Installing Luna Server

Luna supplies the following software on the installation CD:

- The Sun Microsystems Java Developer Kit (JDK)
- *Luna Server* executables and graphical desktop tools
- VisiBroker distributed naming service applications
- Documentation, sample applications, and tutorials
- Luna client-support software

This chapter gives procedures for installing everything on the CD except the Luna-client support software. After you complete the instructions in this chapter, your computer can run both server and client applications without further installation.

Note... If you want to install Luna client-support software on a client-only computer, refer to Chapter 4, "*Installing Luna Client Support.*"

This chapter discusses installation with the following topics:

Topic	Page
Required preparation	18
Installation directories	20

Topic	Page
Installing Luna-supplied software for Windows	22
Installing Luna-supplied software for UNIX	33

Complete the instructions in this chapter to install a default *Luna Server* installation. To work with the default server immediately after you complete the instructions in this chapter, go to Chapter 3 *"Running Luna Server"* on page 67. For example, your users might want to run the default server as they practice with the sample application that the *Luna Tutorial* describes.

If your users are already familiar with Luna software, you can set configuration properties to accommodate non-default installations after you complete the instructions in this chapter. Non-default installations include:

* Host that run multiple servers
* Communication across firewalls
* Clustering

To modify the default configuration after you complete the instructions in this chapter, continue with Chapter 2, *"Configuring Non-Default Installations"* on page 41.

Required preparation

Use the contents of this section as guidelines for pre-installation planning.

Hardware and supporting software

Check that your system has sufficient resources to store and run Luna software before you start the installation process. This section describes the minimum configuration that supports *Luna Server* and server-side application development.

Operating system

Luna Server runs under the following operating systems:

- Windows NT 4.0
- Windows 2000
- Sun Solaris 2.6 (or higher)

Note... This guide uses the term Windows to refer to the Windows NT or Windows 2000 operating system. Luna does not run under any other Microsoft Windows operating systems.

Memory and disk space

Luna Server uses a minimum of 128 MB of system memory but works best with the recommended 256 MB of memory. To enable you to install the *Luna Server* software and generate applications, your system must have 150 MB available disk space.

Protocols

Luna Server requires the TCP/IP networking protocol and supports HTTP.

Compatible Java environment

Luna Server requires and supplies the following Sun Microsystems software for Java development and runtime environments:

- Java Developers Kit, Standard Edition 1.2.2
- HotSpot Performance Engine version 1.0.1 for the Java Runtime Environment (JRE).

Note... Luna requires a production release of the Sun Microsystems JDK. If your system has a pre-release JDK installed, use the Luna Installation CD to install a production version.

Compatible JDBC drivers

Before *Luna Server* can interface with your data source, you must obtain and set up the appropriate JDBC driver to work with your data source.

Luna Server can use the following JDBC drivers to access a data source.

- JDBC/ODBC bridge
- Oracle 8 Thin JDBC driver
- Sybase JConnect JDBC driver
- Weblogic MSSQL Server driver

License key

Every *Luna Server* installation requires a unique license key. You must obtain the key before you attempt to install the software. If you did not receive the notice that contains the license key, contact your Luna representative.

Previous version removal

If a previous version of *Luna Server* is installed on your system, do the following before you install version 2.0:

1. Back up the previous version.

2. Uninstall the earlier version from your system.

Refer to *"Uninstalling Luna software from Windows"* on page 31 or *"Uninstalling Luna software from UNIX"* on page 39.

Installation directories

Luna installation creates the following directory structure:

```
LUNA_HOME -- Root Luna installation directory
    bin/ -- Luna configuration files and executables
    config/ -- Persistent data and deployed jar files
    docs/ -- Product documentation
    idl/ -- Luna Interface Definition Language support
    lib/ -- Luna class JAR files
    logs/ -- Default log files directory
    samples/ -- Sample applications and tutorials
```

Installing Luna-supplied software for Windows

Insert the Luna installation CD into your CD ROM drive. The CD should automatically display the graphical **Luna System** menu that Figure 1 shows. If the menu does not start automatically, open the \nt directory in the Windows Explorer for the CD drive and run install.bat.

Figure 1. Luna CD main menu

Figure 2. Luna CD Install Products menu

For your convenience, Luna includes the appropriate Sun Microsystems libraries on the Luna installation CD. To install the Sun Microsystems JDK, refer to the next section, *"Luna-specific installation for JDK on Windows."* If you already have the production release of JDK Standard Edition 1.2.2 installed, proceed *"Installing Luna Server software for Windows"* on page 25.

Luna-specific installation for JDK on Windows

1. Log on with Windows NT or Windows 2000 Administrator privileges.

2. From the **Luna System** menu (Figure 1 on page 22), click **Install Products**.

   The **Install Products** menu (Figure 2) appears.

3. Click **Start Sun JDK 1.2 Installation**.

4. Follow the on-screen instructions that installation program displays. In most of the windows, you simply click the **Next>** button to continue.

   When the **Select Components** window displays, you have the opportunity to deselect some JDK components. Luna recommends that you accept the defaults. To accept the default components, leave the check mark in each check box in the **Components** list.

5. Click the **Finish** button to complete the JDK installation.

6. Return to the window that displays the Luna **Install Products** menu (Figure 2 on page 23).

7. Select **Back** to reach the **Luna System** menu (Figure 1).

Installing Luna Server software for Windows

With the compatible Sun JDK available on your machine, you can install the *Luna Server* software.

Note... Remember to have your license key handy.

Using the CD menus

1. Log on with Windows NT or Windows 2000 Administrator privileges.

2. Shut down application software to free system resources for the installation process.

3. From the **Luna System** menu (Figure 1 on page 22), click **Install Products**.

The **Install Products** menu (Figure 2 on page 23) appears.

4. Click **Start Luna System Installation**.

5. Follow the instructions in *"Using the installation wizard"* on page 26.

6. When the *Luna Server* installation is complete, return to the window that displays the Luna **Install Products** menu (Figure 2 on page 23).

7. Click **Back** to reach the **Luna System** menu (Figure 1).

8. Click **Done** to exit the CD menus.

You can eject the CD.

To start the Luna server after installation, refer to *"Starting the Luna runtime environment"* on page 69. To tailor your Luna

runtime environment, follow the instructions in *"Configuring Non-Default Installations"* on page 41.

Using the installation wizard

This section leads you step-by-step through the interactive windows that the installation wizard displays.

1. Read the instructions in the **Welcome** window**.** Click the **Next >** button to continue**.**

2. In the **Software License Agreement** window, click the **Yes** button to accept the agreement and continue.

3. In the **Setup Type** window, click the radio button that describes how much of the *Luna Server* package you want to install. Click the **Next >** button to continue.

Note... These instructions describe the windows that the wizard displays if you select the **Typical** installation.

4. In the **License Key** window, enter the key that your Luna representative sends to you.

Note... The license key contains upper and lower case letters. As you enter the key in the install wizard window, use the same letter case.

   Click the **Next >** button to continue.

5. Depending on whether you installed the JDK from the Luna CD, the wizard displays a **Question** window that discusses the location of the JDK.

   • If your system does not include the JDK Standard Edition 1.2.2, click the **No** button to exit *Luna Server* installation. Follow the instructions in *"Luna-specific installation for JDK on Windows"* on page 24 to install the JDK.

- If your system includes the JDK Standard Edition 1.2.2, click the **Yes** button to continue.

  If the wizard displays an **Identify JDK Directory** dialog (Figure 3), Locate the JDK in the **Directories** list, then click the OK button to continue.
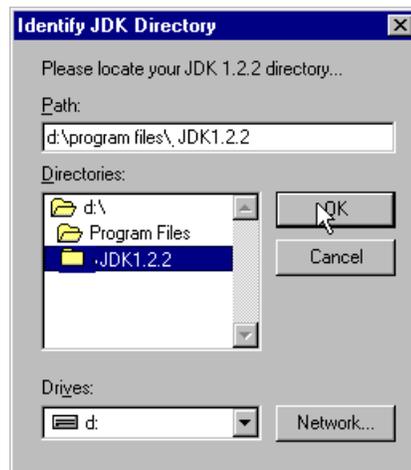

Figure 3. Locate the JDK directory

Note... The installation automatically sets the directory that you indicate for your JDK as the value for the LUNA_JDK environment variable.

6. If the wizard displays the window in Figure 4, click the **Yes** button to install the HotSpot Performance Engine in `LUNA_JDK/Jre/bin`.
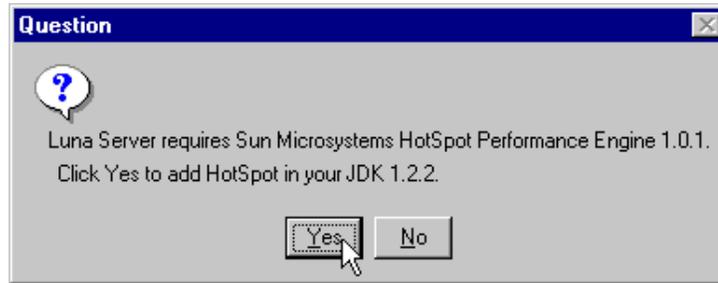

Figure 4.   HotSpot installation

7. In the **Select OSAGENT_PORT** window (Figure 5), you select a number that enables clients communicate with a single *Luna Server* on this host.

Note...   The installation automatically sets the `OSAGENT_PORT` environment variable to the **Port** field value in this window.

Luna recommends that you set the `OSAGENT_PORT` environment variable to a number from 14001 to 65536, which overrides the internal default, 14000.

For more guidelines about setting a value for `OSAGENT_PORT`, refer to *"Configuration basics"* on page 41.
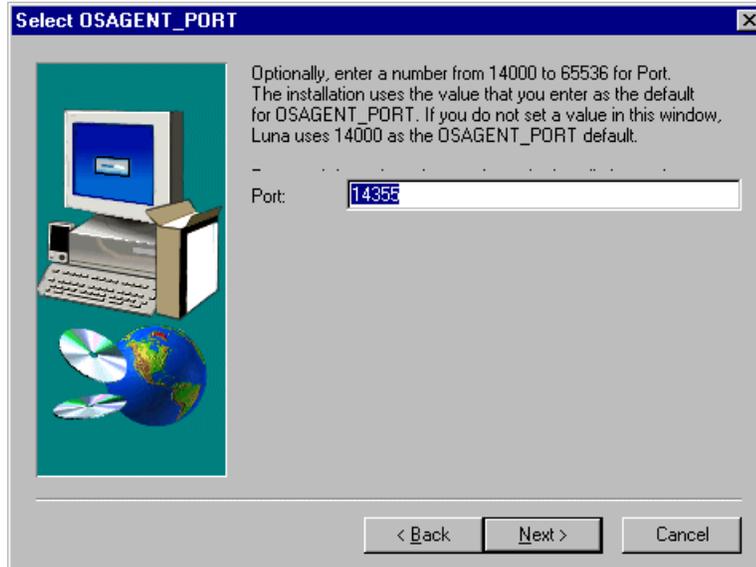
Figure 5.   Setting the OSAGENT_PORT environment variable

8. In the **Choose Destination Window**, either accept the default directory, C:\Program Files\Luna2.0, or select a different directory.

Note... The installation automatically sets the the LUNA_HOME environment variable to the directory that you choose in this window.

9. In the **Select Program Folder** window, select a name that the Windows Start Programs lists for the **Luna** menu.

10. The installation displays a progress indicator while it installs the Luna software components.

11. When the **Information** window appears to verify that the installation completed successfully, click the **OK** button to exit the Wizard.

Windows environment variables and license key

The command that starts the *Luna Server* requires the environment variables and license key information that this section describes.

Environment variables

On a Windows NT or Windows 2000 computer, the installation program automatically sets LUNA_HOME, LUNA_JDK, and OSAGENT_PORT environment variables.

The Windows operating environment typically provides a preset global TEMP environment variable. To view global environment variables:

1. Open the **Control Panel** from the task bar, using the following sequence of selections.

    Start ▶ Settings ▶ Control Panel

2. Click the **System** icon (Figure 6) in the **Control Panel**.

Figure 6. System Icon in Control Panel

3. To view the environment variables for your system

    *   on Windows NT, click the **Environment** tab.
    *   on Windows 2000, click the **Advanced** tab, then click **Environment variables**.

License key

Your Luna representative sends you a unique license key which provides authorization for the following actions:

*   Install the Luna software on this host.
*   Start a *Luna Server* on this host.

The installation wizard displays a **License Key** window in which you enter the unique license key from your Luna representative. (See Step 4 on page 26.) After you enter the correct key in that window, the wizard stores the license key string in the `%LUNA_HOME%\bin\license.key` file. The command that starts the Luna server checks the `license.key` file for a valid key before it starts *Luna Server*.

Warning!!!	Do not move, rename, or destroy the `license.key` file.

Uninstalling Luna software from Windows

The uninstallation program removes Luna program files from the local drive, Luna entries in the Registry (for versions of Luna that use the Registry), and the Luna program menu.

Note... The uninstaller purposefully does not delete log files, generated classes, or other files that you might want to keep.

1. Shut down any running Luna software.

    For shutdown procedure, refer to *"Shutting down the runtime environment"* on page 74.

2. Open the **Control Panel** from the task bar with the following sequence of selections:

    Start ▶ Settings ▶ Control Panel

3. In the Control Panel, double-click **Add/Remove Programs** to display the dialog in Figure 7.

4. Select the Luna software that you want to in the list and click the **Add/Remove** button. For example, Figure 7 shows how to remove *Luna Server* version 2.0.
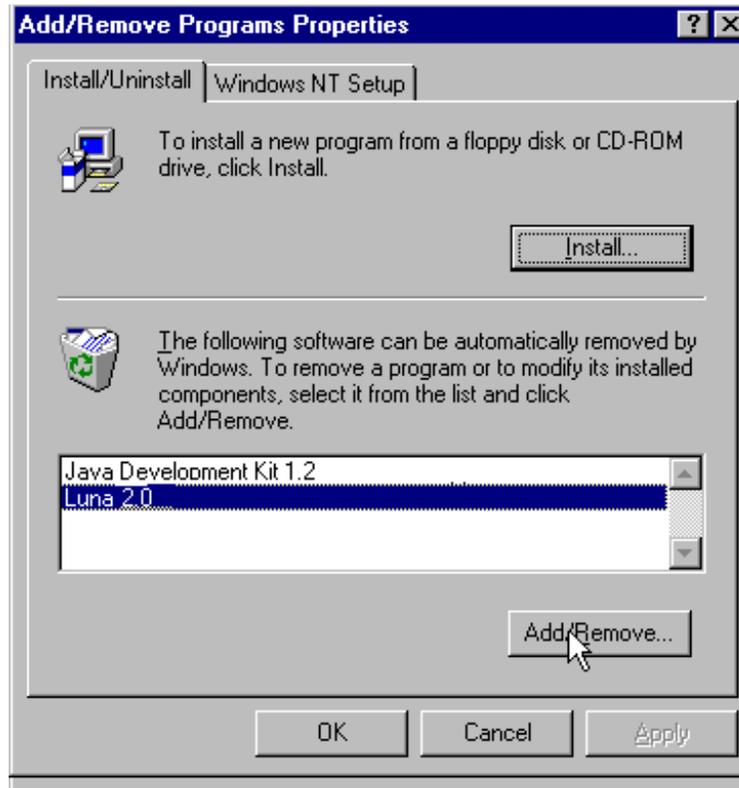
Figure 7. Removing a program with the Windows Control
Panel

Installing Luna-supplied software for UNIX

For your convenience, Luna includes the appropriate Sun Microsystems libraries on the Luna installation CD as the next subsection describes. If you already have both the production versions of JDK Standard Edition 1.2.2 and HotSpot Performance Engine 1.0.1 installed, proceed to *"Installing Luna Server software for UNIX"* on page 35

Luna-specific JDK and HotSpot installation on UNIX

1. Log on as `root`.

2. Insert the Luna installation CD to mount a local CD ROM drive. If the CD ROM drive is located on a network drive, mount the `/cdrom` directory.

3. Change to the `/cdrom/luna20/solaris` directory.

   The `/solaris` directory contains the following Sun Micro-systems files:

On Luna CD	Purpose	Sun Microsystems file name
`6patches.tar`	Patches Solaris 2.6	`1.2.1_04_patches_sparc_5.6.tar`
`7patches.tar`	Patches Solaris 7	`1.2.1_04_patches_sparc_5.7.tar`
`hotspot.sh`	Installs HotSpot	`hotspot1_0_1fcs_hp-solsparc.sh`
`jdk122.bin`	Installs JDK	`Solaris_JDK_1.2.2_05a_sparc.bin`

4. Use the instructions from the `readme.sun` file to apply the supplied `6patches.tar` or `7patches.tar` contents to your operating system, if necessary.

5. In another command or shell tool window, change directory to the place where you want to install the JDK, for example:

```
/usr/jdk/
```

6. Install the JDK/JRE package from the self-extracting binary.

For most installations, you can install the JDK from the Luna CD with the following command:

```
/cdrom/luna20/solaris/jdk122.bin
```

For additional information, you can refer to Sun's general instructions in the `readme.sun` file for using the self-extracting binary file, `Solaris_JDK_1.2.2_05a_sparc.bin`.

Note... The general `readme.sun` instructions do not all fit a Luna installation.

7. Install the HotSpot Performance Engine.

For most installations, you can install HotSpot from the Luna CD with the command:

```
sh /cdrom/luna20/solaris/hotspot.sh
```

When you see the following prompt, specify the complete path to your JDK version 1.2.2:

```
Please specify the directory where you have
the 1.2.2 Reference SDK installed.
```

For additional information, refer to Sun's general instructions in the `hotspot.htm` file for using the self-extracting binary file, `hotspot1_0_1fcs_hpsolsparc.sh`.

Installing Luna Server software for UNIX

With the compatible JDK version available on your machine, you can to install the *Luna Server* components.

1. Log on as `root`.

2. Insert the Luna installation CD to mount a local CD ROM drive. If the CD ROM drive is located on a network drive, mount the `/cdrom` directory.

3. Set the `TEMP` environment variable on the command line. For example, set `TEMP` to `/usr/tmp`.

Note... The `TEMP` variable points to a working directory for the installation procedure and prevents an error message from occurring in Step 6.

4. Run the `/cdrom/luna20/solaris/luna.sh` script from the command line.

Note... If you double-click the script name in the Solaris graphical, an **Action: Run** window appears. Click the **OK** button to continue.

5. The script first searches for a Java interpreter to create a JVM for the `install.class`. The script lists all the instances of Java executable that it finds on the local system, as the example in Figure 8 shows.

```
Testing /usr/jdk/bin/java
1 suitable java interpreter(s) detected.
0) I want to specify a path to an interpreter.
1) Use /usr/jdk/bin/java
2) Terminate this installation.
Select a choice [0-2]:
```

Figure 8. Selecting the Java executable version 1.2.2

Note... In this step you select a JVM to run the installation wizard. This step does not influence the JVM that runs *Luna Server* after installation.

Enter the number that corresponds to the location of the Java interpreter that is version 1.2.2. In this example, you enter 1 if you know that the only interpreter in the list is an appropriate version.

To select a path that is not listed, enter the number 0 and then type in the location of your Java executable version 1.2.2 file.

6. The installation class loads and starts the installation wizard.

Note... If you see the message **Failed to extract installation class file**, return to Step 3.

7. Read the instructions in the **Welcome** window**.** Click the **Next >** button to continue**.**

8. At the **Please enter a license key** prompt, enter the key that your Luna representative provides.

Note... The license key contains upper and lower case letters. As you enter the key, use the same letter case.

Click the **Next >** button to continue.

9. In the **Software License Agreement** window, check the box to `Accept all terms of the license`, then click the **Next >** button to continue.

10. In the **Choose Destination Window**, either accept the default directory, `/usr/luna20` or select a different directory.

Note...   You must set the `LUNA_HOME` environment variable to the directory that you choose in this window, as Chapter 2, "*Configuring Non-Default Installations*," describes.

Click the **Install** button.

11. The installation displays progress while it installs the Luna software components.

Note...   If a **Copy files** window appears, click the **Yes to all** button to allow version 2.0 to write over a detected previous version.

In the **Installation Complete** window, click the **Finish** button to exit the wizard.

12. Set the Luna-specific environment variables and the Luna software license key. Follow the instructions in the next section, *"UNIX environment variables and license key,"* .

UNIX environment variables and license key

The command that starts the *Luna Server* requires the environment variables and license key information that this section describes.

Environment variables

Set the following required environment variables in your login or shell startup script:

1. Set `LUNA_JDK` to the directory into which you extract the
    `jdk122`.bin file.

    Set this value to the directory that you use in Step 5 on page
    33. For example, `/usr/jdk`.

2. Set `LUNA_HOME` to the destination that you choose for the Luna
    software installation.

    Set this value to the directory that you enter in Step 10 on
    page 37. For example `/usr/luna20`.

3. Set `OSAGENT_PORT` to a number that enables clients communi-
    cate with a single *Luna Server* on this host.

    Luna recommends that you set the `OSAGENT_PORT` environ-
    ment variable to a number from 14001 to 65536, which over-
    rides the internal default, 14000.

    For more guidelines about setting a value for `OSAGENT_PORT`,
    refer to *"Configuration basics"* on page 41.

4. Set `TEMP` to a working directory that the *Luna BeanReflector*
    uses. For example, `/usr/tmp`.

license.key file

Your system requires one `license.key` file for each Luna
installation. The contents of the file before you enter a key is as
follows:

```
# Set your license key below.
# Example:
# COM_LUNA_SERVER_LICENSEKEY=JGNuHYhYZ
#
COM_LUNA_SERVER_LICENSEKEY=
```

Open `$LUNA_HOME/bin/license.key` in a text editor and type in
your license key on the right side of the
`COM_LUNA_SERVER_LICENSEKEY=` expression. Type the license
key characters exactly as they appear in the notice sent to you by

Luna.The license key contains upper and lower case letters. As you enter the key, use the same letter case.

Warning!!!   Do not change the name of the license.key file.

Uninstalling Luna software from UNIX

The uninstall program removes the *Luna Server* software from the local drive.

Note...   The uninstaller purposefully does not delete log files, generated classes, or other files that you might want to keep.

1. Shut down any running Luna software.

    For shutdown procedure, refer to *"Shutting down the runtime environment"* on page 74.

2. Change directory to $LUNA_HOME, the root of your Luna installation.

3. Invoke a Java Virtual Machine (JVM) with the uninstall.class. For example:

    ```
    /usr/jdk/bin/java uninstall
    ```

4. In the **Confirm Unistallation** window, click the **Yes** button to continue.

5. In the **Unistall Complete** window, click the **Finish** button to exit.