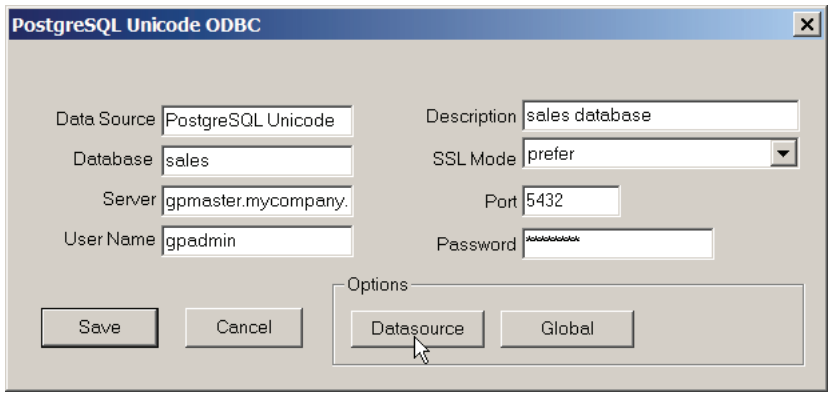
1. In Windows Explorer, go to `C:\Control Panel`.
2. Double-click the **Administrative Tools** icon.
3. Double-click **Data Sources (ODBC)** to open the ODBC Data Source Administrator.
4. Select **PostgreSQL Unicode** and click **Add** to add a new data source.



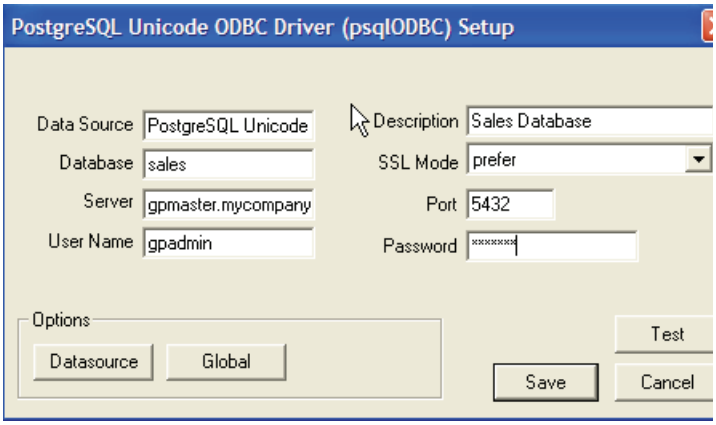
5. For the driver, **PostgreSQL Unicode** is the recommended choice. Unicode (UTF-8) is the default database encoding for Greenplum Database. There is also a **PostgeSQL ANSI** driver which can handle some multi-byte character sets and LATIN character sets.



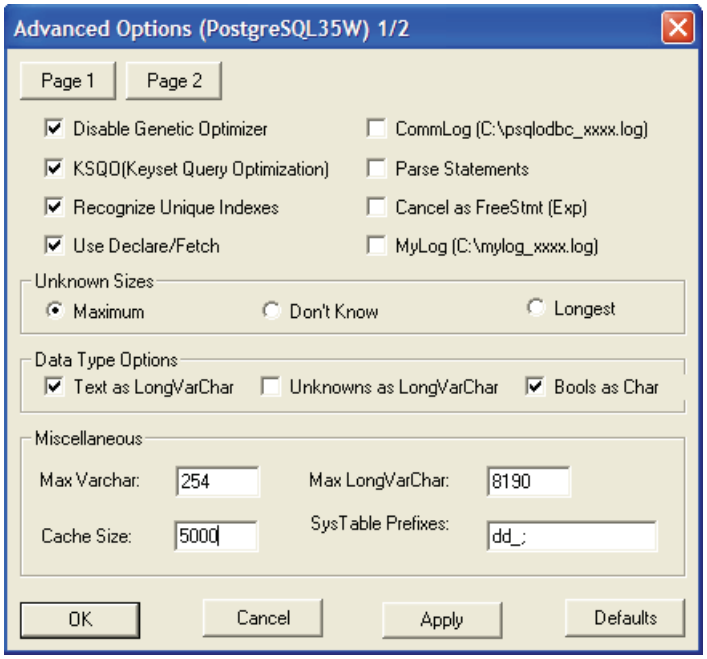
6. Fill in the connection information for your database (on the Greenplum Database master instance).



7. Click **Datasource** to access the Advanced Options. the following settings are recommended for Greenplum Database.:



8. Click **Page2**. the following settings are recommended for Greenplum Database:



9. Click **OK**.

10. Click **Save**.

Configuring the PostgreSQL JDBC Driver

The PostgreSQL JDBC driver is installed by the connectivity tools installer into `C:\Program Files\Greenplum\greenplum-drivers-4.1.x.x\drivers\jdbc`. In order to use the driver, you must add its `jar` files to your `CLASSPATH` environment variable.

To edit the CLASSPATH on Windows XP

1. In Windows Explorer, go to `C:\Control Panel`.
2. Double-click the **System** icon.
3. On the **Advanced** tab, click **Environment Variables** (bottom).
4. Find the **`CLASSPATH`** environment variable and double-click on it to edit it (if not there, click **New** to create it).
5. Add the path to the JDBC driver jar file directory at the end of the current class path. For example:

   `C:\Program Files\Java\jdk1.5.0_02\bin;greenplum-drivers-4.1.x.x`**`\drivers\jdbc\*`**
6. Click **OK**.

About greenplum_connectivity_path.bat

The installer automatically creates the necessary environment variables needed for the connectivity tools. As a convenience, the script `greenplum_connectivity_path.bat` is provided in your connectivity tools installation directory. This script sets the following environment variables:

`GPHOME_CONNECTIVITY` — The installation directory of the Greenplum Database connectivity tools.

`PATH` – To allow access to the connectivity tools from any directory, the `PATH` environment variable is modified to add `GPHOME_CONNECTIVITY\bin` and `GPHOME_CONNECTIVITY\lib`.

If you do not need to modify these environment variables, you do not need to run this script.