

Quick Start: DataDirect Connect64[®] for ODBC DB2 Wire Protocol Driver on UNIX and Linux

The following basic information enables you to connect with and test your driver immediately after installation. For installation instructions for DataDirect Connect64 for ODBC, please see the [DataDirect Connect64 and DataDirect Connect64 XE for ODBC Installation Guide](#). The following command samples assume that the user is executing from within the Korn (ksh) shell.

IMPORTANT: You must have the appropriate privileges for the driver to create and bind packages with your user ID. These privileges are BINDADD for binding packages, CREATEIN on the collection specified by the Package Collection option, and GRANT EXECUTE on the PUBLIC group for executing the packages. These are typically the permissions of a Database Administrator (DBA). If you do not have these privileges, someone that has a user ID with DBA privileges needs to create packages by connecting with the driver.

When connecting for the first time, the driver determines whether bind packages exist on the server. If packages do not exist, the driver creates them automatically using driver default values.

Environment Setup

- 1 Check your permissions:** Log in as a user with full r/w/x permissions recursively on the entire DataDirect Connect64 for ODBC installation directory.
- 2 Determine which shell you are running:** From the login shell, execute the echo \$SHELL command.
- 3 Run the DataDirect Technologies setup script to set variables:** Two scripts, odbc.csh and odbc.sh, are installed in the installation directory. For Korn, Bourne, and equivalent shells, execute odbc.sh. For a C shell, execute odbc.csh. After running the setup script, execute the env command to verify that the *installation_directory/lib* directory has been added to your shared library path.
- 4 Set ODBCINI variable:** DataDirect Connect64 for ODBC installs a default odbc.ini file, where your data sources reside, in the installation directory. You must set the ODBCINI environment variable to point to the path of the odbc.ini file. For example:

```
$ ODBCINI= /opt/odbc/odbc.ini; export ODBCINI
```

Test Loading the Driver

The ddtestlib tool is a utility to verify that the driver can be loaded into memory; it is located in the *installation_directory/bin* directory. For example, to load the driver (where xx represents the driver level number), you would enter:

```
$ ddtestlib /opt/odbc/lib/dddb2xx.so
```

If the load is successful, ddtestlib returns a success message along with the version string of the driver. If the driver cannot be loaded, ddtestlib returns an error message explaining why.

Connecting to a Database for All Users

The following procedure is applicable for all UNIX/Linux users. Linux users can choose to use the DataDirect ODBC Data Source Administrator for UNIX/Linux. See [Connecting to a Database for Linux Users](#).

Defining a Data Source in the `odbc.ini`

The default `odbc.ini` installed in the installation directory is a template into which you enter your site-specific database connection information using a text editor. The following sample shows the minimum connection string attributes you must enter for a test connection (where `xx` represents the driver level number). For example, to configure a connection to DB2 for Linux/UNIX/Windows, you might enter:

```
[DB2 Wire Protocol]
Driver=/opt/odbc/lib/dddb2xx.so
Description=connection to my accounting database
Database=SAMPLE
IpAddress=123.456.78.90
TcpPort=50000
```

To configure a connection to DB2 for z/OS or iSeries, you might enter:

```
[DB2 Wire Protocol]
Driver=/opt/odbc/lib/dddb2xx.so
Description=connection to my accounting database
IpAddress=123.456.78.90
Location=V5R2L0C
TcpPort=446
```

Testing the Connection

The DataDirect Connect64 for ODBC installation includes a program named `example` that can be used to connect to a data source and execute SQL. The application is located in the `installation_directory/example` directory. To run the program, type `example` and follow the prompts to enter your data source name, user name, and password. If successful, a `SQL>` prompt appears and you can type in SQL Statements such as `Select * from <table_name>`. If `example` is unable to connect, the appropriate error message appears.

Connecting to a Database for Linux Users

The following procedure is applicable only on Linux systems using a Motif GUI. The procedure describes using the DataDirect ODBC Data Source Administrator for UNIX/Linux (the UNIX ODBC Administrator).

- 1 To start the UNIX ODBC Administrator, change to the `install_dir/tools` directory, where `install_dir` is the path to the product installation directory; at a command prompt, enter: `odbcadmin`
- 2 On the User DSN tab, click **Add** to display a list of installed drivers. Select the driver from the list and click **Finish** to display the driver Setup dialog box.
- 3 On the General tab, provide the following information; then, click **Apply**.
 - **Data Source Name:** Type a string that identifies this data source configuration in the system information, such as "Accounting."
 - **Description:** Type an optional long description of a data source name, such as "My Accounting Database."
 - **IP Address:** Type the IP (Internet Protocol) address of the machine where the catalog tables are stored. Specify the address using the machine's numeric address or specify its host name. The numeric IP address can be specified in either IPv4 or IPv6 format, or a combination of the two. If you enter a host name, the driver must find this name (with the correct address assignment) in the HOSTS file on the workstation or in a DNS server. The default is localhost.

- **Tcp Port:** Type the port number that is assigned to the DB2 DRDA listener process on the server host machine. Specify either this port's numeric address or its service name. If you specify a service name, the driver must find this name (with the correct port assignment) in the SERVICES file on the workstation. The default is 50000.

On iSeries only, execute `NETSTAT` from an iSeries command line to determine the correct port number. Select option 3 to display a list of active ports on the iSeries machine. Find the entry for DRDA and press F-14 to toggle and display the port number. If DRDA is not currently listening, the iSeries command, `CHGDDMTCPA AUTOSTART(*YES) PWDRQD(*YES)` starts the listener and ensures that it is active at IPL.

- **Location Name:** This field is valid and required only if you are connecting to a DB2 database on z/OS or iSeries. Type the DB2 location name. Use the name defined during the local DB2 installation.

On z/OS only, your system administrator can determine the name of your DB2 location using the `DISPLAY DDF` command.

On iSeries only, your system administrator can determine the name of your DB2 location using the `WRKRDBDIRE` command. The name of the database that is listed as *LOCAL is the value you should use.

NOTE: This field is disabled if the Database Name field is populated.

- **Collection:** This field is valid only if you are connecting to a DB2 database on z/OS or iSeries. By default, the User ID is used for the value of Collection. The User ID should always be used on z/OS.

NOTE: This field is disabled if the Database Name field is populated.

- **Database Name:** This field is valid and required only if you are connecting to a DB2 database on Linux/UNIX/Windows. Type the name of the database to which you want to connect.

NOTE: This field is disabled if the Location Name or Collection fields are populated.

Testing the Connection

- 1 At the bottom of the Driver Setup dialog box, click **Test Connect** to attempt to connect to the data source using the connection properties that you specified. A logon dialog box appears. Note that the information you enter in the logon dialog box during a test connect is not saved. Click **OK**.

If the driver can connect, it releases the connection and displays a `connection established` message. If the driver cannot connect because of an improper environment or incorrect connection value, it displays an appropriate error message. Click **OK**.

- 2 Click **OK** or **Cancel** at the bottom of the Driver Setup dialog box. If you click **OK**, the values you have specified become the defaults when you connect to the data source.

Tuning the Driver for Optimal Performance

To tune the driver for optimal performance, run the DataDirect Connect64 *for* ODBC Performance Wizard, which is installed along with the product and is also available from the DataDirect web site (http://www.datadirect.com/products/odbc/performance_tuning_wizard/index.ssp). The Wizard leads you step-by-step through a series of questions about your application. Based on your answers, the Wizard provides the optimal settings for performance-related connection attributes.

The Wizard runs as an applet within a browser window. To run the Wizard, one of the following browsers must be installed:

- Netscape 4.x or higher
- Firefox 1.0 or higher

To start the Wizard that was installed with the product, launch the following file from your browser, where *installation_directory* is your DataDirect Connect64 for ODBC installation directory:

installation_directory/wizards/index.html

NOTE: Security features set in your browser can prevent the Wizard from launching. A security warning message is displayed. Often, the warning message provides instructions for unblocking the Wizard for the current session. To allow the Wizard to launch without encountering a security warning message, the security settings in your browser can be modified. Check with your system administrator before disabling any security features.

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