

Informix Client Products

Installation Guide

for UNIX

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In This Introduction

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

About This Manual

This manual explains how to install the following products on computers that run the UNIX operating system:

- **INFORMIX-Client Software Developer's Kit, Version 2.3**
This product consists of the development versions of the following client products:
 - ❑ Informix ODBC Driver with MTS support
 - ❑ INFORMIX-ESQL/C
 - ❑ INFORMIX-GLS
 - ❑ INFORMIX-Object Interface for C ++
 - ❑ INTERSOLV DataDirect ODBC Driver
 - ❑ Informix Password Communications Support Module
 - ❑ LIBMI for Client Applications ♦
- **INFORMIX-Connect, Version 2.3**
This product consists of the runtime versions of the client products. Applications that run on client computers that do not have Client SDK require INFORMIX-Connect to access Informix database servers.
- **Informix JDBC Driver and Informix Embedded SQL/J.**

This manual describes the basic installation procedures for these products. In addition to the basic installation procedures, some computers require special installation procedures. If you have such a computer, Informix includes a separate installation letter with the product materials package.

Types of Users

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

Assumptions About Your Locale

Informix products can support many languages, cultures, and code sets. All culture-specific information is brought together in a single environment, called a GLS (Global Language Support) locale.

The examples in this manual are written with the assumption that you are using the default locale, **en_us.1252**. This locale supports U.S. English format conventions for dates, times, and currency. In addition, this locale supports the ISO 8859-1 code set, which includes the ASCII code set plus many 8-bit characters such as é, è, and ñ.

If you plan to use nondefault characters in your data or your SQL identifiers, or if you want to conform to the nondefault collation rules of character data, you need to specify the appropriate nondefault locale.

For instructions on how to specify a nondefault locale, additional syntax, and other considerations related to GLS locales, see the [Informix Guide to GLS Functionality](#).

New Features

INFORMIX-Client Software Developer's Kit, Version 2.3, supports options that allow you to override version checking, so that the installation can proceed without further user interaction.

Documentation Conventions

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

The following conventions are discussed:

- Typographical conventions
- Icon conventions

Typographical Conventions

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

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






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

Icon Conventions

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



Comment Icons

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

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

Feature, Product, and Platform Icons

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

Icon	Description
	Identifies information that is specific to Informix Dynamic Server with Universal Data Option
	Identifies information that relates to the Informix Global Language Support (GLS) feature

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

Additional Documentation

The documentation set for Informix client products includes manuals and on-line notes for each of the components in the Client Software Development Kit (SDK).

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

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

For additional information, you might want to refer to the following types of documentation:

- On-line manuals
- Printed manuals
- Error-message documentation
- Documentation notes, release notes, machine notes

On-Line Manuals

An Answers OnLine CD that contains Informix manuals in electronic format is provided with your Informix products. You can install the documentation or access it directly from the CD. For information about how to install, read, and print on-line manuals, see the installation insert that accompanies Answers OnLine.

Printed Manuals

To order printed manuals, call 1-800-331-1763 or send email to moreinfo@informix.com. Please provide the following information when you place your order:

- The documentation that you need
- The quantity that you need
- Your name, address, and telephone number

Error Message Documentation

Informix software products provide ASCII files that contain all of the Informix error messages and their corrective actions.

To read error messages and corrective actions on UNIX, use one of the following utilities.

Utility	Description
finderr	Displays error messages on line
rofferr	Formats error messages for printing

Instructions for using the preceding utilities are available in Answers OnLine. Answers OnLine also provides a listing of error messages and corrective actions in HTML format.

Documentation Notes, Release Notes, Machine Notes

In addition to printed documentation, the following sections describe the on-line files that supplement the information in this manual. Please examine these files before you begin using your database server and client products. They contain vital information about application and performance issues.

On UNIX platforms, the following on-line files appear in the **\$INFORMIXDIR/release/en_us/0333** directory. The on-line filenames contain a string of characters that represent the product name.

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



Informix Welcomes Your Comments

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

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

Write to us at the following address:

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4100 Bohannon Drive
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If you prefer to send electronic mail, our address is:

`doc@informix.com`

The **doc** alias is reserved exclusively for reporting errors and omissions in our documentation.

We appreciate your suggestions.

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In This Chapter

This chapter explains how to install INFORMIX-Client Software Developer's Kit, Version 2.3, and INFORMIX-Connect, Version 2.3 on the UNIX operating system.

Preparing to Install Informix Products

You install Informix products on the UNIX operating system with an installation script that copies files to your client computer.

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

If you encounter problems while you install these products, see [“Solving Installation Problems” on page 1-17](#). If the problems persist, contact Informix Technical Support. In North America, call toll-free (800) 274-8184 or send a fax to (913) 599-8590. Outside North America, contact your distributor or the nearest Informix subsidiary.

Order of Installation

If you install both the database server and client products in the same directory, install the oldest product first. Use the following table as a guide to install products in the correct order. Servers are listed horizontally, and client products are listed vertically. In the table, OnLine stands for INFORMIX-OnLine Dynamic Server, IDS stands for Informix Dynamic Server, XPS stands for Informix Dynamic Server with Advanced Decision Support and Extended Parallel Options, US stands for INFORMIX-Universal Server, SE stands for INFORMIX-SE, and NS stands for 'not supported.'

	Version 5.0x OnLine, SE	Version 5.1 OnLine, SE	Version 7.1x IDS, SE	Version 7.2x IDS, SE	Version 7.3x IDS, SE	Version 8.1x XPS	Version 8.2x XPS	Version 9.1x US
Version 2.0x Client SDK INFORMIX- Connect	Install server first Note: This Online server does not support Client SDK, Versions 2.0 and 2.01	Install server first Note: ThisOnline server does not support Client SDK, Versions 2.0 and 2.01	Install server first Note: ThisOnline server does not support Client SDK, Versions 2.0 and 2.01	Install server first	Install connec- tivity product first	Install connec- tivity product first	Install connec- tivity product first	Install connec- tivity product first

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	Version 5.0x OnLine, SE	Version 5.1 OnLine, SE	Version 7.1x IDS, SE	Version 7.2x IDS, SE	Version 7.3x IDS, SE	Version 8.1x XPS	Version 8.2x XPS	Version 9.1x US
Version 2.10 Client SDK INFORMIX- Connect	Install server first	Install server first	Install server first	Install server first	Install server first	Install server first	Install connec- tivity product first	Install connec- tivity product first
Version 2.20 Client SDK INFORMIX- Connect	Install server first	Install server first	Install server first	Install server first	Install server first	Install server first	Install connec- tivity product first	Install connec- tivity product first
Version 2.30 Client SDK INFORMIX- Connect	Install server first	Install server first	Install server first	Install server first	Install server first	Install server first	Install server first	Install server first

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

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

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

If you want to preserve product files of earlier versions, create separate directories for each version of your Informix products. If you install multiple versions of an Informix product, set the `INFORMIXDIR` environment variable to the appropriate directory name for the version that you want to access. For information about `INFORMIXDIR`, see [“Setting Informix Environment Variables” on page 1-10](#).

To install JDBC, see [Chapter 2, “Informix JDBC Installation”](#).

Components of the Client Software Developer’s Kit

The `INFORMIX-Client Software Developer’s Kit` (Client SDK) allows you to develop and run client applications in UNIX environments.

The components of the `INFORMIX-Client Software Developer’s Kit` are described in the following table.

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

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Component	Description
INTERSOLV DataDirect ODBC Driver	An ODBC driver that complies with ODBC 3.5. For more information, see the INTERSOLV DataDirect ODBC Driver User Guide for Informix Database Servers .
LIBMI for Client Applications	A client-side implementation of the DataBlade API, provided to ease migration of client applications from the Informix Illustra Server to Informix Dynamic Server with Universal Data Option.
Password CSM	Informix Password Communications Support Module for client applications. Password CSM must also be installed on the Informix server to which the client will connect. To verify that your Informix server supports this feature, see the <i>Administrator's Guide for Informix Dynamic Server</i> .

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Compatibility Information

The client products are compatible with the following database servers:

- Informix Dynamic Server
- Informix Dynamic Server with Advanced Decision Support and Extended Parallel Options
- INFORMIX-Universal Server or Informix Dynamic Server with Universal Data Option
- Informix Dynamic Server, Developer Edition
- Informix Dynamic Server, Workgroup Edition
- INFORMIX-SE

Only client products included in INFORMIX-Developer SDK, Version 9.1x, or Client SDK, Version 2.0x or later, can use the extended functionality that INFORMIX-Universal Server and Dynamic Server with UD Option provide. ♦

Tip: For additional compatibility information, see the release notes.

IDS/UD



Installing The Products

The installation procedure includes the following tasks:

1. Preparing the UNIX environment
2. Loading product source files
3. Checking on-line files
4. Running the installation script
5. Preparing to use an installed client product

The rest of this section describes each of these tasks.

Some computers require special installation procedures. If you have such a computer, Informix includes a separate installation letter with the product materials package. If you find such a letter, follow those instructions before you continue with the installation instructions in this manual. For more instructions that pertain to your computer, see the appropriate machine notes. For the machine-notes location, refer to [“Checking On-Line Files” on page 1-11](#).

If any Informix product is currently installed, skip [“Creating the Informix User and Group”](#) and proceed directly to [“Setting Informix Environment Variables” on page 1-10](#).

Preparing the UNIX Environment

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

```
stty erase ^h
```



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

Creating the Informix User and Group

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

1. Confirm that you are logged in as **root**.
2. To create the group **informix**, use any operating-system tool or utility that lets you create a new entry in the group file. The group file is **/etc/group** on most UNIX systems. Provide an unused group number equal to or greater than 100. If necessary, see your system administrator or operating-system manual for assistance.
3. To create a new user called **informix**, use any operating-system tool or utility that lets you create a new entry in the **/etc/passwd** file. Provide a user ID number equal to or greater than 100 for that user and assign the user to the group **informix**. Create a password for the user **informix**.



Important: When you use a network, propagate the new user name to all the systems on the network. For example, you must run the **ypmake** utility on some systems.

The user **informix** is the database equivalent of the UNIX **root** account, which means that anyone logged in as **informix** has complete access to any Informix products and databases. Keep the password for the user **informix** confidential.

Informix products use the group **informix** internally to control database access. Make sure that the user **informix** is the *only* member of the group **informix**. If you make an actual user of an Informix product a member of the group **informix**, you can cause unintended and uncontrolled database access.



Important: When administrative role separation is enforced, any person logged in as the user **informix** is a database server administrator.

Exception: Role separation is not available on Dynamic Server with AD and XP Options.

Creating the Informix Directory

1. Log in as **informix**.
2. Create a new directory for your Informix products.



Tip: Although this document uses **/local/informix** as the directory path and name, you can install the software in any directory that is local and is not mounted from another system on the network. If you use a different directory, substitute that directory path and name throughout this manual wherever you see **/local/informix**.

Setting Informix Environment Variables

Before you can install an Informix product, you need to set the **INFORMIXDIR** and **PATH** environment variables. Follow these steps:

1. Set the **INFORMIXDIR** environment variable to the directory that you created for your Informix products.
INFORMIXDIR specifies the directory where the product files are installed.
2. Add **\$INFORMIXDIR/bin** to the **PATH** environment variable.
PATH indicates the directories and search order that the shell uses to search for executable files.

For more information about the Informix environment variables, see the [Informix Guide to SQL: Reference](#).

Loading Product Source Files

Your Informix product materials include a serial-number keycard and electronic media that contain all product files. You need both of these items to perform the installation procedure. If you are missing one or both of them, contact your supplier or Informix sales representative.

To load the product source files

1. Make sure that you are logged in as **informix** if you are installing the Informix client products and plan to use them with a Version 9.1x or later Informix database server; otherwise you should be logged in as **root**.
2. Load the media into the appropriate drive of your computer.
If you are installing from a CD, use the UNIX **mount** command to mount the CD.

3. Make sure that you are in the `$INFORMIXDIR` directory.
4. To transfer the software from the media to the current directory, enter the appropriate **cpio**, **tar**, or other load command listed on the load line of the serial-number keycard.

Checking On-Line Files

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

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

Running Installation Scripts

The following table lists the scripts and commands for installing the client products.

Product	Script	Installation Command
Connect	installconn	<code>./installconn</code>
Client SDK	installclientsdk	<code>./installclientsdk</code>

***Important:** Run the installation scripts using the exact command syntax shown in the Installation Command section of the table. If you do not use the exact syntax, you will get an error.*

Version Checking

As of Client SDK Version 2.02, the **installconn** and **installclientsdk** scripts perform version checking. The scripts check for previously installed versions of the Client SDK. The script proceeds with installation only if all previously installed versions are older. The **installconn** script checks the version numbers for the Client SDK and INFORMIX-Connect so that an older version of INFORMIX-Connect is not installed over a newer Client SDK. However, **installclientsdk** only checks the version of the Client SDK.

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

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

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

installconn

The command syntax for the **installconn** script is:

```
./installconn [-i|-o] [-s serial number [-k key]] [-f] [-u|-a|-n]
```

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

Argument	Usage	Additional Information
-i	Use INFORMIX-Connect with Informix Dynamic Server with Universal Data Option, Version 9.x or later.	You must be logged in as informix .
-o	Use INFORMIX-Connect with a Version 7.x or Version 8.x Informix database server.	You must be logged in as root .

Argument	Usage	Additional Information
-s <i>serial number</i>	Automate the installation process by including the serial number on the command line.	The serial number must follow the -s option. The serial number is an 11-character license serial number from your serial-number keycard. It consists of three uppercase letters, followed by a pound sign (#), followed by one uppercase letter and six digits.
-k <i>key</i>	Automate the installation process by including the key on the command line.	The six-letter key from your serial-number keycard must follow the -k option.
-u	Upgrade Version 7.x ESQL/C shared libraries to Version 2.3 Client SDK.	When you use the -u argument, the installation script overrides Version 7.x ESQL/C shared-library files. With this option, you are prompted for verification during installation.
-a	Upgrade Version 7.x ESQL/C shared libraries to Version 2.3 Client SDK and do not prompt to verify this upgrade during installation.	The -a option operates similarly to the -u option, without a verification prompt during installation.
-n	Do not upgrade Version 7.x ESQL/C shared libraries to Version 2.3 Client SDK and do not prompt to verify this upgrade during installation.	None.
-f	Use INFORMIX-Connect. Overrides version checking.	Use -f only if you are sure of the versions of the currently installed, as well as the new Client SDK.

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installclientsdk

The command syntax for the **installclientsdk** script is:

```
./installclientsdk [-i|-o] [-s serial number [-k key]] [-f]
```

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

Argument	Usage	Additional Information
-i	Use Client SDK with Informix Dynamic Server with Universal Data Option, Version 9.x or later.	You must be logged in as informix .
-o	Use Client SDK with a Version 7.x or Version 8.x Informix database server.	You must be logged in as root .
-s <i>serial number</i>	Automate the installation process by including the serial number on the command line.	The serial number must follow the -s option. The serial number is an 11-character license serial number from your serial-number keycard. It consists of three uppercase letters, followed by a pound sign (#), followed by one uppercase letter and six digits.
-k <i>key</i>	Automate the installation process by including the key on the command line.	The six-letter key from your serial-number keycard must immediately follow the -k option.
-f	Overrides version checking.	Use -f only if you are sure of the versions of the currently installed, as well as the new, Client SDK.

To run the installation script

1. Make sure that you are logged in as **informix** if you plan to use the Informix client products with a Version 9.x of Informix database server; otherwise you should be logged in as **root**.
2. Determine where to install the product.

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

Install Connect on the computer on which your database applications run.
3. Copy the **clientsdk.tar** or **conn.tar** file to your destination directory.

4. Tar the file:

```
tar xvf [clientsdk.tar | conn.tar ]
```

5. Enter the command for one of the scripts. The script displays information about the product and the script requirements. For example, to enter the command for the installclientsdk script, type:

```
./installclientsdk [-i|-o] [-s serial number [-k key]]  
[-f]:
```

6. Press RETURN to continue the installation procedure.

If you specify the **-i** or **-o** options, and both the **-s** and **-k** options, skip to step 10.

If you do not specify both the **-s** and **-k** options, along with a serial number and key, the script displays the following prompt:

```
Enter your serial number (for example, INF#X999999) >
```

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

```
Is ClientSDK being installed along with Informix  
Dynamic Server with Universal Data Option (Release 9,  
required to be run as user "Informix")? (yes or no)
```

7. Enter the 11-character license serial number from your serial-number keycard.

The license serial number consists of three uppercase letters, followed by a pound sign (#), followed by one uppercase letter and six digits.

After you press RETURN, the script prompts you to enter your key.

8. Enter the six-letter key from your serial-number keycard.

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

9. Press RETURN to continue the installation procedure.

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

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

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

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

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

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

```
Installation of product complete
```

If no error messages appear during the installation procedure, the installation is successful. If any error messages appear before the **Installation complete** message, see [“Solving Installation Problems”](#) on page 1-17.

Preparing to Use an Installed Client Product

Some Informix products require installation and configuration tasks that this manual does not cover. For this information, refer to the manual for that product and to the release notes.



Important: Before you can connect a client application to a database server, confirm that you have configured your database server environment. For more information, see your [“Installation Guide”](#) and [“Administrator’s Guide.”](#)

Global Language Support

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

For more information, see the [Informix Guide to GLS Functionality](#).

Solving Installation Problems

This section describes some common installation problems and how to solve them. If any of these problems persist, contact the Informix Technical Support Department. In North America, call toll-free (800) 274-8184 or send a fax to (913) 599-8590. Outside North America, contact your distributor or the nearest Informix subsidiary.

Media-Loading Failures

The problems in this section can occur while you load the product files on your computer from the media that Informix supplies:

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

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

Solution. This problem usually occurs because you entered incorrect command arguments or because the media is damaged. Check the serial-number keycard and verify that you entered the **cpio**, **tar**, or other load command exactly as written. Try the command again.

If the command fails again, you might need to obtain new media. In this case, contact the Informix Technical Support Department or the vendor from whom you bought the product.

- **Problem.** When you use **cpio** to load the files from multiple disks, the command fails with an error message similar to one of the following examples:

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

Solution. This problem is uncommon with most versions of UNIX. Although these messages seem to refer to an error, they are prompting you to insert the next disk and to type the device name to continue.

In this context, the message `cannot read input` means that the **cpio** command has read all the data on the current disk. Load the next disk, enter the device name exactly as you did for the **cpio** command, and press RETURN.

Product-Installation Failures

The problems in this section can occur while you run the installation script:

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

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

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

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

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

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

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

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

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

```
Please rerun this installation procedure as
the account_name user.
```

Solution. Make sure that you are logged in as **informix** if you are installing client products for a Version 9.x of Informix database server or as **root** for other versions of Informix database servers.

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

```
INFORMIXDIR is not set.
```

Solution. This problem occurs because a default **INFORMIXDIR** environment variable does not exist. Set **INFORMIXDIR** to the directory where the product is to be installed.

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

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

Solution. To run the installation script, you must be in the **INFORMIXDIR** directory. To make sure that you are in the correct directory, go to the **INFORMIXDIR** directory. Then type the following command to make sure that **INFORMIXDIR** is set correctly:

```
setenv INFORMIXDIR 'pwd'
```

- **Problem.** After you enter the six-letter key, the script displays a message similar to one of the following examples:

```
chmod: can't change filename
etc/brand: cannot open filename
filename: not owner
```

Solution. This problem usually occurs because you logged into the wrong account to load the product source files.

Make sure that you are logged in as **informix** if you are installing client products for a Version 9.1x or later of Informix database server or as **root** for other versions of Informix database servers.

- **Problem.** After you enter the six-letter key, the script displays the following message:

```
"WARNING: This is an invalid serial number.
Exiting install script."
```

Solution. This problem occurs because you did not enter the correct key. Make sure that you enter the correct value.

- **Problem.** After you enter the six-letter key, the script displays the following message:

```
etc/brand: invalid serial number and/or key.
** Verify serial number and key values. **
** Restart installation procedure.      **
** Please type carefully.              **
```

Solution. This problem occurs because you did not enter the correct serial number or key. Make sure that you enter the correct values.

This problem can also occur because you did not run the `stty erase ^h` command properly, which causes the installation script to misinterpret certain keystrokes. For example, the installation script might interpret a pound sign (#) as a backspace.

Rerun the `stty` command as described in [“Setting Informix Environment Variables” on page 1-10](#). Then repeat the steps in [“Running Installation Scripts” on page 1-11](#) and all subsequent steps. If this problem occurs again, repeat the steps in [“Loading Product Source Files” on page 1-10](#) and all subsequent steps.

- **Problem.** After you enter the six-letter key, the script displays the following message:

Unknown message number 32766.

Solution. This problem occurs when you do not set **INFORMIXDIR** before you run the installation script. Set **INFORMIXDIR** and repeat the steps in [“Running Installation Scripts” on page 1-11](#) and all subsequent steps.

Access Problems After Installation

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

- **Problem.** When you try to start a client product, UNIX displays a system prompt or a message similar to the following example:

program: Command not found.

Solution. This problem occurs when UNIX cannot find the executable file. Most likely, either **INFORMIXDIR** is not set, or **PATH** is set incorrectly. [“Setting Informix Environment Variables” on page 1-10](#) describes how to set these environment variables. Verify that the environment variables are set properly. If you run the Bourne shell, remember to export **INFORMIXDIR** and **PATH** after you set them.

If **INFORMIXDIR** and **PATH** are set correctly, examine **PATH** to see if it provides access to another file with the same name before it provides access to the Informix executable file. If such a file exists, perform one of the following actions:

- ❑ Move it.
- ❑ Rename it.
- ❑ Delete it.
- ❑ Reorder **PATH** to find the Informix executable file before the other file.

This problem can also occur if the **TERM**, **TERMCAP** (or **TERMINFO**), or **INFORMIXTERM** environment variables are set incorrectly. Reset these values if necessary. To verify that they are set correctly, invoke a text editor such as **vi**. A distorted display indicates that these environment variables are not set correctly for your terminal.

For more information about environment variables, see the [Informix Guide to SQL: Reference](#).

- **Problem.** When you try to start a client product, UNIX displays a message similar to the following example:

```
Unknown message number 32766.
```

Solution. This problem usually occurs when **INFORMIXDIR** does not point to the correct directory. Make sure that **INFORMIXDIR** is set to the correct directory.

This problem also can occur when you use the **DBLANG** or **CLIENT_LOCALE** environment variables, if they are incorrect. Make sure that **DBLANG** and **CLIENT_LOCALE** are correct. For more information, see the [Informix Guide to GLS Functionality](#). ♦

- **Problem.** When you try to start a client product, UNIX displays a message similar to the following example:

```
Invalid serial number or mistyped key.  
Please consult your installation instructions.
```

Solution. This problem occurs when the product is not installed. Repeat the steps in [“Running Installation Scripts” on page 1-11](#) and all subsequent steps.

This problem can also occur if the **PATH** environment variable provides access to another file with the same name as the Informix executable file before it provides access to the Informix executable file. If such a file exists, perform one of the following actions:

- ❑ Move it.
- ❑ Rename it.
- ❑ Delete it.
- ❑ Reorder **PATH** to find the Informix executable file before the other file.

- **Problem.** When you try to send a command to a client product, the product displays a message similar to the following example:

cannot attach to shared memory

Solution. This problem occurs when you try to use a database server, but the database server is in off-line mode or quiescent mode. Bring the database server to on-line mode before you use it. For more information, see your [Administrator's Guide](#).

Difficulties While Using Informix Products

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

- **Problem.** When you try to list all databases, the list is incomplete.

Solution. Make sure that the **DBPATH** environment variable contains the names of all other database servers not referenced by the **INFORMIXSERVER** environment variable.

- **Problem.** When you start a client product, the screen display is distorted.

Solution. This problem occurs if the **TERM**, **TERMCAP** (or **TERMINFO**), or **INFORMIXTERM** environment variables are set incorrectly. Reset these values if necessary. To verify that they are set correctly, invoke a text editor such as **vi**. A distorted display indicates that these environment variables are not set correctly for your terminal.

For more information about environment variables, see the [Informix Guide to SQL: Reference](#).

- **Problem.** After you successfully install your client products and successfully invoke your database server, you cannot connect to the database server.

Solution. This problem usually occurs when one of the following files or environment variables has an incorrect value or a typographical error:

- ❑ **sqlhosts**
- ❑ **/etc/hosts**
- ❑ **/etc/services**
- ❑ **INFORMIXSERVER**
- ❑ **SQLEXEC**

This problem can also occur when you use a network information system if your computer cannot access the values in the **services** file.

Additionally, this problem can occur if your database server is not configured correctly. For configuration information, see your [Administrator's Guide](#).

- **Problem.** Unusual problems occur, such as networking problems on Hewlett-Packard computers or unexplainable crashes on Sun computers.

Solution. This problem occurs when your operating system needs a patch. For patch information, see the machine notes in the default directory **\$INFORMIXDIR/release/en_US/0333**.

Informix JDBC Installation

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In This Chapter

This chapter explains how to install and uninstall Informix JDBC Driver, Version 1.4; Informix JDBC Driver, Version 2.0; and Informix Embedded SQL for Java on computers that run the UNIX operating system.

Preparing to Install the Informix JDBC Driver

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

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

Installing the Correct Informix JDBC Driver Version

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

- Use Informix JDBC Driver, Version 1.4, with any of the following Informix JDBC Driver versions:
 - JDK 1.1.5 and higher
 - JDK 2
- Use Informix JDBC Driver, Version 2.0, and Informix Embedded SQL for Java with JDK 2 (formerly JDK 1.2).

Installing the Driver

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

The following sections describe the two ways to install the driver: interactive installation and silent installation.

Interactive Installation

This section describes how to interactively install Informix JDBC Driver and Informix Embedded SQL for Java using the **Setup** program.

To interactively install Informix JDBC Driver and Embedded SQL for Java

1. If you are installing from a CD-ROM, load the disc into the CD-ROM drive.

On Hewlett-Packard platforms, you must use the **-o cdcase** option of the **mount** command to read the CD in case-sensitive mode.
2. If you are using Informix JDBC Driver, Version 1.4, copy the **ifxjdbc_version.tar** file into a temporary directory (*not* the directory into which you are installing Informix JDBC Driver). The **version** is the product version (for example, 1.40.JC2).

If you are using Informix JDBC Driver, Version 2.0, and Informix Embedded SQL for Java, copy the **ifxjdbc.tar** file into a temporary directory (*not* the directory into which you are installing Informix JDBC Driver).



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

3. Execute the following command if you are using Informix JDBC Driver, Version 1.4:

```
tar xvf ifxjdbc_version.tar
```

The **version** is the product version (for example, 1.40.JC2).

Execute the following command if you are using Informix JDBC Driver, Version 2.0, and Informix Embedded SQL for Java:

```
tar xvf ifxjdbc.tar
```

The **setup.class** and **install.txt** files appear in the temporary directory.

4. If you are installing Informix JDBC Driver, Version 1.4, make sure your **CLASSPATH** environment variable points to Version 1.1.5 or higher of the JDK.

If you are installing Informix JDBC Driver, Version 2.0, and Informix Embedded SQL for Java, make sure your **CLASSPATH** environment variable points to Version 1.2 or later of the JDK.

5. At the UNIX command line, create a directory to hold the contents of the driver.

For example, to create the directory **/work/jdbcdriver_home**, execute the following command:

```
mkdir /work/jdbcdriver_home
```

6. Change directory to the temporary directory that contains the **setup.class** file.
7. Start the **Setup** program with the **java** command at the UNIX command prompt:

```
java setup
```

The **Setup** program guides you through the installation of Informix JDBC Driver and Informix Embedded SQL for Java.

The following warning message might appear:

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

This condition does not affect the installation.

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

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

Silent Installation

This section describes how to silently install Informix JDBC Driver from the UNIX command line.

To silently install Informix JDBC Driver and Informix Embedded SQL for Java

1. If you are installing Informix JDBC Driver and Informix Embedded SQL for Java from a CD-ROM, load the disc into the CD-ROM drive.
On Hewlett-Packard platforms, you must use the **-o cdcase** option of the **mount** command to read the CD in case-sensitive mode.
2. If you are using Informix JDBC Driver, Version 1.4, copy the **ifxjdbc_version.tar** file into a temporary directory (*not* the directory into which you are installing Informix JDBC Driver). The **version** is the product version (for example, 1.40.JC2).
If you are using Informix JDBC Driver, Version 2.0, and Informix Embedded SQL for Java, copy the **ifxjdbc.tar** file into a temporary directory (*not* the directory into which you are installing Informix JDBC Driver).



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

3. Execute the following command if you are using Informix JDBC Driver, Version 1.4:

```
tar xvf ifxjdbc_version.tar
```

The **version** is the product version: for example, 1.40.JC2.

Execute the following command if you are using Informix JDBC Driver, Version 2.0, and Informix Embedded SQL for Java:

```
tar xvf ifxjdbc.tar
```

The **setup.class** and **install.txt** files appear in the temporary directory.

4. If you are using Informix JDBC Driver, Version 1.4, make sure your **CLASSPATH** environment variable points to Version 1.1.5 or later of the JDK.

If you are using Informix JDBC Driver, Version 2.0, and Informix Embedded SQL for Java, make sure your **CLASSPATH** environment variable points to Version 1.2 or later of the JDK.

5. At the UNIX command line, create a directory to hold the contents of the driver.

For example, to create the directory **/work/jdbcdriver_home**, execute the following command:

```
mkdir /work/jdbcdriver_home
```

6. Change directory to the temporary directory that contains the **setup.class** file.
7. Execute the following command at the UNIX command line:

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

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

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

For example, to install Informix JDBC Driver in the directory **/work/jdbcdriver_home** using a serial number of **INF#J123456** and a key of **ABCDEF**, execute the following command:

```
java setup -o  
/work/jdbcdriver_homeserialNo=INF#J123456 key=ABCDEF
```

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

The installation is complete after the command has finished executing.

Uninstalling the Driver

Uninstalling Informix JDBC Driver and Informix Embedded SQL for Java completely removes the driver and all of its components from your computer.

To uninstall Informix JDBC Driver and Informix Embedded SQL for Java

1. Change to the directory in which you installed Informix JDBC Driver.
For example, if you installed the driver in the directory **/work/jdbcdriver_home**, execute the following command at the UNIX command line:

```
cd /work/jdbcdriver_home
```
2. Launch the **Uninstall** program with the **java** command:

```
java uninstall
```
3. The **Uninstall** program guides you through the uninstallation process.

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