

HCL Informix 4GL Installation Guide

Version 7.51



Note

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

Contents

| | |
|---|------------|
| Introduction | v |
| About this publication | v |
| Software dependencies | v |
| Assumptions about your locale | v |
| Demonstration database | v |
| Demonstration programs | vi |
| What's new in HCL Informix 4GL, Version 7.50 | vi |
| Additional documentation | ix |
| Compliance with industry standards | ix |
| How to provide documentation feedback | ix |
| Informix 4GL installation | 1-1 |
| Memory and space requirements | 1-1 |
| Order of installation | 1-2 |
| Creating the user informix, group informix, and product directory | 1-3 |
| Informix environment variables | 1-3 |
| Creating and using a setup file | 1-5 |
| Installing HCLInformix 4GL | 1-5 |
| Appendix. Accessibility | A-1 |
| Accessibility features for HCL Informix products | A-1 |
| Related accessibility information | A-1 |
| Notices | B-1 |
| Trademarks | B-3 |

Introduction

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

About this publication

This publication explains how to install your HCL® Informix® 4GL software and is written with the assumption that you have a working knowledge of your computer, your operating system, and the utilities that your operating system provides.

Software dependencies

This publication is written with the assumption that you are using HCL Informix 14.10 as your database server.

Assumptions about your locale

HCL Informix products can support many languages, cultures, and code sets. All the information related to character set, collation and representation of numeric data, currency, date, and time that is used by a language within a given territory and encoding is brought together in a single environment, called a Global Language Support (GLS) locale.

The examples in this publication are written with the assumption that you are using one of these locales: en_us.8859-1 (ISO 8859-1) on UNIX platforms or en_us.1252 (Microsoft 1252) in Windows environments. These locales support U.S. English format conventions for displaying and entering date, time, number, and currency values. They also support the ISO 8859-1 code set (on UNIX and Linux) or the Microsoft 1252 code set (on Windows), which includes the ASCII code set plus many 8-bit characters such as é, è, and ñ.

You can specify another locale if you plan to use characters from other locales in your data or your SQL identifiers, or if you want to conform to other collation rules for character data.

For instructions about how to specify locales, additional syntax, and other considerations related to GLS locales, see the *HCL Informix GLS User's Guide*.

Compliance with industry standards

The American National Standards Institute (ANSI) and the International Organization of Standardization (ISO) have jointly established a set of industry standards for the Structured Query Language (SQL). HCL 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 Informix database servers comply with the SQL-92 Intermediate and Full Level and X/Open SQL Common Applications Environment (CAE) standards.

Informix 4GL installation

These topics guide you through the steps necessary to prepare your environment and install the HCL Informix 4GL product software.

The 4GL product has two different implementations:

- The HCL Informix 4GL C Compiler uses a preprocessor to generate HCL Informix ESQ/C source code. This code is preprocessed in turn to produce C source code, which is then compiled and linked as object code in an executable command file.
- The HCL Informix 4GL Rapid Development System (RDS) uses a compiler to produce pseudocode (called P code) in a single step. You then invoke a runner to execute the P-code version of your 4GL application. This includes the 4GL Interactive Debugger component.

Memory and space requirements

Before installing either HCL Informix 4GL implementation, you must ensure that your hardware system meets the appropriate memory and space requirements.

The following table indicates how much RAM is required, based on the number of users.

Table 1-1. RAM requirements per users

| Number of users | RAM requirements |
|---------------------------------|------------------|
| Small multiuser (1-10 users) | 8 MB |
| Large multiuser (11 plus users) | 16 MB or more |

The following table lists the memory requirements of the various 4GL components. See your platform-specific machine notes for more exact requirements.

Table 1-2. Memory required for 4GL components

| 4GL component | Memory required |
|---|--------------------------|
| HCL Informix 4GL C Compiler | |
| • Programmer's Environment (i4gl) | • 5 MB + database server |
| HCL Informix 4GL Rapid Development System | |
| • Programmer's Environment (r4gl) | • 5 MB + database server |
| • P-code runner (fglgo) | • 5 MB + database server |
| HCL Informix 4GL Interactive Debugger • | |
| Development | • 5 MB + database server |
| HCL Informix SQL | |

| | |
|---------------|--------------------------|
| • Development | • 5 MB + database server |
| • Runtime | • 5 MB + database server |

The following table lists the disk-space requirements of the various 4GL components. See your platform-specific machine notes for more exact requirements.

Table 1-3. Disk space required for 4GL components

| 4GL component | Maximum disk space required |
|--|------------------------------|
| HCL Informix 4GL C Compiler | |
| • Development | • 650 MB (size of .tar file) |
| • Runtime | • 500 MB (size of .tar file) |
| HCL Informix 4GL Rapid Development System | |
| • Development | • 530 MB (size of .tar file) |
| • Runtime | • 500 MB (size of .tar file) |
| HCL Informix 4GL Interactive Debugger | |
| • Development | • 500 MB (size of .tar file) |
| HCL Informix SQL | |
| • Development | • 500 MB (size of .tar file) |
| • Runtime | • 500 MB (size of .tar file) |
| Combined installation of all four products | 3680 MB |

Order of installation

Many HCL Informix products must be installed in a specific order. Before you install Informix 4GL, review the order of installation for your 4GL components.

If you install more than one HCL Informix product (for example, 4GL and HCL Informix), you must install each product in the following order:

1. Application development tools
Install application development tools in chronological product order, from the oldest to the newest versions.
2. SQL application programming interfaces (APIs)
Install SQL APIs in chronological product order, from the oldest to the newest versions.
3. Database servers
Install database servers in chronological product order, from the oldest to the newest versions.
Generally, a database server should be installed in the same directory as any SQL API or application development tools that use it. Therefore, verify that **\$INFORMIXDIR** is set to the common directory before you install these types of products.
4. Additional products
Install remaining interface and documentation products in chronological product order, from the oldest to the newest versions.

Creating the user **informix**, group **informix**, and product directory

First-time users of HCL Informix products must create the user **informix**, group **informix**, and **informix** product directory.

Typically on 4GL, you must be able to log in as the following users:

- as **informix**: to run the HCL Informix servers and software
- as yourself: to perform administrative work on your computer, such as copying and extracting files
- as **root**: to edit system files and install the HCL Informix software

User **informix** is a user account with main authority over an HCL Informix instance. The user **informix** is the database equivalent of the UNIX root account, so anyone logged in as **informix** can completely access any HCL Informix products and databases. Make sure that you keep the password for user **informix** confidential.

Group **informix** must exist on the system for the user accounts required to install and administer an HCL Informix product. HCL Informix products use group **informix** internally to control database access. Make user **informix** the only member of group **informix**. If you make a user of an HCL Informix product a member of group **informix**, you can cause unintended and uncontrolled database access.

To create the user **informix**, group **informix**, and **informix** product directory:

1. Create a group called **informix** in the group file (/etc/group on most UNIX-based systems).

Generally, you should provide a unique group number that is greater than or equal to 100. If necessary, see your system administrator or operating-system manual for assistance.

2. Add a new user called **informix** to the /etc/passwd file and assign the user to the group **informix**.

Generally, you should provide a user ID number greater than or equal to 100 for that user and include a password for user **informix**.

3. If you are using a network, propagate the new user name to all systems on the network. For example, you (or the network administrator) might need to run the **ypmake** utility.

4. By default, the software is installed in /usr/informix. If you decide to use a different directory, substitute that directory path and name throughout this documentation whenever you see /usr/informix. Create a directory for your 4GL software by entering a command such as the following:

```
mkdir /usr/informix
```

Informix environment variables

Before you can use any HCL Informix product, you must set numerous environment variables and create a setup file to store the environment variables.

DBDATE

The format for dates and times. This environment variable must be set if your 4GL web service contains date values. The default is Y4MD-, which is a four-digit year followed by the month and date separated by a dash, for example, 2009-10-12.

DBPATH

Identifies database servers that contain databases and must be set to \$INFORMIXDIR/etc.

INFORMIXDIR

The location of the client programs, library files, message files, header files, and other Informix software components. For example:

```
setenv INFORMIXDIR /extra/4gl
```

INFORMIXSERVER

The arbitrary, logical name you supplied for your Informix database server. This name is used to establish connectivity in client/server configurations. For example:

```
setenv INFORMIXSERVER cardtrick_01
```

INFORMIXSQLHOSTS

The path to the etc/sqlhosts files within your Informix database software. For example:

```
setenv INFORMIXSQLHOSTS /extra/4gl/etc/sqlhosts
```

LD_LIBRARY_PATH

Sets the path to the library file that the Informix database software uses. For example:

```
setenv
LD_LIBRARY_PATH $INFORMIXDIR/lib:$INFORMIXDIR/lib/esql:$INFORMIXDIR/lib/tools
```

PATH

The location of the binary files for your Informix software. For example:

```
setenv PATH ${PATH}:/extra/4gl/bin
```

Important: On some platforms, `LD_LIBRARY_PATH` has a different name. See your platform-specific machine notes for the name of this environment variable on your platform.

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

Creating and using a setup file

You can create a setup file that stores the environment variables.

You must run the environment variables in the windows from which you are running an HCL Informix product. You can then source the file to set the environment variables.

To create and use a setup file:

1. Create a setup file using either the Text Editor or vi editor.
2. Enter your current environment variables into the setup file. For example, a setup file might include the following environment variables:

```
setenv INFORMIXDIR /extra/4gl
setenv PATH ${INFORMIXDIR}/bin:${PATH}
setenv INFORMIXSERVER cardtrick_01
setenv INFORMIXSQLHOSTS ${INFORMIXDIR}/etc/sqlhosts
```

3. Save the file.
4. Each time you open a new shell window, source the setup file to set the environment variables. For example:

```
source setup
```
5. To make sure that the environment variables are set correctly, use the `env` command.

It is always a good idea to check the environment variables. Sometimes UNIX might not allow you to access a file. If this occurs, you might have to log in as another user to access the file.

Installing HCL Informix 4GL

This topic contains instructions for installing HCL Informix 4GL. If you are also installing a database server, review the installation and configuration information in the Administrator's Guide for your version of the database server before you proceed with the steps in this section.

Before you begin your 4GL installation, you need the following:

- HCL Informix 4GL software product media or downloaded files
- Your device name

Important: To run the 4GL compiler, you must have a C compiler installed on your computer. A C compiler is not included with this product.

To install Informix 4GL

1. Log in as **root**.
2. Load the 4GL product CD.
3. If you are not currently in the \$INFORMIXDIR directory, enter the following command: **cd \$INFORMIXDIR**
4. Copy the software files from the CD or downloaded files to the current directory by entering the name of the .tar file:
`tar xvf[b] pathname [20]`

where *pathname* is the full path to the .tar file for the product on the CD.

For example:

`/cd/ibm/i4gl/4gl.tar`

The following table provides the specific .tar file names for your 4GL product:

Table 1-4. 4GL product .tar file names

| Product | .tar file name |
|------------------------------|----------------|
| 4GL C Compiler | 4gl |
| 4GL Interactive Debugger | 4db |
| 4GL Rapid Development System | 4gp |

5. Enter the installation command for the first 4GL product that you want to install.

For example, to install the 4GL C Compiler, enter the following command:

./install4gl

The following table provides the specific installation command for your 4GL product:

Table 1-5. 4GL product installation commands

| Product | Installation command |
|------------------------------|----------------------|
| 4GL C Compiler | ./install4gl |
| 4GL Interactive Debugger | ./install4db |
| 4GL Rapid Development System | ./install4gp |

The following message is displayed on the screen:

Installation Script

This installation procedure must be run by root (super-user). It will change the owner, group, and mode of all files of this package in this directory. There must be a user "informix" and a group "informix" known to the system.

Press RETURN to continue,
or the interrupt key (usually CTRL-C or DEL) to abort.

6. Press RETURN to continue the installation procedure. The following message is displayed on the screen:

This Program is licensed under the terms of the license agreement accompanying the Program. This license agreement is located in a Program directory \$INFORMIXDIR/LI, or provided as a printed license agreement. Please read this agreement carefully before using the Program. By using the Program, you agree to these terms.

Press RETURN to continue,
or the interrupt key (usually CTRL-C or DEL) to abort.

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- PROMPTLY RETURN THE PROGRAM AND PROOF OF ENTITLEMENT TO

Press Enter to continue viewing the license agreement, or enter "1" to accept the agreement, "2" to decline it, "3" to print it, or "99" to go back to the previous screen.

7. Press RETURN to begin the installation.

A series of messages are displayed on the screen as each directory is installed:

```
Installing directory .  
Installing directory bin  
Installing directory lib  
.  
.  
.
```

The following message tells you that your HCL Informix product is fully installed:

```
Installation of <product> complete
```

After this message is displayed, you see the shell prompt.

8. Repeat steps 4 on page 1-6 through 7 for each of the 4GL products that you want to install.
9. Optional: Remove the LI, LAP, and JRE directories from your SQL product to make more space available on your computer.
10. Log out as **root** after you finish installing the products.

Notices

Notices and Information

HCL Informix 4gl 7.51.FC3

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1. Library: icu4c-release-60-2 Product: Informix 4GL

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5. Time Zone Database

ICU uses the public domain data and code derived from Time Zone Database for its time zone support. The ownership of the TZ database is explained in BCP 175: Procedure for Maintaining the Time Zone Database section 7.

7. Database Ownership

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