IBM Informix

Version 3.50

IBM

GC23-9413-02

IBM Informix Client Products Installation Guide

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Contents

Introduction

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

About this Publication

This publication explains how to install IBM® Informix® Client Software Development Kit (Client SDK), Version 3.50, and IBM Informix Connect, Version 3.50, on computers that use UNIX®, Linux®, Mac OS X, and Windows®. This publication is written for database administrators or software engineers who are installing IBM Informix client products, and assumes that you are familiar with the operating procedures of your computer and with your operating systems.

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 Informix Connect to access database servers. Informix Connect is a runtime connectivity product composed of runtime libraries that are included in Client SDK.

Table 1. Client SDK Components

Component	Description
IBM Informix .NET Provider (Windows only)	The IBM Informix .NET Provider is a .NET assembly that lets .NET applications access and manipulate data in IBM Informix databases. It does this by implementing several interfaces in the Microsoft® .NET Framework that are used to access data from a database. Using the IBM Informix .NET Provider is more efficient than accessing the an IBM Informix database through either of these two methods: • Using the Microsoft .NET Framework Data Provider for ODBC along with the IBM Informix ODBC Driver • Using the Microsoft .NET Framework Data Provider for OLE DB along with the IBM Informix OLE DB Provider For more information, see *IBM Informix .NET Provider Reference Guide*.
IBM Database Add-Ins for Visual Studio 2003 and 2005	A collection of features that integrate into your Visual Studio development environment so that you can work with IDS and DB2® servers to develop procedures, functions, and objects. These database add-ins operate on Windows only. For more information, see *IBM Informix .NET Provider Reference Guide*.
Documentation Viewer	The viewer lets you see the release and machine notes in text format.
Informix ESQL/C with XA support	An SQL embedded-language product that is used to create custom C applications. For more information, see the *IBM Informix ESQL/C Programmer's Manual*.

Table 1. Client SDK Components (continued)

Component	Description
The finderr utility on UNIX systems and the Informix® Error Messages utility on Windows systems	These utilities enable you to obtain information about IBM Informix-specific error messages, including corrective actions.
The Global Security Kit	This kit provides the iKeyman utility, which you can use create keystores and manage digital certificates. The iKeyman utility is a Java™ utility that requires the Java Cryptography Extension (JCE) security packages to be installed. This kit is not available for Mac OS X. For information, see the *IBM Global Security Kit Secure Sockets Layer Introduction* and *iKeyman User's Guide*.
IBM Informix Object Interface for C++	A C++ interface to develop object-oriented client applications for use with all IBM Informix database servers and client-side value objects for Dynamic Server. For more information, see the *IBM Informix Object Interface for C++ Programmer's Guide*.
	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 *IBM Informix ESQL/C Programmer's Manual* and the *IBM Informix GLS User's GuideIBM Informix GLS User's Guide*.
IBM Informix ODBC Driver with MTS support	An IBM 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 *IBM Informix ODBC Driver Programmer's Manual*.
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 *IBM Informix OLE DB Provider Programmer's Guide*.
The ILogin utility (Windows only)	The ILogin Demo utility lets you quickly test the connection to IDS. Click to **File → Run** then enter the IDS connection parameters. You must create the target database before you connect to it.
Password CSM	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 *IBM Informix Dynamic Server Administrator's Guide*.

Windows only: Client SDK and IBM Informix Connect packages include the Setnet32 utility for configuring client products. Each package might include online help, example programs, and support programs.

Software Dependencies (Linux)

If you have Linux installed on your computer, this publication assumes that RPM Package Manager (RPM) is also installed. Most current Linux distributions include RPM. For more information about RPM or to obtain a copy of RPM, see the RPM Web site at http://www.rpm.org.

Additional Documentation

You can view, search, and print all of the product documentation from the IBM Informix Dynamic Server information center on the Web at http://publib.boulder.ibm.com/infocenter/idshelp/v115/index.jsp.

For additional documentation about IBM Informix Dynamic Server and related products, including release notes, machine notes, and documentation notes, go to the online product library page at http://www.ibm.com/software/data/informix/pubs/library/. Alternatively, you can access or install the product documentation from the Quick Start CD that is shipped with the product.

Compliance with Industry Standards

The American National Standards Institute (ANSI) and the International Organization of Standardization (ISO) have jointly established a set of industry standards for the Structured Query Language (SQL). IBM Informix SQL-based products are fully compliant with SQL-92 Entry Level (published as ANSI X3.135-1992), which is identical to ISO 9075:1992. In addition, many features of IBM Informix database servers comply with the SQL-92 Intermediate and Full Level and X/Open SQL Common Applications Environment (CAE) standards.

How to Provide Documentation Feedback

You are encouraged to send your comments about IBM Informix user documentation by using one of the following methods:

- Send e-mail to docinf@us.ibm.com.
- Go to the Information Center at http://publib.boulder.ibm.com/infocenter/idshelp/v115/index.jsp and open the topic that you want to comment on. Click the feedback link at the bottom of the page, fill out the form, and submit your feedback.

Feedback from both methods is monitored by those who maintain the user documentation of Dynamic Server. The feedback methods are reserved for reporting errors and omissions in our documentation. For immediate help with a technical problem, contact IBM Technical Support. For instructions, see the IBM Informix Technical Support Web site at http://www.ibm.com/planetwide/.

We appreciate your suggestions.

Part 1. Installing Client Products on UNIX, Linux, and Mac OS X

This section discusses preparing to install IBM Informix client products on UNIX, Linux, and Mac OS X systems, explains the installation processes, and discusses post-installation tasks and how to uninstall these products.

Chapter 1. Preparing to Install Client SDK and IBM Informix Connect Connect on UNIX, Linux, and Mac OS X Systems

About Installing Client SDK and IBM Informix Connect

Client SDK and Informix Connect have numerous installation options on most operating systems.

Use the following methods to install IBM Informix Client Software Development Kit (Client SDK), Version 3.50 and IBM Informix Connect, Version 3.50 on UNIX or Linux:

- installation application
- command line
- Dynamic Server installation program

For Mac OS X, the only way to install the products is with an installation application.

Before you install Client SDK or Informix Connect or connect a client application to a database server, complete the preparation steps applicable to your host computer and operating system.

Also check individual product manuals for installation and configuration tasks that this publication does not cover.

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

Determine Location

Take note of media location, install location, and (optionally) Java location.

Media Location

The directory where the media files reside is called **$MEDIADIR**. This can be on a disk device, such as a CD, or a directory on a file server where the downloaded source file is uncompressed.

Installation Location

You can install Client SDK or IBM Informix Connect on the computer on which your applications run.

IBM Informix documentation refers to the installation directory as **$INFORMIXDIR**. If the environment variable **INFORMIXDIR** is set, the default installation location is the setting in this variable. When you install Client SDK and IBM Informix Connect with the installation application, you can accept the default directory or choose your own directory.

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

> **Attention:**
> * The **$INFORMIXDIR** path, including path separators, should not exceed 200 characters.
> * Client SDK does not support RPM installations.

Java Location

An acceptable JVM found in the $PATH is used before the bundled JVM. RHEL FSF Java is not supported. A minimum Sun JRE is 1.4.2 or later.

Check Online Files

The product files include online informational files that answer specific technical questions. These files are installed in the directory $MEDIADIR/doc.

Determine Installation Order

Install the database server and client products in separate directories to avoid overwriting common files and for easier installation and problem solving. Continue to the next topic if you choose to follow this recommendation.

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.

Table 1-1. Order for Installing Client Products and Server Products in the Same Directory

Database Server Versions	Versions of Client SDK and IBM Informix Connect			
	2.7 and prior	2.8x	2.9x	3.x
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
8.5x	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	Client products first	Database server first	Database server first	Database server first
10.0	Client products first	Database server first	Database server first	Database server first
11.x	Client products first	Database server first	Database server first	Database server first

The following table describes database server versions and their corresponding names.

Table 1-2. Database Server Version Numbers and Names

Database Server Version Number	Database Server Name
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 (IDS)
8.5x	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, 9.3, 9.4, 10.0, 11.x	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*.

Prior to the Client SDK, Version 2.01 release, clients and servers shared common message files. In later versions, the common message files for the client have new names. For more information about 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.

Attention: If you 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.

Prepare the Environment

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

About this task

To find out if you need to apply patches to your computer, see the machine notes.

Creating the Group informix and User informix

Create the group **informix** and user **informix** if they do not already exist, unless you plan to install on Mac OS X.

About this task

If you will be installing on Mac OS X, the installation application for this operating system automatically creates group and user **informix** and so you can skip the following task.

To create the group informix and user informix:

1. Log in as user **root**.
2. Create the group **informix** using the **groupadd** utility followed by the name of the group, in this format:

   ```
   groupadd n informix
   ```

   where *n* is an unused group ID greater than 100.

   For AIX®, use the **mkgroup** command instead of **groupadd**.
3. Create the user **informix** using the **useradd** utility followed by the group (**informix**) and user name (**informix**) in this format:

   ```
   useradd -u n -g informix informix
   ```
4. Create a password for the user **informix**. To do this, use the **passwd** utility and the following command:

   ```
   passwd informix
   ```
5. If you use a network, propagate the new user name to all the systems on the network that must recognize the user **informix**. For example, on some systems, you (or the network administrator) must run the **ypmake** utility. Do not add members to the group **informix** unless you want those members to have administrative access to the database server.

Configure Your Database Server

Before you connect a client application to a database server, configure your database server environment.

About this task

For more information, see your *IBM Informix Administrator's Guide* and database server installation guide.

Load Product Files (UNIX and Linux)

As the last step before you install, you must load the product files.

Before you begin

For information about loading vendor product files, see individual vendor documentation.

About this task

To load the product files on UNIX and Linux:

1. Confirm that you are logged in as user **root**.
2. Access the installer directly from a CD.
3. To access the installer from a fileserver, enter the appropriate **tar**, **cpio**, or other command:
   - On some UNIX platforms you can use the following **tar** command to place the installer in the current directory:

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

     ```
     cpio -icdumvB < filename
     ```

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

Extracting Product Files (Mac OS X)

If you obtained the installation media for Mac OS X by downloading the files, then you must extract the product from the compressed .dmg file before you can run the install application.

About this task

The install application runs when you open the clients package file. If you have received the media on a disk, then you do not need to extract product files to access the file. However, media distributed via Internet downloading is compressed and needs to be extracted.

To extract the product files on Mac OS X:

Open the self-extracting .dmg file to have access to the clients installation package file.

Chapter 2. Installing Client SDK and IBM Informix Connect on UNIX and Linux Systems

Installation Methods

When you install client products on UNIX and Linux systems, you have several options.

Your options are:

- Installing as part of the IBM Informix Dynamic Server installation application
- Installing with the client installation application
- Installing using extraction with command-line script
- Installing by invoking the JAR file directly

Depending on the installation method you choose, you need differing amounts of disk space, as describe in the following table.

Table 2-1. Installation Medium and Disk Space Required

Installation Medium and Method	Products and Amount of Disk Space Required

Install from CD directly using the installation application.	**Informix Connect**
	        Less than 165 MB
	
	Client SDK
	        Less than 190 MB

Download the installation program files to the installation machine.	**Informix Connect**
	        Less than 315 MB
	
	Client SDK
	        Less than 340 MB

Using the extraction option and then running command-line script.	**Informix Connect**
	        Less than 190 MB
	
	Client SDK
	        Less than 215 MB

Using the extraction option and then running command-line script on Linux.	**Informix Connect**
	        290-340 MB
	
	Client SDK
	        315-365 MB

Attention: Ensure that you have 170 MB free space available in your /tmp directory before installation if you are using the JRE that is part of the installation application. If you are using a JRE already present on the host computer, you need less than 1 MB. This space requirement is included in the total disk space requirements listed in the above table.

Do not remove your /tmp directory after installation. The /tmp directory is used during both the install and uninstall to store and manage files. Removing the directory may corrupt your setup and require a complete product reinstallation.

Client SDK and Informix Connect as Part of the Informix Dynamic Server Installation Application

You can install Client SDK or Informix Connect as part of the IBM Informix Dynamic Server installation application.

For information on this installation method, see the *IBM Informix Dynamic Server Installation Guide for UNIX, Linux, and Mac OS X* or the *Quick Beginnings for IBM Informix Dynamic Server Express Edition*.

IBM Informix Dynamic Server and Informix Connect with the Client Installation Application

This section describes how to install with the default (console) installation and GUI installations.

For other methods, see "Alternative Installation Methods" on page 2-4.

Installation Syntax

The following syntax diagram illustrates the installation options.
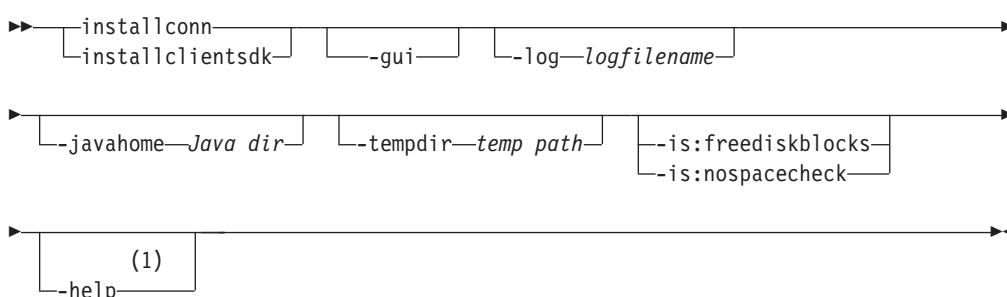
Notes:

1   No other options are valid with this option.

Table 2-2. Syntax Elements

Element	Purpose	Restrictions
Java dir	Specifies the JRE on the host computer to use during installation instead of the JRE provided by the installation program	The JRE must be version 1.4.2 or higher.
logfilename	Specifies a non-default log filename	None
temp path	Specifies the path to temporary directory. If you receive an error during file extraction that there is not enough space in the /tmp directory, set the **-tempdir** option to a different temporary directory.	None

The following table describes the installation application options.

Table 2-3. Installation Options

Option	Meaning
installconn	Install Informix Connect only

Table 2-3. Installation Options (continued)

Option	Meaning
installclientsdk	Install IBM Informix Dynamic Server only
-gui	Start the installation program in GUI mode
-log	Log installation program progress
-javahome	Use specified JRE. To force the installation program to use the bundled JRE and ignore any local JREs, use the `-javahome none` argument.
-tempdir	Use specified temporary directory.
-is:freediskblocks	Use to determine if there is adequate space for the product installation files prior to starting the installation.
-is:nospacecheck	Use to prevent the installation program from checking if there is adequate space for product installation files. Use with caution: if there is not enough space to extract the temporary files, the installation program will fail.
-help	Display list of supported options and their functions

Installing in Console Mode

The following syntax diagram illustrates the installation options.

Note: When installing in console mode, especially over a network, you might have to wait a few moments for the files to extract.

To install IBM Informix Dynamic Server or IBM Informix Connect in console mode:

1. As **root**, execute the command for the product you need to install, as shown in "Installation Syntax" on page 2-2:

   ```
   ./installclientsdk
   ```

   or

   ```
   ./installconn
   ```

   The installation program begins in console mode.
2. Enter 1 to continue the installation procedure.

   The Software License Agreement appears.
3. Read the license agreement and accept the terms; then enter 1 to continue the installation procedure.
4. Accept the default directory, or choose a different directory and enter 1 to continue.
5. Choose Typical for the suggested setups or choose Custom for more configuration options.
6. Enter 1 to continue the installation procedure.

   The screen will show summary information including directory, components installed, and total size.
7. When the installation is complete, enter 3 to finish and exit the wizard.

Installing in GUI Mode

The following procedure shows how to install Client SDK and IBM Informix Connect in GUI mode.

Requirement: Installing in GUI mode requires an X Windows environment.

Note: When installing in GUI mode, especially over a network, you might have to wait a few moments for the files to extract.

To install the Client SDK or Informix Connect in GUI mode:

1. As **root**, execute the command with for the product you need to install with the **-gui** option, as shown in "Installation Syntax" on page 2-2:

   ```
   installclientsdk -gui
   ```

   or

   ```
   installconn -gui
   ```

   Issuing either of these commands will launch the installation program in GUI mode.
2. Click **Next** to progress through the screens.
3. Read the license agreement and accept the terms; then click **Next** to continue.
4. When prompted, accept the default directory or specify a different directory.
5. Check the items you want to select.
6. Click **Next** to continue installing.

Using the Log Files

You can find information that will help identify and resolve installation errors in two different types of log files.

Find the log files at the following locations:
- Installation-related log files:
  - For successful installations:
    - Client SDK: $INFORMIXDIR/tmp/csdk-*version*-install.log
    - Informix Connect: $INFORMIXDIR/tmp/iconnect-*version*-install.log
  - For unsuccessful installations:
    - Client SDK: *tempdir*/informix/csdk-*version*-install.log
    - Informix Connect: *tempdir*/informix/iconnect-*version*-install.log
- Product log files:
  - Client SDK: $INFORMIXDIR/tmp/csdklog.txt
  - Informix Connect: $INFORMIXDIR/tmp/connlog.txt

Alternative Installation Methods

The following table compares four alternative methods for installing Client SDK and Informix Connect. The table uses a Client SDK installation example for **Format of Command**; for an Informix Connect installation, substitute the corresponding Informix Connect command.

Table 2-4. Alternative Installation Methods

Installation Method	Format of Command	Products Installed	Reasons to Use	Restrictions
Silent installation	`./installclientsdk -silent -options` *`mysilent.ini`*	Use to install Client SDK or Informix Connect, with product-specific command	Uses preset installation file (***.ini**) that can be saved and reused as a template	Install as **root** user. Unless you specify `-acceptlicense=yes` on the command line, or set the `-W lafiles.license Accepted` property to the value of `true`, the installation will not continue.
Extraction with command-line script	`./installclientsdk -legacy`	Use to install Client SDK or Informix Connect individually.	You use the extraction with command-line installation alternative when you want to install the product to redistribute it or when you want to save space or time on subsequent installations.\n\nIn addition, you can avoid using any JRE, either local or bundled.	None
Invoking JAR file directly	`java -cp csdk.jar run`	Use to install Client SDK or Informix Connect, with product-specific command	Provides a faster installation method	To use this installation option, you must have a version of JRE 1.32 or higher.

Installing in Silent Mode

You can install Client SDK and Informix Connect with no user interaction, after editing the properties in the .ini file. The following syntax diagram illustrates the installation options for the silent installation.

Silent Installation Syntax

```
►►──┬─installconn──────┬──-silent──┬─-acceptlicense=yes──────┬──────────►
    └─installclientsdk─┘           └─-options─optionfile─────┘

►──┬──────────────────────┬──┬───────────────────────┬──┬────────────────────┬──►
   └─-log─logfilename──────┘  └─-javahome─Java dir────┘  └─-tempdir─temp path─┘

►──┬─--is:freediskblocks──┬──┬─────────┬──────────────────────────────────────►◄
   └─--is:nospacecheck────┘  │   (1)   │
                             └─-help───┘
```
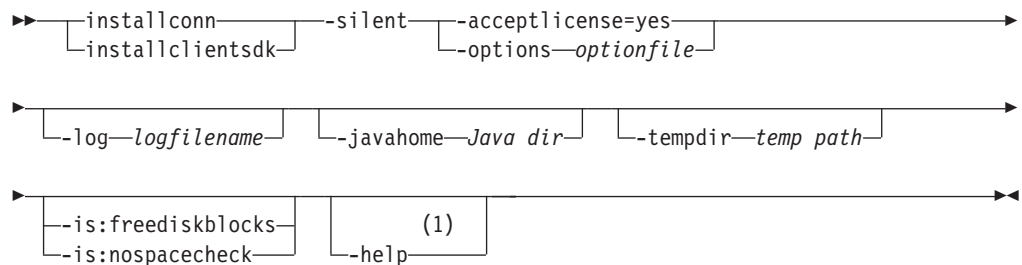
Notes:

1   No other options are valid with this option.

Table 2-5. Elements for Silent Installation Options

Element	Purpose	Restrictions
optionfile	Specifies file name of .ini file to preset installation properties	None
Java dir	Specifies the JRE on the host computer to use during installation instead of the JRE provided by the installation program	The JRE must be version 1.4.2 or higher.
logfilename	Specifies a non-default log filename	None
temp path	Specifies path to temporary directory. If you receive an error during file extraction that there is not enough space in the /tmp directory, set the **-tempdir** option to a different temporary directory.	None

The following table describes the silent installation options.

Table 2-6. Silent Installation Options

Option	Meaning
-silent	Set the installation program to silent mode
-acceptlicense=yes	Accept license
-options	Provide location of .ini where you can preset installation properties
installconn	Install Informix Connect only
installclientsdk	Install Client SDK only
-log	Log installation program progress
-javahome	Use specified JRE. To force the installation program to use the bundled JRE and ignore any local JREs, use the `-javahome none` argument.
-tempdir	Point to temporary directory other than /tmp
-is:freediskblocks	Use to determine if there is adequate space for the product installation files prior to starting the installation.
-is:nospacecheck	Use to prevent the installation program from checking if there is adequate space for product installation files. Use with caution: If there is not enough space to extract the temporary files, the installation program will fail.
-help	Display list of supported options and their functions

To perform a silent installation of Client SDK, you can modify the values in the csdk.ini file to set properties or accept default values.

To perform a silent installation of Informix Connect, you can modify the values in the conn.ini file or accept default values.

The following table describes these properties.

Table 2-7. Properties for silent.ini file

Properties	Possible Values	Description
`-P installLocation=`	Valid directory; for example: `/usr/informix` (default)	Specifies the directory into which the product will be installed

Table 2-7. Properties for silent.ini file (continued)

Properties	Possible Values	Description
-W setupTypes.selectedSetupTypeId=	typical (default) custom	Specifies setup type
-P csdk.active=	true false (default)	Indicates whether product or features is selected for installation. Only either Informix Connect or the full Client SDK can be installed at once. The cannot both be installed into the same location.
-P iconnect.active=	true (default) false	Indicates whether product or features is selected for installation. Only either Informix Connect or the full Client SDK can be installed at once.
-SP CSDK/UNIX/csdk.jar clientfeature.active=	true (default) false	Indicates whether product or features is selected for installation. Only applicable for a Client SDK installation with the Custom option.
-P messagesfeature.active=	true (default) false	Indicates whether the error messages feature is selected for installation
-P glsfeature.active=	true (default) false	Indicates whether the error GLS feature is selected for installation
-G licenseAccepted	true false	Accepts license. Value of false stops the installation process. No value is needed if you accept the license at the command line. You can find the license in **$MEDIADIR/doc/license**.

Performing a Silent Installation

Follow these steps to perform a silent installation.

About this task

To perform a silent installation:

1. Copy csdk.ini or conn.ini to any readable location and rename: myclient.ini.
2. Edit the *.ini file in your directory.

   Use this file to configure the install with the options specified. If you do not edit these values or specify the *.ini file when you specify a silent install, the installation program will use default values.
3. As the **root** user, execute the silent installation of Client SDK or Informix Connect in the following way:

   ```
   installclientsdk -silent -options myclient.ini
   ```

   or execute the silent installation of Informix Connect in the following way:

   ```
   installconn -silent -options myclient.ini
   ```

Installing Using Extraction With Command-Line Script

As an alternative to using the installation programs, you can generate script-based installable media, and you can later install Client SDK and Informix Connect by using command-line options. The extraction mode uses the installation program to extract the media and provide the Software License Agreement. After the extraction, when you are ready to install the product, you must run the command-line installation script.

Extraction Syntax

```
►►──┬──installconn──────┬──-legacy────────────────────────────────────────►
    └──installclientsdk─┘         └──-gui──┘   └──-log──logfilename──┘

►──────┬──-javahome──Java dir──┬──┬──-tempdir──temp path──┬──┬──-is:freediskblocks──┬──►◄
       └──────────────────────┘  └──────────────────────┘  └──-is:nospacecheck──────┘
```
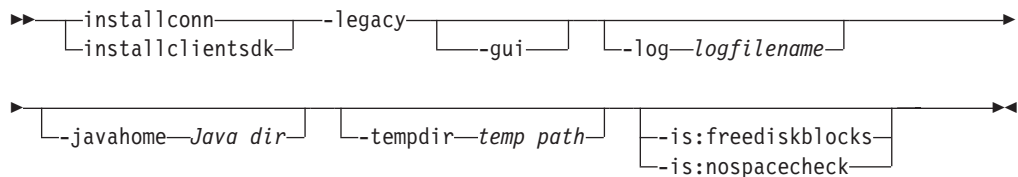
The following table explains the syntax elements.

Table 2-8. Syntax Elements

Element	Purpose	Restrictions
Java dir	Specifies the JRE on the host computer to use during installation instead of the JRE provided by the installation program	The JRE must be version 1.4.2 or higher.
logfilename	Specifies a non-default log filename	None
temp path	Specifies the path to temporary directory. If you receive an error during file extraction that there is not enough space in the /tmp directory, set the **-tempdir** option to a different temporary directory.	None

The following table describes the extraction options.

Table 2-9. Installation Options

Option	Meaning
installconn	Extract Informix Connect only
installclientsdk	Extract Client SDK only
-gui	Start the extraction in GUI mode
-log	Log installation program progress
-javahome	Use specified JRE. To force the installation program to use the bundled JRE and ignore any local JREs, use the `-javahome none` argument.
-tempdir	Point to temporary directory other than /tmp
-is:freediskblocks	Use to determine if there is adequate space for the product installation files prior to starting the extraction.
-is:nospacecheck	Use to prevent the installation program from checking if there is adequate space for product installation files. Use with caution: If there is not enough space to extract the temporary files, the extraction program will fail.
-help	Display list of supported options and their functions

No installation-provided JRE and no uninstaller will be present after this installation.

Use this option if you want to install the products in a different location or redistribute it.

Installing Client SDK and IBM Informix Connect in Extraction with Command-Line Mode

Use these instructions to install Client SDK and IBM Informix Connect in extraction with command-line mode.

About this task

To install Client SDK and IBM Informix Connect in extraction with command-line mode:

1. As **root**, run one of the following options to extract the product files:

   ```
   ./installclientsdk -legacy
   ```

   or

   ```
   ./installconn -legacy
   ```

   The installation program is used for the extraction.

   You can use the `-legacy` argument in default console mode or GUI mode, but not silent installation mode. The following instructions are for the default console mode.

2. Enter 1 to progress through the installation screens.

   The Software License Agreement is displayed.

3. After you read the license agreement, enter 1 to accept the terms.

4. Specify an installation directory or accept the default directory.

   The client product and installation files are extracted.

5. Select Finish to exit the wizard.

   Installable media are now available. You can copy, archive, and distribute the files at this point. You can then install Client SDK or IBM Informix Connect without using the installation program or Java.

6. To install Client SDK or IBM Informix Connect, set **$INFORMIXDIR** to the destination directory of the separately installable product and, as **root** user, run the installation script:

   ```
   ./installclientsdk
   ```

   or

   ```
   ./installconn
   ```

What to do next

Note: This instruction differs from the instruction for the pre-2.90 command-line installation, which you had to run as the **informix** user.

Installing by Invoking the JAR File Directly

The following syntax diagram illustrates the installation options you can use when the Client SDK or Informix Connect .jar file is invoked directly. To use this installation option, you must have a version of JRE 1.32 or higher.

Direct JAR Invocation Installation Syntax

```
►►──java -cp──┬──CSDK/UNIX/csdk.jar:ICONNECT/UNIX/conn.jar:──┬──run──────────────────►
              ├──relative_directory/csdk.jar────────────────┤
              └──relative_directory/conn.jar────────────────┘

►──┬──────────────────────────┬──┬──────────────────────────────┬──────────────────►
   └──-P legacy.active=true──┘  └──-p logFile──logfilename──┘

                               ┌──-swing───────────────────────────────┐
►──┬────────────────────────┬──┴──-silent──┬──-acceptlicense=yes──┬──┴──────────◄◄
   ├──-is:freediskblocks──┤               └──-options──optionfile──┘
   └──-is:nospacecheck────┘
```
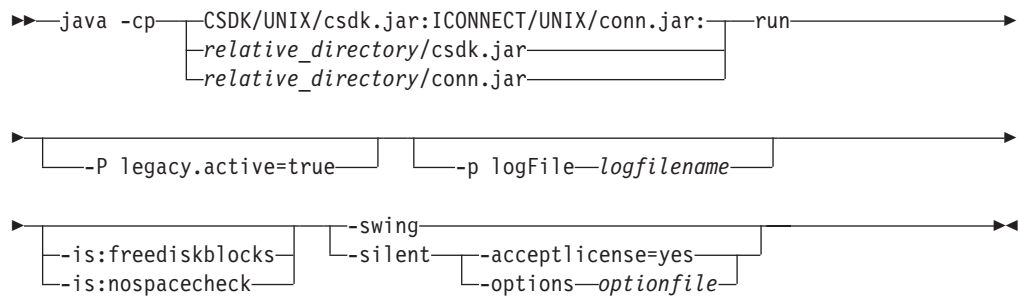
Table 2-10. Elements for the JAR-Invoked Installation Options

Element	Purpose	Restrictions
relative_directory	Specifies the path to the specified .jar file. If you execute the command from the directory where the .jar file resides, do not specify a path.	None
logfile	Specifies a non-default log file name	None
optionfile	Specifies file name of .ini file to preset installation properties	None

The following table describes the Java-invoked application options.

Table 2-11. JAR-Invoked Installation Options

Option	Meaning
csdk.jar	The installation application for Client SDK
conn.jar	The installation application for Informix Connect
-P legacy.active=true	Extract files but do not install the product
-p logfile	Log installation program progress
-is:freediskblocks	Use to determine if there is adequate space for the product installation files prior to starting the installation.
-is:nospacecheck	Use to prevent the installation program from checking if there is adequate space for product installation files. Use with caution: If there is not enough space to extract the temporary files, the installation program will fail.
-swing	Set the Java-invoked application to GUI mode
-silent	Set the Java-invoked application to silent mode
-options	Use with *optionfile*. Specifies file name of .ini file to preset installation properties

Installing Client SDK or Informix Connect by Invoking the JAR File

You can install Client SDK or Informix Connect by invoking the JAR file directly.

About this task

To install Client SDK or Informix Connect by invoking the JAR file directly:

1. Invoke Java on the installation program, using the command that corresponds to the products you want to install; for example:

```
java -cp csdk.jar run
```
You must execute this command from the directory of the **csdk.jar** file.

2. Follow the procedure for installing with the application program. For more information, see "Installing in Console Mode" on page 2-3.

Chapter 3. Installing Client SDK and Informix Connect on Mac OS X

Install IBM Informix client products on a Mac OS X computer by running the graphical-user interface (GUI) installation program.

Before you begin

Download the .dmg file for Client SDK or Informix Connect. Alternatively, you can install from the .pkg files on a CD or DVD.

You must have system administrator credentials to run the installation application.

About this task

Typical installations require the following approximate amount of disk space:
- Client SDK: 150 MB
- Informix Connect: 110 MB

The installation application automatically creates group **informix** and user **informix** if they are not on your computer. You do not need to create these group and user IDs on your host computer manually.

To install Client SDK or Informix Connect on Mac OS X:
1. You can install from a downloaded file or from a disk:
   a. Installing from a downloaded file: Open the self-extracting .dmg file, and then double-click the installer icon in the Finder window to start the installation application.
   b. Installing from a disk: Double-click the installer icon in the Finder window for either Client SDK or Informix Connect.
2. Enter the path for the installation or accept the default provided by the installation application.
3. Complete the remaining installation steps by following the text and replying to prompts in the GUI.
4. Exit the installation application after the GUI informs you installation is successful.

Chapter 4. Uninstalling Client SDK and IBM Informix Connect on UNIX, Linux, and Mac OS X Systems

Uninstalling Using the Uninstall Application

You can uninstall IBM Informix client products with an uninstall program, which you can run in different modes for most operating systems.

About this task

Use any of the appropriate console, GUI, or silent methods below to uninstall Client SDK and Informix Connect on UNIX or Linux. If you are uninstalling on Mac OS X, the only method available is documented in this topic.

Uninstalling in console (default) mode (UNIX, Linux)
About this task

To uninstall IBM Informix client products in console (default) mode:

1. From **$INFORMIXDIR**, as the **root** user, run one of the following commands:
   * `java -jar uninstall_conn/uninstall.jar`
   * `java -jar uninstall_csdk/uninstall.jar`
2. Follow the prompts to complete the uninstall.

Uninstalling in GUI mode (UNIX, Linux)
About this task

To uninstall IBM Informix client products in GUI mode on UNIX or Linux:

1. From **$INFORMIXDIR**, as the **root** user, run one of the following commands:
   * `java -jar uninstall_conn/uninstall.jar -gui`
   * `java -jar uninstall_csdk/uninstall.jar -gui`
2. Follow the prompts to complete the uninstallation.

Uninstalling in GUI mode (Mac OS X)
About this task

Note: When you uninstall Client SDK or Informix Connect, the registered IBM Informix ODBC Driver is unregistered if this registered driver is on the system. The uninstallation application also prompts you to confirm that you want to delete the user-defined **sqlhosts** file entries used by ODBC connections.

To uninstall IBM Informix client products in GUI mode on Mac OS X:

1. From **$INFORMIXDIR**, run the following command:
   * `sudo java -jar uninstall_csdk/uninstall.jar -swing`
2. Follow the prompts to complete the uninstall.

Uninstalling in silent mode (UNIX, Linux)

About this task

To uninstall IBM Informix client products in silent mode:

1. From **$INFORMIXDIR**, as the **root** user, run one of the following commands:

   - `java -jar uninstall_conn/uninstall.jar -silent`
   - `java -jar uninstall_csdk/uninstall.jar -silent`

2. No interaction is required to complete the uninstall in silent mode.

Uninstalling After Using the Extraction Application with Command-Line Script

If you have used the extraction application with command-line script to install Client SDK, and you want to uninstall the server, you must remove the IBM Informix product files manually.

About this task

To remove the files manually, run the following command from the **$INFORMIXDIR** directory as the **root** user:

`rm -rf` *productfiles*

Part 2. Installing Client Products on Windows Systems

This section discusses preparing to install IBM Informix client products on Windows systems, explains the installation processes, and discusses post-installation tasks and how to uninstall these products.

Chapter 5. Preparing to Install Client SDK and Informix Connect on Windows Systems

You install IBM Informix products on Windows systems by using 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 re-registration 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. This information can be found in the appropriateIBM Informix documentation. For example, if you use the ODBC driver manager you can read about the driver manager requirements in the *IBM Informix ODBC Driver Programmer's Manual*.

To install Client SDK or Informix Connect on Windows systems, you must have Administrator privileges.

System Requirements

The following list describes the system requirements for IBM Informix client products for Windows XP, Windows Server 2003 and Windows Vista systems.

- **Hardware**: Pentium 3 or higher microprocessor
- **RAM**: 256 megabytes
- **Hard-disk storage**: 115 megabytes

Database Server Requirements

You can use Client SDK, Version 3.50, and IBM Informix Connect, Version 3.50, on client computers that connect to IBM Informix databases. For a list of compatible IBM 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 "Setting Database Server Information" on page 7-2.

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.

Installation Location and Order

Before you install client products, verify that the installation location and the installation order is correct.

Do not install Client SDK, Version 3.50, into a directory that contains a previous version. Uninstall the previous version before you install Version 3.50 or follow the instructions in "Common Installation Problems" on page 7-5.

For more information about installation order, see "Determine Installation Order" on page 1-2

Note: Do not install a 32-bit version and a 64-bit version of the same client product on the same host computer.

Install .NET Provider

Beginning with Client SDK, Version 2.9, the .NET Provider is automatically installed when you install the Client SDK if the Microsoft .NET Framework is already installed on the system. The .NET Provider is copied and registered to the Global Assembly Cache (GAC).

About this task

Client SDK requires the full Microsoft .NET Framework SDK. Informix Connect only requires the Microsoft .NET Framework Redistributable Package.

If you do not have the .NET Framework installed, and want to install the .NET Provider, complete the following steps:

1. Choose the Custom installation.
2. Enable the .NET Provider option.

   The .NET Provider is copied to the *target dir*\bin directory, but will not register it because GAC will not be present.

Chapter 6. Installing Client SDK and Informix Connect on Windows Systems

Installing Client SDK

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

The IBM Informix Client SDK installation for Windows is based on the Windows Installer service. This service is built into 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 a product from being installed over an existing installation of the same product version. If you run the installation a second time, the service prompts you to repair, modify, or uninstall the existing product.

To install Client SDK or Informix Connect on Windows systems, you must have Administrator privileges. If you log on to Windows without specifying a domain, only the local system is checked.

Note: Do not install a 32-bit version and a 64-bit version of the same client product on the same host computer.

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

Attention: 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 program to install the products. Follow the steps below for either the Complete or the Custom option.

About this task

To install Client SDK:

1. Exit all Windows programs.
2. Load the CD for Client SDK into the CD drive.

   You can also download the network installation.
3. Read the readme.txt file in the root directory of the CD for the latest installation information.

   The installer starts automatically. The IBM Informix Client SDK Setup begins.

   If the installer does not start automatically, you can start it manually. Click **Start** ▸ **Programs** ▸ **Command Prompt** or **Start** ▸ **Run**. Type *d:***\setup** in the Run window or at the command prompt (where *d:* is the CD drive).

Alternatively, you can open Windows Explorer and double-click the setup.exe file icon. If the Windows Installer service not installed 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.

4. Click **Next**.

   The License Agreement window opens.

5. Click **Next** to accept the IBM Standard License.

   a. Click to display the terms of the license.

      The License panel detects the language that your system is using and displays the terms in that language, when available. The default language is English.

   b. When the terms are displayed in a language other than English, you can click **View In English** to view the terms in English or print the terms by clicking the **Print**.

   The Customer Information window appears and displays the default user name and organization name.

6. Click **Next** to accept the default user and organization names, or type in new values and click **Next**.

   The Setup Type window opens.

   When you install Client SDK, Visual Studio .NET 2005 integration utilities automatically start if .NET SDK 1.1 is detected by the installation application.

7. Select **Complete setup** to install all of the components into the default directory (**C:\Program Files\Informix\Client-SDK**).

   For a Custom setup, select **Custom** and click **Next**. When the Destination Folder window opens, click **Change** to modify the destination folder, and then click **Next**. When the Custom Setup window opens, unselect the features that you do not want to install and click **Next**.

   The Ready to Install the Program window opens.

8. Click **Next**.

9. Click **Install** to begin the product installation.

10. Click **Finish** to complete the installation.

Installing IBM Informix Connect

Use the following instructions to install IBM Informix Connect.

Before you begin

Note: 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.

About this task

To install IBM Informix Connect:

1. Exit all Windows programs.

2. Load the CD for IBM Informix Connect into the CD drive.

3. Read the readme.txt file in the root directory of the CD. This file might have information you need before you continue.

4. Click **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 drive).

6. Press **ENTER** or click **OK**.

   The Welcome window opens.

7. Click **Next**.

   The User Information window opens.

8. Type your name and company name in the appropriate fields.

9. Click **Next**.

   The Choose Destination Location window opens.

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**.

    The **Setup** utility 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 window opens.

12. Select an installation type: Typical, Compact, or Custom.

13. Click **Next**.

    If you select the Custom installation type, the Select Components window opens. 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 window opens.

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 window opens.

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 window opens.

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

What to do next

You might be prompted to reboot your computer at this point. If so, restarting your computer now is recommended.

During this procedure, the Setup utility 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 the Setup utility generates an error message, see "Common Installation Problems" on page 7-5.

Installing Client SDK from the Command Line Using msiexec

You can install Client SDK from the command line by using the Windows Installer API. To do this, the Windows Installer Service must be installed on your system.

Before you begin

About this task

You can specify the type of installation by using msiexec command options. For more information about the various command-line options for msiexec, see the Windows Installer help on the Microsoft Web site.

You can specify the type of user interface that will be used during the installation by using the **/q** command-line option. For instance, to run the install in silent mode, with no error messages or end of installation indication, enter the following command, where *file pathname* refers to the location of the .msi file on the media:

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

To install Client SDK in silent mode, with no error messages, but with a window at the end of the installation that indicates success or failure, enter the following command:

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

Similarly, you can use the **/qf** and **/qf+** options for a full user interface installation. The **/qf+** option displays a window at the end of the installation that indicates success or failure.

Installing Client SDK with Silent Installation

You can specify an alternative value for INSTALLDIR on the command line. The following methods can be used to install Client SDK or Informix Connect in silent mode, where *file pathname* refers to the location of the .msi file on the media.

About this task

For all three methods if you do not include INSTALLDIR in the msiexec command, the installation will use the following default values:

* Client SDK

  drive\program files\informix\client-sdk

* Informix Connect

  drive\program files\informix\connect

* **Method 1**

  Use the following command

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

* **Method 2**

  Run the **transformgenerator.exe** file, which is included on the Client SDK media. Provide the name and path of the **.msi** file and click **OK**. Use the following command to perform a silent installation using the transform file:

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

- **Method 3**

  Use the following command:

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

Common msiexec Command Operations

The following table lists some common installer operations and their corresponding command-line options.

Table 6-1. Common Installer Operations

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"

The msiexec command 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 properties with upper case names) at the command line. For example, an installation derives the default user and company names from the Windows registry and stores them as the public installer properties USERNAME and COMPANYNAME.

About this task

To set the user and company names at the command line, enter the following command:

```
msiexec.exe /i ".msi file pathname"
COMPANYNAME="My company" USERNAME="username"
```

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 by using the following command:

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

An administrator can prevent a product from being uninstalled 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.

About this task

For example, to store all error and warning messages in a text log file, enter the following command:

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

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

```
msiexec.exe /i ".msi file pathname"
SERIALNUMBER="serial number"
KEY="key" /L*v D:\install.log
```

By default, the msiexec command creates a log file in the user's **Temp** folder only when an error occurs.

Installing Client SDK by Using the Command Line: Advertised Mode

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 begin

Before you run the IBM Informix Client SDK installation in advertised mode, you must generate a transform file by using the TransformGenerator tool on your CD. This file is required to run the installation.

About this task

To generate a transform file:
1. Run TransformGenerator.exe from your product CD.
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 is displayed: Transform file generated successfully.
4. Use this transform file to run the advertised installation as shown in the following command:

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

What to do next

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

Chapter 7. Post-Installation Client Product Tasks on Windows Systems

Configuring IBM Informix Client Products on Windows Systems

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 run time. The environment variables and network parameters are stored in the Windows system registry and are valid for every IBM Informix client product that you install.

This section is divided into the following steps:
- "Setting the Environment Variables"
- "Setting Database Server Information" on page 7-2
- "Setting Host Information" on page 7-3

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

The Setnet32 utility 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 the Setnet32 utility.

Setting 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.

About this task

To set environment variables:

1. Double-click Setnet32 in the folder that contains the Client SDK products. The IBM Informix Setnet32 window opens.
2. Click the **Environment** tab to display the **Environment** page, which has the following elements:
   - **IBM Informix Client/Server Environment**

     Select an environment variable to edit.

     After you select an environment variable, the environment variable name is displayed above the **Variable Name** text box.
   - **Edit Environment Variable**

     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**

  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**

  The 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, select the **Use my settings** and click **Apply**. All environment settings are then copied over to HKEY_CURRENT_USER.

  To revert to the HKEY_LOCAL_MACHINE entries, deselect **Use my settings** 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.

Results

For more information about environment variables, see Appendix A, "Environment Variables," on page A-1 and the *IBM Informix Guide to SQL: Reference*.

For more information about environment variables for locales, see the *IBM Informix GLS User's Guide*.

Setting Database Server Information

A client application connects to an Informix database server that is 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.

About this task

To set database server information:

1. Double-click **Setnet32** in the folder that contains the Client SDK products.

   The Informix **Setnet32** window opens.

2. Click the **Server Information** tab to display the **Server Information** page, which has the following elements:

   - **Informix Server**

     Select an existing Informix database server or type the name of a new database server.

   - **Host Name**

     Select the host computer with the database server that you want to use or type the name of a new host computer.

   - **Protocolname**

     Select a network protocol from a list of protocols that the installation procedure provides.

   - **Service Name**

Specify the service name that is associated with a specific database server. Type either the service name or the port number that is assigned to the database server on the host computer. You must obtain this information from the database server administrator.

Requirement: 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.

- **Options**

  Enter options specific to the database server. For more information, see the *IBM Informix Administrator's Guide*.

- **Make Default Server**

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

- **Delete Server**

  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.

3. Click **OK** to save the values.

Setting Host Information

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

About this task

To set Host Information:

1. Double-click Setnet32 in the folder that contains the Client SDK products.

   The IBM Informix Setnet32 window opens.

2. Click the **Host Information** tab to display the **Host Information** page, which has the following elements:

   - **Current Host**

     This field 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**

     This field 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**

     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**

  This field, which the **Password** option activates, displays asterisks (*) that represent the account password. When this field 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 that you type.

- **Delete Host**

  Click **Delete Host** to delete the name of the currently selected host computer from the Windows registry, as well as the user name, password option, and password that is associated with that host computer.

Results

For more information about host parameters, see your *IBM Informix Administrator's Guide*.

Overriding Information

You can use a set of environment variables with the function call **ifx_putenv** to override the information that was entered in the **Server Information** and **Host Information** pages of the **Setnet32** utility.

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 3.50, supports the following WIN32 override environment variables. For more information about these environment variables, see the *IBM Informix ESQL/C Programmer's Manual*.

Table 7-1. WIN32 Override Environment Variables

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

Configuring OLE DB Provider

To enable your IBM 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**.

Common Installation Problems

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 these problems persist, contact Technical Support at http://www.ibm.com/software/data/informix/support.

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 installation problems that you might encounter.

- *Problem.* You receive the following error message:

  ```
  Error 1311. Source File "d:\data.cab" Not Found.
  ```

  Drive letter and path/filename can vary.

  Solution. This is a Windows security error that occurs when the Windows Installer that is running as the local system user is denied access to the **.cab** file. There are two ways to resolve this error:

  Option 1: Copy the installation files to your hard drive and run the installation from there.

  Option 2: Change the Security Option, as follows:

  1. Click **Start** → **Settings** → **Control Panel** → **Administrative Tools**.
  2. Select **Local Security Policy**.
  3. Expand the Local Policies folder.
  4. Select **Security Options**.
  5. From the right pane, depending on Windows version, select one of the following options:

     Devices: Restrict CD access to locally logged-on user only.

     Restrict CD access to locally logged-on user only.
  6. Change your selection to **Disabled**.

- *Problem.* You receive the following error message:

  ```
  Error: file reading error
  ```

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

- *Problem.* You receive the following error message:

  ```
  Invalid Processor: Error
  ```

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

- *Problem.* You receive the following error message:

  ```
  Invalid OS: Error
  ```

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

- *Problem*. You receive the following error message:

  ```
  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 5-1.

- *Problem*. You receive the following error message:

  ```
  Call to GetFileInfo for <install directory> failed
  ```

  Solution. Run the installation again. In the Choose Destination Location window, 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.

Modifying the Installation

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

About this task

To modify the installation:

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

   The Informix Client SDK Setup window opens.
5. Click **Next**.

   The Program Maintenance window opens.
6. Click **Modify** to change program features.
7. Click **Next**.

   The Custom Setup window opens.
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 window opens.
11. Click **Install** to modify the installation.

    The IBM Informix Client SDK window opens.
12. Click **Finish** to complete the modification.

Repairing the Installation

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

About this task

To repair the installation:

1. Click **Start** → **Settings** → **Control Panel** → **Add/Remove Programs**.
2. Click the **Change or Remove Programs** tab.

3. Select IBM Informix Client SDK.
4. Click **Change**.

   The Informix Client SDK Setup window opens.
5. Click **Next**
6. Click **Repair**.
7. Click **Next**.

   The Ready to Repair the Program window opens.
8. Click **Install**.

   The IBM Informix Client SDK Setup box appears.
9. Click **Finish** to complete the repair.

Chapter 8. Uninstalling Client SDK on Windows Systems

Uninstalling Client SDK by Using the Windows Control Panel

The Client SDK is available from two sources: CD 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 and then uninstall by running the network installation.

About this task

To uninstall Client SDK from the Control Panel:

1. Click **Start** › **Settings** › **Control Panel** › **Add/Remove Programs**.
2. Click the **Change or Remove Programs** tab.
3. Select IBM Informix Client SDK from the list of applications.
4. Click **Remove**.
   The IBM Informix Client SDK Setup window opens.
5. Click **Next**.
   The Program Maintenance window opens.
6. Click **Remove**.
   The Remove the Program window opens.
7. Click **Remove** to complete Client SDK file removal.

Uninstall Client SDK by Using the Command Line

You can uninstall Client SDK from your computer by using the command line.

About this task

You can uninstall Client SDK from your computer by entering the following command, where *file pathname* refers to the location of the **.msi** file on the media:

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

Part 3. Appendixes

Appendix A. Environment Variables

In this Appendix

This appendix provides a list of client-supported environment variables and their possible values and points you to where you can look for more information.

Environment Variables

Client SDK, Version 3.50, supports the following environment variables. For more information about these environment variables, see their descriptions in the respective publications.

Environment Variable	Purpose	Publication Reference and Possible Values
CC8BITLEVEL	Specifies how the C-language compiler processes non-ASCII (8-bit and multibyte) characters.	*IBM Informix GLS User's Guide* 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.	*IBM Informix GLS User's Guide* Any valid locale specifier. No default.
COLLCHAR	Specifies a collation sequence for characters. Provided for backward compatibility with NLS products.	*IBM Informix Guide to SQL: Reference*
DB_LOCALE	Specifies the locale of all the databases that a client application accesses in a single connection (the database locale).	*IBM Informix GLS User's Guide*
DBALSBC	When set to 1, enables compatibility with ALS products.	*IBM Informix ESQL/C Programmer's Manual* 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 run time.	*IBM Informix Guide to SQL: Reference* 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.	*IBM Informix ESQL/C Programmer's Manual*
DBASCIIBC	When set to 1, enables compatibility with ASCII products.	*IBM Informix ESQL/C Programmer's Manual* 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.	*IBM Informix Guide to SQL: Reference* Values: P, R, or C Default is R.
DBCODESET	Provides support for Asian-locale code set. Overrides the code set that DB_LOCALE specifies. Provided for backward compatibility with Version 4.x and 5.x ALS products.	*IBM Informix ESQL/C Programmer's Manual* Same values as ALS DBAPICODE. Default is 8859-1: (unless the **informix.rc** file specifies another system-wide default)

Environment Variable	Purpose	Publication Reference and Possible Values
DBCONNECT	Specifies whether connections are restricted. Provides backward compatibility for client applications that are based on earlier versions of IBM Informix products.	*IBM Informix ESQL/C Programmer's Manual* Values: 1 or 3
DBCSCONV	Controls code-set conversion initialization. Maximum size is eight characters. Provided for backward compatibility with ALS products.	*IBM Informix ESQL/C Programmer's Manual* Values: 1 or 2:*codesetname* See 5.0 ALS documentation.
DBCSOVERRIDE	Forces the user-specified DB_LOCALE value to override default restrictions on accessing databases with locales that are different than DB_LOCALE. Provided for backward compatibility with Version 6.0 ALS database servers.	*IBM Informix ESQL/C Programmer's Manual* Values: 0 or 1
DBCSWIDTH	Maximum number of display bytes (1-2) and storage bytes (1-4) for the characters in up to three code sets. Display and storage widths are separated by commas; code sets are separated by colons. Maximum size of this field is, therefore, 11 characters. Provided for backward compatibility with ALS products.	*IBM Informix ESQL/C Programmer's Manual* Example: 1,1:2,3 means a display and storage width of 1 byte for code 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.	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 Dbaccess only.	*IBM Informix Guide to SQL: Reference* Values: 0–16 Default is 16.
DBLANG	Specifies the subdirectory of the Informix installation directory that contains the product-specific message (**.iem**) files.	*IBM Informix Guide to SQL: Reference* Default is **msg**.
DBMONEY	Specifies the end-user format for MONEY values so that they can conform with various international and local monetary conventions.	*IBM Informix Guide to SQL: ReferenceIBM Informix GLS User's Guide* Default is $**.,.**
DBMONEYSCALE	Specifies the total number of digits and number of decimal digits for monetary values. Provided for backward compatibility with ALS products.	*IBM Informix ESQL/C Programmer's Manual*
DBNLS	Specifies whether an application can access NLS features. Provided for backward compatibility with NLS products.	*IBM Informix ESQL/C Programmer's Manual* Default is n.
DBPATH	Identifies the database servers that contain databases that the application accesses.	*IBM Informix GLS User's Guide*
DBSS2	Maximum size is four characters. Provided for backward compatibility with ALS products.	*IBM Informix ESQL/C Programmer's Manual*Values: 0x00–0xff or 0–255
DBSS3	Maximum size is four characters. Provided for backward compatibility with ALS products.	*IBM Informix ESQL/C Programmer's Manual* 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).	*IBM Informix Guide to SQL: Reference* Default is \tmp.

Environment Variable	Purpose	Publication Reference and Possible Values
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.	*IBM Informix Guide to SQL: Reference IBM Informix GLS User's Guide* Default is %Y-%m-%d %H:%M:%S.
DELIMIDENT	Indicates whether (y) or not (n) to interpret strings in double quotes as delimited identifiers.	*IBM Informix Guide to SQL: Reference* Default is n.
ESQLMF	Indicates whether the ESQL/C processor automatically invokes the ESQL/C multibyte filter (*value*=1 and CC8BITLEVEL<3, or not *value*=0).	*IBM Informix GLS User's Guide*
FET_BUF_SIZE	Overrides the default size of the fetch buffer.	*IBM Informix Guide to SQL: Reference* Any valid buffer size, in bytes. Default value depends on row size.
GL_DATE	Specifies a customized end-user format for DATE values.	*IBM Informix GLS User's Guide*
GL_DATETIME	Specifies a customized end-user format for DATETIME values.	*IBM Informix GLS User's Guide*
IFX_FLAT_USCQ	Overrides the global setting and directs the optimizer to use subquery flattening for all sessions.	Default is 0.
INFORMIXCONRETRY	Specifies the maximum number of additional connection attempts made to a database server in the time limit that CONTIME specifies.	*IBM Informix Guide to SQL: Reference* Default is 1.
INFORMIXCONTIME	Specifies the number of seconds an SQL CONNECT statement continues to try to establish a connection before it generates an error.	*IBM Informix Guide to SQL: Reference* Default is 60(seconds).
INFORMIXDIR	Identifies the location of the client programs, library files, message files, header files, and other IBM Informix software components. INFORMIXDIR must always be set.	*IBM Informix Guide to SQL: Reference* Default is C:\INFORMIX.
INFORMIXSERVER	Identifies the default database server.	*IBM Informix Guide to SQL: Reference*
INFORMIXSQLHOSTS	Specifies the name of the computer on which the central registry resides.	*IBM Informix Guide to SQL: Reference*
LANG	Specifies the language environment (called a *locale*) for an NLS database that an application accesses. Provided for backward compatibility with NLS products.	*IBM Informix ESQL/C Programmer's Manual* 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.	*IBM Informix ESQL/C Programmer's Manual* Default is the value that LANG specifies.

Environment Variable	Purpose	Publication Reference and Possible Values
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.	*IBM Informix ESQL/C Programmer's Manual* Default is the value that LANG specifies.
LC_MONETARY	Specifies the end-user format for MONEY values in an NLS database. Provided for backward compatibility with NLS products.	*IBM Informix ESQL/C Programmer's Manual* 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.	*IBM Informix ESQL/C Programmer's Manual* 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.	*IBM Informix ESQL/C Programmer's Manual* 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.	*IBM Informix ESQL/C Programmer's Manual* Default is to allow privileges.
OPTMSG	Enables optimized message transfers (message chaining) for all SQL statements in an application.	*IBM Informix Guide to SQL: Reference* 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.	*IBM Informix Guide to SQL: Reference* 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.

Appendix B. Distribute Your IBM Informix Client Applications (Windows)

In This Appendix

This appendix discusses the technical and legal requirements that you must observe when you distribute applications that are 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 IBM Informix client runtime components that are 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 using prerecorded installation scripts to install and configure IBM Informix client APIs , you can enable your customers to bypass the installation windows that normally are displayed. 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 by using an IBM Informix client API, you might decide to distribute IBM Informix components that are required by your application at runtime.

The following table lists the IBM Informix components that your customer needs in order to run your client application.

Table B-1. IBM Informix Component Needed to Run Client Application

Client Development API	Components Required at Runtime
IBM Informix Client SDK	IBM Informix Connect
IBM Informix .NET Provider	IBM Informix Connect
IBM Informix ESQL/C-DB2	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

IBM Informix runtime components can be redistributed.

You can redistributeIBM Informix runtime components in the following two ways:

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

Attention: 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 IBM Informix client runtime components, run the IBM 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 theIBM Informix client runtime components. If you created your client application by 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 IBM Informix client runtime components with the installation of your client application, refer to "Creating the Installation Script" on page B-7 and "Creating Your Client Application Installation Program" on page B-8.

IBM Informix Client Application Distribution Options

The following sections explain your options for distributing your IBM Informix client application and describe the agreements that you must make with IBM to acquire the legal rights to redistribute IBM Informix client runtime components with your application.

The following table lists the five options for distributing IBM Informix client applications and refers you to detailed information about each option.

Option	Agreement Required
Your customers order required components directly from IBM and install them themselves.	None
You ship the required components with your client application; your customer installs them.	Redistribution agreement
You ship required components on the same CD as your client application; your customer installs them.	Manufacturing agreement
You ship required components on the same CD as your client application; your customers install them silently when they install your application.	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.	Multiuser license (no special agreement); Distribution limited to number of licensed users

For details about establishing a relationship with IBM, call IBM Sales at 1-800-331-1763.

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

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

These are the requirements when 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 and for 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 that 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	IBM might ship a version other than the version that you tested your application with. Risks: Earlier version: the application might not work. 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.
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

These are the requirements when you ship the IBM Informix Connect product with your client application and your customer installs it.

You must have redistribution rights through a contract with IBM, and you must 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 that is supplied with the application. Supply your 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.
Version compatibility	IBM might ship a version other than the version that you tested your application with. Risks: Earlier version: the application might not work. 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.
Technical support for your Customer	You have three options: • 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.

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

These are the requirements when you ship IBM Informix Connect on the same CD as your client application and 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 about establishing 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 Informix Connect that is supplied with the application. Supply your customers with the following information so that they can install Informix Connect:

- Where to find the IBM Informix Connect setup.exe file (either on its own CD or in an 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 Informix Connect with the application distribution.

Category	Comment
Ease of installation	Your customer must separately install Informix Connect; customer might already have the correct version of Informix Connect installed.
Customer cost	Your customers can purchase technical support from IBM.
Version compatibility	IBM might ship a version other than the version that you tested your application with. Risks: Earlier version: the application might not work. Later version: risk unknown because the combination of application and Informix Connect has not been tested. IBM commits to backward compatibility of the runtime files, but without testing, the risk cannot be assessed.
Technical support for your Customer	You have three options: • 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.

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

These are the requirements when you ship IBM Informix Connect on the same CD as your client application and your customers install it silently when they install your application.

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

Record each Informix Connect installation. For details about recording an installation, refer to "Installing IBM Informix Connect C and C++ Client Runtime Components" on page B-6.

Also supply the customer with the license agreement.

Category	Comment
Redistribution effort	Must embed the Informix Connect installation program into the application installation program.
Ease of installation	Informix Connect is installed automatically for the customer.
Customer cost	Technical support can be purchased.

Category	Comment
Version compatibility	IBM might ship a version other than the version that you tested your application with. Risks: Earlier version: the application might not work. Later version: risk unknown because the combination of application and Informix Connect has not been tested. IBM commits to backward compatibility of the runtime files, but without testing, the risk cannot be assessed.
Technical support for your Customer	You have three options: • 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.

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

These are the requirements when you ship IBM Informix Connect on the same CD as your client application to your employees and your employees install it silently when they install your application.

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

Record each Informix Connect installation. For details about recording an installation, refer to "Installing IBM Informix Connect C and C++ Client Runtime Components."

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

Installing IBM Informix Connect C and C++ Client Runtime Components

This section describes how to install C and C++ client runtime components.

About this task

To package IBM Informix Connect 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 that you created in step 1, and configure the client according to the configuration file you that created in step 2.

What to do next

The following sections tell you how to perform these steps.

Creating the Installation Script

Your client application installation program invokes the installation script to install required IBM Informix Connect client runtime components when your customers install your client application.

About this task

To create an installation script, use the InstallShield Setup utility to record the installation of the IBM Informix Connect client runtime components that are 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 IBM Informix Connect client runtime components correctly.

To create the installation script:

1. Insert the Client SDK or Informix Connect installation disk in your CD drive.
2. Click **Start → Run**.
3. Open a DOS window by typing `cmd`.
4. In the DOS window, change directory to the directory on the CD that contains the setup.exe file.
5. Enter the following command at the command prompt:

   `setup -r`

   The **-r** option records the options that you specify during installation to a file named setup.iss in the Windows directory.
6. Install Client SDK or Informix Connect. Enter the options that you want your customers to use with your client application.

   For details about installing Client SDK, see "Installation Methods" on page 2-1.

Creating the Client Configuration File

When you create the client configuration file, the Setnet32 utility records the desired client configuration. When your customers install the application, it uses the client configuration file to invoke the Setnet32 utility.

About this task

To create the configuration file:

1. Launch the Setnet32 utility and specify the client computer settings that your application requires.
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.

Creating Your Client Application Installation Program

Your client application installation program must meet certain criteria.

Your client application installation program must:
- install your application
- install required IBM Informix client runtime components
- configure the IBM Informix settings on your customer's computer

Instructions for completing these tasks are provided in the following sections.

Installing Client Runtime Components

About this task

When your customer installs your application, the IBM Informix components are installed silently; that is, no installation windows are displayed while these components are being installed.

To verify that the IBM Informix components were successfully installed, your customer can check the installation log file. For details, see "Verifying the Results of Silent Installation" on page B-9.

When you prepare your installation media master, place all IBM Informix files together in the same directory. These files include the CD image of the IBM 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 image of the IBM Informix client runtime components (which includes an IBM-supplied setup.exe file that installs the client runtime components).
2. Enter the following command:

   ```
   setup -s
   ```

   The Setup program silently installs the Informix client runtime components. When installation is complete, the Setup program creates a log file. For details about logging, see "Verifying the Results of Silent Installation" on page B-9.

What to do next

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

Configuring the Client Computer

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

About this task

To configure the client computer from your client installation program:

1. Change to the directory that contains the CD image of the IBM Informix client runtime components (which must include the .nfx file in which you stored the desired client configuration settings).

2. Enter the following command:

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

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

Verifying the Results of Silent Installation

When your client application installation program runs a silent installation script to install IBM Informix client runtime components, **InstallShield** logs the results of the silent installation.

About this task

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** that is 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 that was 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.

Table B-2. Description of Result Codes

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.

The following example shows a log file for a successful silent installation:

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

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

[ResponseResult]
ResultCode=0
```

Appendix C. Accessibility

IBM strives to provide products with usable access for everyone, regardless of age or ability.

Accessibility features for IBM Informix Dynamic Server

Accessibility features help a user who has a physical disability, such as restricted mobility or limited vision, to use information technology products successfully.

Accessibility Features

The following list includes the major accessibility features in IBM Informix Dynamic Server. These features support:

- Keyboard-only operation.
- Interfaces that are commonly used by screen readers.
- The attachment of alternative input and output devices.

Tip: The IBM Informix Dynamic Server Information Center and its related publications are accessibility-enabled for the IBM Home Page Reader. You can operate all features using the keyboard instead of the mouse.

Keyboard Navigation

This product uses standard Microsoft Windows navigation keys.

Related Accessibility Information

IBM is committed to making our documentation accessible to persons with disabilities. Our publications are available in HTML format so that they can be accessed with assistive technology such as screen reader software. The syntax diagrams in our publications are available in dotted decimal format. For more information about the dotted decimal format, go to "Dotted Decimal Syntax Diagrams."

You can view the publications for IBM Informix Dynamic Server in Adobe Portable Document Format (PDF) using the Adobe Acrobat Reader.

IBM and Accessibility

See the *IBM Accessibility Center* at http://www.ibm.com/able for more information about the commitment that IBM has to accessibility.

Dotted Decimal Syntax Diagrams

The syntax diagrams in our publications are available in dotted decimal format, which is an accessible format that is available only if you are using a screen reader.

In dotted decimal format, each syntax element is written on a separate line. If two or more syntax elements are always present together (or always absent together), the elements can appear on the same line, because they can be considered as a single compound syntax element.

Each line starts with a dotted decimal number; for example, 3 or 3.1 or 3.1.1. To hear these numbers correctly, make sure that your screen reader is set to read punctuation. All syntax elements that have the same dotted decimal number (for example, all syntax elements that have the number 3.1) are mutually exclusive alternatives. If you hear the lines 3.1 USERID and 3.1 SYSTEMID, your syntax can include either USERID or SYSTEMID, but not both.

The dotted decimal numbering level denotes the level of nesting. For example, if a syntax element with dotted decimal number 3 is followed by a series of syntax elements with dotted decimal number 3.1, all the syntax elements numbered 3.1 are subordinate to the syntax element numbered 3.

Certain words and symbols are used next to the dotted decimal numbers to add information about the syntax elements. Occasionally, these words and symbols might occur at the beginning of the element itself. For ease of identification, if the word or symbol is a part of the syntax element, the word or symbol is preceded by the backslash (\) character. The * symbol can be used next to a dotted decimal number to indicate that the syntax element repeats. For example, syntax element *FILE with dotted decimal number 3 is read as 3 * FILE. Format 3* FILE indicates that syntax element FILE repeats. Format 3* * FILE indicates that syntax element * FILE repeats.

Characters such as commas, which are used to separate a string of syntax elements, are shown in the syntax just before the items they separate. These characters can appear on the same line as each item, or on a separate line with the same dotted decimal number as the relevant items. The line can also show another symbol that provides information about the syntax elements. For example, the lines 5.1*, 5.1 LASTRUN, and 5.1 DELETE mean that if you use more than one of the LASTRUN and DELETE syntax elements, the elements must be separated by a comma. If no separator is given, assume that you use a blank to separate each syntax element.

If a syntax element is preceded by the % symbol, this identifies a reference that is defined elsewhere. The string following the % symbol is the name of a syntax fragment rather than a literal. For example, the line 2.1 %OP1 means that you should refer to a separate syntax fragment OP1.

The following words and symbols are used next to the dotted decimal numbers:

? Specifies an optional syntax element. A dotted decimal number followed by the ? symbol indicates that all the syntax elements with a corresponding dotted decimal number, and any subordinate syntax elements, are optional. If there is only one syntax element with a dotted decimal number, the ? symbol is displayed on the same line as the syntax element (for example, 5? NOTIFY). If there is more than one syntax element with a dotted decimal number, the ? symbol is displayed on a line by itself, followed by the syntax elements that are optional. For example, if you hear the lines 5 ?, 5 NOTIFY, and 5 UPDATE, you know that syntax elements NOTIFY and UPDATE are optional; that is, you can choose one or none of them. The ? symbol is equivalent to a bypass line in a railroad diagram.

! Specifies a default syntax element. A dotted decimal number followed by the ! symbol and a syntax element indicates that the syntax element is the default option for all syntax elements that share the same dotted decimal number. Only one of the syntax elements that share the same dotted decimal number can specify a ! symbol. For example, if you hear the lines

2? FILE, 2.1! (KEEP), and 2.1 (DELETE), you know that (KEEP) is the default option for the FILE keyword. In this example, if you include the FILE keyword but do not specify an option, default option KEEP is applied. A default option also applies to the next higher dotted decimal number. In this example, if the FILE keyword is omitted, default FILE(KEEP) is used. However, if you hear the lines 2? FILE, 2.1, 2.1.1! (KEEP), and 2.1.1 (DELETE), the default option KEEP only applies to the next higher dotted decimal number, 2.1 (which does not have an associated keyword), and does not apply to 2? FILE. Nothing is used if the keyword FILE is omitted.

*   Specifies a syntax element that can be repeated zero or more times. A dotted decimal number followed by the * symbol indicates that this syntax element can be used zero or more times; that is, it is optional and can be repeated. For example, if you hear the line 5.1* data-area, you know that you can include more than one data area or you can include none. If you hear the lines 3*, 3 HOST, and 3 STATE, you know that you can include HOST, STATE, both together, or nothing.

Notes:

1. If a dotted decimal number has an asterisk (*) next to it and there is only one item with that dotted decimal number, you can repeat that same item more than once.

2. If a dotted decimal number has an asterisk next to it and several items have that dotted decimal number, you can use more than one item from the list, but you cannot use the items more than once each. In the previous example, you could write HOST STATE, but you could not write HOST HOST.

3. The * symbol is equivalent to a loop-back line in a railroad syntax diagram.

+   Specifies a syntax element that must be included one or more times. A dotted decimal number followed by the + symbol indicates that this syntax element must be included one or more times. For example, if you hear the line 6.1+ data-area, you must include at least one data area. If you hear the lines 2+, 2 HOST, and 2 STATE, you know that you must include HOST, STATE, or both. As for the * symbol, you can only repeat a particular item if it is the only item with that dotted decimal number. The + symbol, like the * symbol, is equivalent to a loop-back line in a railroad syntax diagram.

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