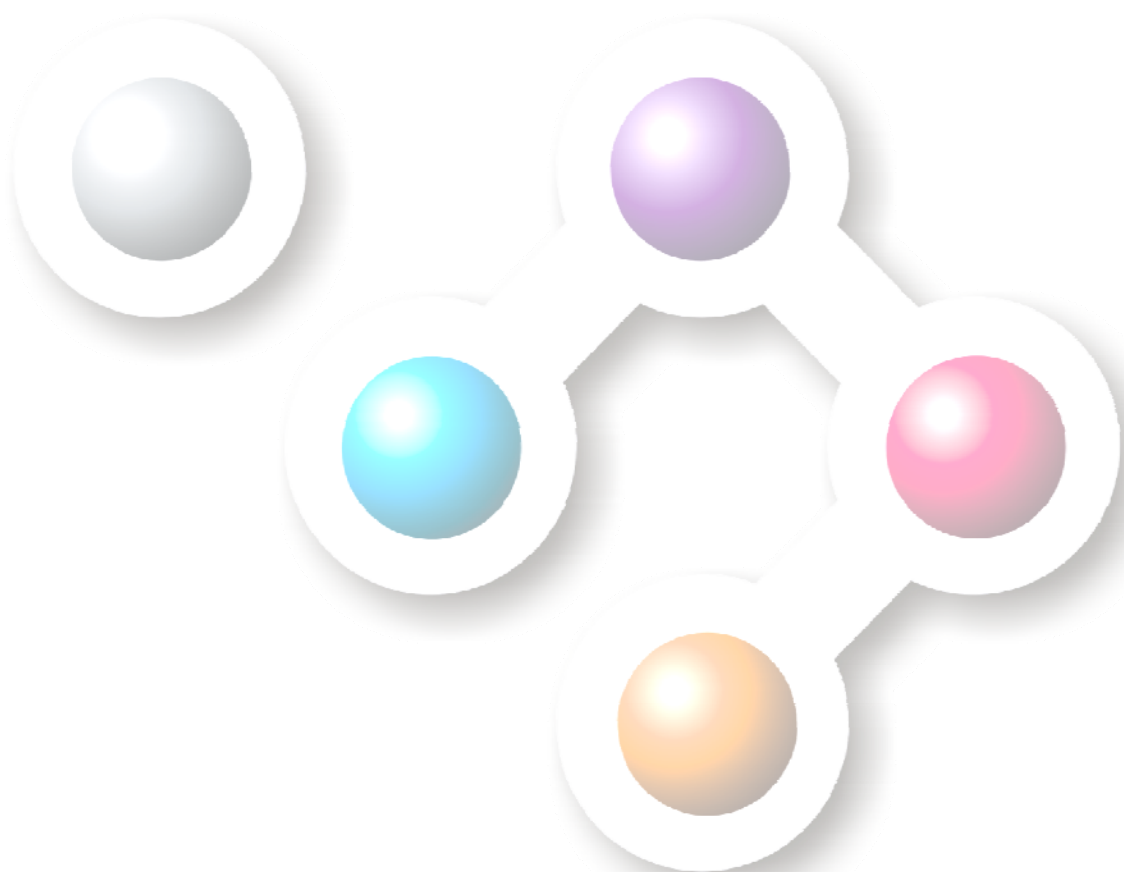


Lycia Development Suite



**Lycia Database Connection Guide for Informix
Versions 5 and 6 – January 2011**



Dynamic Database Interface

Connection Guide for Informix

Versions 5 and 6

January 2011

Part Number: 017-006-135-011

Querix Dynamic Database Guide for Informix

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Configuring Database Connections

This section will guide you through the process of connecting to an Informix Dynamic Server/Online and an Informix Standard Engine database for use with Lycia.

Installing Informix

For each platform, install Informix as per instructed in the Informix Dynamic Server/Online or the Informix Standard Engine documentation.

Connection Information

The following information is needed to make a connection with a database and is common across either Informix platform. The information stated here is for use in both Windows and UNIX/Linux.

IBM Informix Server

This is the instance of the Informix Server to connect to. This is not to be confused with the machine that the database is running on, which may be called something different.

Host Name

The host name refers to the actual machine that is hosting the database to be connected to.

Protocol

The protocol to be used to communicate with the Informix database depends on your setup. You must select an 8-character protocol, which is split into 3 sections:

- The first two characters specify the type of Informix database
 - se – Standard Engine
 - on/ol – online/dynamic server
- The next three characters refer to the style of the connection, for example soc for a socket connection or ipc for inter-process communication
- The final three characters refer to specific information about the connection, such as a tcp connection or a piped (pip) connection

Service Name

The final piece of information that you need to enter is the service name. If using shared memory, this will simply be the host name. If you are using a piped system though, this will be sqlexec. If using a socket connection this will either be the port number (1526 by default) or the port alias (Turbo by default). If you are going to use an alias instead of the port number, you must make sure that the alias name and its details are present in the Services file found in %WINDIR%\system32\drivers\etc\services on Windows and /etc/services in UNIX/Linux.

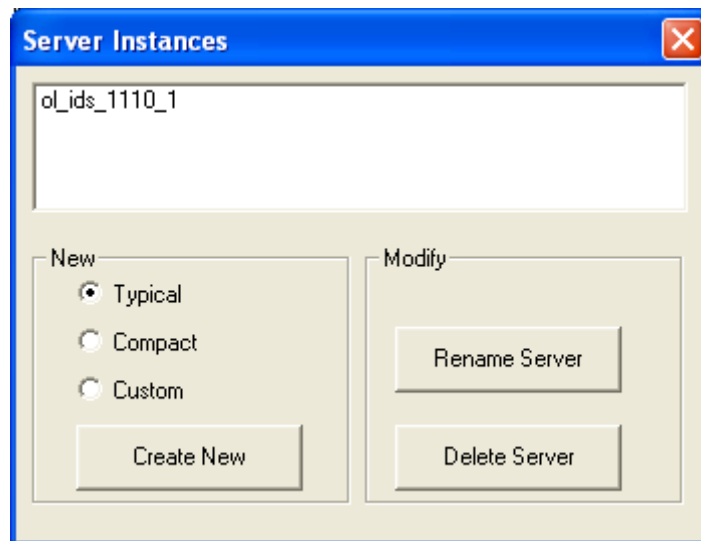
Configuring Server Information for Informix Dynamic Server/Online in Windows

The following steps will guide you through the configuration of the Server Information in Windows.

1. Once Informix is installed there will be an Informix Server Instance created automatically. To check the name of this Server Instance go to the Server Instance Manager located at:

All Programs -> Informix Dynamic Server version_number -> Server Instance Manager

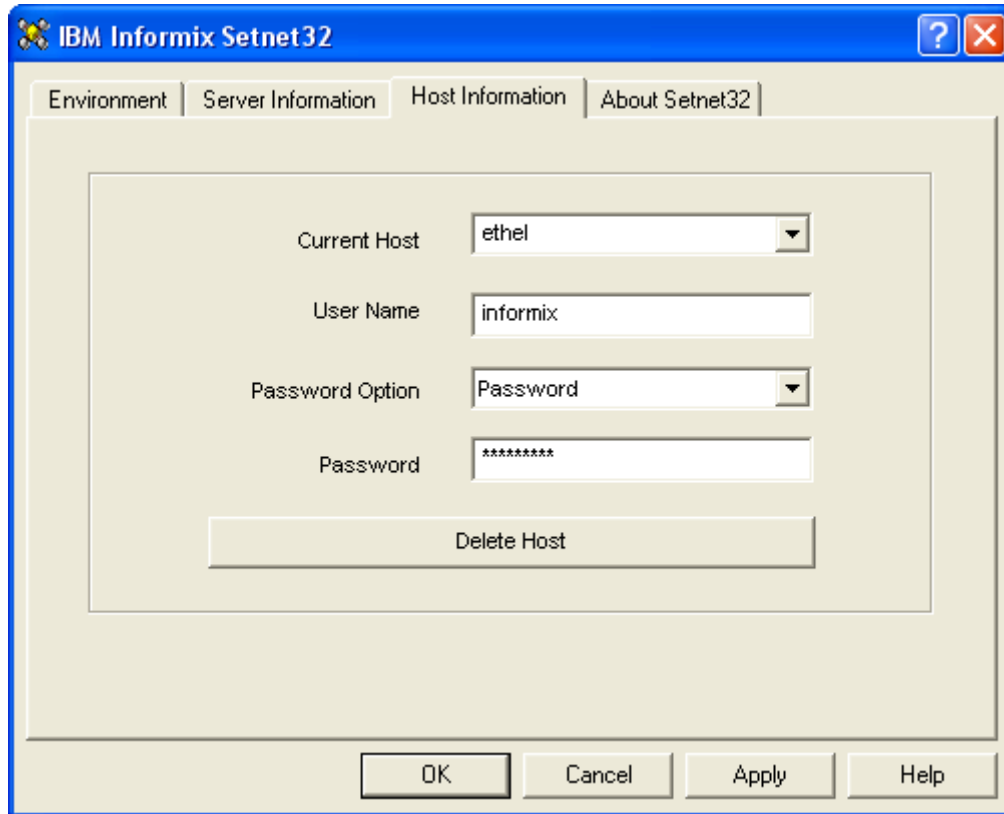
Listed here will be all the Server Instances, and several options such as renaming, deleting and creating new Servers. Note the name of the required Server Instance.



2. Next you will need to enter host and server information in order for Informix to connect to a database. To do this, open Setnet32 from the following location:

All Programs -> Informix Client-SDK version_number -> Setnet32

Now select the Host Information tab. You will see the following screen:



The image shows a screenshot of the IBM Informix Setnet32 dialog box. The window has a blue title bar with the text 'IBM Informix Setnet32' and standard window controls. Below the title bar are four tabs: 'Environment', 'Server Information', 'Host Information', and 'About Setnet32'. The 'Host Information' tab is currently selected. Inside the dialog, there are four input fields: 'Current Host' (a dropdown menu showing 'ethel'), 'User Name' (a text box containing 'informix'), 'Password Option' (a dropdown menu showing 'Password'), and 'Password' (a text box containing '*****'). Below these fields is a 'Delete Host' button. At the bottom of the dialog are four buttons: 'OK', 'Cancel', 'Apply', and 'Help'.

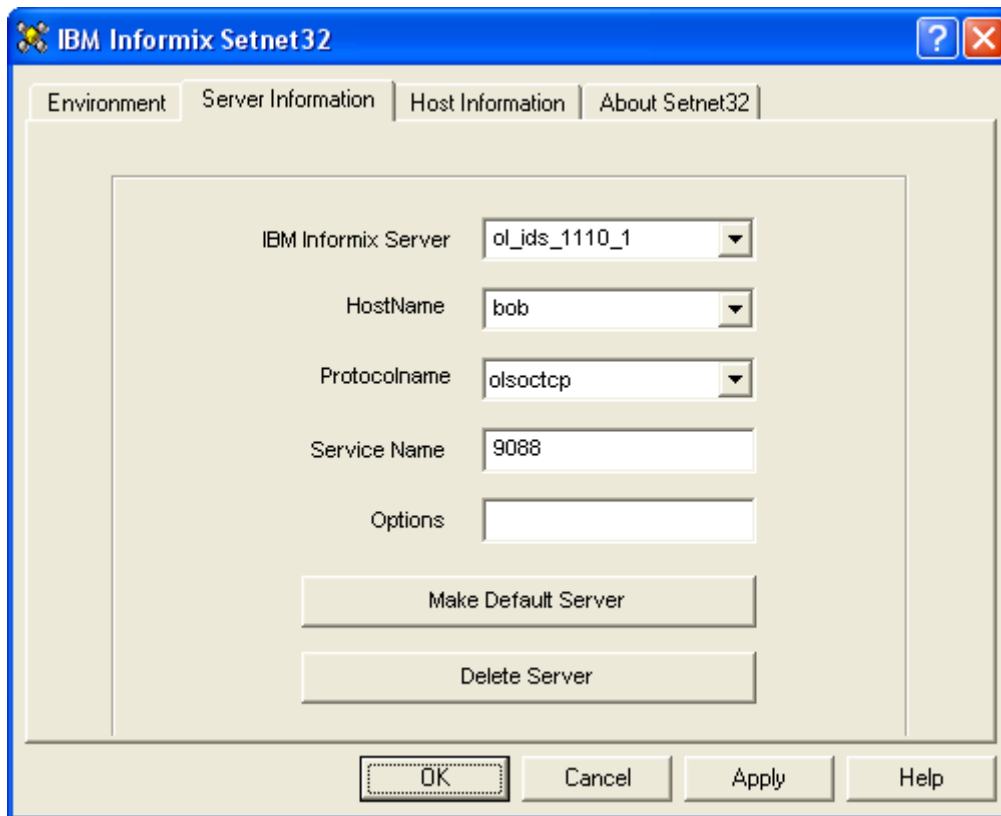
3. In the Current Host field, select or type the name of the host.

This should be the same as the previously defined IBM Informix Server name.

4. In the User Name field, type the username with which you want to connect to the database.
5. In the Password Option field, select the password method needed to access your database.

For Windows environments this is usually 'Password'. This should be confirmed with your database administrator.

6. In the Password field, type the password for the username being used to access the database.
7. Click the Apply button.
8. If the information just entered is new a dialog box is displayed, which asks if you want to define a new host. Click the OK button and then select the Server Information tab to get the following screen:

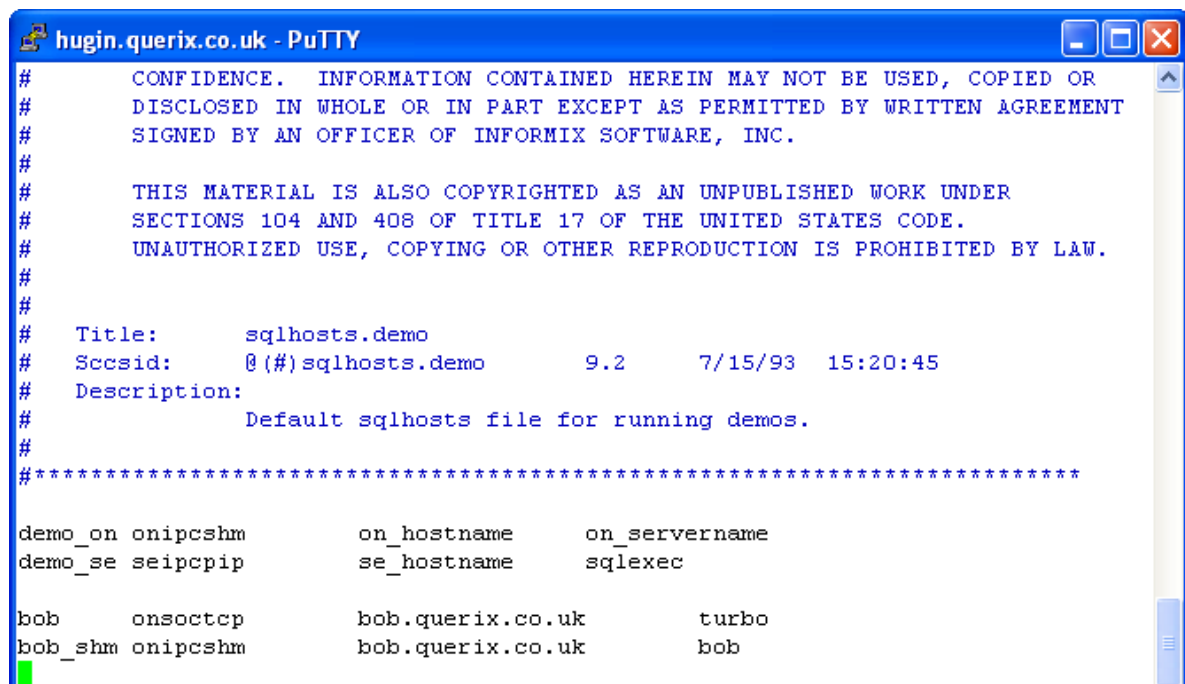


9. In the Server Information tab enter or select the Server Instance name into the IBM Informix Server field.
10. Next, enter the name of the machine on which the database will reside in the HostName field.
11. In the Protocolname field there will be several 8-character options. You must choose the relevant option to suit your system.
12. Finally, enter the service name.
13. If you would like this server to be default, then you can select the 'make default' button to do so. Now click 'OK' to confirm these details.

Configuring Server Information in UNIX/Linux

In UNIX/Linux you will have already set the Server Instance name when installing Informix, and possibly an associated alias. If you need to check this name/alias open the onconfig file found in the \$INFORMIXDIR/etc directory and look up the DBSERVERNAME and the DBSERVERALIASES.

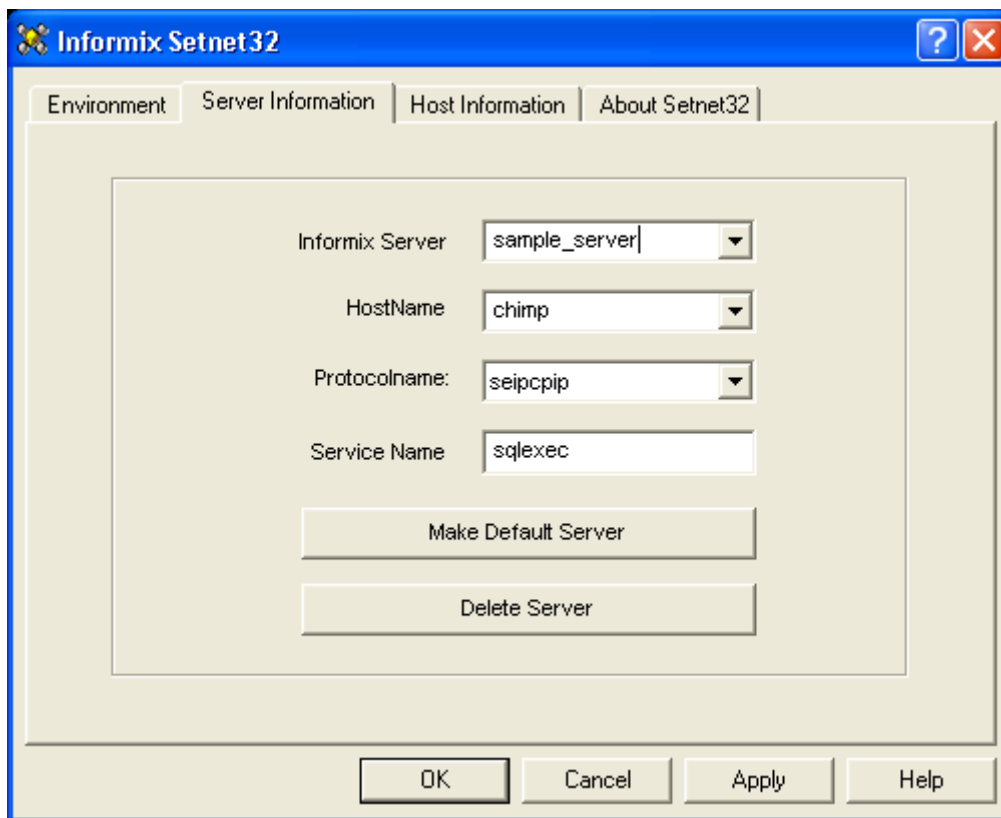
Configuring the server information is now simply a case of opening the \$INFORMIXDIR/etc directory and opening the sqlhosts file for editing. This file requires the four pieces of information as discussed in the Connection Information section, namely Informix Server, Host Name, Protocol, and Service Name. This information can be found at the top of the file and changing the settings is simply a case of editing this line of information.



```
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#
#
# Title:      sqlhosts.demo
# Sccsid:     @(#)sqlhosts.demo      9.2      7/15/93  15:20:45
# Description: Default sqlhosts file for running demos.
#
#*****
#
demo_on onipcshm      on_hostname      on_servername
demo_se seipcpip      se_hostname      sqlexec
#
bob      onsocketp      bob.querix.co.uk      turbo
bob_shm onipcshm      bob.querix.co.uk      bob
```

Standard Engine

Install Standard Engine, open Setnet 32 and enter in the details as with online/dynamic – except protocol name is always seipcpip and service name is always sqlexec.



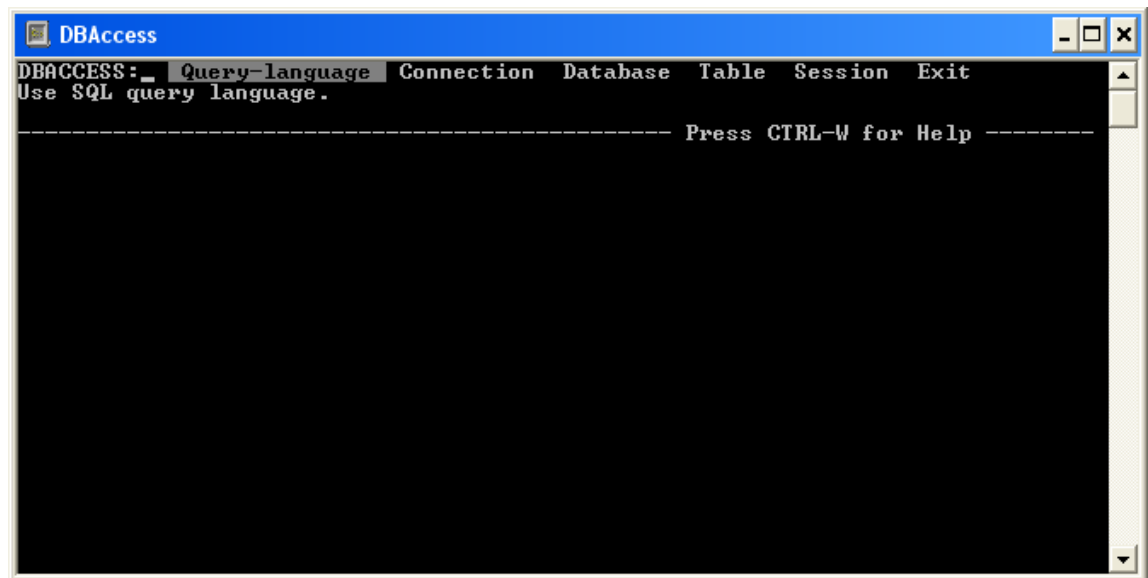
The image shows a screenshot of the Informix Setnet32 application window. The window has a blue title bar with the text "Informix Setnet32" and standard Windows window controls (minimize, maximize, close). Below the title bar is a tabbed interface with four tabs: "Environment", "Server Information", "Host Information", and "About Setnet32". The "Server Information" tab is currently selected. Inside this tab, there is a form with four fields, each with a label and a value:

- Informix Server:** A dropdown menu showing "sample_server".
- HostName:** A dropdown menu showing "chimp".
- Protocolname:** A dropdown menu showing "seipcpip".
- Service Name:** A text input field containing "sqlexec".

Below these fields are two buttons: "Make Default Server" and "Delete Server". At the bottom of the window, there are four buttons: "OK", "Cancel", "Apply", and "Help".

Creating a database

Once you are satisfied that this information is correct, you will then need to open the DBAccess tool in order to create your database. The creation of databases using DBAccess is identical whether using Windows or UNIX/Linux.



1. In the DBAccess tool you will be met with several options; scroll over to Database and select it with the Enter key.
2. In the following screen, choose Create.
3. Next, enter a name for your database and press Enter.
4. The following screen allows you to choose a dbspace for storing the database's data or to choose the type of transaction logging. Choose Dbspace.
5. You should see here the names of any server instances and the rootdbs. Choose the name of the server instance you selected earlier in the IBM Informix Server tab in Setnet32.
6. Next, go to Log and select the appropriate transaction logging. It is recommended that this option be set as there can be no transactions without some sort of transaction logging.
7. Select Exit and you are presented with two options: Create-new-database and Discard-new-database. Select Create-new-database and the database will be created.
8. To check that LyciaStudio can connect to this database open the testconn project located in Querix CVS repository - check the Getting started guide for more information.

Build and run this project and enter the name of the database you created and you should be met with a screen containing "Connection Successful".

Connecting To Informix From Lycia

Configuring The Lycia Environment

The connection to Informix database engines is configured within the process environment. For Windows users, this is mostly configured within the setnet32 utility, however it is possible to override these settings within the process environment.

For processes running through the GUI server (for example, when running with Phoenix or Chimera), the environment is configured within the GUI server environment file. By default this file is located in \$QUERIXDIR/etc/inet.env.

Informix OnLine/Dynamic Server

The following environment variables need to be set when connecting to Informix Dynamic Server/OnLine

- INFORMIXSERVER
- INFORMIXDIR

INFORMIXSERVER

This environment variable should match one of the servers listed in the file \$INFORMIXDIR/etc/sqlhosts. If this value is incorrect or unset, error code -25596 will be returned.

INFORMIXDIR

This environment variable should point to the base location of the Informix product directory. If this value is incorrect or unset, error code -1896 or -23101 will typically be returned.

Informix Standard Engine

The following environment variables need to be set when connecting to Informix Standard Engine

- INFORMIXSERVER
- INFORMIXDIR
- DBPATH

INFORMIXSERVER

This environment variable should match one of the servers listed in the file \$INFORMIXDIR/etc/sqlhosts. If this value is incorrect or unset, error code -25596 will be returned.

INFORMIXDIR

This environment variable should point to the base location of the Informix product directory. If this value is incorrect or unset, error code -1896 or -23101 will typically be returned.

DBPATH

The DBPATH environment variable specifies the search path that Informix will use to locate a database. Because Informix Standard Engine stores databases as <database name>.dbs directories on the filesystem, it is necessary to specify to the database engine the location in which it should try to locate these files.

