

IBM Informix Client Products Installation Guide

UNIX, Linux, and Windows

Version 2.81
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Note:

Before using this information and the product it supports, read the information in the appendix entitled “Notices.”

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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 IBM Informix Client Software Developer's Kit (Client SDK), Version 2.81, and IBM Informix Connect, Version 2.81, on computers that use UNIX, Linux, and Windows.

This manual includes the following chapters:

- [Chapter 1, “Install Client SDK on UNIX and Linux,”](#) provides instructions for installing and configuring Client SDK for UNIX and Linux.
- [Chapter 2, “Install Informix Client SDK on Windows,”](#) provides instructions for installing, configuring, and uninstalling Client SDK for Windows.
- [Appendix A, “Distribute Your IBM Informix Client Applications,”](#) provides instructions for third-party vendors who intend to redistribute IBM Informix client products.
- A Notices appendix describes IBM products, features, and services.
- An index directs you to areas of particular interest.

Client SDK Components

Client SDK allows you to develop and run client applications. The following table describes the components of Client SDK. Applications that run on client computers require IBM Informix Connect to access database servers. IBM Informix Connect is a runtime connectivity product made up of runtime libraries included in Client SDK.

Component	Description
ESQL/C with XA support	An SQL embedded-language product used to create custom C applications. For more information, see the <i>IBM Informix ESQL/C Programmer's Manual</i> .
IBM 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 Dynamic Server. For more information, see the <i>IBM Informix Object Interface for C++ Programmer's Guide</i> .
IBM Informix GLS	An interface that allows IBM Informix products to use different locales that have defined conventions for a particular language, culture, or code set. For more information, see the <i>IBM Informix ESQL/C Programmer's Manual</i> and the <i>IBM Informix GLS Programmer's Manual</i> .
IBM Informix ODBC Driver with MTS support	An Informix implementation of the Open Database Connectivity (ODBC) 3.0 Level 1+ standard that supports Microsoft Transaction Server (MTS). This driver contains extensibility support for Dynamic Server. For more information, see the <i>IBM Informix ODBC Driver Programmer's Manual</i> .
IBM Informix OLE DB Provider (Windows only)	A client-side, native OLE DB provider that implements full functionality for base-level providers and contains extensibility support for Dynamic Server. For more information, see the <i>IBM Informix OLE DB Provider Programmer's Guide</i> .

Component	Description
IBM Informix JDBC Driver	<p>An Informix implementation of the Microsoft Java Database Connectivity (JDBC) standard.</p> <p>For more information, see the <i>IBM Informix JDBC Driver Programmer's Guide</i>.</p>
LIBMI for Client Applications	<p>A client-side implementation of the DataBlade API, provided to ease migration of client applications from the IBM Informix Illustra Server to an IBM Informix database server 9.x.</p>
Microsoft Data Access Components (for Windows only)	<p>A component that upgrades elements of the Windows environment, such as the Driver Manager.</p> <p>For more information, see the Microsoft Web site: http://www.microsoft.com/data/whatcom.htm</p>
Password CSM	<p>IBM Informix Password Communications Support Module for client applications. Password CSM must also be installed on the Informix database server to which the client will connect. To verify that your Informix database server supports this feature, see the <i>IBM Informix Dynamic Server Administrator's Guide</i>.</p>
(2 of 2)	
Windows	<p>Client SDK and IBM Informix Connect packages include the Setnet32 utility for configuring client products. Each package may include online help, example programs, and support programs. ♦</p>

Types of Users

This manual is written for database administrators or software engineers who are installing IBM Informix client products. This manual assumes that you are familiar with the operating procedures of your computer and with your operating systems.

Software Dependencies

If you have Linux installed on your computer, this manual assumes that Red Hat Package Manager (RPM) is also installed. Most current Linux distributions include the RPM. For more information on RPM or to obtain a copy of RPM, see the RPM Website at www.rpm.org.

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 <i>boldface</i>	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 IBM Informix Global Language Support (GLS) feature
	Identifies information that is specific to the Linux environment
	Identifies information that is specific to the UNIX environment
	Identifies information that is specific to Windows 2000 environments

These icons can apply to an entire section or to one or more paragraphs within a section. If an icon appears next to a section heading, the information that applies to the indicated feature, product, or platform ends at the next heading at the same or higher level. A ♦ symbol indicates the end of feature-, product-, or platform-specific information that appears within one or more paragraphs within a section.

Compatibility Information

Client products are compatible with the following database servers:

- IBM Informix OnLine
- IBM Informix SE
- IBM Informix OnLine Dynamic Server
- IBM Informix Dynamic Server
- IBM Informix OnLine XPS
- IBM Informix Dynamic Server with Advanced Decision Support and Extended Parallel Options
- IBM Informix Extended Parallel Server (XPS)



GLS

- IBM Informix Dynamic Server with Universal Data Option
- IBM Informix Dynamic Server

Warning: OLEDB is not compatible with IBM Informix OnLine. For additional compatibility information, see the release notes.

Global Language Support

Global Language Support (GLS) lets IBM Informix products use different locales. A GLS locale is an environment that defines conventions for a particular language, culture, or code set, including U.S. ASCII English.

Each installation script installs the following GLS locale and code-set conversion files in the **\$INFORMIXDIR/gls** directory on your hard disk:

- Locale files for each supported GLS locale
- Code-set-conversion files for each supported code-set conversion
- Code-set files for each supported code set
- The IBM Informix **registry** file

For more information, see the *IBM Informix GLS User's Guide*.

Documentation Notes, Release Notes, and Machine Notes

In addition to printed documentation, the following table describes the online files that supplement the information in this manual. Examine these files before you begin using your database server and client products. They contain vital information about application and performances issues.

Some Client SDK components have online notes, located in the `$INFORMIXDIR/release/en_us/0333` directory for UNIX and Linux and the `$INFORMIXDIR\release\en_us\04e4` subdirectory for Windows of your Informix installation directory. In addition, some online notes have icons in the program groups.

Online Files	Descriptions
Documentation Notes	<p>This item includes additions or corrections to the manual and information about features that might not be covered in the manual or that have been modified since publication.</p> <p>The documentation notes for this product are provided in HTML and ASCII text versions.</p>
Releases Notes	<p>This item describes feature differences from earlier versions of IBM Informix products and how these differences might affect current products. This file also contains information about any known problems and their workarounds.</p> <p>The release notes file for Client SDK includes information about database server compatibility.</p> <p>The release notes for this product are provided in HTML and ASCII text versions.</p>
Machines Notes	<p>The machine notes file describes any special actions that you must take to configure and use IBM Informix products on your computer.</p>



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 IBM Informix client product. You can open the **readme.txt** file in any Windows text editor, such as Notepad.

IBM Welcomes Your Comments

To help us with future versions of our manuals, let us know about any corrections or clarifications that you would find useful. Include the following information:

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

Send electronic mail to us at the following address:

`docinf@us.ibm.com`

This address is reserved for reporting errors and omissions in our documentation. For immediate help with a technical problem, contact Customer Services.

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In This Chapter

This chapter explains how to install IBM Informix Client Software Developer's Kit (Client SDK), Version 2.81, and IBM Informix Connect, Version 2.81, on UNIX and Linux. For a comprehensive list of Client SDK components, see the introduction.

Prepare to Install IBM Informix Products

You install IBM Informix products on UNIX or Linux with an installation script that copies files to your client computer.

Before you connect a client application to a database server, perform the following tasks:

- Configure your database server environment.
For more information, see your *Administrator's Guide* and database server *Installation Guide*.
- Check individual product manuals for installation and configuration tasks that this manual does not cover.
- Check individual product machine notes and release notes for installation information.

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

If you encounter problems while you install these products, see [“Solve Installation Problems” on page 1-21](#). If the problems persist, contact Technical Support at tmail@us.ibm.com.

Installation Location

Use the following criteria to determine where to install Client SDK and IBM Informix Connect.

Computer Location

Install Client SDK either on the same computer as the database server or on a computer that connects to the database server across a network.

Install IBM Informix Connect on the computer on which your database applications run.

Directory Location

To preserve product files of earlier versions, create separate directories for each version of your IBM Informix products.

If you install multiple versions of an IBM 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 [“Set the Environment Variables” on page 1-10](#).



Important: Install the database server and client products in separate directories to avoid overwriting common files and for easier installation and problem solving. This is the recommended option. If you choose to install the products in the same directory, install the oldest product first.

Do not install a 32-bit version and a 64-bit version of Client SDK in the same `INFORMIXDIR` directory.

Installation Order

If you are not installing client and server products in the same directory, skip this section.

You must install products in a specific order if you are installing client products and server products in the same \$INFORMIXDIR directory. Use the following table as a guide to the correct order.

Database Server Versions	Versions of Client SDK and IBM Informix Connect			
	2.5	2.6	2.7	2.8x
5.x	Database server first	Database server first	Database server first	Database server first
7.2x	Database server first	Database server first	Database server first	Database server first
7.3x	Database server first	Database server first	Database server first	Database server first
8.3x	Client products first	Client products first	Client products first	Client products first
8.4x	Client products first	Client products first	Client products first	Client products first
9.2x	Database server first	Database server first	Database server first	Database server first
9.3x	Database server first	Database server first	Database server first	Database server first
9.4	Database server first	Database server first	Database server first	Database server first

The following table describes database server versions and corresponding names.

Database Server Version Numbers	Database Server Names
5.x	IBM Informix OnLine and IBM Informix SE
7.2x	IBM Informix OnLine Dynamic Server and IBM Informix SE
7.3x	IBM Informix Dynamic Server
8.3x, 8.4x	IBM Informix Extended Parallel Server (XPS)
9.1 through 9.13	IBM Informix Universal Server
9.14	IBM Informix Dynamic Server with Universal Data Option
9.2	IBM Informix Dynamic Server
9.3, 9.4	IBM Informix Dynamic Server

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 will not have the most current listing of error message text and corrective action. If you encounter problems with the **finderr** utility, see *IBM Informix Error Messages* in the IBM Informix Online Documentation site at <http://www.ibm.com/software/data/informix/pubs/library/>.

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 how to rename common message files, see the Client SDK release notes.

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



Tip: If you install and want to use IBM Informix ODBC Driver with an existing DSN that uses IBM Informix CLI driver or INTERSOLV DataDirect ODBC Driver, see the information on the DSN Migration Utility in the release notes for IBM Informix ODBC Driver.

Install the Products

The Client SDK package installation includes the following tasks. Make sure that you complete the tasks in each section before you go to the next section.

- [“Prepare the Environment” on page 1-7](#)
- [“Set the Environment Variables” on page 1-10](#)
- [“Use the Package Manager” on page 1-11](#)
- [“Load Product Files” on page 1-13](#)
- [“Run Installation Scripts” on page 1-16](#)

Some platforms require special installation procedures. If you have such a platform, IBM Informix includes a separate installation letter with the product materials package. If you find such a letter, follow those instructions before you continue with the installation instructions in this manual. For more instructions that pertain to your computer, see the appropriate machine notes.

If any IBM Informix product is currently installed, go directly to [“Set the Environment Variables” on page 1-10](#).

Prepare the Environment

To prepare the environment for the installation procedure, log in as user **root** and set the erase key to the backspace key with the following command:

```
stty erase ^h
```

If you need to modify the **termcap** file, make the modifications in a copy of the file and reference the modified file with the **TERMCAP** environment variable.



Important: Prepare the environment for every shell within which you install or use IBM Informix client products.

Linux

Apply Operating-System Patches

To find out if you need to apply patches to your Linux computer, see a support representative.

Create the informix Group, User, and Product Directory

The first time that you install an IBM Informix product, you need to create a new **informix** group, user, and product directory. If you do not have user **root** privileges, ask your system administrator to perform these steps.

To create group informix

1. Confirm that you are logged in as user **root**.
2. Create a new entry for group **informix** in the group file.

On most UNIX-based and Linux-based systems, the group file is located in **/etc/group**.

Some systems use the **groupadd** utility to create groups. For more information, see your operating-system manual.

3. Provide an unused group number equal to or greater than 100.

To create user informix

1. Confirm that you are logged in as user **root**.
2. Create a new entry called **informix** in the **/etc/passwd** file.

Some systems use the **useradd** utility to create user entries. For more information, see your operating-system manual.

3. Provide a user ID number equal to or greater than 100 for that user.
4. Assign the user to group **informix**.
5. Create a password for user **informix**.



Important: *If you use a network, propagate the new user name to all the systems on the network that must recognize user **informix**. For example, on some systems you (or the network administrator) must perform this change on the NIS master database server and then run the **ypmake** utility.*

The user **informix** is the database equivalent of the UNIX or Linux **root** account, so that anyone logged in as user **informix** has complete access to any IBM Informix products and databases. Make sure that you keep the password for user **informix** confidential.

IBM Informix products use group **informix** internally to control database access. Make user **informix** the *only* member of group **informix**. If you make an actual user of an IBM Informix product a member of group **informix**, you can cause unintended and uncontrolled database access. User accounts in group **informix** have all the privileges of user **informix** and can be used to disrupt the database server, either intentionally or unintentionally.

To create the Informix directory (\$INFORMIXDIR)

1. If you use a 9.x database server, confirm that you are logged in as user **informix**.
Otherwise, confirm that you are logged in as user **root**.
2. Create an \$INFORMIXDIR directory for your IBM Informix products.
Your \$INFORMIXDIR directory can be any directory that is local and is not mounted from another system on the network.

Important: Before you create the \$INFORMIXDIR directory, see [“Installation Location” on page 1-4](#) and [“Installation Order” on page 1-5](#).



Linux

The default Linux location for IBM Informix products is **/opt/informix**. To use the default, create an **/opt/informix** directory. ♦

Set the Environment Variables

Before you install IBM Informix products, set the **INFORMIXDIR** and **PATH** environment variables.

To set the environment variables

1. Set the **INFORMIXDIR** environment variable to the directory that you created for your IBM Informix products in [“To create the Informix directory \(\\$INFORMIXDIR\)” on page 1-9](#).
2. Add **\$INFORMIXDIR/bin** to the **PATH** environment variable.
The **PATH** environment variable indicates the directories and search order that the shell uses to search for executable files.

For more information about IBM Informix environment variables, see the *IBM Informix Guide to SQL: Reference*.



Important: You must set **INFORMIXDIR** and put **\$INFORMIXDIR/bin** in the **PATH** for each user and shell within which you install or use IBM Informix client products.

Use the Package Manager

This section describes how to query, install, and uninstall the packages with the package manager.

Query the Package Information

To find out more about the product, including the complete release and update number, use the RPM query option. The following table shows some examples. For more options, see your RPM documentation.

Command	Purpose
<code>rpm -qp *</code>	Queries the names of packages in the binary package files that reside in the current directory
<code>rpm -qpi *.rpm</code>	Queries detailed information about the binary package files (with the filename extension .rpm) that reside in the current directory
<code>rpm -qa</code>	Queries the names of the installed packages that are maintained in the RPM database

The following table describes the command options that the preceding table uses. For additional information on these options, see the man pages.

Option	Purpose
<code>a</code>	Queries all installed packages
<code>i</code>	Displays package information, including name, version, and description
<code>p <packagefile></code>	Specifies an uninstalled RPM package <code><package file></code> where <code><package file></code> might be a local file or the URL for a file that is accessed through the Internet
<code>q</code>	Specifies RPM query mode

To install a package file

1. Verify that you are logged in as **root**.
2. Mount the drive that contains the IBM Informix package files using the **mount** command.
3. Change the current directory to the location of the IBM Informix package files.
4. Optionally, check the package information as [“Query the Package Information” on page 1-11](#) describes.
5. Load the contents of the IBM Informix package file under the directory that **INFORMIXDIR** is set to, as the following example shows:

```
INFORMIXDIR=/opt/informix/LE
export INFORMIXDIR
rpm -iv --relocate /opt/informix=$INFORMIXDIR
filename.rpm
```

In this example, **INFORMIXDIR** is set to **/opt/informix/LE**.

During installation, the **rpm** script checks the directory where the products will be installed for existing Client SDK installations. Similarly, the IBM Informix Connect installer script checks the directory where the products will be installed for existing IBM Informix Connect or Client SDK installations. If the existing installations are the same version or a later version than the version you are installing, you get a warning. You can then choose whether to proceed with the installation or terminate it.

The IBM Informix Connect installer script also asks you if you want to upgrade existing Version 7.x, ESQL/C libraries that might be linked to the existing Version 7.x client applications. If you choose **no**, the installer does not overwrite Version 7.x, ESQL/C libraries. If you choose **yes**, the installer overwrites Version 7.x, ESQL/C libraries. If you choose to upgrade, you have to recompile and relink Version 7.x client applications to make use of the new shared libraries because Version 2.81 shared libraries are not backward compatible with Version 7.x, ESQL/C shared libraries.

After you enter the installation command, the script displays information about the product and the script requirements, and finishes the installation.

To uninstall a package file

1. Verify that you are logged in as user **root**.
2. Use **rpm -qi** to determine the name, version, and release of the package.
3. Use **rpm -e** to remove the product files and directories, as well as the corresponding entry in the RPM database.

Do not use the longer name of the package file.

You can use the commands in the following example to query the RPM database for Dynamic Server and uninstall the database server product:

```
$ rpm -qi csdk
Version :2.81.UC1
Release : 1
:
$ rpm -ev csdk-2.81.UC1-1
```

Load Product Files

Important: Sometimes machine notes contain information on how to load and install IBM Informix products on a particular computer. Make sure you read the appropriate IBM Informix machine notes after you load and before you run the appropriate installation script for your product.

Load Product Files from an ESD Vendor

For information on how to load ESD vendor product files, see individual vendor documentation.

Load Product Files

To load the product source files

1. If you use a 9.x database server, confirm that you are logged in as user **informix**. Otherwise, confirm that you are logged in as user **root**.
2. Load the media supplied with your software into the appropriate drive of your computer.

This media contains the product files.

If you are installing from a CD-ROM, use the UNIX **mount** command to mount the CD-ROM.

3. Change directories to **\$INFORMIXDIR**.
4. Check the loadline that is printed on your packaging material or product media to see which load command you must use.

Use the following examples as guides to enter the appropriate **tar**, **cpio**, or other load command:

- On some UNIX platforms you can use the following **tar** command to place the product files in the current directory:

```
tar xvf filename
```

In this command, *filename* is the pathname of the **tar** file that contains the product files.

For example, if you are installing from a CD-ROM, the **tar** command might be:

```
tar xvf /cdrom/INFORMIX/csdk.tar
```

- On some UNIX platforms you can use the following **cpio** command to place the product files in the current directory.

In this command, *filename* is the pathname of the **cpio** file that contains the product files.

```
cpio -icdumvB filename
```



Important: The exact form of the **tar** or **cpio** command depends on a number of factors, which include your platform, the type of media, and whether multiple products are bundled on the media. In some cases you need to specify a device name rather than a filename in your **tar** or **cpio** command. If your media is a CD-ROM that contains a **readme** file or insert, check the **readme** file or insert for the exact form of the **tar** or **cpio** command that you should use.

5. Some platforms require you to use the following **pkgadd** procedure to load and install products. If you use this procedure, make sure that your **/tmp** directory has enough room to accommodate the products. Use the following procedure to load the products using the **pkgadd** utility:

- a. Log in as user **root**.

- b. Enter one of the following commands:

To load from a tape device enter:

```
pkgadd -d tapedevice
```

where *tapedevice* is the name of your tape device.

To load from a CD-ROM enter:

```
mount -F hs -o dos devicefile mountdirectory
pkgadd -d mountdirectory/prodimag
```

where *devicefile* is the name of the CD-ROM and

mountdirectory is the location where you mount the CD-ROM.

- c. On some platforms (such as Siemens), the script prompts you for an absolute pathname to the directory where you want to install the products.

During the installation process, the **pkgadd** utility checks the directory where the products will be installed for existing Client SDK and IBM Informix Connect installations. If the existing installations are the same version or a later version than the version you are installing, you get a warning. You can then choose whether to proceed with the installation or terminate it.

- d. If you use the **pkgadd** utility and you are installing IBM Informix Connect, the utility asks you if you want to upgrade existing ESQL/C libraries that might be linked to the existing Version 7.x Client applications.

If you choose **no**, the **pkgadd** utility does not overwrite the current ESQL/C libraries. If you choose **yes**, the utility overwrites the current ESQL/C libraries. If you choose to upgrade, you will have to recompile and relink Version 7.x client applications to make use of the new shared libraries.

After you enter the installation command, the script displays information about the product, displays the script requirement, and completes the product installation.



Important: To continue to run your existing ESQL/C applications after you upgrade, set the `LD_LIBRARY_PATH` environment variable (or equivalent variable for your system) to `$INFORMIXDIR/lib/lib-7x`.

Check Online Files

The product files include online informational files that answer specific technical questions. These files are installed in the directory `$INFORMIXDIR/release/en_us/0333`.

UNIX



Run Installation Scripts

Important: Some machine notes explain how to install IBM Informix products on a particular computer. Read the appropriate machine notes before you run the installation script for your product.

If your platform uses the **pkgadd** utility, do not perform the steps in this section.

If you use a Version 9.x database server, confirm that you are logged in as user **informix**. Otherwise, confirm that you are logged in as user **root**.

If you do not have **root** privileges, ask your system administrator to perform the procedures that require user **root**.

Use the Scripts for Version Checking

As of Client SDK, Version 2.02, the **installconn** and **installclientsdk** scripts perform version checking. The scripts check for previously installed versions of Client SDK and IBM Informix Connect and proceed with installation only if all previously installed versions are older than the version that you are installing.

Use the **-f** option to override version checking during installation.

If you install over a version older than Client SDK, Version 2.02, you can use the **check-version** utility to determine whether you installed an older version of the product over a newer one. For example:

```
check_version [csdk | conn]
```


Use installconn

You must be in \$INFORMIXDIR to run this script.

The **installconn** script installs IBM Informix Connect and has the following command syntax:

```
./installconn [-i|-o] [-f] [-u|-a|-n]
```



Important: Use the exact syntax shown above or you will get an error.

To run the **installconn** script, see [“To run either installconn or installclientsdk” on page 1-19.](#)

The **installconn** script can take the following arguments for installing the client products. The following table lists each argument and describes its usage.

Argument	Usage	Additional Information
-i	Use IBM Informix Connect with an IBM Informix database server, Version 9.x or later.	You must be logged in as user informix .
-o	Use IBM Informix Connect with an IBM Informix database server that is not Version 9.x or later	You must be logged in as user root .
-u	Upgrade Version 7.x ESQL/C shared libraries to Version 2.81, Client SDK.	<p>When you use the -u argument, the installation script overrides ESQL/C, Version 7.x, shared-library files.</p> <p>With this option, you are prompted for verification during installation.</p> <p>If you use the -u argument, recompile and relink Version 7.x client applications because Version 2.81 shared libraries are not backward compatible with ESQL/C, Version 7.x, shared libraries. For more information, see the machine notes for Client SDK, Version 2.81.</p>

Argument	Usage	Additional Information
-a	Upgrade ESQL/C, Version 7.x, shared libraries to Client SDK, Version 2.81, and do not prompt to verify this upgrade during installation.	The -a option operates similarly to the -u option, without a verification prompt during installation.
-n	Do not upgrade ESQL/C, Version 7.x, shared libraries to Client SDK, Version 2.81, and do not prompt to verify this upgrade during installation.	None.
-f	Use IBM Informix Connect. Overrides version checking.	Use -f only if you are sure that the version you install is the newer version.

(2 of 2)

Use installclientsdk

You must be in \$INFORMIXDIR to run this script.

The **installclientsdk** installs Client SDK and has the following command syntax:

```
./installclientsdk [-i|-o] [-f]
```

Important: Use the exact syntax shown above or you will get an error.

To run the **installclientsdk** script, see [“To run either installconn or installclientsdk” on page 1-19.](#)



The **installclientsdk** script untars all Client SDK files and installs all Client SDK components. The script takes arguments. The following table lists each argument and describes the corresponding function.

Argument	Usage	Additional Information
-i	Use Client SDK with an IBM Informix database server, Version 9.x or later.	You must be logged in as user informix .
-o	Use Client SDK with an IBM Informix database server that is not Version 9.x or later.	You must be logged in as user root .
-f	Overrides version checking.	Use -f only if you are sure that the version you install is the newer version.

To run either installconn or installclientsdk

1. If you use a Version 9.x database server, confirm that you are logged in as user **informix**.
Otherwise, confirm that you are logged in as user **root**.
2. Determine in what order and where to install the products.
See [“Installation Order” on page 1-5](#) and [“Installation Location” on page 1-4](#).
3. Copy the **clientsdk.tar** or **conn.tar** file to your \$INFORMIXDIR directory.
4. Use the following command to extract the file:

```
tar xvf [clientsdk.tar | conn.tar ]
```
5. Enter the command for one of the scripts (see [“Use installconn” on page 1-17](#) and [“Use installclientsdk” on page 1-18](#)).
The script displays information about the product and the script requirements.

6. Press RETURN to continue the installation procedure.

If you specify the **-i** or **-o** options go to step 7.

If you do not specify either the **-i** or the **-o** option, the script displays the following prompt:

```
Is ClientSDK being installed along with Informix database
server Version 9.x? (yes or no)
```

Type **y** if you installed the database server and **n** if you did not install the database server.

After you press RETURN, the script displays a message about the license agreement with IBM. If your software is licensed for use by an unlimited number of simultaneous users, the script displays a message to that effect.

The script begins to install the products. The script displays a series of messages as it installs each directory.

7. If you plan to use IBM Informix client products with a Version 9.x database server, a message indicates that you must log in as user **root** to finish the installation procedure.

In this case, log in as user **root** at the shell prompt and run the **RUN_AS_ROOT.ext** script; otherwise, follow any directions that the script displays to complete the installation.

The **RUN_AS_ROOT.ext** script is in **\$INFORMIXDIR**.

The **.ext** extension indicates the product. To execute the **RUN_AS_ROOT.ext** script, include the full path. For example, to complete the Client SDK installation when **\$INFORMIXDIR** is **/local/informix**, enter the following command:

```
/local/informix/RUN_AS_ROOT.clientsdk
```

When the **RUN_AS_ROOT.ext** script completes, it displays the following message:

```
Installation of product complete
```

If no error messages appear during the installation procedure, the installation is successful. If any error messages appear before the Installation of product complete message, see [“Solve Installation Problems” on page 1-21](#).

The installation script changes the owner of **\$INFORMIXDIR** to user **informix** and grants the appropriate privileges. Installation also automatically adjusts the ownership and privileges for subdirectories and files in **\$INFORMIXDIR** that user **informix** must access or control.



Important: If any error messages appear before the installation is complete, do not use the **oninit** command. If you use **oninit** you might cause further installation problems. For more information, see [“Solve Installation Problems” on page 1-21](#).

Solve Installation Problems

If you receive your IBM Informix product materials from an ESD vendor, consult the vendor documentation for information on how to solve any problems you might encounter.

This section describes the most common installation problems and the corresponding solutions for users who receive their product materials directly from IBM. If any of the outlined problems persist, contact Technical Support at tmail@us.ibm.com.

UNIX

Media-Loading Failures

The problems documented in this section might appear when you load files to your computer.

- **Problem.** You copy files with **cpio** from multiple disks onto your computer. After you enter the **cpio** command, a message similar to one of the following examples appears:

```
error 9: cannot read input ... type
device/filename to continue.
error 2: cannot read input ... type
device/filename to continue.
```

Solution. The **cpio** command has read all the data on the current disk. Load the next disk, enter the device name exactly as you entered it for the **cpio** command, and press RETURN. Continue the process for each disk supplied for that IBM Informix product.

- **Problem.** You attempt to load the files, but the **cpio**, **tar**, or other load command fails with an error message similar to one of the following examples:

```
invalid blocksize
cannot open devicename
unknown option
tape read error
```

Solution. Verify that you entered the **cpio**, **tar**, or other load command correctly, then try the command again. If the load command fails again, contact Technical Support or the vendor from whom you purchased the product. You might need to obtain new media.

Package-Manager Failures

The problems documented in this section might appear when you use the **rpm** utility to load or unload an IBM Informix package.

- **Problem.** The command displays the following message:

```
ERROR: Failed to locate directory with write permissions.
```

Solution. Check that you are logged in as user **root**. Use the **chmod** command to grant write permission on the current directory and then run the **rpm** command again.

- **Problem.** The command displays one of the following messages:

```
ERROR: User informix must exist to install product.
ERROR: Group informix must exist to install product.
```

Solution. Follow the instructions in [“Create the informix Group, User, and Product Directory” on page 1-8](#) to create the necessary user or group.

- **Problem.** The command displays one of the following messages:

```
ERROR: You must be root to install product.
ERROR: You must be root to uninstall product.
```

Solution. Check that you are logged in as user **root**.

- **Problem.** The command displays the following message:

```
package product is already installed
ERROR: product.rpm cannot be installed
```

Solution. If you want to reinstall the product, uninstall the previous package, as described in [“To uninstall a package file” on page 1-13](#).

- **Problem.** The `rpm -e` command displays the following message:

```
package product is not installed
```

Solution. You have probably misspelled the package name. Use the `rpm -q` option to print the name, version, and release. Rerun the `rpm -e` command with the correct specification for the package. For information about specifying a package name, see [“Query the Package Information” on page 1-11](#).

- **Problem.** The command displays the following message:

```
rpm: arguments to --relocate must begin with a /
```

Solution. Specify the absolute path, as the following example shows:

```
rpm -i --relocate /opt/informix=/$INFORMIXDIR
filename.rpm
```

Installation Failures

The problems in this section might occur during installation.

- **Problem.** When you attempt installation, the following message appears:

```
INFORMIXDIR and working directory do not match.
INFORMIXDIR = pathname
Current working directory = pathname
```

Solution. Make sure that you are in `$INFORMIXDIR`.

To check that the value of the `INFORMIXDIR` environment variable matches the directory path where you loaded the package, use the following command:

```
echo $INFORMIXDIR
```

If necessary, reset the `INFORMIXDIR` environment variable, as [“Set the Environment Variables” on page 1-10](#) describes.

- **Problem.** When you attempt an installation, the following message appears:

```
INFORMIXDIR is not set.
```

Solution. Set the `INFORMIXDIR` environment variable to the directory where the IBM Informix client product will be installed. The installation script does not set the `INFORMIXDIR` environment variable for you.

- **Problem.** When you attempt an installation, the following message appears:

Please rerun this installation procedure as *user*

Solution. If you use a 9.x database server, make sure that you are logged in as user **informix**. Otherwise, make sure that you are logged in as user **root**.

- **Problem.** The script displays the following message, where *scriptname* is the name of the installation script (**installclientsdk** or **installconn**):

```
./scriptname has exited abnormally. This may have left  
your Informix installation in an incomplete state.
```

Please correct this problem and rerun *./scriptname*, using the **-f** option, as follows:

```
./scriptname -f
```

Solution. Make sure that you have enough disk space and then rerun the script with the **-f** option.

- **Problem.** The script displays the following message, where *scriptname* is the name of the installation script (**installclientsdk** or **installconn**):

```
The file "etc/.filename" is not writable! Please have your  
system administrator set the following permissions before  
proceeding with ./scriptname.
```

```
chmod 644 etc/.filename  
chown informix etc/.filename  
chgrp informix etc/.filename
```

Solution. The script cannot update the file because the existing permissions in the **etc/.filename** file are too restrictive. Change the mode, owner, and group to the permissions specified in the error message.

Access Problems After Installation

The problems in this section can occur when you try to start an IBM Informix client product.

- **Problem.** You try to send a command to an IBM Informix product from the command line (or through an alternative method), but you receive the following message or a similar message:

cannot attach to shared memory

Solution. Before you use the database server, you must bring the server to online mode. See the database server configuration discussion in your *Administrator's Guide*.

- **Problem.** You try to run an IBM Informix program from the command line (or through an alternative method), but you receive only a system prompt or the following (or a similar) message:

program: Command not found.

Solution. Verify that the environment variables are set properly (see [“Set the Environment Variables” on page 1-10](#)).

If the environment variables are set correctly, check if another file with the same name exists in the **PATH** variable that would be accessed before the Informix executable file. Move, rename, or delete that file, or reorder the member paths in the path value so that the path in which the Informix executable resides precedes the path in which the conflicting executable resides.

For more information about environment variables, see the *IBM Informix Guide to SQL: Reference*.

- **Problem.** You try to invoke an IBM Informix product from the command line (or through an alternative method), but you get the following (or a similar) message:

Unknown message number 32766.

Solution. Verify that the **INFORMIXDIR**, **DBLANG**, and **CLIENT_LOCALE** environment variables are set correctly (see [“Set the Environment Variables” on page 1-10](#)) and repeat the steps in [“Run Installation Scripts” on page 1-16](#) and all subsequent steps.

For more information, see the *IBM Informix GLS User's Guide*. ♦

Difficulties While Using IBM Informix Products

The problems in this section can occur while you run IBM Informix client products. These problems are not directly related to installation, but they do involve environment variables.

- **Problem.** The list of databases is incomplete.
Solution. Check that the `DBPATH` environment variable contains the names of all other database servers not referenced by the `INFORMIXSERVER` environment variable.
- **Problem.** After you access an IBM Informix application, the screen display is unformatted.
Solution. Verify that the `TERM`, `TERMCAP` (or `TERMINFO`), and `INFORMIXTERM` environment variables are set correctly. For more information about environment variables, see the *IBM Informix Guide to SQL: Reference*.
- **Problem.** After you successfully install your client products and successfully invoke your database server, you cannot connect to the database server.
Solution. Check that your `sqlhosts`, `/etc/hosts`, `/etc/services` files do not contain typographical errors, misspellings, or inconsistencies.
If you use a network information system, check that the changes you make to the `services` file are properly accessed and available to your computer.
Check that the database server is configured correctly (see the discussion of configuration information in the *Administrator's Guide*).
- **Problem.** Unusual problems occur (for example, networking problems on Hewlett-Packard platforms or unexplainable failures on Sun platforms).
Solution. Your system might need a patch. Read the `IDS_9.2` file in the default directory `$INFORMIXDIR/release/en_us/0333` for advice on patch information.

Install Informix Client SDK on Windows

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In This Chapter

This chapter explains how to install IBM Informix Client Software Developer's Kit (Client SDK), Version 2.81, and IBM Informix Connect, Version 2.81, on Windows 2000. For a comprehensive list of Client SDK components, see the introduction.

Prepare to Install Client SDK and IBM Informix Connect

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

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

Before you install Client SDK or IBM Informix Connect, you must install the appropriate operating-system patches and comply with the software, system, database server, protocol, compiler, and driver-manager requirements.

System Requirements

The following table outlines the system requirements for IBM Informix client products for Windows 2000 environments.

Hardware	80486 or higher microprocessor
RAM	32 megabytes
Hard-disk storage	20 megabytes (or less, depending on the products and components you install)

Database Server Requirements

You can use Client SDK, Version 2.81, and IBM Informix Connect, Version 2.81, on client computers that connect to Informix databases. For a list of compatible Informix database servers, see the online release notes for each client component.

Protocol Requirements

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

To configure your client product utilities, select a protocol through the **Setnet32** utility. For instructions, see [“Set Database Server Information” on page 2-22](#).

C Compiler Requirements

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

Microsoft Driver Manager

Client SDK and IBM Informix Connect products include Microsoft Driver Manager, Version 3.52, as a component of Microsoft Data Access Components (MDAC), Version 2.7.

Find the Version Number of the Driver Manager

To find out what version of the Driver Manager is installed on your computer, choose **Start→Settings→Control Panel→ODBC Data Sources** to display the ODBC Data Source Administrator window. If the window does not have an **About** tab, your computer has a Driver Manager earlier than Version 3.0.

To find the version number of your Driver Manager

1. Use Windows Explorer to locate your Windows system directory (SYSTEM32 directory on Windows 2000).
2. Select **odbc32.dll** and right click.
3. Click **File Properties**.
4. Click **Version** tab.

The **Version** page displays your Driver Manager version number.

Install the Driver Manager for Client SDK

If the version of MDAC installed on your computer is lower than Version 2.5, then the Client SDK installation automatically updates it.

Install the Driver Manager for IBM Informix Connect

Use the Informix **Setup** utility to install Microsoft Driver Manager, Version 3.52. When you run **Setup**, specify the **Custom install** option. You can only install Microsoft Driver Manager, Version 3.52, by choosing MDAC, Version 2.5. You must then reboot your computer.

To install an older version of Driver Manager than is currently installed on your computer, first uninstall the newer version by using the appropriate uninstall program.

Installation Location and Order

Before you install client products, verify that the installation location and the installation order is correct. For more information on installation order, see [“Installation Order” on page 1-5](#)

Do not install Client SDK, Version 2.81, into a directory that contains a previous version. Uninstall the previous version before you install Version 2.81 or follow the instructions detailed in [“Solve Installation Problems” on page 18](#).

Install Client SDK

To install Client SDK on Windows, run the Windows installation program. The Windows installation program allows you to install all components in a default directory or select the installation directory and choose which components you want to install.

The IBM Informix Client SDK installation for Windows is based on the Microsoft Windows Installer service. This service is built into Windows 2000 and is also available for other Windows platforms. If this service is not installed on your computer, the Client SDK installation program installs it for you.

The Windows Installer service prevents installation over an existing installation of the same product version. If you run the installation a second time, the service asks you to repair, modify, or uninstall the product.

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

Important: *You must install Client SDK products before you run Enterprise Replication commands and before you convert the syscdr database. For more information, see the “IBM Informix Dynamic Server Enterprise Replication Guide.”*



Use the Windows Installation Program to Install Client SDK

To install Client SDK, load the product files and use the Installation Wizard to install the products.

To install Client SDK with the Complete option

1. Exit all Windows programs.
2. Load the CD-ROM for Client SDK into the CD-ROM drive.
You can also download the network installation.
3. Read the **readme.txt** file in the root directory of the CD-ROM.
4. The installer starts automatically. The IBM Informix Client SDK Setup Wizard appears.

If the installer does not start automatically, you can start it with the **Setup** utility by choosing **Start→Programs→Command Prompt** or **Start→Run**. Type *d:\setup* in the Run dialog box or at the DOS prompt (where *d* is the CD-ROM drive). Alternatively, you can open Windows Explorer and double-click the **setup.exe** file icon. If you do not have the Windows Installer service on your computer, the Client SDK package installs it for you. You must then reboot your computer before you proceed with the Client SDK installation.

5. Click **Next**.
The License Agreement dialog box appears.
6. Accept the license agreement and click **Next**.
The Customer Information dialog box appears displaying the default user name and organization name.
7. Click **Next** to accept the default user and organization names, or type in new values and click **Next**.
The Setup Type dialog box appears.
8. Select **Complete setup** to install all the components into the default directory (**C:\Program Files\Informix\Client-SDK**).
9. Click **Next**.
The Ready to Install the Program dialog box appears.
10. Click **Install** to begin the product installation.
11. Click **Finish** to complete the installation.

To install Client SDK with the Custom option

1. Exit all Windows programs.
2. Load the CD-ROM for Client SDK into the CD-ROM drive.
You can also download the network installation.
3. Read the **readme.txt** file in the root directory of the CD-ROM.
4. The installer starts automatically. The Informix Client SDK Setup dialog box appears.

If the installer does not start automatically, you can start it with the **Setup** utility by choosing **Start→Programs→Command Prompt** or **Start→Run**. Type *d:\setup* in the Run dialog box or at the DOS prompt (where *d* is the CD-ROM drive). Alternatively, you can open Windows Explorer and double-click the **setup.exe** file icon.

If you do not have the Windows Installer service on your computer, the Client SDK package installs it for you. You must then reboot your computer before you proceed with the installation.

5. Click **Next**.
The License Agreement dialog box appears.
6. Accept the license agreement and click **Next**.
The Customer Information dialog box appears displaying the default user name and organization name.
7. Click **Next** to accept the default user and organization names, or type in new values and click **Next**.
The Setup Type dialog box appears.
8. Select **Custom** and click **Next**.
The Destination Folder dialog box appears.
9. Click **Change** to modify the destination folder and click **Next**.
The Custom Setup dialog box appears.
10. Unselect the features that you do not want to install and click **Next**.
The Ready to Install dialog box appears.
11. Click **Next** to begin the product installation.
12. Click **Finish** to complete the installation.

Use the msiexec Command to Install Client SDK from the Command Line

Instead of using the installation program described in the previous section, you can install Client SDK from the command line by using the Windows Installer API. To do this, you must have the Windows Installer Service installed on your system. This service is part of Windows 2000.

You can specify the type of install or uninstall by using a number of options to the **msiexec** command. For more information on the various command-line options for **msiexec**, see the Microsoft Windows Installer help on the Microsoft Web site.

You can specify the level of user interface during the install with the **/q** command-line option. For instance, to run the install in silent mode, with no error messages or end of install indication, use the following command:

```
msiexec /i "<.msi file pathname>" /qn
```

To run the install in silent mode, with no error messages, but display a modal dialog box at the end of the installation that indicates success or failure, use the following command:

```
msiexec /i "<.msi file pathname>" /qn+
```

Similarly, you can run the install with the **/qf** and **/qf+** options for a full user interface installation. The **/qf+** option displays a modal dialog box at the end of the installation that indicates success or failure.

Silent Installation

A user can specify an alternative value for INSTALLDIR on the command line. The following methods can be used to install Client SDK in silent mode:

Method 1

```
msiexec.exe /i "<.msi file pathname>" /qn+ INSTALLDIR="<path of  
installation location>" /L*v <log file name>
```

If you do not include INSTALLDIR in the above command, the installation will use the following default values:

CSDK <drive>\program files\informix\client-sdk

Iconnect <drive>\program files\informix\connect

Method 2

1. Execute the transformgenerator.exe file which is included in the CSDK media. Provide the name and path of the .msi file and click OK.
2. Use the following command:

```
msiexec.exe /i "<.msi file pathname>" /qn+  
TRANSFORMS="<.mst file pathname>" INSTALLDIR="<path of the  
installation location>" /L*v "<log file name>"
```

If you do not include INSTALLDIR in the above command, the installation will use the following default values:

CSDK <drive>\program files\informix\client-sdk

Iconnect <drive>\program files\informix\connect

Method 3

You can use the following command:

```
setup.exe /s /v\"TRANSFORMS=\"<.mst file name>\"  
INSTALLDIR=\"<path of installation location>\" /qn+ /L*v \"<log  
file name>\"
```

If you do not include INSTALLDIR in the above command, the installation will use the following default values:

CSDK	<drive>\program files\informix\client-sdk
Iconnect	<drive>\program files\informix\connect

Common MsiExec Operations

The following table contains some common installer operations and their corresponding command-line options:

Operation	Command-line option
Install	msiexec.exe /i "<.msi file path name>"
Uninstall	msiexec.exe /x "<.msi file path name>"
Install to network	msiexec.exe /a "<.msi file path name>"
Repair installation	msiexec.exe /f "<.msi file path name>"
Advertise (to machine)	msiexec.exe /jm "<.msi file path name>"
Advertise (to current user)	msiexec.exe /ju "<.msi file path name>"

MsiExec also accepts a product code instead of a path to an MSI package.

Setting Public Properties

You can set public properties of an installation program (those with upper case names) at the command line. For example, an installation derives the default user and company names from its registry and stores them as the public installer properties USERNAME and COMPANYNAME. To set the user and company names at the command line, enter the following command:

```
msiexec.exe /i "<.msi file pathname>"  
INSTALLDIR="<NewLocation path>"
```



Important: Property names are case sensitive. Enclose a property value in quotation marks if the value contains any spaces.

You can also specify an alternative value for INSTALLDIR using the following command:

```
msiexec.exe /i "<.msi file pathname>"  
INSTALLDIR="<NewLocation path>"
```

The administrator can prevent a product from being un-installed by setting the ARPNOREMOVE property to 1 at the command line. To prevent users from modifying installed files, set ARPNOREMOVE to 1 and disable the Repair button by setting ARPNOREPAIR to 1 in the Add/Remove Programs control panel.

Logging

Use the /L argument to msiexec to create a log file at setup runtime. For example, to store all error and warning messages in a text log file, enter the following command which passes the E and W arguments to /L:

```
msiexec.exe /i "<.msi file pathname>" /Lew D:\install.log
```

To log every action performed by the setup program, use the following command:

```
msiexec.exe /i "<.msi file pathname>" /L*v D:\install.log
```



Important: By default, MsiExec creates a log file in the user's Temp folder only when an error occurs.

Run the Advertised Installation of Client SDK

Advertising is a new concept introduced with the Windows Installer service. When you run an advertised installation of a product, all of the entry points of the product, such as shortcuts or file types, are created on your computer, but no files are physically copied until the user invokes a shortcut or opens a file of the registered type.

Before you run the IBM Informix Client SDK installation in advertise mode, you must generate a transform file by using the TransformGenerator tool on your CD, and use this file while you run the installation.

To generate a transform file

1. Run **TransformGenerator.exe** from your product CD-ROM.
2. Enter the following information into the edit fields:
 - Complete path of the IBM Informix Client SDK file
 - Complete path where you want to save the generated transform file
3. Click **OK**.

The following message appears: *Transform file generated successfully.*

4. Use this transform file to run the advertised installation as in the following command:

```
msiexec /jm "<.msi file pathname>" /t "<transform (.mst)
file pathname>"
```

For more information on the command-line options for the Windows Installer Service, see the help for Windows Installer Service, which is downloadable from the Microsoft website.

Uninstall Client SDK

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

To install a previous version of Client SDK in a directory that contains Version 2.81, uninstall Version 2.81 before you proceed.



Uninstall Client SDK from the Control Panel

1. Select **Start→Settings→Control Panel→ Add/Remove Programs**.
2. Select the **Change or Remove Programs** tab.
3. Select **IBM Informix Client SDK** from the list of applications.
4. Click **Remove**.

The Informix Client SDK Setup dialog box appears.

5. Click **Next**.

The Program Maintenance dialog box appears.

6. Select **Remove**.

The Remove the Program dialog box appears.

7. Click **Remove** to complete Client SDK file removal.

Tip: *The Client SDK is available from two sources: CD-ROM and a downloadable network installation. You must use the same source to uninstall the product that you used to install it. In other words, you cannot choose to install from the CD-ROM and then uninstall by running the network installation.*

Uninstall Client SDK from the Command Line

You can uninstall Client SDK from your computer by using the following command:

```
msiexec /x "<.msi file pathname>"
```

Modify the Installation

You can modify which components are installed by adding or removing Client SDK features.

To modify the installation

1. Choose **Start→Settings→Control Panel→Add/Remove Programs**.
2. Select the **Change or Remove Programs** tab.
3. Select **IBM Informix Client SDK**.
4. Click **Change**.

The Informix Client SDK Setup dialog box appears.

5. Click **Next**.
The Program Maintenance dialog box appears.
6. Click **Modify** to change program features.
7. Click **Next**.
The Custom Setup dialog box appears.
8. Click an icon to view the installation options.
9. Select an option from the drop-down list box.
10. Click **Next**.
The **Ready to Modify the Program** dialog box appears.
11. Click **Install** to repair the installation.
The Informix Client SDK dialog box appears.
12. Click **Finish** to complete the modification.

Repair the Installation

You can repair errors in the installation procedure, such as missing or corrupt files.

To repair the installation

1. Choose **Start→Settings→Control Panel→Add/Remove Programs**.
2. Select the **Change or Remove Programs** tab.
3. Select **IBM Informix Client SDK**.
4. Click **Change**.
The Informix Client SDK Setup dialog box appears.
5. Click **Next**.
6. Click **Repair**.
7. Click **Next**.
The Ready to Repair the Program dialog box appears.
8. Click **Install**.
The Informix Client SDK Setup box appears.
9. Click **Finish** to complete the repair.



Install IBM Informix Connect

To install IBM Informix Connect, run the **Setup** utility.

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

To install IBM Informix Connect

1. Exit all Windows programs.
2. Load the CD-ROM for IBM Informix Connect into the CD-ROM drive.
3. Read the **readme.txt** file in the root directory of the CD-ROM. This file might have information you need before you continue.
4. Choose **Start→Programs→Command Prompt** or **Start→Run** to start the **Setup** utility.
5. In the Run dialog box or at the DOS prompt, type `d:\setup` (where *d* is the CD-ROM drive).
6. Press ENTER or click **OK**.
The Welcome dialog box appears.
7. Click **Next**.
The User Information dialog box appears.
8. Type your name and company name in the fields provided.
9. Click **Next**.
The Choose Destination Location dialog box appears.
10. Type the directory where you want the IBM Informix product to be installed.

The default installation directory is **C:\INFORMIX**. To choose another directory, click **Browse**.

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

11. Click **Next**.
The Setup Type dialog box appears.
12. Select an installation type: Typical, Compact, or Custom.
13. Click **Next**.
If you select the Custom installation type, the Select Components dialog box appears. If you did not select Custom installation, go to step 16.
14. Check the boxes of the components and subcomponents that you want to install.
Disk-space requirements are listed next to each component and subcomponent.
15. Click **Next**.
The Select Program Folder dialog box appears.
16. Specify the folder where you want to store IBM Informix applications and icons.
Accept the default (**INFORMIX**), choose another existing folder, or type the name of a new folder to create.
17. Click **Next**.
The Start Copying Files dialog box appears.
18. Click **Next** if all the information is correct. Click **Back** to return to previous screens and change installation options.
19. If no errors occur during the installation procedure, the Setup Complete dialog box appears.
20. Click **Finish** to exit **Setup**.



Tip: If **Setup** displays a reboot dialog box, choose **y** to reboot your computer now or **n** to reboot it later. Restarting your computer is recommended after this step.

During this procedure, **Setup** copies the client product software to your computer, creates the **Setnet32** icon and other icons in the **INFORMIX** program folder, and creates the **INFORMIX** subkey of the Windows Registry.

If **Setup** generates an error message, see [“Solve Installation Problems” on page 2-18](#).

Configure OLE DB Provider

To enable your Informix database 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**.

Solve Installation Problems

If you receive your IBM Informix product materials from an Electronic Software Download (ESD) vendor, consult the vendor documentation for information on how to solve any problems you might encounter.

This section describes the most common installation problems and the corresponding solutions for users who receive their product materials directly from IBM. If any of the outlined problems persist, contact Technical Support at tmail@us.ibm.com.

- **Problem.** The following error message appears:

Error: file reading error

Solution. The installation program is unable to read the media. Try loading the CD-ROM again. If the error persists, you might have corrupted hardware or media. See your system administrator.

- **Problem.** The following error message appears:

Invalid Processor: Error

Solution. Use a computer with an Intel 80486 or higher microprocessor.

- **Problem.** The following error message appears:

Invalid OS: Error

Solution. Your client computer has an unsupported operating system. Use Windows 2000.

- **Problem.** The following error message appears:

Not enough disk space - Error

Solution. Make more space available on the disk on which you want to install the product or choose a new disk location. For more information, see [“System Requirements” on page 2-4](#).

- **Problem.** The following error message appears:

Call to GetFileInfo for <install directory> failed

Solution. Run the installation again. In the Choose Destination Location dialog box, click **Browse**. The directory that is displayed is the same as the one previously displayed, except that the backslash (\) character is deleted from the end. Click **OK** and proceed with the installation.

Configure IBM Informix Client Products on Windows

This section describes how to use the **Setnet32** utility to configure Client SDK products. The **Setnet32** utility sets or modifies environment variables and network parameters that IBM Informix products use at runtime. The environment variables and network parameters are stored in the Windows system registry and are valid for every IBM Informix client product you install.

This section is divided into the following components:

- [“Set the Environment Variables” on page 2-20](#)
- [“Set Database Server Information” on page 2-22](#)
- [“Set Host Information” on page 2-23](#)

To set component-specific environment variables, see individual product documentation.

Setnet32 has the following four 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**.

Set the Environment Variables

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

For more information about environment variables, see [“Environment Variables” on page 2-25](#) and the *IBM Informix Guide to SQL: Reference*.

For more information about environment variables for locales, see the *IBM Informix GLS Programmer's Manual*. ♦

GLS

To set environment variables using Setnet32

1. Double-click **Setnet32** in the folder that contains the Client SDK products.
The Informix **Setnet32** dialog box appears.
2. Click the **Environment** tab to display the **Environment** page, which has the following elements:
 - **Informix Client/Server Environment** list box
Select an environment variable to edit.
After you select an environment variable, the environment variable name appears above the **Variable Name** text box.
 - **Edit Environment Variable** group
Type a new value in the 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 make your change, click **Set** to save that 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.
 - **Use my settings** check box
Setnet32 entries are stored under HKEY_LOCAL_MACHINE upon installation. To save the settings in HKEY_CURRENT_USER and set that as the default registry to modify the settings, check the **Use my settings** check box and click **Apply**. All environment settings are then copied over to HKEY_CURRENT_USER.
To revert to the HKEY_LOCAL_MACHINE entries, deselect the **Use my settings** check box and click **Apply**.
The **Use my settings** check box is an entry stored under HKEY_CURRENT_USER as DEFAULT_USER_SETTING, and can be either LM for local machine (default) or CU for current user.

Set Database Server Information

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

Set the database server parameters on the **Server Information** page of **Setnet32**, which contains the following elements:

- **Informix Server** list box
Select an existing Informix database server or type the name of a new database server.
- **HostName** list box
Select the host computer with the database server you want to use or type the name of a new host computer.
- **Protocolname** list box
Select a network protocol from a list of protocols that the installation procedure provides.
- **Service Name** text box
Specify the service name associated with a specific database server. 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.
- **Options** text box
Enter options specific to the database server. For more information, see the *Administrator's Guide*.



Important: If you enter a service name, it must be defined on the client computer in the *services* file in the Windows installation directory. This file is located in *system32\drivers\etc\services*. 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 database 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.

Click **OK** to save the values.

Set 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 your *Administrator's Guide*.

Set the host parameters for a specific host on the **Host Information** page of **Setnet32**, which contains the following elements:

- **Current Host** list box

This list displays host computers previously defined in the current Windows registry. Select the name of a host computer with which to establish a network connection or 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 case-sensitive value with a maximum length of 18 characters.

- **Password Option** list box

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 *IBM 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 you receive an error.

- ☐ **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. If the passwords are not identical, the user cannot connect to that database server across a network.

- **Password** text box

This text box, which the **Password** option activates, displays asterisks (*) that represent 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.

Environment Variables

Client SDK, Version 2.81, supports the following environment variables. For more information on these environment variables, see their descriptions in the respective manuals.

Environment Variable	Purpose	Manual Reference and Possible Values
CC8BITLEVEL	Specifies how the C-language compiler processes non-ASCII (8-bit and multibyte) characters.	<i>IBM 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.	<i>IBM Informix GLS Programmer's Manual</i> Any valid locale specifier. No default.
COLLCHAR	Specifies a collation sequence for characters. Provided for backward compatibility with NLS products.	<i>IBM Informix Guide to SQL: Reference</i>
DB_LOCALE	Specifies the locale of all the databases that a client application accesses in a single connection (the database locale).	<i>IBM Informix GLS Programmer's Manual</i>
DBALSBC	When set to 1, enables compatibility with ALS products.	<i>IBM Informix ESQL/C Programmer's Manual</i> Values: 0 or 1
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.	<i>IBM Informix Guide to SQL: Reference</i> 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. Provided for backward compatibility with NLS and ALS products.	<i>IBM Informix ESQL/C Programmer's Manual</i>

Environment Variable	Purpose	Manual Reference and Possible Values
DBASCIIBC	When set to 1, enables compatibility with ASCII products.	<i>IBM Informix ESQL/C Programmer's Manual</i> Values: 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.	<i>IBM Informix Guide to SQL: Reference</i> Values: P, R, or C Default is R.
DBCODESET	Provides support for 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>	<i>IBM Informix ESQL/C Programmer's Manual</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. <i>Provides backward compatibility for client applications that are based on earlier versions of IBM Informix products.</i>	<i>IBM Informix ESQL/C Programmer's Manual</i> Values: 1 or 3
DBCSCONV	Controls code-set conversion initialization. Maximum size is eight characters. <i>Provided for backward compatibility with ALS products.</i>	<i>IBM Informix ESQL/C Programmer's Manual</i> Values: 1 or 2: <i>codesetname</i> See 5.0 ALS documentation.
DBCsoVERRIDE	Forces the user-specified DB_LOCALE value to override default restrictions on accessing databases with locales different from DB_LOCALE. Provided for backward compatibility with Version 6.0 ALS database servers.	<i>IBM Informix ESQL/C Programmer's Manual</i> Values: 0 or 1

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Environment Variable	Purpose	Manual Reference and Possible Values
DBCWIDTH	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. Provided for backward compatibility with ALS products.	<i>IBM Informix ESQL/C Programmer's Manual</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. Provided for backward compatibility with pre-7.2 products. GL_DATE is recommended for 7.2 ESQL/C applications.	<i>IBM Informix GLS Programmer's Manual</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 <i>Dbaccess only</i> .	<i>IBM Informix Guide to SQL: Reference</i> Values: 0-16 Default is 16.
DBLANG	Specifies the subdirectory of the Informix installation directory that contains the product-specific message (.iem) files.	<i>IBM Informix Guide to SQL: Reference</i> <i>IBM Informix GLS Programmer's Manual</i> Default is \msg.
DBMONEY	Specifies the end-user format for MONEY values so that they can conform with various international and local monetary conventions.	<i>IBM Informix Guide to SQL: Reference</i> <i>IBM Informix GLS Programmer's Manual</i> 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>	<i>IBM Informix ESQL/C Programmer's Manual</i>
DBNLS	Specifies whether an application can access NLS features. <i>Provided for backward compatibility with NLS products.</i>	<i>IBM Informix ESQL/C Programmer's Manual</i> Default is n.

Environment Variable	Purpose	Manual Reference and Possible Values
DBPATH	Identifies the database servers that contain databases that the application accesses.	<i>IBM Informix Guide to SQL: Reference</i>
DBSS2	Maximum size is four characters. Provided for backward compatibility with ALS products.	<i>IBM Informix ESQL/C Programmer's Manual</i> Values: 0x00-0xff or 0-255
DBSS3	Maximum size is four characters. Provided for backward compatibility with ALS products.	<i>IBM Informix ESQL/C Programmer's Manual</i> Values: 0x00-0xff or 0-255
DBTEMP	Specifies the directory on the client computer that the client processor uses to store temporary files (also called swap files).	<i>IBM Informix Guide to SQL: Reference</i> Default is \tmp.
DBTIME	Specifies the end-user format for DATETIME values so that they can conform with various international date conventions. GL_DATETIME is recommended for 7.2 ESQL/C applications. Provided for backward compatibility with pre-7.2 products.	<i>IBM Informix Guide to SQL: Reference</i> <i>IBM Informix GLS Programmer's Manual</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.	<i>IBM Informix Guide to SQL: Reference</i> Default is n.
ESQLMF	Indicates whether the ESQL/C processor automatically invokes the ESQL/C multibyte filter (<i>value</i> =1 and CC8BITLEVEL<3, or not <i>value</i> =0).	<i>IBM Informix GLS Programmer's Manual</i>
FET_BUF_SIZE	Overrides the default size of the fetch buffer.	<i>IBM Informix Guide to SQL: Reference</i> Any valid buffer size, in bytes. Default value depends on row size.
GL_DATE	Specifies a customized end-user format for DATE values.	<i>IBM Informix GLS Programmer's Manual</i>

Environment Variable	Purpose	Manual Reference and Possible Values
GL_DATETIME	Specifies a customized end-user format for DATETIME values.	<i>IBM Informix GLS Programmer's Manual</i>
INFORMIXCON-RETRY	Specifies the maximum number of additional connection attempts made to a database server in the time limit that CONTIME specifies.	<i>IBM Informix Guide to SQL: Reference</i> Default is 1.
INFORMIX-CONTIME	Specifies the number of seconds an SQL CONNECT statement continues to try to establish a connection before it generates an error.	<i>IBM Informix Guide to SQL: Reference</i> Default is 15.
INFORMIXDIR	Identifies the location of the client programs, library files, message files, header files, and other IBM Informix software components.	<i>IBM Informix Guide to SQL: Reference</i> Default is C:\INFORMIX.
INFORMIXSERVER	Identifies the default database server.	<i>IBM Informix Guide to SQL: Reference</i>
INFORMIXSQL-HOSTS	Specifies the name of the computer on which the central registry resides.	<i>IBM Informix Guide to SQL: Reference</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>	<i>IBM Informix ESQ/C Programmer's Manual</i> Default is c.
LC_COLLATE	Specifies a collation or sort sequence for data in NCHAR and NVARCHAR columns of an NLS database. Provided for backward compatibility with NLS products.	<i>IBM Informix ESQ/C Programmer's Manual</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. Provided for backward compatibility with NLS products.	<i>IBM Informix ESQ/C Programmer's Manual</i> Default is the value that LANG specifies.

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Environment Variable	Purpose	Manual Reference and Possible Values
LC_MONETARY	Specifies the end-user format for MONEY values in an NLS database. Provided for backward compatibility with NLS products.	<i>IBM Informix ESQL/C Programmer's Manual</i> Default is the value that LANG specifies.
LC_NUMERIC	Specifies the end-user format for numeric values in an NLS database. Provided for backward compatibility with NLS products.	<i>IBM Informix ESQL/C Programmer's Manual</i> Default is the value that LANG specifies.
LC_TIME	Specifies the end-user format for DATE and DATETIME values in an NLS database. Provided for backward compatibility with NLS products.	<i>IBM Informix ESQL/C Programmer's Manual</i> Default is the value that LANG specifies.
NODEFDAC	Allows default table privileges for PUBLIC when a new table is created in a database that is not ANSI compliant.	<i>IBM Informix ESQL/C Programmer's Manual</i> Default is to allow privileges.
OPTMSG	Enables optimized message transfers (message chaining) for all SQL statements in an application.	<i>IBM Informix Guide to SQL: Reference</i> Default is the value that LANG specifies.
OPTOFC	Enables optimize-OPEN-FETCH-CLOSE functionality in an IBM Informix ESQL/C application that uses DECLARE and OPEN statements to execute a cursor.	<i>IBM Informix Guide to SQL: Reference</i> Default is the value that LANG specifies.
TMP	Can be used to change the location temporary space directory used during installation. This is useful if there is not enough space in the default /tmp directory.	Any valid path.

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Use a set of environment variables 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, set the **INFORMIXSERVER** environment variable to a valid database server name. Overrides affect only that database server.

Client SDK, Version 2.81, supports the following WIN32 override environment variables. For more information on these environment variables, see the *IBM Informix ESQL/C Programmer's Manual*.

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

Distribute Your IBM Informix Client Applications

Windows

This appendix discusses the technical and legal requirements you must observe when you distribute applications created using IBM Informix client APIs (such as IBM Informix ESQL/C and IBM Informix ODBC Driver) on Windows platforms. 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 IBM 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.

Distribute IBM Informix Client Applications and Components

When you distribute a client application that you developed using an IBM Informix client API, you might 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
IBM Informix Client SDK	IBM Informix Connect
IBM Informix ESQL/C	IBM Informix Connect
IBM Informix ODBC Driver	IBM Informix Connect
IBM Informix Object Interface for C++	IBM Informix Connect
IBM Informix OLE DB Provider	IBM Informix Connect (including MDAC, obtained by recording a custom installation)
DataBlade API	IBM Informix Connect

Client Runtime Component Redistribution Guidelines

You can redistribute Informix runtime components when your client application is installed in the following two ways:

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

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



To redistribute Informix client runtime components, 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)

For details about how to combine the installation of Informix client runtime components with the installation of your client application, refer to [“Create the Installation Script” on page A-13](#) and [“Create Your Client Application Installation Program” on page A-15](#).

IBM Informix Client Application Distribution Options

The following sections explain your options for distributing your IBM Informix client application. These sections describe the agreements you must make with IBM to acquire the legal rights to redistribute Informix client runtime components with your application. For details on how to establish such a relationship with IBM, call IBM 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 IBM and install them themselves. Refer to page A-5 .	None
You ship the required components with your client application; your customer installs them. Refer to page A-6 .	Redistribution agreement

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Option	Agreement Required
You ship required components on the same CD as your client application; your customer installs them. Refer to page A-8 .	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-10 .	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-12 .	Multiuser license (no special agreement); Distribution limited to number of licensed users

(2 of 2)

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

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

The installation documentation for your application must clearly tell your customers that they are responsible for ordering IBM Informix Connect from IBM Informix and installing it themselves. List the versions of IBM Informix Connect that you tested with the application. The installation documentation for your application must also supply the following information so your customer can complete the installation of IBM Informix Connect:

- Installation option: typical, compact, or custom. If customers need to use the custom option, explain which components they must install.
- Destination directory
- Which directory to set as \$INFORMIXDIR

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

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

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

In the installation documentation for your application, you must clearly state the customer’s responsibility for installing the version of IBM Informix Connect supplied with the application. Supply customers with the following information so that they can install IBM Informix Connect:

- 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 IBM Informix Connect with the application distribution.
Ease of Installation	Your customer must separately install IBM Informix Connect; customer might already have the correct version of IBM Informix Connect installed.
Customer Cost	Your customers can purchase technical support from IBM.

(1 of 2)

Category	Comment
Version Compatibility	<p>IBM might ship a version other than the version you tested your application with.</p> <p>Risks:</p> <p>Earlier version: the application might not work.</p> <p>Later version: risk unknown because the combination of application and IBM Informix Connect has not been tested. IBM 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 support for each specific customer (you must supply IBM with customer name) at the time of ordering product and license agreements from IBM.■ You ask your customers to order technical support from IBM.

(2 of 2)

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

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

The application installation documentation must clearly state the customer’s responsibility for installing the version of IBM Informix Connect shipped with the application. Supply the customers with the following information so that they can complete the installation of IBM Informix Connect:

- Where to find the IBM Informix Connect **setup.exe** file (either on its own CD or in an IBM Informix Connect directory on the application CD)
- 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 IBM Informix Connect with the application distribution.
Ease of Installation	Your customer must separately install IBM Informix Connect; customer might already have the correct version of IBM Informix Connect installed.
Customer Cost	Your customers can purchase technical support from IBM.

(1 of 2)

Category	Comment
Version Compatibility	<p>IBM might ship a version other than the version you tested your application with.</p> <p>Risks:</p> <p>Earlier version: the application might not work.</p> <p>Later version: risk unknown because the combination of application and IBM Informix Connect has not been tested. IBM 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 IBM Informix Connect support for each specific customer (you must supply IBM with customer name) at the time of ordering product and license agreements from IBM.■ You ask your customers to order technical support from IBM.

(2 of 2)

You ship IBM 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 in blocks or individually at point of sale. For details on how to establish such a relationship with Informix, call IBM Sales at 1-800-331-1763.

Record each IBM Informix Connect installation. For details about recording an installation, refer to [“Install Informix C and C++ Client Runtime Components” on page A-12](#).

Also supply the customer with the license agreement.

Category	Comment
Redistribution Effort	Must embed IBM Informix Connect install into the application install.
Ease of Installation	IBM Informix Connect gets installed automatically for the customer.
Customer Cost	Technical support can be purchased.

(1 of 2)

Category	Comment
Version Compatibility	<p>IBM might ship a version other than the version you tested your application with.</p> <p>Risks:</p> <p>Earlier version: the application might not work.</p> <p>Later version: risk unknown because the combination of application and IBM Informix Connect has not been tested. IBM 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 IBM Informix Connect support for each specific customer (you must supply IBM with customer name) at the time of ordering product and license agreements from IBM.■ You ask your customers to order technical support from IBM.

(2 of 2)

For internal use: you ship IBM 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 IBM Informix Connect or a redistribution contract or license with IBM. You agree to keep track of how many users are on the IBM Informix Connect license and to add users to this license when needed.

Record each IBM Informix Connect installation. For details about recording an installation, refer to [“Install Informix C and C++ Client Runtime Components” on page A-12.](#)

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

Install Informix C and C++ Client Runtime Components

This section describes how to install 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

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.

Create 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, 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 IBM 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 **Windows** directory.

5. Install Client SDK or IBM Informix Connect, entering the options you want your customers to use with your client application.

For details about installing Client SDK, see [“Install the Products” on page 1-7](#).

Create the Client Configuration File

When your customers install the application, it uses the client configuration file to invoke **Setnet32**. To create the client configuration file, use the **Setnet32** utility to record the desired client configuration.

To record the Setnet32 configuration

1. Launch **Setnet32** and specify the client computer settings that your application requires. For details, see [“Set the Environment Variables” on page 1-10](#).
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 a **.nfx** file extension.

Create 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.

Install Client Runtime Components

To install these components, your client application installation program invokes the installation script you created as described in [“Create the Installation Script” on page A-13](#). When your customer installs your application, the Informix components are installed silently; that is, no installation dialog boxes 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, see [“Verify the Results of Silent Installation” on page A-16](#).

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).

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 IBM-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, see [“Verify the Results of Silent Installation” on page A-16](#).

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



Configure the Client Computer

To configure the customer's computer to run with your IBM 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.

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.

Verify 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 the following 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 that indicates whether the silent installation succeeded. The following table lists the result codes that **InstallShield** returns.

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

An example of a log file for a successful silent installation follows:

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

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

```
[ResponseResult]
ResultCode=0
```

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