

# **INFORMIX<sup>®</sup>-NewEra<sup>™</sup> VCL for Motif**

## **Installation Guide**

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**T**his pamphlet describes how to install the INFORMIX-NewEra VCL for Motif deployment products on the supported UNIX platforms and lists the system requirements.

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## How to Use This Pamphlet

This *INFORMIX-NewEra VCL for Motif Installation Guide* is intended for system administrators and users who install and deploy NewEra applications on a UNIX platform. It covers the following topics:




- System requirements
- Preparing for installation
- Installing NewEra VCL for Motif

## Icon Conventions

Throughout this guide, you will find text that is identified by several product and platform icons. These icons identify paragraphs that contain product-specific or platform-specific information.

Icon	Description
	Identifies information that is specific to the HP platform
	Identifies information that is specific to the IBM platform

(1 of 2)

Icon	Description
	Identifies information that is specific to INFORMIX-OnLine database products
	Identifies information that is specific to the INFORMIX-SE database
	Identifies information that is specific to the Sun platform

(2 of 2)

These icons can apply to a row in a table, one or more paragraphs, or an entire section. A ♦ symbol indicates the end of the product- or platform-specific information.

## System Requirements

This section describes the NewEra VCL for Motif system requirements, including the supported platforms, hardware and software requirements, and supported database servers.

### Hardware and Software Requirements

[Figure 1](#) provides a hardware and software requirements checklist. You must have at least the minimum configuration before beginning the installation. See the release notes for more details.

**Figure 1**  
Hardware and  
Software Checklist

✓	<b>Hardware</b>
<input type="checkbox"/>	80 megabytes of available disk space for INFORMIX-NewEra VCL for Motif Version 3.x
<input type="checkbox"/>	13 megabytes of swap space
<input type="checkbox"/>	CD-ROM
✓	<b>Software</b>
<input type="checkbox"/>	INFORMIX-STAR for accessing INFORMIX-SE 5.x databases
<input type="checkbox"/>	INFORMIX-NET for accessing INFORMIX-OnLine 5.x databases

This pamphlet does not give instructions for installing the INFORMIX-STAR software for accessing INFORMIX-SE 5.x databases or the INFORMIX-NET software for accessing INFORMIX-OnLine 5.x databases.

## Supported Database Servers

For deploying NewEra applications, NewEra provides communications with the following database servers:

- INFORMIX-SE Versions 5.0x and 7.2x
- INFORMIX-OnLine Versions 5.0x and 7.2x
- ★ ORACLE 7
- SYBASE System 10

## Supported UNIX Platforms

Informix currently supports NewEra VCL for Motif on three UNIX platforms:

- Sun Microsystems
- Hewlett-Packard
- IBM

Sun

Sun Microsystems Platform Support

NewEra supports all SPARC-based workstations and servers shipped by Sun Microsystems Computer Corporation (SMCC). [Figure 2](#) lists the required platform elements. See the release notes for details.

✓	Operating System
<input type="checkbox"/>	Solaris 2.4 (SunOS 5.4)
✓	GUI Support
<input type="checkbox"/>	Motif 1.2.3 runtime libraries
✓	Windowing System
<input type="checkbox"/>	Motif Window Manager 1.2.3 or
<input type="checkbox"/>	OpenWindows (OpenLook) Window Manager 3.4
✓	C Compiler
<input type="checkbox"/>	SunPro C Compiler 3.0 or higher
✓	C++ Compiler
<input type="checkbox"/>	SPARCompiler C++ 4.0.1 or 4.1

Figure 2  
Sun Microsystems  
Platform Support

Specific requirements for the items in [Figure 2](#) are as follows:

- **Operating system.** Any patches required to support the various components (including INFORMIX-ESQL/C, INFORMIX-SE, and so on) are shipped with NewEra.
- **GUI support.** Motif 1.2.3 runtime libraries are included with Solaris 2.4 and are installed by default in the **/usr/dt/lib** directory. ♦



HP

**Hewlett-Packard Platform Support**

NewEra supports the Hewlett-Packard HP 9000 series 700 and 800 systems that are based on the RISC 1.1 architecture. NewEra is not supported on RISC 1.0 systems. [Figure 3](#) lists the required platform elements. See the release notes for details.

✓	<b>Operating System</b>
<input type="checkbox"/>	HP-UX 10.01 (HP 9000, Series 700, 800)
✓	<b>GUI Support</b>
<input type="checkbox"/>	Motif 1.2.4 runtime libraries
✓	<b>Windowing System</b>
<input type="checkbox"/>	Motif Window Manager 1.2.4
✓	<b>C Compiler</b>
<input type="checkbox"/>	HP-UX C Compiler 10.13
✓	<b>C++ Compiler</b>
<input type="checkbox"/>	HP C++ Compiler 10.22

**Figure 3**  
*Hewlett-Packard  
Platform Support*

Specific requirements for the items in [Figure 3](#) are as follows:

- **Operating system.** The HP-UX 10.01 operating system is upwardly compatible with HP-UX 9.05.
- **GUI support.** Motif 1.2.4 runtime libraries are included with HP-UX. ♦

IBM

IBM Platform Support

NewEra supports the IBM RS/6000 series computers. [Figure 4](#) lists the required platform elements. See the release notes for details.

✓	Operating System
☐	AIX 4.2
✓	GUI Support
☐	Motif 1.2.2 runtime libraries
✓	Windowing System
☐	Motif Window Manager 1.2.2
✓	C Compiler
☐	xlC 3.1.4 C Compiler
✓	C++ Compiler
☐	xlC 3.1.4 C++ Compiler

Figure 4  
IBM Platform Support

Specific requirements for the items in [Figure 4](#) are as follows:

- **Operating system.** The AIX 4.2 operating system is upwardly compatible with AIX.
- **GUI support.** Motif 1.2.2 runtime libraries are included with AIX 4.2. ♦

## Preparing for Installation

You should complete the following tasks before you install NewEra VCL for Motif:

- Verify that your operating system and window manager are supported.
- Determine the name of your media device.
- Obtain the password of the **root** account for the machine on which you are installing the application. You must log in as the **root** user to perform the installation procedure.
- If your system uses a network, there might be additional files (such as **/etc/hosts**, **/etc/services**, and **/etc/protocols**) to modify, additional environment variables to set, and other procedures to complete either before or after you install NewEra VCL for Motif. Consult your operating system documentation for specific instructions.
- Identify the directory in which the NewEra UNIX software will reside so you can properly set the **INFORMIXDIR** environment variable.
- Establish the **informix** user and group, as described in the next section.
- Create the installation directory, as described in the next section.



**Warning:** If you currently have or plan to purchase INFORMIX-4GL, or if you have installed INFORMIX-ESQL/C 4.x, 5.x, or 6.x, do not install NewEra in your current **INFORMIXDIR** directory. Installing NewEra replaces and overwrites files from INFORMIX-4GL and INFORMIX-ESQL/C, including executable files (such as **fglgo**, **c4gl**, and **esqlc**), libraries (such as **libgen.a**), and message files. To avoid these filename conflicts, if you are using INFORMIX-4GL or pre-7.20 versions of INFORMIX-ESQL/C, create a separate installation directory for NewEra and reset **INFORMIXDIR** to specify that directory when using NewEra tools or applications.

## Establishing the Informix User, Group, and Directory

The first time an Informix product is installed, you need to create a new **informix** user and group. The **informix** user is the database equivalent of the UNIX **root** account. Therefore, anyone logged in as **informix** has complete access to all Informix products and databases.

Group **informix** is used internally by Informix products to control database access. User **informix** should be the only member of group **informix**. No actual user of Informix products should be a member of group **informix** because this can lead to unintended and uncontrolled database access.

If your network uses a centralized UNIX user and group definition facility such as NIS, the creation of the **informix** user and group must be performed by the network administrator. Changes to local **/etc/passwd** and **/etc/group** files will have no effect. Have the network administrator establish the **informix** user and group.

### To create a new user, group, and directory

1. Log in as the **root** user.
2. Create a new group called **informix** in the group file (**/etc/group** on most UNIX systems).  
  
Assign a group number greater than or equal to 100 to the **informix** group. This group number should not be used for any other group. If necessary, consult your system administrator or operating system manual for assistance.
3. Add a new user called **informix** to the **/etc/passwd** file and assign the user to the group **informix**.  
  
Be sure to include a password for user **informix**.
4. Create a new directory for your product by entering this command:  

```
mkdir /usr/newera
```

  
Although supplying **/usr/newera** as the directory path and name is recommended, you can install the software in any directory. If you decide to use a different directory, substitute that directory path and name throughout this pamphlet wherever you see **/usr/newera**.
5. Set environment variables as described in the following section.

## Setting Environment Variables

Certain environment variables must be set before you can successfully compile or run a NewEra application. This section provides a short description of the variables and provides examples that show how to set them.

In this pamphlet, **\$INFORMIXDIR** means “the name of the directory referenced by the **INFORMIXDIR** environment variable.”

[Figure 5](#) summarizes the environment variables for NewEra VCL for Motif, INFORMIX-SE, and INFORMIX-OnLine.

**Figure 5**  
Environment Variables

✓ NewEra VCL for Motif Environment Variables	
<input type="checkbox"/>	<b>INFORMIXDIR.</b> Full pathname for Informix products directory
<input type="checkbox"/>	<b>PATH.</b> Search order in which directories are searched for executable files
<input type="checkbox"/>	<b>Library Path.</b> Search order for shared libraries:
<input type="checkbox"/>	<b>Sun</b> <b>LD_LIBRARY_PATH</b> (Solaris) ♦
<input type="checkbox"/>	<b>HP</b> <b>SHLIB_PATH</b> (HP-UX) ♦
<input type="checkbox"/>	<b>IBM</b> <b>LIBPATH</b> (AIX) ♦
<input type="checkbox"/>	<b>DISPLAY.</b> Identifies X server on which to display a client
<input type="checkbox"/>	<b>TERM.</b> Terminal type for which output is prepared
✓ Database Environment Variables	
<input type="checkbox"/>	<b>OL</b> <b>DBPATH.</b> Name of database servers ♦
<input type="checkbox"/>	<b>SE</b> <b>DBPATH.</b> Name of directories or servers (or both) containing databases ♦
<input type="checkbox"/>	<b>INFORMIXSERVER.</b> Name of default database server
<input type="checkbox"/>	<b>SE</b> <b>INFORMIXSQLHOSTS.</b> Full pathname for the <b>sqlhosts</b> file ♦
<input type="checkbox"/>	<b>SE</b> <b>SQLEXEC.</b> Name of database server executable ♦

***NewEra VCL for Motif Environment Variables***

This section describes the NewEra environment variables.

*INFORMIXDIR Variable*

The **INFORMIXDIR** environment variable contains the full pathname of the directory in which Informix product files are installed. It must be set correctly on both the client system and the server system.

The following example shows how to set **INFORMIXDIR** using the C shell and the Bourne (or Korn) shell.

---

<b>C Shell</b>	<code>setenv INFORMIXDIR /usr/newera</code>
<b>Bourne Shell</b>	<code>INFORMIXDIR=/usr/newera; export INFORMIXDIR</code>

---

*PATH Variable*

The **PATH** variable specifies the order in which directories are searched for executable programs. You must set **PATH** to include **\$INFORMIXDIR/bin**. The **PATH** variable is required for NewEra.

The following example shows how to set **PATH** for NewEra using the C shell and the Bourne (or Korn) shell.

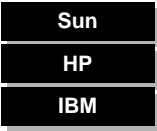
---

<b>C Shell</b>	<code>setenv PATH \${INFORMIXDIR}/bin: \${PATH}</code>
<b>Bourne Shell</b>	<code>PATH=\${INFORMIXDIR}/bin:\$PATH;export PATH</code>

---

*Library Path Variable*

The name of the library path environment variable is platform-dependent. It specifies the order in which NewEra searches directories for shared libraries. NewEra requires the library path value to include the paths to your system, Motif and X11 libraries, as well as the path to the NewEra libraries.



Specify one of the following variables, depending on your platform:

- **LD\_LIBRARY\_PATH**
- **SHLIB\_PATH**
- **LIBPATH**

Examples of setting these variables follow.

*LD\_LIBRARY\_PATH Variable*

The following example shows how to set the **LD\_LIBRARY\_PATH** environment variable for NewEra using the C shell and the Bourne (or Korn) shell.

<b>C Shell</b>	<pre>setenv LD_LIBRARY_PATH \${INFORMIXDIR}/lib/newera:\ \${LD_LIBRARY_PATH} setenv LD_LIBRARY_PATH \${INFORMIXDIR}/lib:\ \${LD_LIBRARY_PATH} setenv LD_LIBRARY_PATH \${INFORMIXDIR}/lib/esql:\ \${LD_LIBRARY_PATH} setenv LD_LIBRARY_PATH \${INFORMIXDIR}/windu/lib:\ \${LD_LIBRARY_PATH}</pre>
<b>Bourne Shell</b>	<pre>LD_LIBRARY_PATH=\${INFORMIXDIR}/lib/newera:\${INFORMIXDIR}/lib/esq l:\${INFORMIXDIR}/windu/lib:\${LD_LIBRARY_PATH};\ export LD_LIBRARY_PATH</pre>

If you are using CCL/ODBC, the **LD\_LIBRARY\_PATH** must also include **\$INFORMIXDIR/lib/cli**.

<b>C Shell</b>	<pre>setenv LD_LIBRARY_PATH \${INFORMIXDIR}/lib/newera:\ \${INFORMIXDIR}/lib/cli:\${LD_LIBRARY_PATH}</pre>
<b>Bourne Shell</b>	<pre>LD_LIBRARY_PATH=\${INFORMIXDIR}/lib/newera:\${INFORMIXDIR}/lib/e sql:\${INFORMIXDIR}/windu/lib:\${INFORMIXDIR}/lib/cli:\\$LIBPATH; export LD_LIBRARY_PATH</pre>



HP

*SHLIB\_PATH Variable*

The following example shows how to set the **SHLIB\_PATH** environment variable for NewEra using the C shell and the Bourne (or Korn) shell.

---

<b>C Shell</b>	<code>setenv SHLIB_PATH \${INFORMIXDIR}/lib/newera:\${SHLIB_PATH}</code>
<b>Bourne Shell</b>	<code>SHLIB_PATH=\${INFORMIXDIR}/lib/newera:/usr/dt/lib:\n\$SHLIB_PATH; export SHLIB_PATH</code>

---



IBM

*LIBPATH Variable*

The following example shows how to set the **LIBPATH** environment variable for NewEra using the C shell and the Bourne (or Korn) shell.

---

<b>C Shell</b>	<code>setenv LIBPATH \${INFORMIXDIR}/lib/newera:\${LIBPATH}</code>
<b>Bourne Shell</b>	<code>LIBPATH=\${INFORMIXDIR}/lib/newera:/usr/dt/lib:\n\$LIBPATH; export LIBPATH</code>

---



*DISPLAY Variable*

The **DISPLAY** environment variable is a UNIX variable that defines the X server on which to display a client. The following example shows how to set **DISPLAY** using the C shell and the Bourne (or Korn) shell.

---

<b>C Shell</b>	<code>setenv DISPLAY axis:0.0</code>
<b>Bourne Shell</b>	<code>DISPLAY=axis:0.0; export DISPLAY</code>

---



*TERM Variable*

The **TERM** environment variable is a UNIX variable that defines the terminal type for which output is prepared. The following example shows how to set **TERM** using the C shell and the Bourne (or Korn) shell.

---

<b>C Shell</b>	<code>setenv TERM sun-cmd</code>
<b>Bourne Shell</b>	<code>TERM=sun-cmd; export TERM</code>

---

*Database Environment Variables*

The **DBPATH**, **INFORMIXSERVER**, **INFORMIXSQLHOSTS**, and **SQLEXEC** environment variables affect Informix database servers. For detailed information on these variables, see the [Informix Guide to SQL: Reference](#).

The **INFORMIXSERVER** and **INFORMIXSQLHOSTS** variables affect 7.x Informix servers but have no effect on 5.x Informix servers.

For descriptions of environment variables that affect database operations, see the documentation for your database server (for example, [Informix Guide to SQL: Reference](#) for Informix 7.x servers).

*The DBPATH Variable*

If you are using an INFORMIX-OnLine database server, the **DBPATH** environment variable identifies the database servers that contain databases. ♦

If you are using INFORMIX-SE, the **DBPATH** environment variable identifies the directories or the database servers (or both) that contain databases. ♦

**DBPATH** is used by some SQL statements (such as **CONNECT** and **DATABASE**) if the location of a database is not explicitly stated or if the database cannot be located in the default server or (for INFORMIX-SE) the default directory.

OnLine

SE

The following example shows how to set **DBPATH** using the C shell and the Bourne (or Korn) shell.

<b>C Shell</b>	<code>setenv DBPATH /usr/joachim</code>
<b>Bourne Shell</b>	<code>DBPATH=/usr/joachim; export DBPATH</code>

You might also need to set the **INFORMIXSERVER**, **INFORMIXSQLHOSTS**, and **SQLEXEC** environment variables for your Informix database server to work with NewEra.

*The INFORMIXSERVER Variable*

The **INFORMIXSERVER** environment variable specifies the name of the default database server to which the client will connect. The value must correspond to a valid *dbservername* entry in the **\$INFORMIXDIR/etc/sqlhosts** file or the **INFORMIXSQLHOSTS** file on the client machine. The **INFORMIXSERVER** variable is required for NewEra unless the database is supported by a 5.x Informix server.

The following example shows how to set **INFORMIXSERVER** using the C shell and the Bourne (or Korn) shell.

<b>C Shell</b>	<code>setenv INFORMIXSERVER cora1</code>
<b>Bourne Shell</b>	<code>INFORMIXSERVER=cora1; export INFORMIXSERVER</code>

*The INFORMIXSQLHOSTS Variable*

The **INFORMIXSQLHOSTS** environment variable specifies the full pathname of the **sqlhosts** file. The **sqlhosts** file, together with the **/etc/hosts** and **/etc/services** files, specifies the location of the database server and the type of connection between the client and the database server.

Setting **INFORMIXSQLHOSTS** is optional. If **INFORMIXSQLHOSTS** is not set, the **sqlhosts** file is assumed to be located in **\$INFORMIXDIR/etc/sqlhosts**. An **sqlhosts** file is required for NewEra, but only if the database is located in a 7.x Informix server.

The following example shows how to set **INFORMIXSQLHOSTS** using the C shell and the Bourne (or Korn) shell.

<b>C Shell</b>	<code>setenv INFORMIXSQLHOSTS /dba/newera3/sqlhosts</code>
<b>Bourne Shell</b>	<code>INFORMIXSQLHOSTS=/dba/newera3/sqlhosts export INFORMIXSQLHOSTS</code>



*The SQLEXEC Variable*

The **SQLEXEC** environment variable specifies the name of the database server executable (**sqlxec** for the INFORMIX-SE server, **sqlturbo** for an INFORMIX-OnLine server) for Version 5.x Informix servers. You can specify a full pathname (**\$INFORMIXDIR/lib/sqlxec**) or the simple filename (**sqlxec** or **sqlturbo**). If the full pathname is not specified, **\$INFORMIXDIR/lib/\$SQLEXEC** is assumed.

For Version 7.x or later products, it is necessary to set **SQLEXEC** only if you want to establish communication between a Version 5.x client and a Version 7.x database server.

The following example shows how to set **INFORMIXSERVER** using the C shell and the Bourne (or Korn) shell.

<b>C Shell</b>	<code>setenv SQLEXEC \$INFORMIXDIR/lib/sqlxec</code>
<b>Bourne Shell</b>	<code>SQLEXEC=\$INFORMIXDIR/lib/sqlxec; export SQLEXEC</code>

Other environment variables might be required under certain circumstances. For example, if you plan to access an NLS database, you must set the **DBNLS** environment variable.

The following example shows how to set the **DBNLS** environment variable using the C shell and the Bourne (or Korn) shell.

<b>C Shell</b>	<code>setenv DBNLS 2</code>
<b>Bourne Shell</b>	<code>DBNLS=2; export DBNLS</code>



SE

---

## Installing NewEra VCL for Motif

This section describes how to install the NewEra VCL for Motif libraries from the CD-ROM or another installation medium. The installation procedure uses the shell prompt only. Motif does not need to be running at installation time. The libraries are installed from the UNIX command line. You must first set **INFORMIXDIR** and create the **\$INFORMIXDIR** directory before you can begin the installation. (See [“Setting Environment Variables” on page 9.](#))

### To install the NewEra for Motif libraries from CD

1. Log in as the **root** user.
2. Insert the CD in the CD-ROM drive.  
**Volcheck** should automount the CD to the **cdrom** directory.
3. If the CD is not mounted automatically, reference the mount point as in the following example:

```
mount /dev/cdrom /mnt
```

4. Change directories to the Informix installation (**\$INFORMIXDIR**) directory:

```
cd $INFORMIXDIR
```

5. Extract the NewEra component files from the CD into your directory:

```
cpio -icvdumB -I cdrom/ne311mcb1/neco.cpi  
cpio -icvdumB -I cdrom/ne311mcb1/nemf.cpi
```

6. Install the NewEra files in your **\$INFORMIXDIR** directory:

```
./installnemf
```

The following prompt appears, which indicates the installation script is beginning the branding process:

```
Enter your serial number (for example, INF#X9999999)
```

You need the serial number and serial number key shown on the serial number key card in your software media box. The serial number key card lists your serial number as “License S/N.”

7. Type your case-sensitive serial number and press RETURN.

The following prompt appears:

```
Enter your serial number KEY (uppercase letters only)
```

8. Type your serial number key and press RETURN.  
Your serial number and serial number key must be entered before the installation process can continue.
9. When a warning appears regarding your software licensing, press RETURN to continue the installation procedure.

As each directory is installed, a series of messages is displayed.  
The messages look similar to the following:

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

A final message appears at the end of the installation procedure to tell you when the installation is complete.