

Informix Client Products

Installation Guide

for Microsoft Windows Environments

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Installing Informix Client SDK

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In This Introduction

This introduction provides an overview of the information in this manual and describes the conventions it uses.

About This Manual

This manual explains how to install the following products on computers that run one of the Windows operating systems.

- Informix Client Software Developer's Kit for Windows:
 - Informix ESQL/C
 - Informix Object Interface for C++
 - Informix GLS
 - Informix ODBC Driver with MTS support
 - INTERSOLV DataDirect ODBC Driver
 - LIBMI for Client Applications
 - Microsoft Data Access Components
 - Informix OLE DB Provider
 - Informix Password CSM
- Informix Connect for Windows:
 - Runtime versions of Client SDK components
- Informix JDBC Driver and Informix Embedded SQLJ

Client SDK and Connect packages also include the **Setnet32** utility for configuring client products. Each package can also include on-line help, example programs, and support programs.

Client SDK and Connect also include Microsoft ODBC Driver Manager, which is required for INTERSOLV DataDirect ODBC Driver.

Organization of This Manual

This manual includes the following chapters:

- [Chapter 1, “Installing Informix Client SDK,”](#) provides instructions for installing, configuring, and uninstalling Client SDK for Windows.
- [Chapter 2, “Installing Informix JDBC Driver and Informix Embedded SQLJ,”](#) provides instructions for installing, configuring, and uninstalling Informix JDBC Driver and Informix Embedded SQLJ.
- [Appendix A, “Distributing Your Informix Client Applications,”](#) provides instructions for third-party vendors who intend to redistribute Informix client products.
- An index directs you to areas of particular interest.

Types of Users

To use these instructions, you must be familiar with your computer operating procedures and your Windows environment.

If you encounter problems, contact your Informix Technical Support department. In North America, call toll-free (800) 274-8184 or send a fax to (913) 599-8590. Outside North America, contact your distributor or the nearest Informix subsidiary.

Documentation Conventions

This section describes the conventions that this manual uses. These conventions make it easier to gather information from this and other volumes in the documentation set.

The following conventions are discussed:

- **Typographical conventions**

■ Icon conventions

Typographical Conventions

This manual uses the following conventions to introduce new terms, illustrate screen displays, describe command syntax, and so forth.

Convention	Meaning
KEYWORD	All primary elements in a programming language statement (keywords) appear in uppercase letters in a serif font.
<i>italics</i> <i>italics</i> <i>italics</i>	Within text, new terms and emphasized words appear in italics. Within syntax and code examples, variable values that you are to specify appear in italics.
boldface boldface	Names of program entities (such as classes, events, and tables), environment variables, file and pathnames, and interface elements (such as icons, menu items, and buttons) appear in boldface.
monospace <i>monospace</i>	Information that the product displays and information that you enter appear in a monospace typeface.
KEYSTROKE	Keys that you are to press appear in uppercase letters in a sans serif font.
◆	This symbol indicates the end of product- or platform-specific information.
→	This symbol indicates a menu item. For example, “Choose Tools→Options ” means choose the Options item from the Tools menu.






***Tip:** When you are instructed to “enter” characters or to “execute” a command, immediately press RETURN after the entry. When you are instructed to “type” the text or to “press” other keys, no RETURN is required.*

Icon Conventions

Throughout the documentation, you will find text that is identified by several different types of icons. This section describes these icons.



Comment Icons

Comment icons identify three types of information, as the following table describes. This information always appears in *italics*.

Icon	Label	Description
	<i>Warning:</i>	Identifies paragraphs that contain vital instructions, cautions, or critical information
	<i>Important:</i>	Identifies paragraphs that contain significant information about the feature or operation that is being described
	<i>Tip:</i>	Identifies paragraphs that offer additional details or shortcuts for the functionality that is being described

Feature, Product, and Platform Icons

Feature, product, and platform icons identify paragraphs that contain feature-specific, product-specific, or platform-specific information.

Icon	Description
	Identifies information that relates to the Informix Global Language Support (GLS) feature
	Identifies information that is specific to the Windows NT environment

These icons can apply to a row in a table, one or more paragraphs, or an entire section. A ♦ symbol indicates the end of the feature-specific, product-specific, or platform-specific information.



Additional Documentation

Important: Your CD-ROM might have a **readme.txt** file in the root directory. This file contains information that was available only after other documentation was complete. In particular, the **readme.txt** file might contain information that you should read before you install your Informix client product. You can open the **readme.txt** file in any Windows text editor, such as Notepad.

The documentation set for Informix client products includes manuals and on-line notes for each of the components.

The manuals for each package are described in the following table.

Package	Included Manuals
Informix Client SDK	One manual for each component, plus the SQL manual set and other server manuals
Informix Connect	No additional manuals
Informix JDBC Driver and Informix Embedded SQLJ	Informix JDBC Driver Programmer's Guide Informix Embedded SQLJ User's Guide

Some Client SDK components have on-line notes, located in the **release\en_us\04e4** subdirectory of your Informix installation directory. In addition, some on-line notes have icons in the program groups.

The on-line notes for Informix JDBC Driver are located in the **\doc\release** subdirectory of your Informix installation directory.

The Informix Embedded SQLJ release notes and user guide are located in the **sqlj** directory under the release directory. This directory includes:

- Informix Embedded SQLJ release notes file **relnotes.html**
- Informix Embedded SQLJ quick reference guide **sqljdoc.html**
- *Informix Embedded SQLJ User's Guide* **ifxsqljug.pdf** and **ifxsqljug.html**

On-line notes are described in the following table.

On-Line File	Purpose
Release notes	Describe the following issues: <ul style="list-style-type: none">■ Feature differences from earlier versions of Informix products and how these differences might affect current products■ Information about known problems, their workarounds, and fixed bugs
Documentation notes	Describe documentation errata or information obtained after the associated manual was printed
Machine notes (optional)	Describe any special actions required to configure and use Informix products on your computer's operating system

Informix Welcomes Your Comments

Let us know what you like or dislike about our manuals. To help us with future versions of our manuals, we want to know about any corrections or clarifications that you would find useful. Include the following information:

- The name and version of the manual that you are using
- Any comments that you have about the manual
- Your name, address, and phone number

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We appreciate your suggestions.

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In This Chapter

This chapter explains how to install Informix Client Software Developer's Kit on computers that run one of the Windows operating systems.

Preparing to Install Client SDK

You install Informix products for Windows environments with an installation program that copies files to your client computer.

You can install Informix products only as licensed by Informix. You cannot transfer software from one computer to another, or to another portion of your network, without reregistration and the written consent of Informix.

System Requirements

The following table outlines the system requirements for Informix client products for Windows environments.

Requirement	Windows 95/98	Windows NT
Hardware	80486 or higher microprocessor	80486 or higher microprocessor
Windows version	Windows 95 or Windows 98	Version 4.0 with Service Pack 3

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Requirement	Windows 95/98	Windows NT
RAM	16 MB	32 MB
Hard-disk storage	20 MB (or less, depending on the products and components you install)	20 MB (or less, depending on the products and components you install)

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Providing a Database Server

Client SDK Version 2.3 and Connect Version 2.3 can be used on client computers connecting with Informix databases. See the on-line release notes for each client component for a list of compatible Informix servers.

Providing a Protocol

Informix client products work with any TCP/IP protocol that complies with Windows Sockets 1.1.

You select a protocol through **Setnet32**. See [“Setting Server Information” on page 16](#) for instructions.

Installing a C Compiler

Informix client products are certified with the Microsoft Visual C++ compiler, Versions 5.0 and 6.0. See the release notes for individual components for other supported compilers.

Installing Microsoft ODBC Driver Manager

To use INTERSOLV DataDirect ODBC Driver, you must first install Microsoft ODBC Driver Manager.

The Client SDK and Connect products include Driver Manager Version 3.5 as a Custom installation option under Microsoft Data Access Components Version 2.0.

Driver Manager might already have been installed on your computer by another product. You do not have to install a new Driver Manager unless you want to use a different version.

Finding the Version of the Installed Driver Manager

To find out what version of Driver Manager is installed on your computer, double-click the **ODBC** icon in the Control Panel and then click the **About** tab to display the installed ODBC components.

If there is no **About** tab on the ODBC Control Panel, you have a Driver Manager earlier than Version 3.0. To find the specific version number, use Windows Explorer to browse your Windows system directory (**SYSTEM** on Windows 95 or **SYSTEM32** on Windows NT). Select the **odbc32.dll** file and then choose **File→Properties**. Click the **Version** tab to find the version number of the driver.

Installing Driver Manager

You can use the Informix **Setup** utility to install Driver Manager.

If you want to install an older version of Driver Manager than is currently installed on your computer, first uninstall the newer version using the appropriate uninstall program.

When you run **Setup**, you must specify the Custom installation type and the Driver Manager version you want to install. See [“Installing Client SDK,”](#) next, for **Setup** instructions.

Installing Client SDK

To install Client SDK, run the **Setup** utility for each package that you want to install. **Setup** allows you to choose which components of the package to install.

The following sections describe Informix client product installation options, how to install your software, and solutions to installation problems.

Order of Installation

If you install both the database server and client products in the same directory, install the oldest product first. Use the following table as a guide to install products in the correct order. Servers are listed horizontally, and client products are listed vertically. In the table, OnLine stands for INFORMIX-OnLine Dynamic Server, IDS stands for Informix Dynamic Server, XPS stands for Informix Dynamic Server with Advanced Decision Support and Extended Parallel Options, US stands for INFORMIX-Universal Server, and SE stands for INFORMIX-SE.

	Version 5.0x OnLine, SE	Version 5.1 OnLine, SE	Version 7.1x IDS, SE	Version 7.2x IDS, SE	Version 7.3x IDS, SE	Version 8.1x XPS	Version 8.2x XPS	Version 9.1x US
Version 2.0x	Install server first <i>Note: This Online server does not support Client SDK, Versions 2.0 and 2.01</i>	Install server first <i>Note: This Online server does not support Client SDK, Versions 2.0 and 2.01</i>	Install server first <i>Note: This Online server does not support Client SDK, Versions 2.0 and 2.01</i>	Install server first	Install connectivity product first	Install connectivity product first	Install connectivity product first	Install connectivity product first
Version 2.10	Install server first	Install server first	Install server first	Install server first	Install server first	Install server first	Install connectivity product first	Install connectivity product first
Version 2.20	Install server first	Install server first	Install server first	Install server first	Install server first	Install server first	Install connectivity product first	Install connectivity product first
Version 2.30	Install server first	Install server first	Install server first	Install server first	Install server first	Install server first	Install server first	Install server first

You might encounter problems if you install an older product after you install a new product. For example, if you install an older version of the **finderr** utility, the older version overwrites the newer version and you may get an error. If you encounter problems with the **finderr** utility, see *Informix Error Messages*.

Prior to the Client SDK, Version 2.01, release, clients and servers shared common message files. In more recent versions, the common message files for the client have new names. For more information on renaming common message files, see the Client SDK release notes.

If you install more than one Informix product, complete all installation procedures for one product before you start to install the next product. Do not load the files from another Informix product onto your computer until you complete the current installation.

If you want to preserve product files of earlier versions, create separate directories for each version of your Informix products. If you install multiple versions of an Informix product, set the **INFORMIXDIR** environment variable to the appropriate directory name for the version that you want to access. For information about **INFORMIXDIR**, see [“Environment Variables” on page 1-20](#).

To install JDBC, see [Chapter 2, “Installing Informix JDBC Driver and Informix Embedded SQLJ”](#).

Installation Options

While you run the **Setup** utility, you can select which components and sub-components to install. Subcomponents include on-line help and example programs. The installation options are described in the following table.

Option	Description
Typical	Includes all components, on-line help, and examples, except Microsoft Data Access Components and Informix OLE DB Provider.
Compact	Includes all components without ODBC Driver Manager, Microsoft Data Access Components, Informix OLE DB Provider, on-line help, and examples.
Custom	You select the components and subcomponents to install.

The following sections describe the components of the Informix client products.

Client SDK

Client SDK allows you to develop and run client applications in Windows environments.

The components of Client SDK are described in the following table.

Component	Description
ESQL/C	An SQL embedded-language product used to create custom C applications. For more information, see the INFORMIX-ESQL/C Programmer's Manual .
Informix Object Interface for C++	A C++ interface to develop object-oriented client applications for use with all Informix database servers and client-side value objects for Universal Data Option. For more information, see the INFORMIX-Object Interface for C++ Programmer's Guide .
Informix GLS	An interface that allows Informix products to use different locales, which have defined conventions for a particular language, culture, or code set. For more information, see the INFORMIX-ESQL/C Programmer's Manual and the INFORMIX-GLS Programmer's Manual .
Informix ODBC Driver with MTS support	This Informix implementation of the Open Database Connectivity (ODBC) 3.0 Level 1+ standard supports Microsoft Transaction Server (MTS) and contains extensibility support for Informix Dynamic Server with Universal Data Option. For more information, see the <i>Informix ODBC Driver Programmer's Manual</i> .
INTERSOLV DataDirect ODBC Driver	An ODBC driver that complies with ODBC 3.0. For more information, see the INTERSOLV DataDirect ODBC Driver User Guide for Informix Database Servers .
LIBMI for Client Applications	A client-side implementation of the DataBlade API, provided to ease migration of client applications from the Informix Illustra Server to Informix Dynamic Server with Universal Data Option.

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Component	Description
Informix OLE DB Provider	<p>Informix client-side OLE DB Provider is a native OLE DB provider that implements full functionality for base-level providers and contains extensibility support for Informix Dynamic Server with Universal Data Option.</p> <p>This component can only be installed through the Custom install option due to its reliance on Microsoft Data Access Components 2.0. For more information, see the <i>Informix OLE DB Provider Programmer's Guide</i>.</p>
MDAC	<p>Microsoft Data Access Components Version 2.0. This component can only be installed through the Custom install option, because it upgrades your Windows environment (Driver Manager, for example) and requires a system reboot. For more information, see the Microsoft Web site: http://www.microsoft.com/data/whatcom.htm.</p>
Password CSM	<p>Password Communications Support Module for client applications. Password CSM must also be installed on the Informix server to which the client will connect. To verify that your Informix server supports this feature, see the <i>Administrator's Guide</i> for your Informix server.</p>

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Informix Connect

Connect contains runtime versions of INTERSOLV DataDirect ODBC Driver, Object Interface for C++, ESQL/C, GLS, and LIBMI. The runtime versions allow you to run completed client applications in a Windows environment.

Version Checking

In Client SDK Version 2.02 and later, the **Setup** utility avoids copying files over newer versions of the files that are already on your computer. **Setup** compares file versions using either the file system's file date or, for **.exe** and **.dll** files, a version number stored within the file. It installs only files that are newer than existing files. In previous versions, some files were checked by date, while others were overwritten without any version checking.

Configuring OLE DB

Informix OLE DB Provider is a Custom install option and is not installed if you choose a Typical installation. Informix OLE DB Provider installation requires administrative privileges.

To enable your Informix server for OLE DB access, a database administrator must run the SQL registration script, **coledbp.sql**, against the **sysmaster** database as user **informix**.

To drop OLE DB support, a database administrator must run the SQL unregistration script, **doledbp.sql**, against the **sysmaster** database as user **informix**.

Using Setup to Install Client SDK

Run the **Setup** utility to install Client SDK.

To install Client SDK

1. Load the CD for Client SDK into the CD-ROM drive.
2. Read the **readme.txt** file in the root directory of the CD-ROM. This file might have information you need before you continue.
3. Exit all Windows programs.
4. Start the **Setup** utility. In the Run dialog box, or at the DOS prompt, type:
`d:setup`
 Replace *d*: with the CD-ROM drive letter.
 Press ENTER or click **OK**. A Welcome dialog box appears.
5. In the Welcome dialog box, click **Next**.
 A serial number dialog box appears.
6. In the Enter Serial# and Key dialog box, type your serial number and key. You can find the serial number and key on the Serial Number Card you received with the product package.
 Click **Next**. The User Information dialog box appears.



7. In the User Information dialog box, type your name and company name in the fields provided.
Click **Next**. The Choose Destination Location dialog box appears.
8. In the Choose Destination Location dialog box, specify the directory where you want the Informix product to be installed. The default installation directory is **C:\INFORMIX**. You can click **Browse** to invoke the browser to help you select an alternate installation path.

Important: *Setup sets the **INFORMIXDIR** registry entry to the destination directory you choose. Informix software products are designed to be installed in a single directory identified by this registry entry. If you install Informix products in different directories, only those in the directory identified by the **INFORMIXDIR** registry entry can run.*

Click **Next**. The Setup Type dialog box appears.

9. In the Setup Type dialog box, select an installation type. The installation options (Typical, Compact, and Custom) are discussed in the section [“Installation Options” on page 1-7](#).
Click **Next**. If you selected the Custom installation type, the Select Components dialog box appears. Otherwise, the Select Program Folder dialog box appears.
10. In the Select Components dialog box, specify the components and subcomponents you want to install.
The disk-space requirements are listed next to each component and subcomponent.
When you have selected the components to install, click **Next**. The Select Program Folder dialog box appears.
11. In the Select Program Folder dialog box, specify the folder where you want to store Informix applications and icons. You can accept the default (**INFORMIX**), choose another existing folder, or type the name of a new folder to create.
Click **Next**. The Start Copying Files dialog box appears.
12. In the Start Copying Files dialog box, make sure the information shown is correct. You cannot change any options on this screen; however, you can click **Back** to return to previous screens and change installation options.
Click **Next**.

13. If **Setup** does not encounter errors during the installation procedure, it displays the Setup Complete dialog box to indicate that the installation is successful.

Click **Finish** to exit **Setup**.

After these steps are completed, **Setup** has copied the client product software to your computer, created the **Setnet32** icon and other icons in the **INFORMIX** program folder, and created the **INFORMIX** subkey of the Windows Registry.

If **Setup** generates an error message, see [“Error Messages” on page 13](#) for assistance in diagnosing the error.

Uninstalling Client SDK

Uninstalling Client SDK completely removes the driver and all of its components from your computer.

***Important:** When you uninstall Client SDK, the Uninstall program removes all components. It does not remove Windows Registry entries.*

To uninstall Client SDK

1. Start the Windows NT utility **Add/Remove programs**.
2. Click **Informix Client SDK**.
3. Click **Add/Remove**.
4. The Uninstall program guides you through the uninstallation of Client SDK.



Error Messages

Occasionally, you might experience some difficulty in the installation procedures. If your product does not install correctly, check for the following conditions.

Error Message	Problem	Solution
Invalid OS: Error	Your client computer has an unsupported operating system.	Use Windows NT 4.0, Windows 98, or Windows 95.
Invalid Processor: Error	Your computer might be too old to handle client product requirements. Possible old microprocessors include an 8086, 8088, 80286, or 80386.	Use a computer with an Intel 80486 or higher microprocessor.
Error: file reading error	The installation program is unable to read the media.	You might have loaded the media disk into the wrong disk drive. Try the installation process again. If it continues to fail, you might have hardware problems. Check your hardware. Your CD-ROM or floppy drive might be broken, defective, or dirty. Your hard drive might be corrupted or disabled. If the hardware is working correctly, the media might be corrupted, and it might be necessary to obtain new media.
Not enough disk space: Error	You might not have enough hard-disk storage on your computer for the client product software.	Make more space available on the disk on which you want to install the Informix product or choose a new disk location for the software. For the amount of disk space that the Informix software requires for installation, refer to “System Requirements” on page 1-3 .
Warning: Invalid serial number and key	The product cannot be installed because the serial number or key code is not valid.	You must reenter the serial information correctly to proceed with the installation script. If the installation still fails, reload the product files from the media and repeat all subsequent steps.

Configuring Informix Client Products

This section describes how to complete the following configuration tasks:

- Setting environment information
- Setting server information
- Setting host information
- Creating a Windows NT service

You use the **Setnet32** utility to perform most configuration tasks, including setting most environment variables, server information, and host information.

You might have component-specific environment variables to set. See individual product documentation for details.

About Setnet32

With the **Setnet32** utility, you can set or modify environment variables and network parameters that Informix products use at runtime. The variables and network parameters are stored in the Windows system registry and are valid for every Informix client product you install.

Setnet32 has the following four tabbed pages:

- **Environment** allows you to set environment variables.
- **Server Information** allows you to set database server network information.
- **Host Information** allows you to set your host computer and login information.
- **About Setnet32** provides information about **Setnet32**.

In addition, the following buttons are in the **Setnet32** window.

Setnet32 Button	Purpose
OK	Updates the Registry with the information that you have entered and then exits Setnet32 .
Cancel	Cancels all work that you have not already saved with the Apply button and exits from Setnet32 .
Apply	Updates the Registry with the information that you have entered but does not exit.
Help	Invokes Setnet32 on-line help.
? (What's This)	Provides context-sensitive help.

Setting Environment Information

To obtain information about Informix products and the environment in which they run, client products need to access environment variables. Some of these environment variables are required, and others are optional.

For more information on environment variables, see [“Environment Variables” on page 1-20](#) and the *Informix Guide to SQL: Reference* included with your Informix database server documentation.

GLS

The *Informix GLS Programmer's Manual* describes the environment variables that you need for locales. ♦

Set your environment variables with the **Environment** page of **Setnet32**.

The **Environment** page contains the following elements:

- **Informix Client/Server Environment** list box

From this list, you select an environment variable to edit with the controls in the **Edit Environment Variable** group.

- **Edit Environment Variable** group

After you select an environment variable in the **Informix Client/Server Environment** list box, the environment variable name appears above the **Variable Name** text box. You can type a new value in the **Variable Name** text box, edit the existing value, or select a value by clicking the down arrow. Click **Clear** to assign a null value to that environment variable. After you have made your change, click **Set** to save that value.

For some environment variables, you can select a value from a list; for other variables, you can either select or type a value; and for others, you must type a value.

- **Save/Load** group

- Click **Load From File** to load your environment variables and their values from a specific file. However, you cannot load environment variables from a specific file unless the **Setnet32** utility has already created that file (use the **Save To File** option to create a file).
- Click **Save To File** to save your environment variables and their values to a specific file.

Setting Server Information

A client application connects to an Informix server running on a computer that can be reached through the network. To establish the connection, you use **Setnet32** to specify the location of the Informix server on the network and the network communications protocol to use. You must obtain this information from the administrator of the server you want to use.

Set your database server parameters with the **Server Information** page of **Setnet32**.

The **Server Information** page contains the following elements:

- **Informix Server** list box

From this list, you can select an existing Informix database server, or you can type the name of a new database server.



- **Host Name** list box

From this list, you can select the host computer with the database server you want to use, or you can type the name of a new host computer.

- **Protocol Name** list box

From this list, select a network protocol from a list of protocols provided by the installation procedure.

- **Service Name** text box

In this text box, specify the service name associated with a specific database server. You can type either the service name or the port number assigned to the database server on the host computer. You must obtain this information from the database server administrator.

***Important:** If you enter a service name, it must be defined on the client computer in the **services** file in the Windows installation directory. For Windows NT 4.0, this file is located in **system32\drivers\etc\services**. For Windows 95 and Windows 98, this file is located in the **%windir%** directory. The service definition must match the definition on the database server host computer.*

- **Make Default Server** button

Sets the **INFORMIXSERVER** environment variable to the name of the current server to make it the default database server.

- **Delete Server** button

Deletes the definition of a database server from the Windows registry. It also deletes the host name, protocol name, and service name associated with that database server.

Setting Host Information

A client application can make connections only to a host computer that it can access through the network. You describe a connection to a host computer by specifying *host parameters*.

For more information on host parameters, see the connectivity chapter in the [Administrator's Guide](#) for your database server.

Set your host parameters for a specific host with the **Host Information** page of **Setnet32**.

The **Host Information** page contains the following elements:

- **Current Host** list box

This list displays host computers previously defined in the current Windows Registry. From this list, you can select the name of a host computer with which to establish a network connection, or you can edit or retype a name on the list to define a new host name.

- **User Name** text box

This text box displays the user name for an account on the currently selected host computer. This text box accepts a value with a maximum length of 18 characters. The value is case sensitive.

- **Password Option** list box

From this list, you can select one of the following password options:

- **Ask password at runtime**

Your application prompts the user for a password.

For information about how to use the **sqlauth()** function to prompt for a password and verify it, see the *Informix ESQL/C Programmer's Manual*.

- **No password**

The user account has no password. When the application opens a new database, that application does not send a password to the database server. If the host computer of the database server requires a password, the connection fails, and an error results.

- **Password**

The user account has a password that matches the encrypted value that the **Password** text box displays. When the application opens a new database, the database server compares the password that the user enters with the login password for the host computer of the database server. For the database server to grant access to the database, the two passwords must be identical. If the passwords are not identical, the user cannot connect to that database server across a network.

WIN NT

- **Password** text box

This text box, which the **Password** option activates, displays asterisks (*****) representing the account password. When this text box is enabled, it accepts a password value with a maximum length of 18 characters. The value is case sensitive and cannot contain any spaces.

To enter a new password, place the cursor inside the **Password** text box and type the new password. Asterisks (*****) represent the characters as you type.

- **Delete Host** button

This button deletes the name of the currently selected host computer from the Windows Registry, as well as the user name, password option, and password associated with that host computer.

Creating a Windows NT Service

Windows NT services do not search for configuration information in the Windows registry hive where the **Setup** utility and the **Setnet32** utility store client products environment variables. To enable a client application to run as a Windows NT service, you must copy the values from the **HKEY_CURRENT_USER\Software\Informix** registry hive of the **informix** user to the **HKEY_USERS\Default\Software** registry hive. You must run the **regcopy** utility each time you change the registry with **Setnet32** to synchronize data across hives.

To run **regcopy**, log in as user **informix** or as another user that has administrator privileges and can run Informix software. **Regcopy** is in the **bin** subdirectory of the Informix installation directory. After you are done, you can check the progress by reviewing the **regcopy.log** file located in the **%TEMP%** directory. ♦

Environment Variables

The following table lists environment variables that Version 2.3 client products support. When you specify the maximum size, do not include the terminating null character.

Environment Variable	Purpose	Possible Values
CC8BITLEVEL	Specifies how the C-language compiler processes non-ASCII (8-bit and multibyte) characters.	See <i>Informix GLS Programmer's Manual</i> . Default is 2.
CLIENT_LOCALE	Specifies the locale that the client application uses to perform read/write operations that involve the keyboard, display, file, or printer on the client computer.	Any valid locale specifier. See <i>Informix GLS Programmer's Manual</i> . No default.
COLLCHAR	Specifies a collation sequence for characters. Provided for backward compatibility with NLS products.	See <i>Informix Guide to SQL: Reference</i> .
CONRETRY	Specifies the maximum number of additional connection attempts made to a database server in the time limit that CONTIME specifies. Same as INFORMIXCONRETRY.	Default is 1.
CONTIME	Specifies the number of seconds an SQL CONNECT statement continues to try to establish a connection before it generates an error. Same as INFORMIXCONTIME.	Default is 15.
DB_LOCALE	Specifies the locale of all the databases that a client application accesses in a single connection (the database locale).	Any valid locale name
DBALSBC	When set to 1, enables compatibility with ALS products.	0 or 1

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Environment Variable	Purpose	Possible Values
DBANSIWARN	When turned on (y), causes the preprocessor to check for Informix extensions to ANSI-standard SQL syntax at compile time and causes an application to check for Informix extensions at runtime.	Default is n.
DBAPICODE	Enables pre-7.2 systems that use nonstandard or rare code sets to access databases that store data in a standard code set. Maximum size = 23 characters. <i>Provided for backward compatibility with NLS and ALS products.</i>	Usage and values depend on language system. See NLS and ALS documentation for descriptions.
DBASCIIBC	When set to 1, enables compatibility with ASCII products.	0 or 1
DBCENTURY	Specifies how to expand values of two-digit-year DATE and DATETIME values. P = past century, R = present century, C = closest century.	P, R, or C. See <i>Informix Guide to SQL: Reference</i> . Default is R.
DBCODESET	Specifies an Asian-locale code set. Overrides the code set that DB_LOCALE specifies. <i>Provided for backward compatibility with Version 4.x and 5.x ALS products.</i>	Same values as ALS DBAPICODE. Default is 8859-1:: (unless the informix.rc file specifies another system-wide default)
DBCONNECT	Specifies whether or not connections are restricted.	1 or 3
DBCSCONV	Controls code-set conversion initialization. Maximum size is eight characters. <i>Provided for backward compatibility with ALS products.</i>	1 or 2:codesetname See 5.0 ALS documentation.
DBCISOVERRIDE	Forces the user-specified DB_LOCALE value to override default restrictions on accessing databases with locales different from DB_LOCALE. <i>Provided for backward compatibility with Version 6.0 ALS database servers.</i>	0 or 1

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Environment Variable	Purpose	Possible Values
DBCSWIDTH	Maximum number of display bytes (1-2) and storage bytes (1-4) for the characters in up to three code sets. Display and storage widths are separated by commas; code sets are separated by colons. Maximum size of this field is, therefore, 11 characters. <i>Provided for backward compatibility with ALS products.</i>	Example: 1,1:2,3 means a display and storage width of 1 byte for character set 1; a display width of 2 bytes and a storage width of 3 bytes for code set 2.
DBDATE	Specifies the end-user format for DATE values so that they can conform with various international date conventions. <i>Provided for backward compatibility with pre-7.2 products. Informix recommends GL_DATE for 7.2 ESQL/C applications.</i>	Default is MDY4 unless NLS variable LC_TIME is activated.
DBFLTMASK	Specifies the number of decimal digits to use when storing a DECIMAL, SMALLFLOAT, or FLOAT data type in a character buffer.	0-16 Default is 16.
DBLANG	Specifies the subdirectory of the Informix installation directory that contains the product-specific message (.iem) files.	Default is \msg.
DBMONEY	Specifies the end-user format for MONEY values so that they can conform with various international and local monetary conventions.	Default is \$. .
DBMONEYSCALE	Specifies the total number of digits and number of decimal digits for monetary values. <i>Provided for backward compatibility with ALS products.</i>	
DBNLS	Specifies whether an application can access NLS features. <i>Provided for backward compatibility with NLS products.</i>	Default is n.
DBPATH	Identifies the database servers that contain databases that the application accesses.	
DBSS2	Maximum size is four characters. <i>Provided for backward compatibility with ALS products.</i>	0x00-0xff or 0-255
DBSS3	Maximum size is four characters. <i>Provided for backward compatibility with ALS products.</i>	0x00-0xff or 0-255

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Environment Variable	Purpose	Possible Values
DBTEMP	Specifies the directory on the client computer that the client processor uses to store temporary files (also called <i>swap files</i>).	Default is \tmp.
DBTIME	Specifies the end-user format for DATETIME values so that they can conform with various international date conventions. Informix recommends GL_DATETIME for 7.2 ESQL/C applications. <i>Provided for backward compatibility with pre-7.2 products.</i>	Default is %Y-%m-%d %H:%M:%S.
DELIMIDENT	Indicates whether (y) or not (n) to interpret strings in double quotes as delimited identifiers.	Default is n.
ESQLMF	Indicates whether the ESQL/C processor automatically invokes the ESQL/C multibyte filter (<i>value=1</i> and CC8BITLEVEL<3, or not <i>value=0</i>).	See <i>Informix GLS Programmer's Manual</i> .
FET_BUF_SIZE	Overrides the default size of the fetch buffer.	Any valid buffer size, in bytes. Default value depends on row size.
GL_DATE	Specifies a customized end-user format for DATE values.	See <i>Informix GLS Programmer's Manual</i> .
GL_DATETIME	Specifies a customized end-user format for DATETIME values.	See <i>Informix GLS Programmer's Manual</i> .
INFORMIXDIR	Identifies the location of the client programs, library files, message files, header files, and other Informix software components.	Default is C:\INFORMIX.
INFORMIXSERVER	Identifies the default database server.	See <i>Informix ESQL/C Programmer's Manual</i> .
INFORMIXSQLHOSTS	Specifies the name of the computer on which the central registry resides.	See <i>Informix ESQL/C Programmer's Manual</i> .
LANG	Specifies the language environment (called a <i>locale</i>) for an NLS database that an application accesses. <i>Provided for backward compatibility with NLS products.</i>	Default is C.

Environment Variable	Purpose	Possible Values
LC_COLLATE	Specifies a collation or sort sequence for data in NCHAR and NVARCHAR columns of an NLS database. <i>Provided for backward compatibility with NLS products.</i>	See <i>Informix Guide to SQL: Reference</i> . Default is the value that LANG specifies.
LC_CTYPE	Specifies character attributes such as character classification and case conversion of regular expressions for data in NCHAR and NVARCHAR columns of an NLS database. <i>Provided for backward compatibility with NLS products.</i>	See <i>Informix Guide to SQL: Reference</i> . Default is the value that LANG specifies.
LC_MONETARY	Specifies the end-user format for MONEY values in an NLS database. <i>Provided for backward compatibility with NLS products.</i>	See <i>Informix Guide to SQL: Reference</i> . Default is the value that LANG specifies.
LC_NUMERIC	Specifies the end-user format for numeric values in an NLS database. <i>Provided for backward compatibility with NLS products.</i>	See <i>Informix Guide to SQL: Reference</i> . Default is the value that LANG specifies.
LC_TIME	Specifies the end-user format for DATE and DATETIME values in an NLS database. <i>Provided for backward compatibility with NLS products.</i>	See <i>Informix Guide to SQL: Reference</i> . Default is the value that LANG specifies.

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In addition, there is a set of environment variables you can use with the function call **ifx_putenv** to override the information entered in the **Server Information** and **Host Information** pages of **Setnet32**. To use these environment variables, you must set the **INFORMIXSERVER** environment variable to a valid server name. Overrides affect only that server.

The environment variables are described in the following table.

Environment Variable	Overrides the Value For
WIN32HOST	The HOST network parameter
WIN32USER	The USER network parameter
WIN32PASS	The PASSWORD network parameter
WIN32ASKPASSATCONNECT	The PASSWORD OPTION network parameter
WIN32SERVICE	The SERVICE network parameter
WIN32PROTOCOL	The PROTOCOL network parameter

See the *Informix ESQL/C Programmer's Manual* for more information.

Installing Informix JDBC Driver and Informix Embedded SQLJ

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Preparing to Install JDBC Driver and Embedded SQLJ	2-3
Installing JDBC Driver and Embedded SQLJ	2-3
Uninstalling JDBC Driver and Embedded SQLJ	2-5

In This Chapter

This chapter explains how to install Informix JDBC Driver and Informix Embedded SQLJ on computers that run one of the Windows operating systems.

Preparing to Install JDBC Driver and Embedded SQLJ

You install Informix JDBC Driver and Informix Embedded SQLJ with an installation program that copies files to your client computer.

You can install Informix JDBC Driver and Informix Embedded SQLJ only as licensed by Informix. You cannot transfer software from one computer to another, or to another portion of your network, without reregistration and the written consent of Informix.

Informix provides two versions of Informix JDBC Driver to support different versions of the Java Development Kit (JDK). Use the following guidelines to choose which version of Informix JDBC Driver to install:

- Use Informix JDBC Driver Version 1.4 with JDK 1.1.5 and higher.
- Use Informix JDBC Driver Version 2.0 only with JDK 2.

Installing JDBC Driver and Embedded SQLJ

Informix JDBC Driver and Informix Embedded SQLJ are released as a Java class file called **setup.class**.



To install JDBC Driver and Embedded SQLJ

1. Load the disc into the CD-ROM drive.
2. Copy the **ifxjdbc_version.tar** file from the CD into a temporary directory (*not* the directory into which you are installing the drivers). The *version* is the product version: for example, 2.00.JC1.

Warning: *If you copy the tar file to the same directory into which you attempt to install the driver, the installation fails.*

3. Use WinZip or a similar utility to unpack the tar file. The **setup.class** and **install.txt** files appear in the temporary directory.
4. Be sure your **CLASSPATH** environment variable points to Version 1.2 or later of the Java Development Kit (JDK).
5. Using Windows Explorer, create a directory to hold the contents of the driver.

Assume, for this example, that the new directory is called **c:\work\jdbcdriver_home**.

6. Change directory to the temporary directory that contains the **setup.class** file.
7. Launch the **Setup** utility with the **java** command at the Windows command prompt:

```
java setup
```

8. The **Setup** utility guides you through the installation of Informix JDBC Driver.

The following warning message might appear:

```
Font specified in font.properties not found [-b&h-lucida sans  
typewriter-bold-r-normal-sans-*-%d-*-m-*-iso8859-1]
```

This condition does not affect the installation.

After the **Welcome** window, the program asks you for your serial number and key. It then asks you to accept a licensing agreement. The program then asks you for the name of the directory that will hold the contents of the driver. In this example, this directory is called **c:\work\jdbcdriver_home** and was created in Step 5 of these instructions.

The installation is complete when you get to the **Installation Complete** window.

Uninstalling JDBC Driver and Embedded SQLJ

Uninstalling Informix JDBC Driver and Informix Embedded SQLJ completely removes the driver, SQLJ, and all of its components from your computer.

To uninstall JDBC Driver and Embedded SQLJ

1. Change to the directory in which you installed Informix JDBC Driver and Informix Embedded SQLJ.

For example, if you installed the driver in the directory `c:\work\jdbcdriver_home`, execute the following command at the command prompt:

```
cd c:\work\jdbcdriver_home
```

2. Launch the **Uninstall** program with the **java** command:

```
java uninstall
```

3. The **Uninstall** program guides you through the uninstallation of Informix JDBC Driver.



Important: When you uninstall Informix JDBC Driver and Informix Embedded SQLJ, you always get a message that says the *ifxjdbc.jar*, *ifxesqlj.jar*, *ifxsqj-g.jar* and *ifxjdbc-g.jar* files have changed, even if you have never used the driver. This is because the files are automatically written to during the installation of the driver. No action is required.

Distributing Your Informix Client Applications

This appendix discusses the technical and legal requirements you must observe when you distribute applications created using Informix client APIs (such as Informix ESQL/C, Informix JDBC Driver, and Informix ODBC Driver). Along with your client application files, you might distribute and install Informix client runtime components required by your application.

To install these components, you can either:

- require your customers to install the components separately.
- record the installation process and run the resulting script as part of your client application's installation program.

By installing and configuring Informix client APIs using prerecorded installation scripts, you can enable your customers to bypass the installation dialog boxes that normally appear. Such an installation is referred to as a *silent* installation.

Distributing Informix Client Applications and Components

When you distribute a client application that you have developed using an Informix client API, you may decide to distribute Informix components that are required by your application at runtime. The following table lists the Informix components that your customer needs in order to run your client application.

Client Development API	Components Required at Runtime
Informix Client SDK	Informix Connect
Informix ESQL/C	Informix Connect
Informix ODBC Driver	Informix Connect
Informix Object Interface for C++	Informix Connect
Informix OLE DB Provider	Informix Connect (including MDAC, obtained by recording a custom installation)
DataBlade API	Informix Connect
Informix JDBC Driver and Informix Embedded SQLJ	Informix JDBC Driver and Informix Embedded SQLJ. There is no separate runtime package.

Client Runtime Component Redistribution Guidelines

There are two ways for you to redistribute Informix runtime components when your client application is installed:

- Install all required components
- Install specific components (for example, you can redistribute only the files required by Informix OLE DB Provider)



Warning: Do not copy single files or directories from any Informix client API into your application installation; doing so violates your Informix Technical Support agreement or contract.

To redistribute Informix client runtime components, you run the Informix installation program and use InstallShield to record the installation procedure. You invoke the resulting installation script from your client application installation program.

When you package your client application for distribution to your users, you must provide the user with the CD image of the Informix client runtime components. If you created your client application using Client SDK, you must include the following two files, which are created when you record the installation:

- **setup.iss** (recorded install options)
- **filename.nfx** (recorded configuration with the filename of your choice)

Important: You do not need to include these installation files with JDBC client applications.

For details about how to combine the installation of Informix client runtime components with the installation of your client application, refer to [“Creating the Installation Script” on page A-10](#) and [“Creating Your Client Application Installation Program” on page A-12](#). For JDBC applications, refer to [“JDBC Driver and Embedded SQLJ Silent Installation” on page A-16](#).



Informix Client Application Distribution Options

The following sections explain your options for distributing your Informix client application. These sections describe the agreements you must make with Informix to acquire the legal rights to redistribute Informix client runtime components with your application. For details on how to establish such a relationship with Informix, call Informix Sales at 1-800-331-1763.

There are five options, described in detail in the following sections.

Option	Agreement Required
Your customers order required components directly from Informix and install them themselves. Refer to page A-4 .	None
You ship the required components with your client application; your customer installs them. Refer to page A-5 .	Redistribution agreement
You ship required components on the same CD as your client application; your customer installs them. Refer to page A-6 .	Manufacturing agreement
You ship required components on the same CD as your client application; your customers install them silently when they install your application. Refer to page A-8 .	Manufacturing agreement
You distribute your application within your company (not for sale), and you distribute required components on the same CD as your client application; your customers install them silently when they install your application. Refer to page A-9 .	Multiuser license (no special agreement); Distribution limited to number of licensed users

The following sections provide details about these arrangements. These sections primarily discuss Informix Connect, the most commonly redistributed runtime component.

Your customers order Informix Connect directly from Informix and install it themselves.

Your application's installation documentation must clearly tell your customers that they are responsible for ordering Informix Connect from Informix and installing it themselves. Be sure to list the versions of Informix Connect that you have tested with the application. Your application's installation documentation must also supply the following information so your customer can complete the installation of Informix Connect:

- **Installation option:** typical, compact, or custom. If they need to use the custom option, explain which components they must install.

- Destination directory
- Which directory to set as **INFORMIXDIR**

Your customers receive their own license agreement with serial number and key when they order Informix Connect directly from Informix.

Category	Comment
Redistribution Effort	No need for you to redistribute Informix Connect.
Ease of Installation	Your customer must acquire Informix Connect from Informix and install it separately; your customer may already have the correct version of Informix Connect installed.
Customer Cost	Informix Connect is a free product. Your customers can purchase technical support from Informix.
Version Compatibility	Informix might ship a version other than the version you tested your application with. Risks: Earlier version: the application may not work. Later version: risk unknown because the combination of application and Informix Connect has not been tested. Informix commits to backward compatibility of the runtime files, but without testing, the risk cannot be assessed.
Technical Support for Your Customer	Because your customer acquires Informix Connect directly from Informix, they can easily arrange for technical support and are likely to address problems with Informix Connect directly to Informix.

You ship the Informix Connect product with your client application; your customer installs it.

You must have redistribution rights through a contract with Informix, and you have pre-ordered the Informix Connect product with license agreements, including serial numbers and keys.

In the application's installation documentation, you must clearly state the customer's responsibility for installing the version of Informix Connect supplied with the application. Be sure to supply customers with the following information so that they can install Informix Connect:

- The license agreement, with serial number and key, you ordered from Informix
- Installation option: typical, compact, or custom. If the custom option is required, tell your customers which components they must install.
- Destination directory
- Which directory to set as **INFORMIXDIR**

Category	Comment
Redistribution Effort	You must include a copy of Informix Connect along with the application distribution.
Ease of Installation	Your customer must separately install Informix Connect; customer might already have the correct version of Informix Connect installed.
Customer Cost	Your customers can purchase technical support from Informix.
Version Compatibility	Informix might ship a version other than the version you tested your application with. Risks: Earlier version: the application may not work. Later version: risk unknown because the combination of application and Informix Connect has not been tested. Informix commits to backward compatibility of the runtime files, but without testing, the risk cannot be assessed.
Technical Support for Your Customer	You have three options: <ul style="list-style-type: none">■ Customers call you directly for support.■ You purchase support for each specific customer (you must supply Informix with customer name) at the time of ordering product and license agreements from Informix.■ You ask your customers to order technical support from Informix.

You ship Informix Connect on the same CD as your client application; your customer installs it.

You must have a manufacturing contract or license with Informix. You have the option of ordering license agreements, with serial numbers and keys, in blocks or individually at point of sale. For details on how to establish such a relationship with Informix, call Informix Sales at 1-800-331-1763.

The application installation documentation must clearly state the customer's responsibility for installing the version of Informix Connect shipped with the application. Be sure to supply the customers with the following information so that they can complete the installation of Informix Connect:

- Where to find the Informix Connect **setup.exe** file (either on its own CD or in an Informix Connect directory on the application CD)
- The license agreement, with serial number and key, you ordered from Informix
- Installation option: typical, compact, or custom. If the custom option is required, tell your customers which components they must install.
- Destination directory
- Which directory to set as **INFORMIXDIR**

Category	Comment
Redistribution Effort	You must include a copy of Informix Connect with the application distribution.
Ease of Installation	Your customer must separately install Informix Connect; customer may already have the correct version of Informix Connect installed.
Customer Cost	Your customers can purchase technical support from Informix.

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Category	Comment
Version Compatibility	<p>Informix might ship a version other than the version you tested your application with. Risks:</p> <p>Earlier version: the application may not work.</p> <p>Later version: risk unknown because the combination of application and Informix Connect has not been tested. Informix commits to backward compatibility of the runtime files, but without testing, the risk cannot be assessed.</p>
Technical Support for Your Customer	<p>You have three options:</p> <ul style="list-style-type: none">■ Customers call you directly for support.■ You purchase Informix Connect support for each specific customer (you must supply Informix with customer name) at the time of ordering product and license agreements from Informix.■ You ask your customers to order technical support from Informix.

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You ship Informix Connect on the same CD as your client application; your customers install it silently when they install your application.

You must have a manufacturing contract or license with Informix. You have the option of ordering license agreements, with serial numbers and keys, in blocks or individually at point of sale. For details on how to establish such a relationship with Informix, call sales at 1-800-331-1763.

Record each Informix Connect installation using the unique serial numbers and keys previously ordered from Informix. For details about recording an installation, refer to [“Installing Informix C and C++ Client Runtime Components” on page A-10](#).

You should also supply the customer with the license agreement and the serial number and key you embedded through silent install.

Category	Comment
Redistribution Effort	Must embed Informix Connect install into the application install.
Ease of Installation	Informix Connect gets installed automatically for the customer.
Customer Cost	Technical support can be purchased.
Version Compatibility	Informix might ship a version other than the version you tested your application with. Risks: Earlier version: the application may not work. Later version: risk unknown because the combination of application and Informix Connect has not been tested. Informix commits to backward compatibility of the runtime files, but without testing, the risk cannot be assessed.
Technical Support for Your Customer	You have three options: <ul style="list-style-type: none">■ Customers call you directly for support.■ You purchase Informix Connect support for each specific customer (you must supply Informix with customer name) at the time of ordering product and license agreements from Informix.■ You ask your customers to order technical support from Informix.

For internal use: you ship Informix Connect on the same CD as your client application; your employees install it silently when they install your application.

You must have a multiuser license of Informix Connect or a redistribution contract or license with Informix Software, Inc. You agree to keep track of how many users are on the Informix Connect license and to add users to this license when needed.

Record each Informix Connect installation using the unique serial numbers and keys previously ordered from Informix. For details about recording an installation, refer to [“Installing Informix C and C++ Client Runtime Components” on page A-10](#).

After your employees install Informix Connect, they are bound by the license agreement.

Installing Informix C and C++ Client Runtime Components

To package Informix C and C++ client runtime components with your client application and install them on your customers' computers, you must:

1. Create an installation script for the client runtime components.
2. Create a client configuration file.
3. Create your client application installation program, which must invoke the installation script you created in Step 1 and configure the client according to the configuration file you created in Step 2.

The following sections tell you how to perform these steps.

Creating the Installation Script

Your client application installation program invokes the installation script to install required Informix client runtime components when your customers install your client application. To create an installation script, you use the InstallShield **Setup** utility to record the installation of the Informix client runtime components required by your client application.



Warning: If you record the installation process on a computer where **INFORMIXDIR** has already been set, your installation script will fail to install Informix client runtime components correctly.

To record the installation process

1. Insert the Client SDK or Informix Connect installation disk in your CD-ROM drive.

2. Open the DOS **Command Prompt** utility.
3. In the DOS window, change directory to the directory on the CD-ROM that contains the **setup.exe** file.
4. Execute the following command at the Windows command prompt:

```
setup -r
```

The **-r** option records the options you specify during installation to a file named **setup.iss** in the **Winnt** directory (for Windows NT) or in the **Windows** directory (for Windows 95 and 98).
5. Install Client SDK or Informix Connect, entering the options you want your customers to use with your client application. For details about installing Client SDK, see [“Using Setup to Install Client SDK” on page 1-11](#).

Creating the Client Configuration File

Your client application installation program invokes **Setnet32** using this configuration file when your customers install your application, to ensure that their computers are configured to run your Informix client application. To create the client configuration file, you use the Informix **Setnet32** utility to record the desired client configuration.

To record the Setnet32 configuration

1. Launch **Setnet32** and specify the client computer settings required by your application. See [“Configuring Informix Client Products” on page 1-15](#) for details.
2. Click **Save to File**.
3. Browse to the directory where you want the configuration file to be saved.
4. Enter a name for the file.
5. Click **Save**. The file is saved with an **.nfx** file extension.

Creating Your Client Application Installation Program

Your client application installation program must:

- install your application.
- install required Informix client runtime components.
- configure the Informix settings on your customer's computer.

Installing Client Runtime Components

To install these components, your client application installation program invokes the installation script you created as described in [“Creating the Installation Script” on page A-10](#). When your customer installs your application, the Informix components are installed silently; that is, no installation dialogs are displayed while these components are being installed.

To verify that the Informix components were successfully installed, your customer can check the installation log file; for details, refer to [“Verifying the Results of Silent Installation” on page A-13](#).

When you prepare your installation media master, place all Informix files together in the same directory. These files include the CD-ROM image of the Informix client runtime components, the installation script (the **setup.iss** file), and the client configuration file (the **.nfx** file).

The following procedure tells you how to invoke the installation script from your client application installation program.

To invoke the installation script from your client installation program

1. Change directory to the directory that contains the CD-ROM image of the Informix client runtime components (which includes an Informix-supplied **setup.exe** file that installs the client runtime components).

2. Execute the following command:

```
setup -s
```

Setup silently installs the Informix client runtime components. When installation is complete, **Setup** creates a log file; for details about logging, refer to [“Verifying the Results of Silent Installation” on page A-13](#).

Important: You must install the Informix runtime components before you can configure the client computer as described in the following section.



Configuring the Client Computer

To configure the customer's computer to run with your Informix client application, your client application installation program must invoke the Informix **Setnet32** utility, specifying the file in which you stored the required client settings.

The following procedure tells you how to configure the customer's computer from your client application installation program.

To configure the client computer from your client installation program

1. Change directory to the directory that contains the CD-ROM image of the Informix client runtime components (which must include the **.nfx** file in which you stored the desired client configuration settings).
2. Execute the following command:

```
setnet32 -l filename.nfx
```

In this example, *filename* refers to the file in which you stored the client configuration settings.

Verifying the Results of Silent Installation

When your client application installation program executes a silent installation script to install Informix client runtime components, InstallShield logs the results of the silent installation. Your customers or technical support representatives can check this log file to determine whether the installation succeeded.

By default, results are logged in a file named **setup.log** located in the same directory as the CD image.

The **setup.log** file contains three sections:

- **InstallShield Silent** identifies the version of InstallShield Silent used in the silent installation.
- **Application** identifies the installed application's name and version and the company name.
- **ResponseResult**, contains the result code indicating whether the silent installation succeeded. The following table lists the result codes returned by InstallShield.

Result Code	Description
0	Installation was successful.
-1	General error occurred.
-2	Invalid mode specified.
-3	Required data not found in the setup.iss file.
-4	Not enough memory available.
-5	File does not exist.
-6	Cannot write to the installation script file.
-7	Unable to write to the log file.
-8	Invalid path to the InstallShield Silent installation script file was specified.
-9	Not a valid list type (string or number).
-10	Data type is invalid.
-11	Unknown error occurred during setup.
-12	Dialog boxes are out of order.

(1 of 2)

Result Code	Description
-51	Cannot create the specified folder.
-52	Cannot access the specified file or folder.
-53	Invalid option selected.

(2 of 2)

An example of a log file for a successful silent installation is shown here:

```
[InstallShield Silent]
Version=v5.00.000
File=Log File

[Application]
Name=InstallShield5
Version=5.00.000
Company=InstallShield

[ResponseResult]
ResultCode=0
```



JDBC Driver and Embedded SQLJ Silent Installation

This section describes how to silently install Informix JDBC Driver and Informix Embedded SQLJ from the Windows command line.

Important: *Client applications created using Informix JDBC Driver and Informix Embedded SQLJ cannot use the prerecorded installation and configuration features described in “[Creating Your Client Application Installation Program](#)” on page A-12.*

To silently install JDBC Driver and Embedded SQLJ

1. Load the Informix JDBC Driver disc into the CD-ROM drive.
2. Copy the **ifxjdbc_version.tar** file from the CD-ROM into a temporary directory (*not* the directory into which you are installing Informix JDBC Driver). The *version* is the product version: for example, 2.00.JC1.

Warning: *If you copy the tar file to the same directory where you attempt to install the driver, the installation fails.*

3. Use WinZip or a similar utility to unpack the tar file. The **setup.class** and **install.txt** files appear in the temporary directory.
4. Be sure your **CLASSPATH** environment variable points to Version 1.2 or later of the Java Development Kit (JDK).
5. Using Windows Explorer, create a directory to hold the contents of the driver.

Assume, for this example, that the new directory is called **c:\work\jdbcdriver_home**.

6. Change directory to the temporary directory that contains the **setup.class** file.

7. Execute the following command at the Windows command prompt:

```
java setup -o <directory> serialNo=<serial_no> key=<key>
```

In this command, *directory* refers to the directory that will hold the contents of the driver (created in Step 5 of these instructions), and *serial_no* and *key* refer to the installation serial number and key.

The keywords **serialNo** and **key** are case sensitive. You can also use the keywords **SERIALNO**, **serialno**, and **KEY**.

For example, to install Informix JDBC Driver in the directory

c:\work\jdbcdriver_home using a serial number of INF#J123456 and a key of ABCDEF, execute the following command:

```
java setup -o c:\work\jdbcdriver_home  
serialNo=INF#J123456 key=ABCDEF
```

If the directory already contains Informix JDBC Driver files, the command asks you if you want to overwrite them.

The installation is complete after the command has finished executing.

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