Informix Product Family
Informix Client Software Development Kit
Version 4.10

IBM Informix Client Products Installation Guide

GC27-4495-05

Informix Product Family
Informix Client Software Development Kit
Version 4.10

IBM Informix Client Products Installation Guide

GC27-4495-05

Note
Before using this information and the product it supports, read the information in "Notices" on page B-1.

This edition replaces GC27-4495-04.

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) and IBM Informix Connect.

This publication is written for database administrators and software engineers who are installing IBM Informix client products, and assumes that you are familiar with the operating system on your computer. This publication explains how to install Client SDK and Informix Connect as individual products using stand-alone client installation applications. Alternatively, you can install Client SDK or Informix Connect as part of the Informix software bundle installation media. The software bundle includes both the Informix database server and client products. For information about this installation method, see the *IBM Informix Installation Guide*.

Important: See the *IBM Informix JDBC Driver Programmer's Guide* for information about installation of the JDBC Driver.

What's new in installation for IBM Informix client products, Version 4.10

This publication includes information about new features and changes in existing functionality.

For a complete list of what's new in this release, go to http://www.ibm.com/support/knowledgecenter/SSGU8G_12.1.0/com.ibm.po.doc/new_features_ce.htm.

Table 1. What's New in IBM Informix Client Products Installation Guide for Version 4.10.xC5

Overview	Reference
Support for Java™ 7 IBM Informix 12.10.xC5 software supports Java Platform Standard Edition (Java SE), Version 7. Informix installation applications install IBM Runtime Environment, Java Technology Edition, Version 7 on most platforms by default. That version is used to run Java user-defined routines that are created in the server. Check the machine notes for your operating system platform to determine whether the installation application requires a preinstalled JRE.	Java technology dependencies

Table 1. What's New in IBM Informix Client Products Installation Guide for Version 4.10.xC5 (continued)

Overview	Reference
Improved installation logging and debugging The default name and location of the installation log file for both the database server and client products is now `/tmp/iad_act.log` (UNIX, Linux, Mac OS X) or `\tmp\iad_act.log` (Windows). You can specify a different name and location for the installation log file with the **-DLOG_FILE** option in the installation command. The **-DDEBUG** option is deprecated. Now you have more control over the debugging and tracing information for the installation process. By default, tracing is disabled. You can set the tracing level 1 - 9 with the **-DDEBUG_LEVEL** option in the installation command. If tracing is enabled, the default name and location of the debugging file is `/tmp/iad_dbg.log` (UNIX, Linux, Mac OS X) or `\tmp\iad_dbg.log` (Windows). You can set the name and location of the debug file with the **-DDEBUG_FILE** option.	Chapter 6, "Client installation troubleshooting," on page 6-1 Chapter 3, "Client products installation command syntax," on page 3-1
Easier silent installations You can streamline a silent installation on systems with existing installations of the database server or client products. Include the **-DOVERWRITE_PRODUCT=TRUE** option with the **ids_install**, **installclientsdk**, or **installconnect** command to overwrite an existing installation. Otherwise, the installation application exits if it finds an existing product installation.	Chapter 3, "Client products installation command syntax," on page 3-1
Deprecated options for installation commands The following options to the **ids_install**, **installclientsdk**, and **installconnect** commands are deprecated: • UNIX, Linux: The **-i swing** installation command option is deprecated. Use the **-i gui** option in the installation command to run the installation application in GUI mode. • The **-DDEBUG** option is deprecated. Use the new **-DDEBUG_LEVEL** option in the installation command to set the tracing level.	Chapter 3, "Client products installation command syntax," on page 3-1

Table 2. What's New in IBM Informix Client Products Installation Guide for Version 4.10.xC1

Overview	Reference
OpenAdmin Tool (OAT) for Informix is installed by default with the Client SDK The IBM OpenAdmin Tool (OAT) for Informix is installed by default during a typical installation of the following products: • IBM Informix Client Software Development Kit (Client SDK), Version 4.10 • IBM Informix Connect, Version 4.10 Use the custom installation option if you do not want to install OAT. Previously, OAT was not installed by default.	"IBM Informix Client Software Development Kit components" on page 1-1.

Java technology dependencies

IBM Informix software supports Java Platform Standard Edition (Java SE) to create and run Java applications, including user-defined routines (UDRs). Java SE 7 is supported as of Informix 12.10.xC5, while Java SE 6 is supported in earlier fix packs.

Important:

- Check the machine notes to learn about Java technology exceptions and other requirements for specific operating system platforms. The machine notes are available on the product media and in the online release information.
- In general, any application that ran correctly with earlier versions of Java technology will run correctly with this version. If you encounter problems, recompile the application with the next available fix pack or version. However, because there are frequent Java fixes and updates, not all of them are tested.
- To develop Java UDRs for the database server, use the supported Java software development kit or an earlier version according to Java compatibility guidelines. The supported version provides a known and reliable Java environment for UDRs in this database server release.

For details about Java requirements, check the following sections:

"Java runtime environment"

"Software development kit for Java"

"Java Database Connectivity (JDBC) specification" on page viii

Java runtime environment

On most supported operating system platforms, the Informix installation application bundles a Java runtime environment that it requires. However, check the machine notes for your operating system platform to determine whether the installation application requires a particular Java runtime environment to be preinstalled.

Also, IBM Runtime Environment, Java Technology Edition is supported for general use of the database server. It is installed on most operating system platforms by default in the following directory: `$INFORMIXDIR/extend/krakatoa/jre/`.

MongoDB API and REST API access supports IBM Runtime Environment, Java Technology Edition, Version 7.

Software development kit for Java

The following products and components require a software development kit for Java, but one is not installed:

- Informix DataBlade® Developers Kit (DBDK)
- IBM Informix JDBC Driver
- J/Foundation component
- Spatial Java API
- TimeSeries Java API

The software development kit that you use must be compatible with the supported Java runtime environment. Informix does not support OpenJDK. You can download a development kit from the following web sites:

- **Recommended for AIX and Linux:** IBM SDK, Java Technology Edition (http://www.ibm.com/developerworks/java/jdk/)
- **Recommended for HP-UX:** HP-UX 11i Java Development Kit for the Java 2 Platform Standard Edition (https://h20392.www2.hp.com/portal/swdepot/displayProductInfo.do?productNumber=HPUXJAVAHOME)
- Oracle Java Platform, Standard Edition Development Kit (JDK) (http://www.oracle.com/technetwork/java/javase/downloads/index.html)

Java Database Connectivity (JDBC) specification

Informix products and components support the Java Database Connectivity (JDBC) 3.0 specification.

Compliance with industry standards

IBM Informix products are compliant with various standards.

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 read the syntax diagrams

Syntax diagrams use special components to describe the syntax for SQL statements and commands.

Read the syntax diagrams from left to right and top to bottom, following the path of the line.

The double right arrowhead and line symbol ►►— indicates the beginning of a syntax diagram.

The line and single right arrowhead symbol —► indicates that the syntax is continued on the next line.

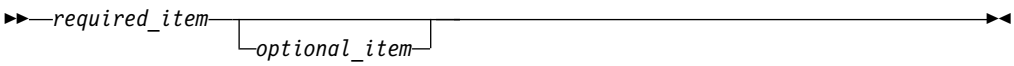
The right arrowhead and line symbol ►— indicates that the syntax is continued from the previous line.

The line, right arrowhead, and left arrowhead symbol —►◄ symbol indicates the end of a syntax diagram.

Syntax fragments start with the pipe and line symbol |— and end with the —| line and pipe symbol.

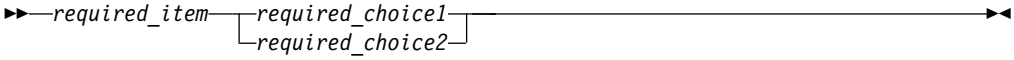
Required items appear on the horizontal line (the main path).

Optional items appear below the main path.

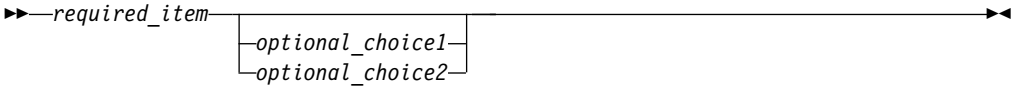


If you can choose from two or more items, they appear in a stack.

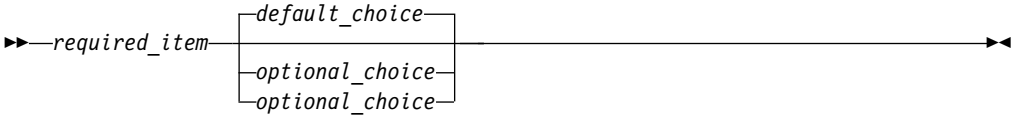
If you *must* choose one of the items, one item of the stack appears on the main path.



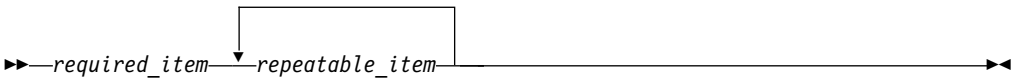
If choosing one of the items is optional, the entire stack appears below the main path.



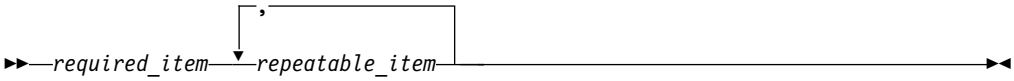
If one of the items is the default, it will appear above the main path, and the remaining choices will be shown below.



An arrow returning to the left, above the main line, indicates an item that can be repeated. In this case, repeated items must be separated by one or more blanks.



If the repeat arrow contains a comma, you must separate repeated items with a comma.

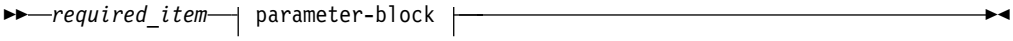


A repeat arrow above a stack indicates that you can make more than one choice from the stacked items or repeat a single choice.

SQL keywords appear in uppercase (for example, `FROM`). They must be spelled exactly as shown. Variables appear in lowercase (for example, `column-name`). They represent user-supplied names or values in the syntax.

If punctuation marks, parentheses, arithmetic operators, or other such symbols are shown, you must enter them as part of the syntax.

Sometimes a single variable represents a syntax segment. For example, in the following diagram, the variable `parameter-block` represents the syntax segment that is labeled **parameter-block**:



parameter-block:

Additional documentation

Documentation about this release of IBM Informix products is available in various formats.

You can access Informix technical information such as information centers, technotes, white papers, and IBM Redbooks® publications online at http://www.ibm.com/software/data/sw-library/.

How to provide documentation feedback

You are encouraged to send your comments about IBM Informix product documentation.

Add comments about documentation to topics directly in IBM Knowledge Center and read comments that were added by other users. Share information about the product documentation, participate in discussions with other users, rate topics, and more!

Feedback is monitored by the team that maintains the user documentation. The comments are reserved for reporting errors and omissions in the documentation. For immediate help with a technical problem, contact IBM Software Support at http://www.ibm.com/planetwide/.

We appreciate your suggestions.

Chapter 1. Preparing to install Client SDK

Before you install client products, you must prepare your system and plan for choices that you must make during the installation process.

Preparing for installation includes reviewing system requirements, deciding on the installation owner and the installation directory, and reviewing installation options. It also includes preinstallation tasks such as obtaining the software and reviewing the machine notes.

To prepare for installation:

1. Obtain the software. You can download the product package from Passport Advantage: http://www.ibm.com/software/howtobuy/passportadvantage.
2. Review the client components that you can install. You can install all of them or some of them.
3. Ensure that your computer meets the system requirements.
4. Choose a user account with which to install the product. The user account becomes the installation owner.
   - UNIX, Linux, Mac OS X: Decide between a non-root owner and an owner with root or administrative privileges.
   - If you plan to install as an administrative user, decide on a password for user **informix**.
5. Choose an installation directory. If client products are already installed in the directory, uninstall the existing client products.
6. Choose an installation method.
7. If you are installing client products on the same computer as the database server, install or upgrade the database server before you install client products.

Log files are created during the installation process. You can use the log files to troubleshoot installation errors.

After you install client products, you can configure the environment and connect to the database server.

IBM Informix Client Software Development Kit components

You use the Client SDK to develop and run client applications. Client SDK includes APIs, programs, and database utilities.

Applications that run on client computers require IBM Informix Connect to access database servers. Informix Connect is a runtime connectivity product that is composed of runtime libraries that are included in Client SDK.

The following table describes the APIs and programs of Client SDK.

Table 1-1. Client SDK APIs and programs

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 IBM Informix database through either of these 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 ODBC Driver For more information, see the Informix .NET Provider Guide.
Informix ESQL/C with XA support	An SQL embedded-language product that is used to create custom C applications. For more information, see the ESQL/C 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 IBM Informix For more information, see the Informix Object Interface for C++ Guide.
IBM Informix GLS (Global Language Support)	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 ESQL/C Guide and the GLS User's Guide.
IBM Informix ODBC Driver with MTS support	The 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 IBM Informix. For more information, see the Informix ODBC Driver Guide.
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 IBM Informix. For more information, see the Informix OLE DB Provider Guide.
IBM OpenAdmin Tool (OAT) for Informix	OpenAdmin Tool (OAT) for Informix is a web application for administering and analyzing the performance of IBM Informix database servers. For more information, see OpenAdmin Tool (OAT) for Informix.
IBM Informix Global Security Kit (GSKit)	The IBM Informix Global Security Kit (GSKit) provides libraries and utilities for SSL communication. For more information, see the IBM Informix Global Security Kit (GSKit).

Table 1-1. Client SDK APIs and programs (continued)

Component	Description
IBM Data Server Driver Package	The IBM Data Server Driver Package includes drivers that are compatible with Distributed Relational Database Architecture™ (DRDA®) protocols. For a list of the contents of the IBM Data Server Driver Package, see IBM data server client and driver types. You can use the IBM Data Server JDBC Driver to develop JDBC applications with Informix software. You can use the IBM Data Server .NET Provider to develop .NET applications with Informix software. The IBM Data Server .NET Provider includes support for web application development in IBM Database Add-Ins for Visual Studio. IBM Data Server Driver Package installation does not affect an existing installation of the IBM Informix .NET Provider or the Informix JDBC Driver. You can use either or both of the .NET Providers or JDBC drivers. For more information about the differences between the Data Server .NET Provider and the Informix .NET Provider, see NEED

The following table describes the IBM Informix common database utilities in the Client SDK.

Table 1-2. IBM Informix common database utilities

Component	Description
Documentation Viewer	Use the viewer to see the release and machine notes in text format.
The finderr utility on UNIX systems and the Informix Error Messages utility on Windows systems	Use these utilities to obtain information about error messages, including corrective actions, that are specific to IBM Informix.
The ILogin utility (Windows only)	Use the ILogin Demo utility to quickly test the connection to IBM Informix. Click **File** > **Run** then enter the IBM Informix 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 connects. For more information, see CSM configuration file.
Connection Manager	The Connection Manager is a utility that can monitor the workload and status of database servers in high-availability clusters, Enterprise Replication domains, grids, and server sets. Connection Managers can control failover for high-availability clusters, direct client connection requests to appropriate database servers, act as proxy servers to handle client/server communication, and prioritize connections between application servers and the primary server of a high-availability cluster. For more information, see Connection management through the Connection Manager.

Table 1-2. IBM Informix common database utilities (continued)

Component	Description
DB-Access	The DB-Access utility is included in the IBM Informix Client SDK when the corresponding IBM Informix server version is available for the same operating system. When the DB-Access utility is included in the Client SDK, it is the same utility that is delivered with the Informix server. The utility provides a stand-alone client command-line tool that can directly access the IBM Informix database instance. This dbaccess client supports the same user interface and functionality as the dbaccess server utility. For the setup requirements, see Requirements for the Informix Client Software Development Kit DB-Access utility.
The ConnectTest utility (Windows only)	Use the ConnectTest utility to test the connection to the IBM Informix server. You can start the utility from the shortcut in the **Start** menu or from the `$INFORMIX/bin` directory. The utility populates the server details from the registry that is registered by the Setnet32 utility. You can manually edit the utility to connect to other servers not listed in the registry, which does not modify the registry entry. The utility shows the resulting data of the executed SQL query.
Setnet32 (Windows only)	Use the Setnet32 utility for configuring client products. Each package might include online help, example programs, and support programs.

Note: Beginning with Client SDK Version 3.50.xC6, IBM Database Add-Ins for Visual Studio is no longer installed with Client SDK or Informix Connect. IBM Database Add-Ins for Visual Studio is available for download at: https://www14.software.ibm.com/webapp/iwm/web/preLogin.do?source=swg-daivs.

The latest version of IBM Database Add-Ins for Visual Studio supports only the Data Server .NET Provider and does not support Client SDK Informix .NET Provider. Information about using the add-ins with the Client SDK Informix .NET Provider is available at: http://www-933.ibm.com/support/fixcentral/.

Products that are installed with the IBM OpenAdmin Tool (OAT) for Informix

The OAT installation in the Client SDK includes the supporting Apache and PHP software and the optional OAT plug-ins.

The following products are installed:

- IBM OpenAdmin Tool (OAT) for Informix
- Apache Server:
  - On Linux: version 2.4.2
  - On Windows: version 2.2.22
  - On Mac OS X: version 2.2.16
- PHP:
  - On Linux: version 5.4.4
  - On Windows: version 5.2.4
  - On Mac OS X: version 5.3.6

- PDO_INFORMIX:
  - On Linux: version 1.3.1
  - On Windows: version 1.2.6
  - On Mac OS X: version 1.3.1
- Optional: IBM Informix Health Advisor Plug-in for OpenAdmin Tool (OAT)
- Optional: IBM Informix JSON Plug-in for OpenAdmin Tool (OAT)
- Optional: IBM Informix Replication Plug-in for OpenAdmin Tool (OAT)
- Optional: IBM Informix Schema Manager Plug-in for OpenAdmin Tool (OAT)
- Optional: IBM Informix TimeSeries Plug-in for OpenAdmin Tool (OAT)

The PHP and Apache that are installed with OAT have a limited set of modules. To do other development work with OAT PHP, additional modules might be required.

The following PHP modules are installed with OAT on Linux and Windows. Some exceptions are noted.

- date
- gd
- JSON (Mac OS X and Linux only)
- libxml
- openssl
- pcre
- PDO
- pdo_sqlite
- pdo_informix
- Reflection
- session
- SimpleXML
- soap
- sockets
- SPL
- standard
- xml
- xmlreader
- xmlwriter
- zip
- zlib (Windows only)

The following Apache modules are installed with OAT on Linux and Windows. Some exceptions are noted.

- core
- http_core
- http_mod_imagemap (Windows only)
- mod_alias
- mod_asis
- mod_auth_basic
- mod_authn_default

- mod_authn_file
- mod_authz_default
- mod_authz_groupfile
- mod_authz_host
- mod_authz_user
- mod_autoindex
- mod_cgi
- mod_dir
- mod_actions
- mod_env
- mod_filter
- mod_include
- mod_isapi
- mod_log_config
- mod_mime
- mod_negotiation
- mod_php5
- mod_setenvif
- mod_so
- mod_ssl (Linux only)
- mod_status
- mod_userdir
- mod_win32 (Windows only)
- mpm_winnt (Windows only)
- prefork

Related concepts:

"System requirements for IBM OpenAdmin Tool (OAT) for Informix" on page 1-7

Related tasks:

"Starting the IBM OpenAdmin Tool (OAT) for Informix" on page 4-6

System requirements for client products

Before you install client products, make sure that your computer meets the system requirements.

Operating system requirements

The Client SDK system requirements web page lists supported operating systems: http://www.ibm.com/support/docview.wss?uid=swg27016673. For system requirements for the IBM OpenAdmin Tool (OAT) for Informix, see "System requirements for IBM OpenAdmin Tool (OAT) for Informix" on page 1-7.

Install the required operating system patches and library files that are listed in the machine notes for your operating system. The machine notes are in therelease information or in the `doc` directory of the media files before installation.

UNIX, Linux, Mac OS X: The directory on which you plan to install the database server must be local or an NFS-mounted file system with regular operating-system files.

Windows: The drive on which you plan to install the database server must be formatted with NTFS and must have 8.3 file name creation enabled. For Windows 7 and subsequent Windows versions, turn off User Account Control (UAC) security before you install client products.

Disk space and memory requirements for installation

The following disk space and memory requirements for installing the database server are approximate. The requirements for some operating systems might be lower.

Disk space

Client SDK: approximately 200 MB

Informix Connect: approximately 175 MB

Some installation choices require additional disk space. The installation application informs you of the total disk space required by your setup before you copy the binary files to your computer.

RAM UNIX, Linux , Mac OS X: 512 MB

Windows: 256 MB

Temporary disk space

You can change the location of the temporary directory by setting the **IATEMPDIR** environment variable before you run the installation application.

UNIX, Linux, Mac OS X: 1 GB free space is required in your temporary directory (`/tmp` by default). If the temporary directory does not have enough space, the installation application attempts to write the information into the home directory of the user account.

Windows: 1 GB free space is required in your temporary directory (`C:\tmp` by default).

Java runtime environment (JRE) requirements

The installation application bundles a Java runtime environment that it requires. However, check the machine notes for your operating system platform to determine whether the installation application requires a preinstalled JRE.

Restrictions

Attention: Windows: Do not install the 32-bit and the 64-bit editions of the same versions of Client SDK and Informix Connect on the same system.

Linux: Client SDK does not support RPM installations.

Related reference:

Java technology dependencies

System requirements for IBM OpenAdmin Tool (OAT) for Informix

The IBM OpenAdmin Tool (OAT) for Informix has these prerequisites when it is installed with the IBM Informix Client Software Development Kit (Client SDK).

Supported platforms

OAT can be installed and run on these platforms:

Linux
- RHEL 5, x86
- RHEL 5, x86_64
- RHEL 6, x86
- RHEL 6, x86_64
- RHEL 7, x86_64
- SuSE SLES 11, x86
- SuSE SLES 11, x86_64
- Asianux 3.0, x86
- Asianux 3.0, x86_64
- Ubuntu 10.04, x86
- Ubuntu 10.04, x86_64
- Ubuntu 12.04, x86
- Ubuntu 12.04, x86_64

Windows
- Windows 2003 SP2, 32-bit
- Windows 2003 SP2, 64-bit
- Windows 2008, 32-bit
- Windows 2008, 64-bit
- Windows 2008 R2, 64-bit
- Windows 2012 Server
- Windows 7, 32-bit
- Windows 7, 64-bit
- Windows 8
- Windows Vista, 32-bit
- Windows Vista, 64-bit
- Windows XP, 32-bit
- Windows XP, 64-bit

Note: Windows 64-bit systems can use OAT if OAT is installed through 32-bit Client SDK.

Mac OS X
- Mac OS X 10.5.2, 64-bit
- Mac OS X 10.6, 64-bit

System requirements

For Linux and Mac OS X, OAT requires these system resources:
- RAM: 40 MB
- Disk space: 125 MB

For Windows, OAT requires these system resources:

- RAM: 40 MB
- Disk space: 175 MB

IBM Informix versions required

For OAT and the OAT plug-ins, the following Informix versions are required:

- OAT: Informix 11.10 or later.
- IBM Informix Health Advisor Plug-in for OpenAdmin Tool (OAT): Informix 11.50.xC7 or later.
- IBM Informix JSON Plug-in for OpenAdmin Tool (OAT): Informix 12.10.xC2 or later.
- IBM Informix Replication Plug-in for OpenAdmin Tool (OAT): Informix 11.50.xC4 or later. To access a database with a non-English locale, the Replication plug-in requires Informix 11.70.xC4 or later.
- IBM Informix Schema Manager Plug-in for OpenAdmin Tool (OAT): Informix 11.10 or later.
- IBM Informix TimeSeries Plug-in for OpenAdmin Tool (OAT): Informix 11.10 or later.

Prerequisites for all operating systems

- A web browser: Mozilla Firefox (Recommended) 10, Microsoft Internet Explorer 8.0, Apple Safari 6.
- Adobe Flash Player 11.
- The UTF-8 locales for all the databases that you access through OAT. To access a database with a locale that is not included in the Client SDK, install the locale by using the IBM Informix International Language Supplement (ILS). After you install OAT, install ILS on the computer where OAT is installed in the Informix Connect or Client SDK directory. Use ILS to install the additional locale, including the UTF-8 version, in the Informix Connect or Client SDK directory that OAT is using. The database name must be in English characters.

Prerequisites for Linux

On Linux 32-bit operating systems, the following libraries must be installed in `/lib/` or `/usr/lib/`. On Linux 64-bit operating systems, the libraries must be installed in `/lib64`, `/usr/lib64`, `/lib/`, or `/usr/lib/`.

These libraries are required for 32-bit and 64-bit operating systems. Some exceptions are noted.

- libc.so.6
- libcom_err.so.2
- libcrypt.so.1
- libcrypto.so.6
- libdl.so.2
- libexpat.so.0
- libfreebl3.so (RHEL 6 only)
- libgssapi_krb5.so.2
- libk5crypto.so.3
- libkeyutils.so.1
- libkrb5.so.3

- libkrb5support.so.0
- libm.so.6
- libnsl.so.1
- libpcre.so.0
- libpng12.so.0
- libpthread.so.0
- libresolv.so.2
- librt.so.1
- libselinux.so.1 (RHEL 5 and RHEL 6 only)
- libsepol.so.1 (RHEL 5 only)
- libssl.so.6
- libuuid.so.1
- libxml2.so.2
- libz.so.1

Prerequisites for Mac OS X

On Mac OS X, the following libraries must be installed:

- libapr-1.0.dylib
- libaprutil-1.0.dylib
- libexpat.1.dylib
- libgcc_s.1.dylib
- libiconv.2.dylib
- libsqlite3.0.dylib
- libSystem.B.dylib

Prerequisites for Windows

On Windows, the following prerequisites must be met for installation:

- Uninstall releases of IBM Informix Connect and Client SDK version 2.90 or earlier. If outdated versions of either of these products are found on the system, the OAT installation does not work.
- Uninstall any existing installations of PHP. If PHP is found on the system, the OAT installation does not work because PHP does not support multiple instances of installation on Windows.
- For Windows XP, verify that Service Pack 2 is installed.
- Uninstall any existing instance of OAT. Multiple instances of the OAT installation are not supported on Windows.

Related concepts:

"Products that are installed with the IBM OpenAdmin Tool (OAT) for Informix" on page 1-4

Installation methods

The primary way to install Client SDK or Informix Connect is with an interactive installation that prompts you to configure installation properties. After your run an interactive installation, you can run non-interactive installations that are based on the original installation.

Interactive installation

An interactive client products installation allows you to exclude unneeded products and to prepare for a silent installation by creating a response file. After you start the installation program, choose a custom installation to exclude products, or a typical installation to install all components.

Non-interactive installation methods

Non-interactive installation methods, such as a silent installation or a script-based installation, are based on the results of interactive installation or on an existing client products installation. You cannot run a non-interactive installation on Mac OS X.

Silent installation (UNIX, Linux, Windows)
Use to install Client SDK or Informix Connect, with the product-specific command.

By using a response file, you can replicate a specific installation configuration on multiple computers with minimal or no user interaction. Silent installation can save much time for some user scenarios.

Extraction with command-line script (UNIX, Linux)
Use to install Client SDK or Informix Connect individually.

The extraction with command-line installation alternative can be helpful in one of the following scenarios:

- You want to install the product to redistribute it to multiple computers quickly and with minimal disk space usage
- You want to avoid using Java Runtime Environment (JRE) during redistribution of the product

Installation owner

The user who installs the client products is the owner of the installation.

The standard way to install client products is as the superuser **informix** with administrative privileges.

UNIX, Linux , Mac OS X

You can install client products as the superuser **informix** or as a non-root user.

User **informix** is required for root-based installations because it has the unique user identifier (UID) to manage client products, as well as the database server. The installation program automatically creates the user **informix** and the group **informix**. If you previously installed a root-based Informix product on the computer, user and group **informix** already exist.

You can install the client products as a non-root user. Then the user account that performs the non-root installation is the owner of the installation. However, you cannot perform a non-root installation of a client product in an **$INFORMIXDIR** directory that has a standard, root-based installation of the Informix server.

If you are installing client products on a platform that does not support Java, you must manually create the user **informix** and the group **informix**. For instructions, see Creating the group informix and user informix (UNIX, Linux).

Windows

You must have Administrator privileges to install client products. If you log on to Windows without specifying a domain, only the local system is checked. The user **informix** is created during the installation as a member of the Administrator group.

Installation directory

You can use the default installation directory for the database server when you run the installation application, or you can create a directory before you install and then select that directory during installation.

The installation directory is known as the `INFORMIXDIR` directory because the environment variable **`INFORMIXDIR`** is set to the installation directory.

The directory where you install Informix products must fulfill these requirements:

- The directory can contain a database server installation.
- The directory must not contain Informix client products installations. Uninstall existing client products before you install new client products in the same directory.
- The full path to the installation directory must not exceed 200 characters, including path separators, and must not contain spaces. UNIX, Linux, Mac OS X: The directory for a non-root installation must not exceed 60 characters.
- UNIX, Linux, Mac OS X: The directory on which you plan to install the database server must be local or an NFS-mounted file system with regular operating-system files.
- Windows: The drive on which you plan to install the database server must be formatted with NTFS and must have 8.3 file name creation enabled. For Windows 7 and subsequent Windows versions, turn off User Account Control (UAC) security before you install client products.

Tip: UNIX, Linux, Mac OS X: Do not use *back* or *quit* as a string in the **`INFORMIXDIR`** path or in any Informix product installation configuration settings, including passwords.

Chapter 2. Installing client products

You can install client products as an interactive installation or an unattended installation. You can customize the installation process with the installation command.

You have the following installation method options, depending on your operating system:

- UNIX, Linux: interactive console (default), interactive GUI, silent, scripted
- Mac OS X: interactive GUI
- Windows: interactive GUI, silent

Although the most common way to run the installation program on Windows or Mac OS Xoperating systems is by double-clicking an executableor an app icon, you can run the installation command from the command line on all operating systems. When you run the installation command from the command line, you can include options to customize the installation process in the following ways:

- Specify the mode for the installation program: console, GUI, or silent, depending on the operating system.
- Create a response file for use in an unattended installation.
- Specify the directory for installation log files.
- Specify the level and directory for debugging information.
- Specify silent installation options.

Related reference:

Chapter 3, “Client products installation command syntax,” on page 3-1

Running an interactive installation

You can install client products by running an interactive installation program. You can choose which products to install.

Before you start the installation program, perform the following steps:

- Prepare your system for installation.
- Log in as the appropriate user to be the owner of the client products.

You can include options to the installation command if you run the command from the command line. For example, on UNIX and Linux, you can include the **-i gui** option to run the installation program in GUI mode instead of the default console mode.

To install client products:

1. Start the installation application from the media directory.
   - UNIX, Linux:
     a. If necessary, extract the product files. For example, run the **tar** command:
        `tar xvf filename`

        The *filename* is the name of the product `tar` file.
     b. Run the following command to install Client SDK: `./installclientsdk`.

Run the following command to install Informix Connect:
`./installconnect`

- Mac OS X:
  a. If you do not see the `ids_install.app` icon when you open the installation media, double-click the self-extracting `.dmg` icon.
  b. Double-click the `ids_install.app` icon.
  c. If you want a non-root installation, select the **Private Installation** option.
- Windows:
  a. If the entire media is still in `.zip` archive format, extract the media.
  b. Exit all other applications.
  c. Double-click the `installclientsdk.exe` file to install Client SDK, or the `installconnect.exe` file to install Informix Connect.

2. Follow the instructions in the installation application. Choose a custom installation to exclude products, or a typical installation to install all components.
3. Complete the installation and exit the installation application.

Log files are created during the installation process. You can use the log files to troubleshoot installation errors.

You can now configure the client environment and connect to the database server.

Windows: If you are upgrading to new release, restart your computer after the installation completes if both of the following conditions are true:

- The new installation location is different from the previous installation location
- You plan to use a distributed transaction application that uses the COM+ technology

Related reference:

Chapter 3, “Client products installation command syntax,” on page 3-1

Chapter 6, “Client installation troubleshooting,” on page 6-1

“Installation methods” on page 1-10

Running a silent installation (UNIX, Linux, Windows)

To perform a silent installation, which is sometimes referred to as an *unattended installation*, you must create a response file that contains information about how you want the product installed. You invoke this response file in a command-line option to perform the silent installation.

Before you start the installation program, perform the following steps:

- Prepare your system for installation.
- Log in as the appropriate user to be the owner of the client products.

On each target computer, you can customize the silent installation command in the following ways:

- Accept the license. Include the **-DLICENSE_ACCEPTED=TRUE** property.
- Bypass operating system prerequisite checks. Use with caution. Include the **-DPRQCHECK=FALSE** property.
- Set the installation path. Include the **-DUSER_INSTALL_DIR=***path* property.

- Overwrite existing product installations. Use with caution. Include the **-DOVERWRITE_PRODUCT=TRUE** property.

To deploy Client SDK or Informix Connect in multiple directories:

1. Create a response file by doing one of the following actions:
   - On a command line, run the appropriate installation command with the **-r** option to start an interactive installation that generates a response file.
   - Edit the `csdk.properties` file or the `conn.properties` file that is on the installation media, rename the file, and configure the settings for your environment and agreement to the license terms.
2. Copy the response file and the installation media to the computer where you want to install the client products.
3. Run the silent installation command for the client products that you want to install, indicating the absolute path to the response file after the **-f** option:

   UNIX, Linux:
   - Client SDK: `./installclientsdk -i silent -f` *path_name*
   - Informix Connect: `./installconnect -i silent -f` *path_name*

   Windows:
   - Client SDK: `./installclientsdk,exe -i silent -f` *path_name*
   - Informix Connect: `./installconnect.exe -i silent -f` *path_name*

Log files are created during the installation process. You can use the log files to troubleshoot installation errors.

You can now configure the client environment and connect to the database server.

Windows: If you are upgrading to new release, restart your computer after the installation completes if both of the following conditions are true:

- The new installation location is different from the previous installation location
- You plan to use a distributed transaction application that uses the COM+ technology

Related reference:

Chapter 3, “Client products installation command syntax,” on page 3-1

Chapter 6, “Client installation troubleshooting,” on page 6-1

“Installation methods” on page 1-10

Redistributing client products with scripts (UNIX, Linux)

You can extract client product files from the installation media for script-based redistribution to other computers.

Complete the following prerequisite tasks:

- Prepare your systems for installation.
- Log in as **root** user to create and copy a root installation that runs with user and group **informix** accounts.

Use this method if you want to redistribute the client product files without adding a Java runtime environment or an uninstallation application to multiple host systems. You extract the product files by starting the installation application with the `-DLEGACY=TRUE` command on one computer. After you run the installation

application, copy the files in the installation directory of the first computer to redistribute the product on other computers.

To install client products with a script:

1. Run an installation command:
   - Client SDK: `./installclientsdk -DLEGACY=TRUE`
   - Informix Connect: `./installconnect -DLEGACY=TRUE`
2. Follow the instructions in the installation application.
3. While logged in as the **root** user, manually install the Global Security Kit by running the **installgskit** from the `$INFORMIXDIR/gskit` directory.
4. Copy the contents of the installation directory and place them into the directory of another computer where you want to redistribute the products. The contents include the **RUNasroot** scripts that you use for redistribution.
5. Run the script for the product that you want to deploy on the other computer. You can deploy either Client SDK or Informix Connect in one location, not both.

Option	Description
RUNasroot.installclientsdk	Completes the redistribution of the Client SDK files.
RUNasroot.installconnect	Completes the redistribution of the Informix Connect files.

Log files are created during the installation process. You can use the log files to troubleshoot installation errors.

You can now configure the client environment and connect to the database server.

Related reference:

Chapter 3, “Client products installation command syntax,” on page 3-1

Chapter 6, “Client installation troubleshooting,” on page 6-1

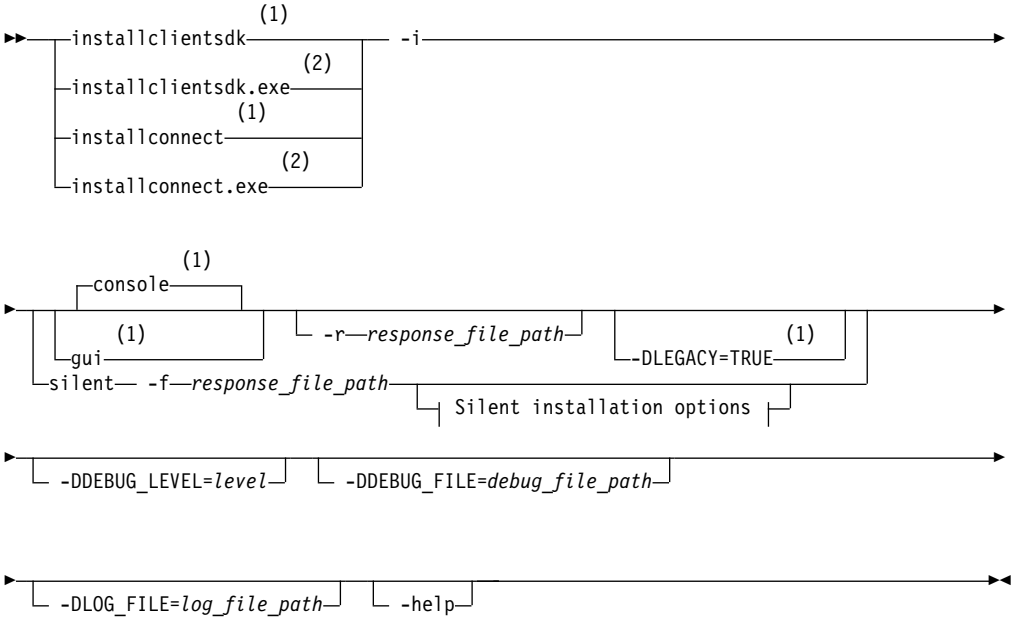
“Installation methods” on page 1-10

Chapter 3. Client products installation command syntax

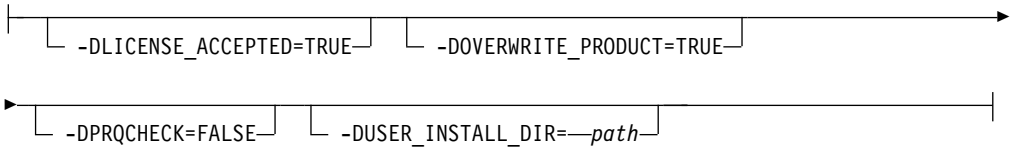
You can include options to the installation command when you run the command from the command line..

Log in as the appropriate user to be the owner of the database server to run this command.

Syntax



Silent installation options:



Notes:

1 UNIX, Linux, Mac OS X only

2 Windows only

Parameters

You can set properties on the installation command line that are useful for specific environments or installation methods. The values **TRUE** and **FALSE** are case-sensitive.

The following table describes the installation application options.

Table 3-1. Installation options

Option	Meaning
-DDEBUG_FILE=*debug_file_path*	Specifies the full path and name of the debug file. If tracing is enabled, the default name and location of the file is `/tmp/iad_dbg.log` (UNIX, Linux, Mac OS X) or `\tmp\iad_dbg.log` (Windows).
-DDEBUG_LEVEL=*level*	Specifies the level of tracing detail in the debug file. Possible values for *level* are 1 - 9, with 9 being the greatest level of tracing detail. By default, tracing is disabled.
-DLEGACY=TRUE	UNIX, Linux, Mac OS X: Extracts the product files from the installation media to create a script-based redistribution to other computers. For instructions, see "Redistributing client products with scripts (UNIX, Linux)" on page 2-3.
-DLOG_FILE=*log_file_path*	Specifies the full path and name of the installation log file. The default name and location of the installation log file is `/tmp/iad_act.log` (UNIX, Linux, Mac OS X) or `\tmp\iad_act.log` (Windows).
-DLICENSE_ACCEPTED=TRUE	Accepts the product license terms during a silent installation instead of indicating acceptance in the response file.
-DOVERWRITE_PRODUCT=TRUE	Specifies to overwrite an existing product installation during a silent installation. Otherwise, the installation application exits if it finds an existing product installation.
-DPRQCHECK=FALSE	Specifies to bypass the operating system prerequisites check during a silent installation. **Important:** Use with caution. Disabling the prerequisites check might result in an installation that does not function properly.
-DUSER_INSTALL_DIR=*install_path*	Specifies the installation path during a silent installation instead of specifying the path in a response file. Replace *install_path* with the absolute path to the installation directory.
-help	Displays list of supported options and their functions.
-i gui	Starts the installation program in GUI mode.
-i console	UNIX, Linux, Mac OS X: Starts the installation program in console mode.
-i silent -f *response_file_path*	Starts a silent installation that uses a response file. The *response_file_path* specifies the absolute path and file name for the response file. For instructions, see "Running a silent installation (UNIX, Linux, Windows)" on page 2-2.
-r *response_file_path*	Creates a response file from the installation. The *response_file_path* specifies the absolute path and file name for the response file. The response file contains an installation configuration that you want to deploy in more than one location. For more information, see "Running a silent installation (UNIX, Linux, Windows)" on page 2-2. Do not name your response file `bundle.properties` or `ids.properties`.

Unsupported options

The installation user interface is based on the InstallAnywhere framework; however, the **installclientsdk** and **installconnect** commands do not support the following options:

- **-add**

- **-remove**
- **-repair**
- **-uninstall**

To uninstall or modify client products, use the procedures that are recommended for the client products and operating systems.

Related concepts:

Chapter 2, “Installing client products,” on page 2-1

Chapter 4. Post-installation tasks for client products

After you install client products, you can configure your environment and create connections to the database server.

The method for creating connections depends on the client API or program. In some cases, you edit the `sqlhosts` file and other connectivity files. For instructions, see the documentation for the specific API.

Related information:

Configuring Connection Manager

ESQL/C client server connections

JDBC connections

C++ connections

ODBC data sources

OLE/DB connections

Informix .NET connections

Configuring IBM Data Server Drivers

Environment variables for clients

Client SDK, Version 4.10, supports the following environment variables.

For JDBC-specific environment variables, see Informix environment variables with the IBM Informix JDBC Driver.

The following environment variables affect all client products, unless otherwise stated.

Table 4-1. Environment variables for Client SDK

Environment variable	Purpose	Publication reference and possible values
CC8BITLEVEL	Specifies how the C-language compiler processes non-ASCII (8-bit and multibyte) characters.	Default is 2.
CLIENT_LOCALE	Specifies the locale that the client application uses to perform read/write operations that involve the keyboard, display, file, or printer on the client computer.	Any valid locale specifier. No default.
DB_LOCALE	Specifies the locale of all the databases that a client application accesses in a single connection (the database locale).	
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.	Default is n.

Table 4-1. Environment variables for Client SDK (continued)

Environment variable	Purpose	Publication reference and possible values
DBCENTURY	Specifies how to expand values of two-digit-year DATE and DATETIME values. `P` = past century, `R` = present century, `C` = closest century.	Values: `P`, `R`, or `C` Default is `R`.
DBFLTMASK	Specifies the number of decimal digits to use when storing a DECIMAL, SMALLFLOAT, or FLOAT data type in a character buffer DB-Access only.	Values: 0–16 Default is 16.
DBLANG	Specifies the subdirectory of the Informix installation directory that contains the product-specific message (`.iem`) files.	Default is *\msg*.
DBMONEY	Specifies the end-user format for MONEY values so that they can conform with various international and local monetary conventions.	Default is `$.,.`
DBPATH	Identifies the database servers that contain databases that the application accesses.	
DBTEMP	Specifies the directory on the client computer that the client processor uses to store temporary files (also called *swap* files).	Default is `\tmp`.
DELIMIDENT	Indicates whether (y) or (n) to interpret strings in double quotation marks as delimited identifiers.	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).	
FET_BUF_SIZE	Overrides the default size of the fetch buffer.	Any valid buffer size, in bytes. Default value depends on row size.
GL_DATE	Specifies a customized end-user format for DATE values.	
GL_DATETIME	Specifies a customized end-user format for DATETIME values.	
IFX_DISABLE_IPV6	Disables IPv6 support for a single database instance or for a single client application.	Values: `yes` or `no`. Default is `no`.
IFX_FLAT_UCSQ	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.	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.	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.	Default is C:\INFORMIX.
INFORMIXSERVER	Identifies the default database server.	

Table 4-1. Environment variables for Client SDK (continued)

Environment variable	Purpose	Publication reference and possible values
INFORMIXSQLHOSTS	Specifies the name of the computer on which the central registry is located.	
NODEFDAC	In databases not created WITH LOG MODE ANSI, setting this to `yes` prevents the PUBLIC group from receiving table privileges or routine privileges by default when tables or when owner-privileged UDRs are created.	Default is for PUBLIC to hold all table and routine privileges.
OPTMSG	Enables optimized message transfers (message chaining) for all SQL statements in an application.	Default is the value that LANG specifies.
OPTOFC	Enables optimize-OPEN-FETCH-CLOSE functionality in an ESQL/C application that uses DECLARE and OPEN statements to execute a cursor.	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.

Environment variables for backward compatibility with IBM Informix ESQL/C products

For environment variables that you can use if you need backward compatibility with older versions of IBM Informix ESQL/C on Windows, see Fields of the InetLogin structure.

Table 4-2. Environment variables for backward compatibility

Environment variable	Purpose	Possible values
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.
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.	Default is %Y-%m-%d %H:%M:%S.

Configuring client products on Windows systems

You can use the Setnet32 utility to configure Client SDK products.

The Setnet32 utility sets or modifies environment variables and network parameters that Informix products use at run time. You can access the Setnet32 utility from the client products program group.

You can set the following types of information with the Setnet32 utility:

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

  To set component-specific environment variables, see individual product documentation.
- Database server network information. A client application connects to a 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 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.

  Requirement: If you enter a service name, it must be defined on the client computer in the `system32\drivers\etc\services` file in the Windows installation directory. The service definition must match the definition on the database server host computer.
- Host computer and login 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.

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.

The following table lists the WIN32 override environment variables.

Table 4-3. 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

Connectivity protocols

The connectivity protocols that you can use to connect client products to the database server depend on the operating system.

The following table uses these abbreviations for protocol names:

- BSTP - Berkeley sockets using TCP/IP
- IPSP - IPC using stream pipe
- IPSM - IPC using shared memory
- IPNM - IPC using a named pipe
- MAXC - MaxConnect
- SSL - Secure Sockets Layer
- TLTP - TLI using TCP/IP

- TLIX - TLI using IPX/SPX

Table 4-4. Connectivity protocols for client products

Platform/OS	BSTP	IPSP	IPSM	IPNM	TLTP	MAXC	SSL
AIX	**onsoctcp** **drsoctcp**	**onipcstr**	**onipcshm**			**onsocimc**	**drsocssl** **onsocssl**
HP Itanium 64	**onsoctcp** **drsoctcp**	**onipcstr**	**onipcshm**			**onsocimc**	**drsocssl** **onsocssl**
HPUX	**onsoctcp** **drsoctcp**	**onipcstr**	**onipcshm**			**onsocimc**	**drsocssl** **onsocssl**
Linux 32-bit	**onsoctcp** **drsoctcp**	**onipcstr**	**onipcshm**			**onsocimc**	**drsocssl** **onsocssl**
Linux AMD 64	**onsoctcp** **drsoctcp**	**onipcstr**	**onipcshm**			**onsocimc**	**drsocssl** **onsocssl**
Linux POWER (Big Endian)	**onsoctcp** **drsoctcp**	**onipcstr**	**onipcshm**			**onsocimc**	**drsocssl** **onsocssl**
Linux POWER (Little Endian)	**onsoctcp** **drsoctcp**	**onipcstr**	**onipcshm**			**onsocimc**	**drsocssl** **onsocssl**
Linux IBM System z	**onsoctcp** **drsoctcp**	**onipcstr**	**onipcshm**			**onsocimc**	**drsocssl** **onsocssl**
Linux ARM	**onsoctcp** **drsoctcp**	**onipcstr**	**onipcshm**				**drsocssl** **onsocssl**
Mac OS X	**onsoctcp** **drsoctcp**	**onipcstr**	**onipcshm**			**onsocimc**	**drsocssl** **onsocssl**
Solaris	**onsoctcp** **drsoctcp**	**onipcstr**	**onipcshm**		**ontlitcp**	**ontliimc**	**drsocssl** **onsocssl**
Windows	**onsoctcp** **drsoctcp**			**onipcnmp**			**drsocssl** **onsocssl**

Notes:

- If you are using 64-bit servers: Remote 32-bit applications/tools (example: ESQL/C) can only connect to IBM Informix using the TCP/IP protocol. Local 32-bit applications/tools can connect to the 64-bit server using either TCP/IP protocols or IPC stream pipe protocols. Local 32-bit applications/tools cannot connect to the 64-bit server using IPC shared memory protocol.
- If you are using a NUMA system and have several IP addresses configured on the same physical interface: The IBM Informix TCP listener thread binds to a particular IP address/port. It listens for incoming calls addressed to only one IP address. If there are multiple IP addresses configured on the system, a TLI client is not able to connect to the server. (If DNS is configured to resolve the host name on a rotary of the four IP addresses, you do not know which of those

addresses has been selected by the IBM Informix TCP listener). The solution is that in the $INFORMIXDIR/etc/sqlhosts file, use "*hostname" instead of "hostname". It will make the IBM Informix TCP listener bind to INADDR_ANY instead of a particular address.

- For additional information, see the Informix machine notes.

Related information:

sqlhosts connectivity information

Starting the IBM OpenAdmin Tool (OAT) for Informix

After you install the IBM OpenAdmin Tool (OAT) for Informix with Client SDK or Informix Connect, you can start OAT and connect to the database server.

You can install OAT separately from other client products by deselecting all other products except OAT in the installation program. OAT has different system requirements than other client products. For details, see "System requirements for IBM OpenAdmin Tool (OAT) for Informix" on page 1-7.

To start OAT and connect to the database server:

1. Open the OAT application:
   - Linux: From the $INFORMIXDIR/OAT directory, run the **StartApache** script.
   - Windows: Choose **Start** > **Programs** > **IBM OpenAdmin Tool for Informix** > **IBM OpenAdmin Tool for Informix**.
2. Connect to the database server. On the **Login** page for OAT, complete the server details fields and click **Log In**.

Related concepts:

"Products that are installed with the IBM OpenAdmin Tool (OAT) for Informix" on page 1-4

Related tasks:

"Removing the IBM OpenAdmin Tool (OAT) for Informix" on page 5-3

Chapter 5. Removing client products

How you uninstall client products depends on the operating system and the installation method.

You have the following product removal methods:

- UNIX, Linux: interactive console, interactive GUI, silent, manual (only for products installed by a script)
- Mac OS X: interactive GUI
- Windows: interactive GUI

Removing client products

You can uninstall IBM Informix client products with an uninstallation application in GUI, console, or silent mode on UNIX, Linux, Mac OS X. Which mode you select depends on your objectives and system environment.

You must be logged in as a **root** (UNIX, Linux, Mac OS X) or an administrative user (Windows) to perform this task for root-based installations.

For non-root installations, either the installation owner or root user can remove the product. If you want to remove the product as a root user, verify that the installation is not in use or in production before uninstalling.

Important:

- Do not remove any IBM Informix products by manually deleting files.
- If Client SDK is installed in the same directory as the Informix database server:
  - You must uninstall Informix before you uninstall Client SDK.
  - Do not remove Informix GLS because both products have dependencies on this feature.

To uninstall client products:

1. From the **INFORMIXDIR** directory, run one of the following commands from the command line:
   - UNIX, Linux, Mac OS X:

     Client SDK: `uninstall/uninstall_csdk/uninstallcsdk`

     Informix Connect: `uninstall/uninstall_connect/uninstallconnect`

     Include the `-i swing` or the `-i gui` option to uninstall in GUI mode.
   - Windows:

     Client SDK: `uninstall\uninstall_csdk\uninstallcsdk.exe`

     Informix Connect: `uninstall\uninstall_connect\uninstallconnect.exe`

     Alternatively, you can choose the uninstallation option from the client products program group. You cannot use the **Add/Remove Programs** utility in the Control Panel to remove Informix client products.
2. Follow the prompts to complete the uninstallation.

Log files are created during the uninstallation process. You can use the log files to troubleshoot uninstallation errors.

Running a silent uninstallation (UNIX, Linux)

You can run a silent uninstallation of Client SDK and Informix Connect on UNIX and Linux operating systems.

You must be logged in as a **root** user.

Silent uninstallation of Client SDK and Informix Connect does not require a response file. A response file is required only if you want to customize the uninstallation. The only way to create the response file for silent uninstallation of a client product is to record a GUI or console uninstallation of the product in the first directory where you want to remove it. You cannot create the response file by modifying the template `bundle.properties` file.

To uninstall client products in silent mode:

1. Optional: If you want to create a response file, select a product installation that you want to uninstall with customized settings that are reusable for uninstallation of the same product on other computers.
2. Optional: Start a Client SDK or Informix Connect product uninstallation application in GUI or console mode and specify the `-i -r path_name` option on the command line, replacing *path_name* with a full path to the response file that you want to record. For example, if you want to uninstall Informix Connect in console mode and record the uninstallation in a response file at `C:/informix/uninstall.ini`, you would run:

   ```
   $INFORMIXDIR/uninstall/uninstall_connect/uninstallconnect -i -r uninstall.ini
   ```

   If you want to uninstall Client SDK, use the `uninstall/uninstall_csdk/uninstallclientsdk` command. The `-i -r path_name` option can be used together with the `-gui` option in the same command line if you prefer to perform the uninstallation in GUI mode.
3. Optional: Copy the response file to the computer where you want to uninstall the same client program.
4. Run the uninstallation command for the product with the `-i silent` option. If you are using a response file, indicate the relative or absolute path to the response file after the `-f` option.

   Attention: Do not pass the `-f` *path_name* argument shown in the following example if you are not using a response file.

   - Client SDK: `uninstall/uninstall_csdk/uninstallclientsdk -i silent -f` *path_name*
   - Informix Connect: `uninstall/uninstall_connect/uninstallconnect -i silent -f` *path_name*

Removing a scripted installation (UNIX, Linux)

If you ran the command-line script to install Client SDK, you must remove the client product files manually.

If you installed the database server with scripts on the same computer, removing client products also removes the database server. To remove the Informix files manually, run the following command from the **INFORMIXDIR** directory as the **root** user:

```
rm -rf productfiles
```

Removing the IBM OpenAdmin Tool (OAT) for Informix

You can remove only the IBM OpenAdmin Tool (OAT) for Informix by running the uninstallation program for OAT.

To uninstall OAT:

1. Change to this directory: `INFORMIXDIR/uninstall/uninstall_OpenAdmin`.
2. Start the uninstall program with one of the following methods:
   - GUI mode: Run the uninstall program:
     - Windows: **uninstallOpenAdmin.exe**
     - Linux: **uninstallOpenAdmin**
     - Mac OS X: **uninstallOpenAdmin.app**
   - Console mode: Enter the following command:
     - Windows: `uninstallOpenAdmin.exe -i console`
     - Linux: `uninstallOpenAdmin -i console`

     (No console mode is available for Mac OS X.)
3. Specify whether to preserve the existing connection information. If you select this option and install the next version of OAT in the same installation location, the connection information is preserved.

Related tasks:

"Starting the IBM OpenAdmin Tool (OAT) for Informix" on page 4-6

Chapter 6. Client installation troubleshooting

Installation log files and return codes can provide helpful information about a completed installation or help you identify problems encountered during an installation attempt.

Log files

When you install the database server, the installation application generates log files in the same directory as the installation media. You can change the default location of your log files and enable debugging mode during installation.

Install and Deployment log file

The Install and Deployment log file `iad_act` is created for any installation by using the Informix software bundle.

- UNIX, Linux, Mac OS X: `/tmp/iad_act`
- Windows: `\tmp\iad_act`

Standard-Out and Standard-Error log files

The Standard-Out and Standard-Error log files contain important debug information for use during installation failures.

- UNIX, Linux, Mac OS X: `/tmp/bundle_install.stdout` and `/tmp/bundle_install.stderr`
- Windows: `\tmp\bundle_install.stdout` and `\tmp\bundle_install.stderr`

InstallAnywhere log file

The InstallAnywhere log file contains information about the installation by using the InstallAnywhere framework.

- UNIX, Linux, Mac OS X:
  - Client SDK installation: `$INFORMIXDIR/IBM_Informix_Client-SDK_`*`version`*`_Install_`*`date`*`.log`
  - Informix Connect installation: `$INFORMIXDIR/IBM_Informix_Connect_`*`version`*`_Install_`*`date`*`.log`
  - Client SDK installation that includes Global Language Support (GLS): `$INFORMIXDIR/IBM_Informix_GLS_`*`version`*`_Install_`*`date`*`.log`
- Windows:
  - Client SDK installation: `%INFORMIXDIR%\IBM_Informix_Client-SDK_`*`version`*`_Install_`*`date`*`.log`
  - Informix Connect installation: `%INFORMIXDIR%\IBM_Informix_Connect_`*`version`*`_Install_`*`date`*`.log`
  - Client SDK installation that includes Global Language Support (GLS): `%INFORMIXDIR%\IBM_Informix_GLS_`*`version`*`_Install_`*`date`*`.log`

If the installation application fails, the InstallAnywhere log files are placed in the following directories:

- UNIX, Linux, Mac OS X: in your home directory.
- Windows: on the Windows Desktop.

Debug and tracing

You can set the level of tracing detail that is used and the location of the debug file by specifying the DDEBUG_LEVEL and DDEBUG_FILE options on the installation command. By default tracing is turned off. For more information, see Chapter 3, “Client products installation command syntax,” on page 3-1.

Return codes (UNIX, Linux, Mac OS X)

You can check the InstallAnywhere return code, also known as the *exit code*, after running the installation application to learn more about the installation status and possible error conditions. To retrieve the return code, run the following command after the installation application finishes:

```
echo $?
```

For information about the meanings of the InstallAnywhere return codes, see the documentation at the Flexera Software website: http://www.flexerasoftware.com.

Appendix. Accessibility

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

Accessibility features for IBM Informix products

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 products. These features support:

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

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.

IBM and accessibility

For more information about the IBM commitment to accessibility, see the *IBM Accessibility Center* at http://www.ibm.com/able.

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, that element is defined elsewhere. The string that follows the % symbol is the name of a syntax fragment rather than a literal. For example, the line 2.1 %OP1 refers 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 can write `HOST STATE`, but you cannot 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 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.

Notices

This information was developed for products and services offered in the U.S.A. This material may be available from IBM in other languages. However, you may be required to own a copy of the product or product version in that language in order to access it.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, NY 10504-1785
U.S.A.

For license inquiries regarding double-byte character set (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

Intellectual Property Licensing
Legal and Intellectual Property Law
IBM Japan, Ltd.
19-21, Nihonbashi-Hakozakicho, Chuo-ku
Tokyo 103-8510, Japan

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law: INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM websites are provided for convenience only and do not in any manner serve as an endorsement of those

websites. The materials at those websites are not part of the materials for this IBM product and use of those websites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation
J46A/G4
555 Bailey Avenue
San Jose, CA 95141-1003
U.S.A.

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

All IBM prices shown are IBM's suggested retail prices, are current and are subject to change without notice. Dealer prices may vary.

This information is for planning purposes only. The information herein is subject to change before the products described become available.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

COPYRIGHT LICENSE:

This information contains sample application programs in source language, which illustrate programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs. The sample programs are provided "AS IS", without warranty of any kind. IBM shall not be liable for any damages arising out of your use of the sample programs.

Each copy or any portion of these sample programs or any derivative work, must include a copyright notice as follows:

© (your company name) (year). Portions of this code are derived from IBM Corp. Sample Programs.

© Copyright IBM Corp. _enter the year or years_. All rights reserved.

If you are viewing this information softcopy, the photographs and color illustrations may not appear.

Privacy policy considerations

IBM Software products, including software as a service solutions, (“Software Offerings”) may use cookies or other technologies to collect product usage information, to help improve the end user experience, to tailor interactions with the end user, or for other purposes. In many cases no personally identifiable information is collected by the Software Offerings. Some of our Software Offerings can help enable you to collect personally identifiable information. If this Software Offering uses cookies to collect personally identifiable information, specific information about this offering’s use of cookies is set forth below.

This Software Offering does not use cookies or other technologies to collect personally identifiable information.

If the configurations deployed for this Software Offering provide you as customer the ability to collect personally identifiable information from end users via cookies and other technologies, you should seek your own legal advice about any laws applicable to such data collection, including any requirements for notice and consent.

For more information about the use of various technologies, including cookies, for these purposes, see IBM’s Privacy Policy at http://www.ibm.com/privacy and IBM’s Online Privacy Statement at http://www.ibm.com/privacy/details in the section entitled “Cookies, Web Beacons and Other Technologies”, and the “IBM Software Products and Software-as-a-Service Privacy Statement” at http://www.ibm.com/software/info/product-privacy.

Trademarks

IBM, the IBM logo, and ibm.com® are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the web at "Copyright and trademark information" at http://www.ibm.com/legal/copytrade.shtml.

Adobe, the Adobe logo, and PostScript are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States, and/or other countries.

Intel, Itanium, and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

Microsoft, Windows, and Windows NT are trademarks of Microsoft Corporation in the United States, other countries, or both.

Java and all Java-based trademarks and logos are trademarks or registered trademarks of Oracle and/or its affiliates.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Other company, product, or service names may be trademarks or service marks of others.

Index

Special characters

A

C

D

E

F

V

Printed in USA

GC27-4495-05