BEA WebLogic Real Time™

Installation Guide

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About This Document

This document explains how to use the BEA Products installation program on both Windows and Linux platforms.

It is organized as follows:

- Chapter 1, "Preparing for Your Installation," provides the basic information you need to know before installing your BEA software.
- Chapter 2, "Starting the Installation Program," describes how to start the installation program in graphical, console, and silent modes on Windows and Linux platforms.
- Chapter 3, "Running the Installation Program in Graphical Mode," describes how to install your BEA software on Windows and Linux platforms using a Java-based graphical user interface (GUI).
- Chapter 4, "Running the Installation Program in Console Mode," discusses how to install your BEA software on Windows and Linux platforms using a text-based interface.
- Chapter 5, "Running the Installation Program in Silent Mode," describes how to install your BEA software without user intervention by using an XML properties file to specify the installation options.
- Chapter 6, "Installing and Updating License Files," describes the license types available and explains how to update your license file.

- Chapter 7, "Post-Installation Information," explains what you should do after you install the software.
- Chapter 8, "Uninstalling the Software," provides procedures for uninstalling your BEA software in graphical, console, and silent modes.

What You Need to Know

This document is intended for system administrators or application developers who are installing BEA Products software. It is assumed that readers are familiar with Web technologies and have a general understanding of Windows and Linux platforms.

Product Documentation on the dev2dev Web Site

BEA product documentation, along with other information about BEA software, is available from the BEA dev2dev Web site at `http://dev2dev.bea.com`.

To view the documentation for a particular product, select that product from the list on the dev2dev page; the home page for the specified product is displayed. From the menu on the left side of the screen, select Documentation for the appropriate release. The home page for the complete documentation set for the product and release you have selected is displayed.

Related Information

Other BEA documents that you may find helpful when installing the software are:

- *Introduction to WebLogic Real Time*
- *Introduction to WebLogic Server and WebLogic Express*
- *Creating WebLogic Domains Using the Configuration Wizard*
- *BEA JRockit Memory Management Guide*

Contact Us!

Your feedback on the BEA Products documentation is important to us. Send us e-mail at **docsupport@bea.com** if you have questions or comments. Your comments will be reviewed directly by the BEA professionals who create and update the BEA Products documentation.

In your e-mail message, please indicate which release of the BEA Products documentation you are using.

If you have any questions about these versions of the BEA software, or if you have problems installing and running the software, contact BEA Customer Support at `http://support.bea.com`. You can also contact Customer Support by using the contact information provided on the quick reference sheet titled "BEA Customer Support," which is included in the product package.

When contacting Customer Support, be prepared to provide the following information:

- Your name, e-mail address, phone number, and fax number
- Your company name and company address
- Your machine type and authorization codes
- The name and version of the product you are using
- A description of the problem and the content of pertinent error messages

Documentation Conventions

The following documentation conventions are used throughout this document.

Table 0-1

Convention	Item
Ctrl+Tab	Indicates that you must press two or more keys simultaneously.
italics	Indicates emphasis or book titles.
`monospace text`	Indicates *user input*, as shown in the following examples: Filenames: `config.xml` Pathnames: *`BEAHOME`*`/config/examples` Commands: `java -Dbea.home=BEA_HOME` Code: `public TextMsg createTextMsg(`
	Indicates *computer output*, such as error messages, as shown in the following example: `Exception occurred during event dispatching:java.lang.ArrayIndexOutOfBoundsException: No such child: 0`

Table 0-1

Convention	Item
`monospace boldface text`	Identifies significant words in code. *Example*: `void` **`commit`** `( )`
`monospace italic text`	Identifies variables in code. *Example*: `String` *`expr`*
`{ }`	Indicates a set of choices in a syntax line. The braces themselves should never be typed.
`[ ]`	Indicates optional items in a syntax line. The brackets themselves should never be typed. *Example*: `java utils.MulticastTest -n` *`name`* `[-p` *`portnumber`*`]`
`|`	Separates mutually exclusive choices in a syntax line. The symbol itself should never be typed. *Example*: java weblogic.deploy [list|deploy|update]
`...`	Indicates one of the following in a command line: That an argument can be repeated several times in a command line That the statement omits additional optional arguments That you can enter additional parameters, values, or other information The ellipsis itself should never be typed. *Example*: `buildobjclient [-v] [-o` *`name`*`] [-f "file1.cpp file2.cpp file3.cpp . . ."`
`.` `.` `.`	Indicates the omission of items from a code example or from a syntax line. The vertical ellipsis itself should never be typed.

CHAPTER 1

Preparing for Your Installation

The following sections provide information that you need to know before installing your BEA WebLogic Real Time™ software:

- Installation Overview
- Installable Product Components
- Product Distribution Methods
- Installation Prerequisites
- Selecting Directories for Your Installation
- Choosing the Type of Installation
- About Installing Node Manager as a Windows Service
- Generating a Verbose Installation Log

Installation Overview

The WebLogic Real Time installation program provides a complete framework for the installation and uninstallation of WebLogic Real Time or individual components, as desired.

Installation Modes

The WebLogic Real Time installation program can be used in the following modes:

- *Graphical mode*

  Graphical-mode installation is an interactive, GUI-based method for installing your software. It can be run on both Windows and Linux systems. For installation procedures, see Chapter 3, "Running the Installation Program in Graphical Mode."

  Note: If you want to run graphical-mode installation, the console attached to the machine on which you are installing the software must support a Java-based GUI. All consoles for Windows systems support Java-based GUIs, but not all consoles for Linux systems do. If you attempt to start the installation program in graphical mode on a system that cannot support a graphical display, the installation program automatically starts console-mode installation.

- *Console mode*

  Console-mode installation is an interactive, text-based method for installing your software from the command line, on either a Linux system or a Windows system. For instructions for using this method, see Chapter 4, "Running the Installation Program in Console Mode."

- *Silent mode*

  Silent-mode installation is a noninteractive method of installing your software that requires the use of an XML properties file for selecting installation options. You can run silent-mode installation in either of two ways: as part of a script or from the command line. Silent-mode installation is a way of setting installation configurations only once and then using those configurations to duplicate the installation on many machines. For instructions, see Chapter 5, "Running the Installation Program in Silent Mode."

Installable Product Components

Using the WebLogic Real Time 1.0 installation program, you can install the following software on your system:

- WebLogic Real Time
- WebLogic Server

For additional information about:

- The features and capabilities of WebLogic Real Time, see *Introduction to WebLogic Real Time* at `http://e-docs.bea.com/wlrt/docs10/wlrt_intro/index.html`
- The features and capabilities of WebLogic Server, see *Introduction to WebLogic Server and WebLogic Express* at `http://e-docs.bea.com/wls/docs91/intro/index.html`

- The features and capabilities of BEA JRockit, see *Introduction to JRockit JDK* at http://e-docs.bea.com/jrockit/geninfo/genintro/index.html
- Operating systems and hardware supported by your software, see "WebLogic Real Time 1.0 Supported Configurations" at http://e-docs.bea.com/wlrt_intro/intro/intro.html

WebLogic Real Time

WebLogic Real Time's proprietary BEA JRockit JVM introduces "deterministic" garbage collection, a dynamic garbage collection priority that ensures extremely short pause times and limits the total number of those pauses within a prescribed window.

BEA JRockit JDK With Deterministic GC

The BEA JRockit® JDK provides tools, utilities, and a complete runtime environment for developing and running applications using the Java programming language. The BEA JRockit JDK includes the BEA JRockit Java Virtual Machine (JVM) with the BEA JRockit Deterministic Garbage Collection.

The BEA JRockit JVM is developed uniquely for server-side applications and optimized for Intel architectures to ensure reliability, scalability, and manageability for Java applications. BEA JRockit Mission Control is a tool set developed to monitor, manage, profile, and eliminate memory leaks in your Java applications.

The BEA JRockit JDK is fully integrated into the BEA Products installation program, in addition to being available as a standalone JDK. BEA JRockit is installed automatically when you use the BEA Products installation program to install your software on Windows and Linux 32-bit platforms.

For more information about the BEA JRockit JDK, see the JRockit documentation at http://e-docs.bea.com/jrockit/webdocs/index.html.

Note: The BEA JRockit 5.0 JDK is certified to be compatible with Sun Java 2 Standard Edition (J2SE) version 5.0.

Mercury Profiling Tools

The Mercury profiling tools, which are provided as part of this JRockit installation, can be used by Java and J2EE developers in a development environment to profile application performance. During the installation process, you are presented with the option to install the Mercury profiling tools. If you do so, you are prompted to accept the Mercury Tools license agreement. You must

accept the license agreement to install the tools. For more information about these tools, see http://www.mercury.com/us/products/diagnostics/.

WebLogic Server

BEA WebLogic Server® provides the core services that ensure a reliable, available, scalable, and high-performing execution environment for your application. It includes Apache Beehive, a cross-container framework that provides a consistent, abstract, and easily toolable programming model, providing a way for developers to build applications more productively.

WebLogic Server consists of the following subcomponents that can be installed on your system:

- Server—WebLogic Server program files that contain the core Java 2 Enterprise Edition (J2EE) features and Apache Beehive.
- Server Examples—WebLogic Server and MedRec examples servers and sample applications. These servers and sample applications demonstrate a variety of J2EE features. Resources are provided to help you build, configure, and run each of the sample applications. You must install the Server subcomponent to install and use the Server Examples.
- Web Server Plug-ins—Modules used to enable WebLogic Server to communicate with applications deployed on Apache HTTP Server, Netscape Enterprise Server, or Microsoft Internet Information Server (IIS).

  Note: You must choose Custom installation to install the Web Server plug-ins. They are not installed by default in a complete installation.

Product Distribution Methods

Your BEA software is distributed on both the BEA Web site and CD-ROM.

Web Distribution

You can download your software from the BEA Web site at http://commerce.bea.com.

This includes the BEA Products installation program for WebLogic Real Time and WebLogic Server, which includes all of the software described in "Installable Product Components" on page 1-2.

CD-ROM Distribution

If you purchased your software from your local sales representative, you will find the following items in the product box:

- CD-ROMs containing the product software for Windows and Linux
- *BEA Software License and Limited Warranty* pamphlet

Installation Prerequisites

The following sections specify the installation prerequisites:

- System Requirements
- Temporary Disk Space Requirements
- Administrator Privileges
- Licensing

System Requirements

The system requirements for your installation are given in the following table.

Table 1-1 System Requirements

Component	Requirement
Platform configuration	A supported configuration of hardware and operating system is required. See "WebLogic Real Time 1.0 Supported Configurations" at http://e-docs.bea.com/wlrt_intro/intro/intro.html
Processor	1-GHz CPU recommended
Hard disk drive	A complete installation requires approximately 820 MB of disk space.
Memory	1 GB of RAM minimum

Table 1-1 System Requirements (Continued)

Component	Requirement
Color bit depth display and size	For graphical user interface (GUI) mode installation, 8-bit color depth (256 colors) is required. For console-mode and silent-mode installation, there is no color bit depth requirement.
JDK	The BEA Products installation program requires a Java run-time environment (JRE) to run. A JRE is bundled in the Windows installation program and in some Linux installation programs (those with filenames ending in `.bin`). For other Linux platforms, the installation program does not install a JDK. Filenames for these installation programs end in `.jar`. To run the `.jar` installation programs, you must have the appropriate version of the JDK installed on your system, and include the `bin` directory of the JDK at the beginning of the `PATH` variable definition. It is important that you use a JDK because the installation process assigns values to `JAVA_HOME` and related variables to point to the JDK directory.

Temporary Disk Space Requirements

The BEA installation program uses a temporary directory into which it extracts the files necessary to install the software on the target system. During the installation process, your temporary directory must contain sufficient space to accommodate the compressed Java run-time environment (JRE) bundled with the installation program and an uncompressed copy of the JRE that is expanded into the temporary directory. The extracted files are deleted from the temporary directory at the end of the installation process. As a general rule, installation programs require approximately 2.5 times the amount of temporary space that is ultimately required by the installed files.

By default, the installation program uses the following temporary directories:

- Windows platforms—directory referenced by the `TMP` system variable
- Linux platforms—system-dependent temporary directory

Note: If you do not have enough temporary space to run the installation program, you are prompted to specify an alternate directory or exit the installation program.

To make sure that you have adequate temporary space, you may want to allocate an alternate directory for this purpose. To do so, follow the instructions provided in the following table.

Table 1-2 Setting Temporary Disk Space

On this platform . . .	Perform this step . . .
Windows	Do one of the following: • Set the `TMP` system variable to a directory of your choice. • If starting the installation program from the command line, include the `-Djava.io.tmpdir=`*`tmpdirpath`* option, replacing *`tmpdirpath`* with the full path of the directory that you want to designate as a temporary storage area for the BEA Products installation program. For example: `realtime100_win32.exe -mode=console -Djava.io.tmpdir=D:\Temp`
Linux	Enter the following option on the command line when you start the installation program: `-Djava.io.tmpdir=`*`tmpdirpath`* Here, *`tmpdirpath`* is the full path of the directory that you want to designate as a temporary storage area for the BEA Products installation program.

Administrator Privileges

On Windows systems, Administrator privileges are required in the following circumstances:

- To install the Node Manager as a Windows service.

  You must have *Administrator* privileges to install the Node Manager as a Windows service. When the Node Manager is installed as a Windows service, it starts at the completion of the installation process, and again, automatically, each time you boot your Windows system.

  For more information, see "About Installing Node Manager as a Windows Service" on page 1-13.

- To create Start menu shortcuts in the All Users folder.

  When you are installing the software as a user with Administrator privileges, you are presented with the option to create the Start menu shortcuts in the All Users folder, or in the Local user's Start menu folder. The following table describes the options available.

Table 1-3 Creating Start Menu Shortcuts

If you select . . .	The following occurs . . .
All Users	All users registered on the machine are provided with access to the installed software. Subsequently, if users without Administrator privileges use the Configuration Wizard from this installation to create domains, Start menu shortcuts to the domains are not created. In this case, users can manually create shortcuts in their local Start menu folders, if desired.
Local user	Other users registered on this machine will not have access to the Start menu entries for this installation.

If a user without Administrator privileges installs the software, the Start menu entries are created in the user's local Start menu folder.

Licensing

Your WebLogic Real Time software cannot be used without a valid license. When you install your software, the installation program installs a development license (`license.bea`) into the BEA Home directory, to allow you to start using the product immediately. However, for WebLogic Real Time 1.0, access to the BEA JRockit 5.0 "deterministic" garbage collection option requires an additional evaluation license key, as described in "Updating Your WebLogic Real Time Product License" on page 6-3.

To use your software in a full-scale production environment, you must purchase a production license. To find out how to do so, contact your sales representative or visit the BEA corporate Web site at `http://www.bea.com`.

For more information about development and production licenses, see "About BEA Product Licenses" on page 6-1.

Development and production licenses for pre-9.1 versions of WebLogic Server do not work with WebLogic Real Time 1.0; any such license must be upgraded to WebLogic Real Time 1.0. Procedures for upgrading a license file and installing permanent licenses are provided in "Upgrading Licenses from Previous Software Releases" on page 6-7.

Selecting Directories for Your Installation

During the installation process, you need to specify locations for the following directories:

- BEA Home directory
- Product installation directory

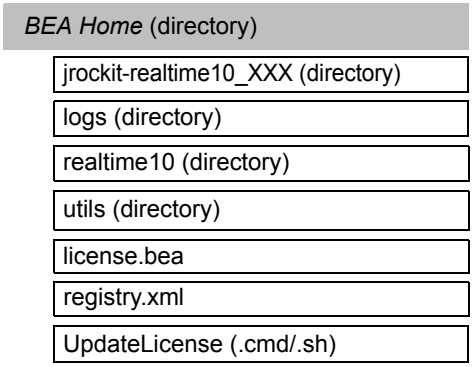
Choosing a BEA Home Directory

When you install your BEA software, you are prompted to specify a BEA Home directory. This directory serves as a repository for common files that are used by multiple WebLogic Real Time installed on the same machine. For this reason, the BEA Home directory can be considered a *central support directory* for all the WebLogic Real Time software installed on your system.

The files in the BEA Home directory are essential to ensuring that BEA software operates correctly on your system. They perform the following types of functions:

- Ensure that licensing works correctly for the installed BEA products
- Facilitate checking of cross-product dependencies during installation
- Facilitate Service Pack installation

The following illustration shows the structure of a sample BEA Home directory, on a Windows platform, which includes the BEA JRockit JDK.



This illustration depicts only the files and directories required in the BEA Home directory. If you choose the default product installation directory, however, you will see additional directories in the BEA Home directory, such as `realtime10`. Although the default location for the product installation directory is within the BEA Home, you can select a different location outside the BEA Home directory.

During installation of your BEA software, you are prompted to choose an existing BEA Home directory or specify a path to create a new BEA Home directory. If you choose to create a new directory, the installation program automatically creates it for you.

Notes: BEA recommends that you do not exceed a maximum of 12 characters when naming your BEA Home directory. If the name of this directory has more than 12 characters, the `CLASSPATH` may not be resolved properly.

You can install only one instance of each version of a BEA product in a single BEA Home directory. For example, you can install only one instance of WebLogic Server 9.1 in a BEA Home directory, but that BEA Home directory may also contain an instance of WebLogic Server 9.0.

Understanding the Functions of the BEA Home Directory

The files and directories in the BEA Home directory are described in the following table.

Table 1-4 BEA Home Directory Description

Component	Description
`jrockit-realtime10_`*`xxx`* directory	Contains the software for the BEA JRockit JDK if it is installed with your software. The JDK provides the Java run-time environment (JRE) and tools for compiling and debugging Java applications. In this directory name, *`xxx`* indicates the version of the JRockit JDK installed on your system, such as `jrockit-realtime10_150_04`.
`logs` directory	Contains a history file of installation and uninstallation for the BEA Home directory.
`utils` directory	Contains utilities that are used to support the installation of all BEA products installed in this BEA Home directory. The `utils.jar` file contains code that supports the `UpdateLicense` utility.

Table 1-4 BEA Home Directory Description (Continued)

Component	Description
`license.bea` file	An XML file that contains the license keys for all the BEA products installed in the BEA Home directory. Licenses are release specific. For example, you cannot use a license from a previous release with WebLogic Real Time 1.0. To update your `license.bea` file for additional functionality, see "Updating Your WebLogic Real Time Product License" on page 6-3. **Note:** Do not edit the `license.bea` file manually. Doing so may cause operating problems for the currently installed BEA products, or result in problems later when BEA products are installed for maintenance upgrades.
`registry.xml` file	A registry file that contains a persistent record of all BEA products installed on the target system. This registry contains product-related information, such as version number, service pack number, and location of the installation directory. **Note:** Do not edit this file manually. Doing so may cause operating problems for the currently installed BEA products, or result in installation problems when future BEA products or maintenance upgrades are installed. For more information about the BEA registry file, see "Using the BEA Registry API" in *ISV Partners' Guide* at the following URL: `http://e-docs.bea.com/common/docs91/isv/detect.html`
`UpdateLicense` (`.cmd`/`.sh`)	A command file (Windows) or a shell script (Linux) that updates the current `license.bea` file with new license sections. The result is a merged license that contains both the existing and new license sections. For details about using the `UpdateLicense` utility, see "Updating Your WebLogic Real Time Product License" on page 6-3.

Creating Multiple BEA Home Directories

Although it is possible to create more than one BEA Home directory, we recommend that you avoid doing so. In almost all situations, a single BEA Home directory is sufficient. There may be circumstances, however, in which you prefer to maintain separate development and production environments, with a separate product stack for each. With two directories, you can update your development environment (in a BEA Home directory) without modifying the production environment until you are ready to do so.

Choosing a Product Installation Directory

The product installation directory contains all the software components that you choose to install on your system, including program files and examples. You are prompted during your initial installation to choose a product installation directory. If you accept the default on a Windows system, for example, your software is installed in the following directory:

```
C:\bea\realtime10
```

Here, `C:\bea` is the BEA Home directory and `realtime10` is the product installation directory for the WebLogic Real Time 1.0 software. However, you can specify any name and location on your system for your product installation directory; there is no requirement that you name the directory `realtime10` or create it under the BEA Home directory.

The installation program installs the software components in a product installation directory represented by the *`WLRT_HOME`* variable. If, during your initial installation, you choose to install WebLogic Server only, and not all of the products available for installation, and you later decide to install additional products, such as AquaLogic Service Bus (using the same BEA Home directory), you are *not* prompted, during the subsequent installations, to specify a product installation directory. The installation program detects the *`WLRT_HOME`* directory and installs the additional products under it.

A description of the WebLogic Real Time directory structure is provided in "Understanding the Product Directory Structure" on page 7-12.

Choosing the Type of Installation

The BEA Products installation program provides two types of installation: Complete and Custom.

Complete Installation

In a complete installation, the following software is installed:

- WebLogic Server program files and related sample files
- Apache Beehive program files
- Sample domains, preconfigured for use with the PointBase database, which allow you to start running the samples as soon as the installation is complete.
- BEA JRockit 5.0 JDK with Deterministic GC. For more information, see "WebLogic Real Time" on page 1-3.

The following are *not* installed during a complete installation:

- Web Server plug-ins
- WebLogic Server Node Manager as a Windows service

Custom Installation

In a custom installation, you have the following options:

- You can choose which software components to install on your system. For a description of the software components provided with your product distribution, see "Installable Product Components" on page 1-2. Sample domains preconfigured to use the PointBase database are created only for the installed components.

  Note: You must choose Custom installation to install the Web Server Plug-ins.

- You can choose whether to install the WebLogic Server Node Manager as a Windows Service. See "About Installing Node Manager as a Windows Service" on page 1-13.

About Installing Node Manager as a Windows Service

When installing your software on a Windows platform, you can optionally install WebLogic Server Node Manager as a Windows service. The WebLogic Server Node Manager is used to:

- Start and stop server instances—both Administration Servers and Managed Servers—remotely.
- Monitor the self-reported health of servers and automatically kill server instances whose health state is "failed."
- Migrate servers in a WebLogic Server cluster.
- Automatically restart servers that have the "failed" health state, or have shut down unexpectedly due to a system crash or reboot.

In a multi-machine environment, you must install Node Manager on each machine that hosts Managed Server and Administration Server instances of WebLogic Server.

Note: You must have *Administrator* privileges to install Node Manager as a Windows service.

In a custom installation, you can optionally install Node Manager as a Windows service. If you select **Yes**, Node Manager is installed as a Windows service to Listen Port 5556. To avoid port

contention, you can specify an alternate Listen Port if desired. If the Listen Port number you specify is currently being used by a running application, the installation program prompts you to enter a different Node Manager Listen Port number. At the completion of the installation process, Node Manager is started using the port specified.

Note: You are prompted to install Node Manager as a Windows service only during an initial installation. If you install additional product components during a subsequent installation, you are not prompted to install Node Manager as a Windows service.

To install Node Manager as a Windows service in silent mode, you need to specify the appropriate values in the `silent.xml` file. For more information, see "Creating a silent.xml File for Silent-Mode Installation" on page 5-3.

You can also install and uninstall Node Manager as a Windows service using the following scripts that are provided when you install WebLogic Server:

- *WLRT_HOME*`\server\bin\installNodeMgrSvc.cmd`
- *WLRT_HOME*`\server\bin\uninstallNodeMgrSvc.cmd`

  In these pathnames, *WLRT_HOME* is the product installation directory in which you installed WebLogic Server, typically `C:\bea\realtime10`.

Additional Considerations for Node Manager Installation

- When you install Node Manager as a Windows service, it is registered with the product installation directory in which you are installing the software, for example, `C:\bea\realtime10`. Node Manager can be used to manage communication with all domains associated with that installation directory.

  If you install additional instances of WebLogic Real Time 1.0 on a machine, in different BEA Home directories, you can install a Node Manager instance as a Windows service for each installation. Each Node Manager instance will manage the domains associated with the relevant installation.

- When you install Node Manager as a Windows service during the installation process, the Node Manager listen port is specified in the BEA registry file, `registry.xml`, located in the BEA Home directory associated with the installation, typically `c:\bea`.

  Note: Do not edit this file manually. Doing so may cause operating problems for the currently installed BEA products, or result in installation problems when future BEA products or maintenance upgrades are installed. Changing the Node Manager listen port value in the `registry.xml` does not change the port for the installed service.

- When you uninstall WebLogic Server, the Node Manager service registered with the product installation directory from which you are uninstalling the product is uninstalled also. For more information about the product installation directory, see "Choosing a Product Installation Directory" on page 1-12.

For more information about Node Manager, including instructions for installing it on a Linux system, see "Using Node Manager to Control Servers" in *Managing Server Startup and Shutdown* at `http://e-docs.bea.com/wls/docs91/server_start/nodemgr.html`.

Generating a Verbose Installation Log

If you launch the installation from the command line or from a script, you can specify the `-log` option to generate a verbose installation log. The installation log stores messages about events that occur during the installation process, including informational, warning, error, and fatal messages. This type of file can be especially useful for silent installations.

Note: You may see some warning messages in the installation log. However, unless a fatal error occurs, the installation program completes the installation successfully. The installation user interface indicates the success or failure of each installation attempt, and the installation log file includes an entry indicating that the installation was successful.

Syntax

To create a verbose log file during installation, include the `-log=`*`full_path_to_log_file`* option in the command line. For example:

```
server910_win32.exe -log=C:\logs\server_install.log
```

The path must specify a file. You cannot create a folder simply by including a name for it in a pathname; your path should specify only existing folders. If your path includes a nonexistent folder when you execute the command, the installation program does not create the log file.

CHAPTER 2

Starting the Installation Program

The following sections describe how to start the installation program on Windows and UNIX platforms:

- Before You Start
- Starting the Installation Program on Windows Platforms
- Starting the Installation Program on UNIX/Linux Platforms
- What's Next?

Before You Start

Before you start installing the software, please review the following information:

- Make sure that you are installing your software on a hardware/software configuration that is supported by your WebLogic Real Time software. A complete list of documents that describe the configurations supported by WebLogic Real Time can be found at `http://e-docs.bea.com/wlrt_intro/intro/intro.html`.
- Read Chapter 1, "Preparing for Your Installation."
- You cannot reinstall any BEA product on top of a previously installed version of the same product—in the same BEA Home directory or in the same file location. You can, however, add products and product components to an existing installation. For example, you can install WebLogic Server during one installation, and AquaLogic Service Bus during a separate installation. However, to reinstall the same version of one of the products, you

must first uninstall the previous installation, as described in Chapter 8, "Uninstalling the Software."

- If you are adding components to an existing installation of WebLogic Server, you should shut down any running servers before starting the installation.

Starting the Installation Program on Windows Platforms

The following sections describe how to start the installation program on a Windows platform:

- Starting in Graphical Mode
- Starting in Console Mode
- Starting in Silent Mode

Notes: If you are installing the software on a Windows system that supports more than one monitor, you must disable all but one monitor before starting the installation program.

If you want to install Node Manager as a Windows service, you must have Administrator privileges. For more information, see "About Installing Node Manager as a Windows Service" on page 1-13.

Starting in Graphical Mode

To start the graphical-mode installation process on a Windows platform, follow these steps:

1. Log in to the Windows system.
2. Go to the directory where you downloaded the installation program.
3. Complete the appropriate procedure in the following table.

If you are installing from . . .	Perform the following action . . .
Web download	Go to the directory where you downloaded the installation program.
CD-ROM	1. Insert the software CD into the CD-ROM drive. 2. If the installation program does not start automatically, open Windows Explorer and double-click the CD-ROM icon. 3. Navigate to the folder for the Windows installation.

4. Double-click the installation file:

   `realtime100_win32.exe` (BEA Products installation program for WebLogic Real Time and WebLogic Server)

   The installation program begins to install the software.

5. Proceed to Chapter 3, "Running the Installation Program in Graphical Mode."

Starting in Console Mode

To start the console-mode installation process on a Windows platform, follow these steps:

1. Log in to the target Windows system.
2. Complete the appropriate procedure in the following table:

If you are installing from . . .	Perform the following action . . .
Web download	1. Open an MS-DOS command prompt window. 2. Go to the directory where you downloaded the installation program.
CD-ROM	1. Insert the software CD into the CD-ROM drive. 2. Open an MS-DOS command prompt window. 3. Go to the CD-ROM directory and navigate to the folder for the Windows installation program.

3. Launch the installation by entering the following command:

   `realtime100_win32.exe -mode=console` (BEA Products installation program for WebLogic Server)

   Note: You can also include the `-log=full_path_to_log_file` option in the command line to create a verbose installation log. For example:

   ```
   realtime100_win32.exe -mode=console
   -log=C:\logs\server_install.log
   ```

   For more information, see "Generating a Verbose Installation Log" on page 1-15.

   After a few moments, a BEA Installer window opens and the installation program begins to install the software.

4. Proceed to Chapter 4, "Running the Installation Program in Console Mode."

Starting in Silent Mode

For details about silent-mode installation, see "What Is Silent-Mode Installation?" on page 5-1.

To start the silent-mode installation process on a Windows platform, follow these steps:

1. Log in to the Windows system.
2. Create a `silent.xml` file that defines the configuration settings normally entered by a user during an interactive installation process, such as graphical-mode or console-mode installation. For information about creating a `silent.xml` file, see "Creating a silent.xml File for Silent-Mode Installation" on page 5-3.

   Note: Incorrect entries in the `silent.xml` file can cause installation failures. To help you determine the cause of a failure, we recommend that you create a log file when you start the installation.

3. Complete the appropriate procedure in the following table.

If you are installing from . . .	Perform the following action . . .
Web download	1. Open an MS-DOS command prompt window. 2. Go to the directory where you downloaded the installation program.
CD-ROM	1. Insert the software CD into the CD-ROM drive. 2. Open an MS-DOS command prompt window. 3. Go to the CD-ROM directory and navigate to the folder for the Windows installation program.

4. Launch the installation by entering the following command:

   `filename``.exe -mode=silent -silent_xml=`*`path_to_silent.xml`*

   Here, *`filename.exe`* is the name of the WebLogic Real Time installation file, and *`path_to_silent.xml`* is the *full* pathname of the `silent.xml` file.

   Note: You can also include the `-log=`*`full_path_to_log_file`* option in the command line to create a verbose installation log. For example:

   ```
   realtime100_win32.exe -mode=console -mode=silent
   -silent_xml=C:\silent.xml -log=C:\logs\server_install.log
   ```

   For more information, see "Generating a Verbose Installation Log" on page 1-15.

A BEA Installer window is displayed, indicating that the files are being extracted. No other prompt or text is displayed.

For more information, see Chapter 5, "Running the Installation Program in Silent Mode."

Starting the Installation Program on UNIX/Linux Platforms

The BEA Products installation program requires a Java run-time environment (JRE) to run. A JRE is bundled in the Windows installation program, and in some Linux installation programs (those with filenames ending in `.bin`). For other UNIX platforms, the installation program does not include a JRE. Filenames for these installation programs end in `.jar`. To run the `.jar` installation programs, you must have an appropriate version of a JDK installed on your system, and include the `bin` directory of the JDK at the beginning of your `PATH` system variable.

Notes: It is important that you use a JDK because the installation process assigns values to `JAVA_HOME` and related variables to point to this directory. All scripts installed by your installation program use this JDK by default, including scripts to start sample applications, the Configuration Wizard, and other development tools.

To run graphical-mode installation, your console must support a Java-based GUI. If the installation program determines that your system cannot support a Java-based GUI, it automatically starts running in console mode. For details, see Chapter 4, "Running the Installation Program in Console Mode."

Using Installers with Filenames Ending in .bin

The following sections describe how to start the installation program on UNIX platforms using filenames that end in `.bin`:

- Starting Graphical-Mode Installation
- Starting Console-Mode Installation
- Starting Silent-Mode Installation

Starting Graphical-Mode Installation

To start the graphical-mode installation process for installation files with names ending in `.bin`, follow these steps:

1. Log in to the target UNIX system.

2. Complete the appropriate procedure in the following table.

If you are installing from . . .	Perform the following action . . .
Web download	Go to the directory where you downloaded the installation program.
CD-ROM	1. Insert the software CD into the CD-ROM drive and go to the CD-ROM directory. 2. Navigate to the directory that contains the installation program for your platform.

3. Launch the installation by entering the following commands:

```
chmod a+x filename.bin
./filename.bin
```

In these commands, *filename*.bin is the name of the installation program specific to your platform, for example, realtime100_linux32.bin .

Note: You can also include the -log=*full_path_to_log_file* option in the command line to create a verbose installation log. For example:

```
realtime100_linux32.bin  -log=/home/logs/BEA_install.log
```

For more information, see "Generating a Verbose Installation Log" on page 1-15.

The installation program begins to install the software.

4. Proceed to Chapter 3, "Running the Installation Program in Graphical Mode."

Starting Console-Mode Installation

To start the console-mode installation process for installation files with names ending in .bin, follow these steps:

1. Log in to the target UNIX system.
2. Complete the appropriate procedure in the following table.

If you are installing from . . .	Perform the following action . . .
Web download	Go to the directory where you downloaded the installation program.
CD-ROM	1. Insert the software CD into the CD-ROM drive and go to the CD-ROM directory. 2. Navigate to the directory that contains the installation program for your platform.

3. Launch the installation by entering the following commands:

   ```
   chmod a+x filename.bin
   ./filename.bin -mode=console
   ```

   Here *filename*.bin is the name of the installation program specific to your platform, for example, realtime100_linux32.bin .

   Note: You can also include the -log=*full_path_to_log_file* option in the command line to create a verbose installation log. For example:

   ```
   realtime100_linux32.bin  -mode=console
   -log=/home/logs/BEA_install.log
   ```

   For more information, see "Generating a Verbose Installation Log" on page 1-15.

4. Proceed to Chapter 4, "Running the Installation Program in Console Mode."

Starting Silent-Mode Installation

For details about silent-mode installation, see "What Is Silent-Mode Installation?" on page 5-1.

To start the silent-mode installation process for installation files with names ending in .bin, follow these steps:

1. Log in to the target UNIX system.
2. Create a silent.xml file that defines the configuration settings normally entered by a user during an interactive installation process, such as graphical-mode or console-mode installation. For information about creating a silent.xml file, see "Creating a silent.xml File for Silent-Mode Installation" on page 5-3.

Note: Incorrect entries in the `silent.xml` file can cause installation failures. To help you determine the cause of a failure, we recommend that you create a log file when you start the installation.

3. Complete the appropriate procedure in the following table.

If you are installing from . . .	Perform the following action . . .
Web download	Go to the directory where you downloaded the installation program.
CD-ROM	1. Insert the software CD into the CD-ROM drive and go to the CD-ROM directory. 2. Navigate to the directory that contains the installation program for your platform.

4. Launch the installation program by entering the following command:

   ```
   chmod a+x filename
   ./filename.bin -mode=silent -silent_xml=/path_to_silent.xml
   ```

   Here *`filename`*`.bin` is the name of the installation file, for example, `realtime100_linux32.bin` , and *`path_to_silent.xml`* is the *full* pathname of the `silent.xml` template file.

   Note: You can also include the `-log=`*`full_path_to_log_file`* option in the command line to create a verbose installation log. For example:

   ```
   realtime100_linux32.bin  -mode=silent
   -silent_xml=/home/silent.xml -log=/home/logs/BEA_install.log
   ```

   For more information, see "Generating a Verbose Installation Log" on page 1-15.

   A BEA Installer window is displayed, indicating that the files are being extracted. No other prompt or text is displayed.

For more information, see Chapter 5, "Running the Installation Program in Silent Mode."

What's Next?

For details about running the installation program, see one of the following, depending on your selected installation mode:

- Chapter 3, "Running the Installation Program in Graphical Mode"

- Chapter 4, "Running the Installation Program in Console Mode"
- Chapter 5, "Running the Installation Program in Silent Mode"

Running the Installation Program in Graphical Mode

The following sections describe how to run the installation program in graphical mode:

- Running the Installation Program
- What's Next?

Running the Installation Program

Start the installation program as described in Chapter 2, "Starting the Installation Program."

The installation program prompts you to enter specific information about your system and configuration. For instructions on responding to the prompts during installation, see the following table.

Table 3-1 GUI Installation Prompts

In this window . . .	Perform the following action . . .
Welcome	Click **Next** to proceed with the installation. You may cancel the installation at any time by clicking **Exit**.
BEA License Agreement	Read the BEA Software License Agreement and indicate your acceptance of the terms of the agreement by selecting **Yes**. To continue with the installation, you must accept the terms of the license agreement and then click **Next**.

Table 3-1 GUI Installation Prompts

In this window . . .	Perform the following action . . .
Choose BEA Home Directory	Specify the BEA Home directory that will serve as the central support directory for all BEA products installed on the target system. If you already have a BEA Home directory on your system, you can select that directory (recommended) or create a new BEA Home directory. If you choose to create a new directory, the installation program automatically creates one for you. For details about the BEA Home directory, see "Choosing a BEA Home Directory" on page 1-9.
Choose Install Type This window is displayed only during an initial installation.	Select the option button for the type of installation you want to perform: • **Complete**—All the software components included in your installation program, except the WebLogic Server Plug-ins, are installed on your system. Sample domains are preconfigured for use with the PointBase database during installation, allowing you to execute the samples when the installation is complete. • **Custom**—You select the software components to be installed. On Windows systems, you also have the option to install WebLogic Server Node Manager as a Windows service. **Note:** You must select **Custom** installation to install the Web Server Plug-ins. For more information, see "Choosing the Type of Installation" on page 1-12.

Table 3-1 GUI Installation Prompts

In this window . . .	Perform the following action . . .
Choose Components This window is displayed only under the following conditions: • You selected **Custom** installation in the **Choose Install Type** window. • You are adding components to an existing installation.	Specify the components to be installed by selecting or clearing the appropriate check boxes. This window displays a tree-view of all the components available for installation. **Note:** In an initial installation, only the Web Server Plug-ins are not selected; all other components are selected by default. You must select the Web Server Plug-ins check box if you want the plug-ins to be installed on your system. When you select or clear a component at the folder level, all subcomponents are selected or cleared accordingly. If any components are already installed on your system, the check boxes for them are grayed out. **WARNING:** You can clear the "WebLogic Real Time" component and proceed with only "WebLogic Server" selected. However, selecting only "WebLogic Server" will result in the installation of WebLogic Server with JRockit, but without the WebLogic Real Time sample scripts. If this occurs, run the Uninstall program and manually remove the remaining WebLogic Real Time files. Then repeat the installation procedure, making sure that "WebLogic Real Time" is selected. For details about the components available for installation on your system, see "Installable Product Components" on page 1-2.
Optional Tools This window is displayed only on platforms that support BEA JRockit.	Specify whether or not you want to install the Mercury profiling tools. Clear the check box for this option if you do not want to install these tools. For more information about the Mercury profiling tools, see "WebLogic Real Time" on page 1-3.
Mercury Tools License Agreement This window is displayed only if you selected to install the Mercury profiling tools in the **Optional Tools** window.	Read the Mercury Tools License Agreement and indicate your acceptance of the terms of the agreement by selecting **Yes**. To continue with the installation, you must accept the terms of the license agreement and then click **Next**. If you do not agree with the terms of the license agreement and you do not want to install the tools, click **Previous** to return to the **Optional Tools** window and clear the check box for the Mercury profiling tools.

Table 3-1 GUI Installation Prompts

In this window . . .	Perform the following action . . .
Choose Product Directory This window is not displayed if you are adding components to an existing installation. Instead, you are prompted to confirm the product installation directory. If you do so, the selected components are installed in the product installation directory you specified during the initial installation.	Specify the directory in which you want to install the software and click Next. You can accept the default product directory (`realtime10`) or create a new product directory. For additional information, see "Choosing a Product Installation Directory" on page 1-12. If you choose to create a new directory, the installation program automatically creates one for you.
Install Windows Service This window is displayed only under the following conditions: • You have Administrator privileges. • You are performing an initial installation. • You are installing on a Windows platform. • You selected **Custom** installation in the **Choose Install Type** window.	Choose whether you want to install the Windows services indicated, specifically the WebLogic Server Node Manager service. Node Manager is used to monitor, start, and stop server instances in a domain. If you select **Yes**, enter the Node Manager Listen Port in the appropriate field. The default is `5556`. **Note:** If the Listen Port number you specify is currently being used by a running application, the installation program prompts you to enter a different Node Manager Listen Port number. For more information, see "About Installing Node Manager as a Windows Service" on page 1-13.
Choose Shortcut Location This window is displayed only under the following conditions: • You have Administrator privileges. • You are performing an initial installation. • You are installing on a Windows platform.	Specify the Start menu folder in which you want the Start menu shortcuts created. You can select from the following options: • **All Users Start menu folder** Selecting this option provides all users registered on the machine with access to the installed software. However, only users with Administrator privileges can create shortcuts in the All Users folder. Therefore, if a user without Administrator privileges uses the Configuration Wizard to create domains, Start menu shortcuts to the domains are not created. In this case, users can manually create shortcuts in their local Start menu folders, if desired. • **Local user's Start menu folder** Selecting this option ensures that other users registered on this machine will not have access to the Start menu entries for this installation.

Table 3-1 GUI Installation Prompts

In this window . . .	Perform the following action . . .
Status	Read the information displayed about BEA products and services. When the installation program has finished copying the specified files to your system, click **Next**.
Installation Complete	Click **Done** to exit the installation program

What's Next?

By default, WebLogic Real Time uses the development license file installed in the BEA Home directory so that you can start using the product immediately. However for WebLogic Real Time 1.0, access to the BEA JRockit 5.0 Deterministic Garbage Collection option requires an additional evaluation or production license key to replace the empty `license.bea` file in the `BEA_HOME/jrockit-realtime1.0_XXX/jre/` directory. For instructions on updating the BEA JRockit license file, see "Updating Your BEA JRockit License for the Deterministic Garbage Collector" on page 6-6.

The Spring 1.2.6 Framework for BEA is fully supported with WebLogic Real Time 1.0 and can be downloaded from the WebLogic Real Time Product download page. Spring 1.2.6 is also distributed with the WebLogic Real Time CD-ROM kit when the media is ordered. For more information about Spring and WebLogic Real Time, see *Introduction to WebLogic Real Time* at `http://e-docs.bea.com/wlrt/docs10/wlrt_intro/understa.html`.

For additional post-installation information, such as using the Configuration Wizard to create a WebLogic Real Time domain, see Chapter 7, "Post-Installation Information."

For specific information about your software release, see the appropriate release notes:

- The features and capabilities of WebLogic Real Time, see *Introduction to WebLogic Real Time* at `http://e-docs.bea.com/wlrt/docs10/wlrt_intro/index.html`
- The features and capabilities of WebLogic Server, see *Introduction to WebLogic Server and WebLogic Express* at `http://e-docs.bea.com/wls/docs91/intro/index.html`
- The features and capabilities of BEA JRockit, see *Introduction to JRockit JDK* at `http://e-docs.bea.com/jrockit/geninfo/genintro/index.html`
- Operating systems and hardware supported by your software, see "WebLogic Real Time 1.0 Supported Configurations" at `http://e-docs.bea.com/wlrt_intro/intro/intro.html`

CHAPTER 4

Running the Installation Program in Console Mode

The following sections describe how to run the installation program in console mode:

- Running Console-Mode Installation
- What's Next?

Running Console-Mode Installation

Start the installation program in console mode as described in Chapter 2, "Starting the Installation Program."

To complete the console-mode installation process, respond to the prompts in each section by entering the number associated with your choice or by pressing Enter to accept the default. To exit the installation process, enter `exit` (or `x`, for short) in response to any prompt. To review or change your selection, enter `previous` (or `p`, for short) at the prompt. To proceed to the following window, enter next (or `n`, for short).

Note: In the sample console text and directory pathnames provided in this section, Windows conventions (such as backslashes in pathnames) are used, for example, `C:\bea\realtime10`. When entering pathnames on a Linux system, be sure to use UNIX conventions, instead. For example, use forward slashes in pathnames, such as `/home/bea/realtime10`.

The following procedure steps you through the installation program. Use this procedure after you have started the installation program in console mode, as described in Chapter 2, "Starting the Installation Program."

1. At the `Welcome` prompt, type `next` (or `n` for short) or press Enter to continue with the installation process.

   The BEA Systems License Agreement prompt is displayed.

2. Read the Agreement and indicate your acceptance or rejection of its terms by doing one of the following at the prompt:

   – Type `1` to indicate your agreement with the terms of the license and proceed with the installation. To review the entire agreement, press Enter or type `Down` several times. Type `Up` to scroll back through sections previously displayed.

   – Type `2` if you do not agree with the terms of the license. If you type `2`, the installation process terminates.

   The `Choose BEA Home directory` prompt is displayed.

3. Specify the BEA Home directory that will serve as the central support directory for all WebLogic Real Time software installed on the target system. For details about the BEA Home directory, see "Choosing a BEA Home Directory" on page 1-9.

   One of the following is displayed on your system:

   – If you have existing BEA Home directories on your system, a list of the directories is displayed, as shown in the following example:

   ```
   Choose BEA Home Directory:
   --------------------------

    ->1¦* Create a new BEA Home
      2¦C:\bea
      3¦C:\bea_prod
      4¦C:\bea_qa

   Enter index number to select OR [Exit][Previous][Next]>
   ```

   To use an existing BEA Home directory, type the number associated with the desired BEA Home directory.

   To create a new BEA Home directory, type `1` or press Enter.

   – If there are no BEA Home directories on your system, or you have selected to create a new BEA Home, the installation program displays the following prompt:

   ```
   Choose BEA Home Directory:
   --------------------------

       "BEA Home" = [Use default "C:\bea
   ```

```
   Input BEA Home OR [Exit][Previous][Next]>
```

Do one of the following:

- To use the default BEA Home directory, type `next` (or `n` for short), or press Enter.
- To create a new BEA Home directory, enter the *full path* of the BEA Home directory, for example `C:\beahome2`. If you specify a directory that does not exist, the installation program creates it for you.

The installation program displays the BEA Home directory you have specified, as shown in the following example:

```
Choose BEA Home Directory:
--------------------------

    "BEA Home" = [C:\beahome2]

Select Option:
    1 - Input BEA Home
    2 - Use default [C:\bea]


Enter option number to select OR [Exit][Previous][Next]>
```

On the command line, press Enter to accept your selection. Otherwise, type `1` or 2 to return to the Choose BEA Home Directory panel, where you can modify your entry.

After you have selected your BEA Home directory and confirmed your selection, type `Next` or press Enter. One of the following occurs:

- If you are adding components to an existing installation, the `Choose Components to install` panel is displayed. Go to step 5.
- If you are performing an initial installation, the `Choose Install Type` prompt is displayed.

4. Specify the type of installation you want to perform by entering the number associated with the install type, as shown in the following text:

```
Choose Install Type:
--------------------

 ->1|Complete
    |Install the following software components and examples: WebLogic
     Real Time  WebLogic Server

   2|Custom Installation
```

```
    |Choose software components to install and perform optional
     configuration.

Enter index number to select OR [Exit][Previous][Next]>
```

Do one of the following:

- Type `1` or press Enter to choose a Complete installation. Proceed to step 6.
- Type `2` to choose a Custom installation. The `Choose Components to install` prompt is displayed.

For more information about complete and custom installations, see "Choosing the Type of Installation" on page 1-12.

5. Select the components you want to install. The available components are displayed as follows:

```
Choose Components to install:
-----------------------------

    Release x.x.x.x
    +----WebLogic Real Time [1] v
    |    +----WebLogic Real Time [1.1] v
    +----WebLogic Server [1] v
    |    +----Server [1.1] v
    |    +----Server Examples [1.2] v
    |    +----Web Server Plug-Ins [1.3]

Enter number exactly as it appears in brackets to toggle selection OR
[Exit][Previous][Next]>
```

In an initial installation, only the Web Server Plug-ins are not selected; all other components are selected by default as indicated by the `x` (Linux systems) or check mark (Windows systems) at the end of each line. Selected components *will be* installed on your system. If, however, you want Web Server Plug-ins installed on your system, you must manually enter the appropriate numeric code for them. To deselect a component, type the numeric code for it on the command line, exactly as it appears within the brackets. For example, if you do not want to install the Server Examples, type `1.2` on the command line.

The word `Installed` is shown in brackets for any components you have already installed on your system.

When you are finished selecting components, press Enter or type `next` (or `n` for short).

WARNING: You can clear the "WebLogic Real Time" component and proceed with only "WebLogic Server" selected. However, selecting only "WebLogic Server" will result in the installation of WebLogic Server with JRockit, but without the

WebLogic Real Time sample scripts. If this occurs, run the Uninstall program and manually remove the remaining WebLogic Real Time files. Then repeat the installation procedure, making sure that "WebLogic Real Time" is selected.

The `Optional Tools` prompt is displayed.

6. Specify whether you want to install the Mercury profiling tools, as shown in the following display:

```
Optional Tools

Do you want to install Mercury profiling tools (development
environment only)?

    1 - Yes, install Mercury profiling tools.
    2 - No, do not install.

Enter a number or [Exit][Previous][Next]>
```

Note: This panel is displayed only on platforms that support BEA JRockit.

Do one of the following:

- Type `1` if you want to install the Mercury profiling tools. In the next panel you are prompted to read and accept the Mercury Tools license agreement.
- Type `2` if you do not want to install the Mercury profiling tools. The `Choose Product Directory` prompt is displayed. Proceed to step 8.

Note: For more information about the Mercury profiling tools, see "WebLogic Real Time" on page 1-3.

7. Read the License Agreement and indicate your acceptance or rejection of its terms. To review the entire agreement, press Enter or type `Down` several times. Type `Up` to scroll back through sections previously displayed. Do one of the following:
   - If you agree with the terms of the license agreement, type `1` at the prompt to proceed with the installation. The `Choose Product Directory` prompt is displayed.
   - If you do not agree with the terms of the license, you can either type `p` (for previous) to return to the Optional Tools panel where you can choose not to install the Mercury profiling tools, or you can type `2`. If you type `2`, the installation process terminates.
8. Specify the directory in which you want to install the software. You can accept the default product directory (*`bea_home`*`\realtime10`) or create a new product directory.

Note: If you are adding components to an existing installation, you are prompted to confirm the product installation directory.

If you specify a new directory, the installation program automatically creates it for you.

The following example shows the choices displayed in this section:

```
Choose Product Directory:
-------------------------
Product Installation Directory= [Use default C:\beahome2\realtime10]

Input Product Installation Directory OR [Exit][Previous][Next]>
```

Do one of the following:

– Press Enter or type `next` (or `n` for short) to accept the current selection.

– Enter the *full path* to the directory in which you want to install the software, and press Enter.

  You are prompted to confirm your selection as shown in the following text:

```
Choose Product Directory:
-------------------------
   ->1| Yes, use this product directory [C:\beahome2\realtime10]
     2| No, select another product directory

Enter index number to select OR [Exit][Previous][Next]>
```

  Verify that your entry is correct, then type `1` or press Enter to proceed with the installation. Otherwise, type `2` to return to the `Choose Product Directory` panel, where you can modify your entry.

One of the following occurs:

– If you are performing an initial, custom installation on a Windows platform, and you have Administrator privileges, the Install Node Manager as a Windows Service panel is displayed. Proceed to step 9.

  Node Manager is used to monitor, start, and stop server instances in a domain. See "About Installing Node Manager as a Windows Service" on page 1-13 for more information.

– If you are performing a complete installation on a Windows platform, you are installing on a Windows platform and you do not have Administrator privileges, you are installing on a UNIX platform, or you are adding components to an existing installation, the installation program begins copying the components you specified to your system. Proceed to step 11.

Note: It is normal for the installation program to pause for a fairly long time, especially toward the end. The installation program is still working when this occurs.

9. Specify whether you want to install Node Manager as a Windows service, as shown in the following text:

```
Install Node Manager as a Windows Service

    1 - Yes, install now.
    2 - No, do not install now. See product documentation for
        post-install registration of Node Manager as a Windows
        Service.

Enter a number or [Exit][Previous][Next]>
```

   Do one of the following:

   – Enter `1` to install Node Manager as a Windows Service. Then, at the prompt, enter the Node Manager Listen Port, or press Enter to accept the default (5556). If the Listen Port number you specify is currently being used by a running application, the installation program prompts you to enter a different Node Manager Listen Port number. You are prompted to confirm your selection.
   – Enter `2` if you do not want to install Node Manager as a Windows service.

   The `Choose Shortcut Location` prompt is displayed.

10. Specify the folder in which you want to create the Start menu shortcuts. Select the All Users folder or the local user's folder, as shown in the following sample text:

```
Choose Shortcut Location:
-------------------------
*The installer creates shortcuts to BEA components, samples, and tools.
*As a user with administrative privileges, you can specify where these
*shortcuts are created.

 ->1¦"All Users" Start menu folder> (recommended)
    ¦If a user without administrative privileges uses the BEA
   ¦Configuration Wizard in this installation to create domains, the user
    ¦may have to create Start menu shortcuts manually. Refer to the
    ¦documentation for more information.

   2¦Local user's Start Menu folder
    ¦Select this option if you need to ensure that other profiles
    ¦registered on this machine will not have access to these shortcuts.

Enter index number to select OR [Exit][Previous][Next]>
```

   Do one of the following:

- Type `1` or press Enter to create Start menu shortcuts in the All Users folder. This provides all users registered on the machine with access to the installed software. However, only users with Administrator privileges can create shortcuts in the All Users folder. Therefore, if a user without Administrator privileges uses the Configuration Wizard to create domains, Start menu shortcuts to the domains are not created. In this case, users can manually create shortcuts in their local Start menu folders, if desired.
- Type 2 to create shortcuts in your local user's Start menu folder. If you do so, other users registered on this machine will not have access to the Start menu entries for this installation.

You are prompted to confirm your selection, as shown in the following text:

```
Choose Shortcut Location:
-------------------------
*The installer creates shortcuts to BEA components, samples, and tools.
*As a user with administrative privileges, you can specify where these
*shortcuts are created.

 ->1¦"All Users" Start menu folder> (recommended)
    ¦If a user without administrative privileges uses the BEA
    ¦Configuration Wizard in this installation to create domains, the
    ¦user may have to create Start menu shortcuts manually. Refer to
    ¦the documentation for more information.

   2¦Go back to the previous screen and make another choice.

Enter index number to select OR [Exit][Previous][Next]>
```

Verify that your entry is correct, then type `1` or press Enter to proceed with the installation. Otherwise, type `2` to return to the previous panel, where you can modify your entry.

After you have verified your selection, the installation program begins copying the components you specified to your system.

Note: It is normal for the installation program to pause for a fairly long time, especially toward the end. The installation program is still working when this occurs.

When the installation is complete, the Installation Complete panel is displayed.

11. Press Enter or type `Exit` to exit the installation program.

What's Next?

By default, WebLogic Platform uses the development license file installed in the BEA Home directory so that you can start using the product immediately. However for WebLogic Real Time 1.0, access to the BEA JRockit 5.0 Deterministic Garbage Collection option requires an

additional evaluation or production license key to replace the empty `license.bea` file in the `BEA_HOME/jrockit-realtime1.0_XXX/jre/` directory. For instructions on updating the BEA JRockit license file, see "Updating Your BEA JRockit License for the Deterministic Garbage Collector" on page 6-6.

The Spring 1.2.6 Framework for BEA is fully supported with WebLogic Platform 1.0 and can be downloaded from the WebLogic Platform Product download page. Spring 1.2.6 is also distributed with the WebLogic Platform CD-ROM kit when the media is ordered. For more information about Spring and WebLogic Real Time, see *Introduction to WebLogic Real Time* at `http://e-docs.bea.com/wlrt/docs10/wlrt_intro/understa.html`.

For additional post-installation information, such as using the Configuration Wizard to create a WebLogic Real Time domain, see Chapter 7, "Post-Installation Information."

For specific information about your software release, see the appropriate release notes:

- The features and capabilities of WebLogic Real Time, see *Introduction to WebLogic Real Time* at `http://e-docs.bea.com/wlrt/docs10/wlrt_intro/index.html`
- The features and capabilities of WebLogic Server, see *Introduction to WebLogic Server and WebLogic Express* at `http://e-docs.bea.com/wls/docs91/intro/index.html`
- The features and capabilities of BEA JRockit, see *Introduction to JRockit JDK* at `http://e-docs.bea.com/jrockit/geninfo/genintro/index.html`
- Operating systems and hardware supported by your software, see "WebLogic Real Time 1.0 Supported Configurations" at `http://e-docs.bea.com/wlrt_intro/intro/intro.html`

CHAPTER 5

Running the Installation Program in Silent Mode

The following sections describe how to run the installation program in silent mode:

- What Is Silent-Mode Installation?
- Using Silent-Mode Installation: Main Steps
- Creating a silent.xml File for Silent-Mode Installation
- Sample silent.xml File for Silent-Mode Installation
- Returning Exit Codes to the Console
- What's Next?

What Is Silent-Mode Installation?

Silent-mode installation is a way of setting installation configurations only once and then using those configurations to duplicate the installation on many machines. During installation in silent mode, the installation program reads the settings for your configuration from an XML file that you create prior to beginning the installation. The installation program does not display any configuration options during the installation process. Silent-mode installation works on both Windows and Linux systems. Using silent-mode installation implies that you consent to the BEA License Agreement. You neither see a copy of the BEA Software License Agreement nor have any means of accepting the terms of the agreement.

The instructions in this section are based on the assumption that you have already acquired the installation program, either on CD or from the BEA Web site. For more information, see "Product Distribution Methods" on page 1-4.

Using Silent-Mode Installation: Main Steps

The silent-mode installation process has two primary steps:

1. Create a `silent.xml` file that defines the configuration settings normally entered by a user during an interactive installation process, such as graphical-mode or console-mode installation. For example, values for the BEA Home directory, the product directory, and the components to be installed are supplied in a `silent.xml` file.

   For a detailed procedure, see "Creating a silent.xml File for Silent-Mode Installation" on page 5-3. For a sample `silent.xml` file, see "Sample silent.xml File for Silent-Mode Installation" on page 5-6.

2. Start the silent-mode installation process using the values specified in the `silent.xml` file.

   For details on starting the installation in silent mode, see Chapter 2, "Starting the Installation Program."

Important Considerations for Silent-Mode Installation

When you are performing an installation in silent mode, keep in mind the following considerations:

- Silent-mode installation requires the same amount of temporary disk space and uses the same temporary storage directories as a standard installation. For more information, see "Temporary Disk Space Requirements" on page 1-6. The installation program does not alert you if there is not enough space in the temporary directory.
- A silent-mode installation takes the same amount of time as a standard installation. At the beginning of a silent-mode installation, an initial installation program window or message is displayed briefly, indicating that the installation has started. No messages are displayed to indicate that the installation is in progress or has completed successfully.
- Incorrect entries in the `silent.xml` file can cause installation failures. To help you determine the cause of a failure, we recommend that you create a log file when you start the installation. For more information, see "Generating a Verbose Installation Log" on page 1-15.

- The XML definition (`<?xml version="1.0" encoding="UTF-8"?>`) must be at the very beginning of the `silent.xml` file. There cannot be any spaces or line breaks before the XML definition.
- You cannot reinstall any BEA product on top of a previously installed version of the same product—in the same BEA Home directory or in the same file location. You can, however, add products and product components to an existing installation. For example, you can install WebLogic Server during one installation, and AquaLogic Service Bus during a separate installation. However, to reinstall the same version of one of the products, you must first uninstall the previously installed instance of it, as described in Chapter 8, "Uninstalling the Software," or install the new instance in another location.

Creating a silent.xml File for Silent-Mode Installation

When you install your WebLogic Real Time in silent mode, the installation program uses an XML file (`silent.xml`) to determine which installation options should be implemented. Therefore, before you can run the installation program in silent mode, you must first create a `silent.xml` file in which you specify the installation options that you want to have invoked.

Note: Incorrect entries in the `silent.xml` file can cause installation failures. To help you determine the cause of a failure, we recommend that you create a log file when you start the installation.

To create a `silent.xml` file for use in the silent-mode installation process, follow these steps:

1. In a supported browser, display the sample `silent.xml` file for silent-mode installation. The sample file is available later in this chapter. See "Sample silent.xml File for Silent-Mode Installation" on page 5-6.
2. Save the sample XML file, with the name `silent.xml`, in the same directory that contains the installation program.

   Note: The XML definition (`<?xml version="1.0" encoding="UTF-8"?>`) must be at the very beginning of the `silent.xml` file. There cannot be any spaces or line breaks before the XML definition.
3. In the `silent.xml` file that you saved on your system, edit the values for the keywords shown in Table 5-1 to reflect your configuration.

   Note: You must follow XML guidelines for characters when modifying values. That is, you cannot use characters reserved for use in XML, such as `<`, `>`, `[`, and `]`.

Table 5-1 Values for the silent.xml File

For this data-value name . . .	Enter the following value . . .
BEAHOME	The full pathname for the BEA Home directory of your choice. For details about the BEA Home directory, see "Choosing a BEA Home Directory" on page 1-9.
USER_INSTALL_DIR	The full pathname for the directory where you want to install your WebLogic Real Time software. For details, see "Choosing a Product Installation Directory" on page 1-12.
INSTALL_NODE_MANAGER_SERVICE (Windows platforms only)	• yes to install the WebLogic Server Node Manager as a Windows service. See "About Installing Node Manager as a Windows Service" on page 1-13. • no to skip the installation of the WebLogic Server Node Manager as a Windows service. The default is no. **Note:** You must have Administrator privileges to install Node Manager as a Windows service.
NODEMGR_PORT	The Node Manager listen port. If you do not specify a port number, the installer uses the default port 5556. If the port number is in use, the installer scans for the next available port and assigns it to the Node Manager. **Note:** The INSTALL_NODE_MANAGER_SERVICE option must be set to yes. At the completion of the installation process, the Node Manager is started using the port specified.
INSTALL_MERCURY_PROFILING_TOOLS	• true, or yes, to install the Mercury profiling tools. The default is true. • false, or no, to skip the installation of the tools. Selecting true or yes implies that you consent to the Mercury Tools License Agreement. **Note:** For more information about the Mercury profiling tools, see "WebLogic Real Time" on page 1-3.

Table 5-1 Values for the silent.xml File (Continued)

For this data-value name . . .	Enter the following value . . .
INSTALL_SHORTCUT_IN_ALL_USERS_FOLDER	• true, or yes, to create the shortcuts in the All Users folder. The default is true. • false, or no, to create the shortcuts in the local users folder. The user performing the installation must have Administrator privileges to install the Start menu shortcuts in the All Users folder. For more information, see "Administrator Privileges" on page 1-7.

COMPONENT_PATHS	Specify the components and subcomponents you want to install on your system:
	• To install WebLogic Real Time (required), use the following values:
	`WebLogic Real Time`
	`  Real Time`
	• To install WebLogic Server (optional), use the following values:
	`WebLogic Server`
	`  Server`
	`  Server Examples`
	`  Web Server Plug-Ins`
	Note: The Web Server Plug-Ins subcomponent is not installed by default with WebLogic Server. You must specify the component/subcomponent combination to install them.
	For additional information about entering these values, see "Guidelines for Component Selection" on page 5-5.
	Note: If you are using the BEA Products installation program for WebLogic Server, you can specify the WebLogic Server components only.

Guidelines for Component Selection

Use the following guidelines when you specify values for the COMPONENT_PATHS data-value name:

- When you specify a product component to be installed, all subcomponents that are installed by default in a complete installation are also installed. For example, the following entry installs both WebLogic Server and the examples:

```
<data-value name="COMPONENT_PATHS" value="WebLogic Server" />
```

Note: The Web Server Plug-Ins subcomponent is not installed by default. You must specify the component/subcomponent combination to install them.

- To install multiple components, separate the components with a bar (|). Do not leave a space before or after the bar. For example, to install WebLogic Real Time, WebLogic Server, and the subcomponents that are installed by default, enter the following line in the file:

  ```
  <data-value name="COMPONENT_PATHS" value="WebLogic Real Time|WebLogic
  Server" />
  ```

- To specify subcomponents, you must specify a component/subcomponent combination for each entry. For example, to install all of the subcomponents of WebLogic Server, including the Web Server Plug-Ins, use the following entry:

  ```
  <data-value name="COMPONENT_PATHS" value="WebLogic Real Time/Real
  Time|WebLogic Server/Server|WebLogic Server/Server Examples|WebLogic
  Server/Web Server Plug-Ins" />
  ```

- If you do not include the `COMPONENT_PATHS` data-value name in the `silent.xml` file, the complete WebLogic Real Time and WebLogic Server products are installed. The Web Server Plug-ins subcomponent of WebLogic Server is not installed by default.

  WARNING: You can clear the "WebLogic Real Time" component and proceed with only "WebLogic Server" selected. However, selecting only "WebLogic Server" will result in the installation of WebLogic Server with JRockit, but without the WebLogic Real Time sample scripts. If this occurs, run the Uninstall program and manually remove the remaining WebLogic Real Time files. Then repeat the installation procedure, making sure that "WebLogic Real Time" is selected.

Sample silent.xml File for Silent-Mode Installation

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- Silent installer option: -mode=silent -silent_xml=C:\bea\silent.xml -->

<!-- Specify values for each data-value name as follows:

     BEAHOME            Complete pathname to the BEA Home directory that
                        will contain this installation.

     USER_INSTALL_DIR   Complete pathname to the product installation
                        directory in which to install the software.

     INSTALL_MERCURY_PROFILING_TOOLS
                        Optionally install Mercury profiling tools.
```

```
                        Possible values are "true","yes","false"
                        and "no". The default is "true".

      INSTALL_NODE_MANAGER_SERVICE  Install Node Manager as a Windows
                                    service. The default is "no".
                                    Requires Administrator privileges.

      NODEMGR_PORT        Node Manager listen port number. If none specified,
                          installer uses default port 5556.
                          INSTALL_NODE_MANAGER_SERVICE must be set to "yes"

      COMPONENT_PATHS     Components and subcomponents to be installed.
                          To install multiple components, separate the components
                          with a bar (|).
                          To install subcomponents, specify a
                          component/subcomponent combination. For example,
                          to install Web Server Plug-Ins,
                          use "WebLogic Server/Web Server Plug-Ins".

      INSTALL_SHORTCUT_IN_ALL_USERS_FOLDER
                          The Windows Start menu folder in which you want the
                          Start menu shortcuts created.
                          The user performing the installation must have
                          Administrator privileges to install the shortcuts
                          in the All Users folder.
                          Possible values:
                          true/yes  The shortcuts are created in
                                    the All Users folder (default)
                          false/no  The shortcuts are created in
                                    the local user's folder
      See the Installation Guide for more information.               -->

<bea-installer>
  <input-fields>
      <data-value name="BEAHOME"                  value="C:\bea" />
      <data-value name="USER_INSTALL_DIR"         value="C:\bea\realtime10" />
      <data-value name="INSTALL_MERCURY_PROFILING_TOOLS" value="true"/>
      <data-value name="INSTALL_NODE_MANAGER_SERVICE"   value="yes"  />
      <data-value name="NODEMGR_PORT"                   value="5559" />
      <data-value name="COMPONENT_PATHS" value="WebLogic Real Time/Real
Time|WebLogic Server/Server|WebLogic Server/Server Examples|WebLogic Server/Web
Server Plug-Ins" />
      <data-value name="INSTALL_SHORTCUT_IN_ALL_USERS_FOLDER"   value="yes"/>
</input-fields>
</bea-installer>
```

Returning Exit Codes to the Console

When run in silent mode, the installation program generates exit codes that indicate the success or failure of the installation. These exit codes are shown in the following table.

Table 5-2 Exit Codes

Code	Description
0	Installation completed successfully
-1	Installation failed due to a fatal error
-2	Installation failed due to an internal XML parsing error

If you are launching the silent-mode installation process from a script, you can choose to have these exit codes displayed on the console. Listing 5-1 provides a sample command file that invokes the installation program in silent mode and echoes the exit codes to the console from which the script is executed.

Listing 5-1 Sample Command File Displaying Silent-Mode Exit Codes

```
rem Execute the installer in silent mode
@echo off
realtime100_win32.exe -mode=silent -silent_xml=C:\downloads\silent.xml
-log=C:\logs\products_silent.log

@rem Return an exit code to indicate success or failure of installation
set exit_code=%ERRORLEVEL%

@echo.
@echo Exitcode=%exit_code%
@echo.
@echo Exit Code Key
@echo ---------------
@echo  0=Installation completed successfully
@echo -1=Installation failed due to a fatal error
@echo -2=Installation failed due to an internal XML parsing error
@echo.
```

What's Next?

By default, WebLogic Platform uses the development license file installed in the BEA Home directory so that you can start using the product immediately. However for WebLogic Real Time 1.0, access to the BEA JRockit 5.0 Deterministic Garbage Collection option requires an additional evaluation or production license key to replace the empty `license.bea` file in the `BEA_HOME/jrockit-realtime1.0_XXX/jre/` directory. For instructions on updating the BEA JRockit license file, see "Updating Your BEA JRockit License for the Deterministic Garbage Collector" on page 6-6.

The Spring 1.2.6 Framework for BEA is fully supported with WebLogic Platform 1.0 and can be downloaded from the WebLogic Platform Product download page. Spring 1.2.6 is also distributed with the WebLogic Platform CD-ROM kit when the media is ordered. For more information about Spring and WebLogic Real Time, see *Introduction to WebLogic Real Time* at `http://e-docs.bea.com/wlrt/docs10/wlrt_intro/understa.html`.

For additional post-installation information, see Chapter 7, "Post-Installation Information."

For specific information about your software release, such as using the Configuration Wizard to create a WebLogic Real Time domain, see the appropriate release notes:

- The features and capabilities of WebLogic Real Time, see *Introduction to WebLogic Real Time* at `http://e-docs.bea.com/wlrt/docs10/wlrt_intro/index.html`
- The features and capabilities of WebLogic Server, see *Introduction to WebLogic Server and WebLogic Express* at `http://e-docs.bea.com/wls/docs91/intro/index.html`
- The features and capabilities of BEA JRockit, see *Introduction to JRockit JDK* at `http://e-docs.bea.com/jrockit/geninfo/genintro/index.html`
- Operating systems and hardware supported by your software, see "WebLogic Real Time 1.0 Supported Configurations" at `http://e-docs.bea.com/wlrt_intro/intro/intro.html`

CHAPTER 6

Installing and Updating License Files

WebLogic Real Time 1.0 requires two valid product licenses to run:

- The license file stored in the BEA Home directory for the BEA products installed in that directory.
- The BEA JRockit license file in the JRockit `/jre` directory for the Deterministic Garbage Collector (GC) feature.

The following sections explain how to acquire, install, and update your product licenses:

- About BEA Product Licenses
- Updating Your WebLogic Real Time Product License
- Updating Your BEA JRockit License for the Deterministic Garbage Collector
- Upgrading Licenses from Previous Software Releases
- Installing Licenses for Use with Promotional CD Distributions

About BEA Product Licenses

BEA products use an XML-format license file called `license.bea`. This license file, stored in the BEA Home directory, is used for the BEA products installed in that directory. Your BEA software checks this file at run time to determine which product components you are authorized to use. In addition, for WebLogic Real Time 1.0, access to the JRockit Deterministic GC option requires an additional evaluation or production license key to replace the empty `license.bea`

file in the JRockit `/jre` directory. For instructions on updating this license, see "Updating Your BEA JRockit License for the Deterministic Garbage Collector" on page 6-6.

Note: If you have multiple BEA Home directories on your system, each BEA Home must have a `license.bea` file that authorizes use of the products associated with that directory.

Licenses are release specific. For example, to use WebLogic Server 9.1, you must have a 9.1 license file. To convert a pre-9.1 `license.bea` file to a WebLogic Server 9.1 `license.bea` file, see "Upgrading Licenses from Previous Software Releases" on page 6-7.

The types of license files that can be used as the `license.bea` file and the technical restrictions that they impose are described in the following table.

Note: See the End User License Agreement for specific license terms and conditions.

Table 6-1 WebLogic Real Time License File Types

License Type	Description
Development	• Used in a development environment where a developer is preparing an application to run on top of your WebLogic Real Time software; a production license is required for deployment. • Enables all component products provided in your product distribution. • Enables you to run your software on a single machine, even if it is running multiple instances of WebLogic Server • Permits client connections from a maximum of five IP addresses. IP addresses are tracked from the time the server is started. When you restart the server, the count is reset. • Is installed in the BEA Home directory as `license.bea`. • Is not tied to the IP address of a machine.
Production	• Used in full-scale production environments. • May restrict functionality to the software components that you have purchased. • Enables you to run your software on a single machine, even if it is running multiple instances of WebLogic Server • Permits client connections from an unlimited number of IP addresses. • Must be purchased separately. For information about purchasing a production license, contact your sales representative or visit the BEA corporate Web site at `http://www.bea.com`. • Is tied to the IP address of the machine. A production license can be used only on a machine with the same IP address that is specified in the license file.

When you install your software, a non-expiring development license file (`license.bea`) is installed on your system. By default, your software uses the development license installed with the product so that you can start using it immediately. Subsequently, when you install additional BEA products that include a `license.bea` file, the installation program automatically adds the new product licenses to the `license.bea` file.

Note: The `license.bea` file conforms to the XML grammar definition. The XML definition (`<?xml version="1.0" encoding="UTF-8"?>`) must be at the very beginning of the `license.bea` file. There cannot be any spaces or line breaks before the XML definition.

Updating Your WebLogic Real Time Product License

When you install WebLogic Real Time, the installation program generates a development `license.bea` file for use with the software and installs it in the BEA Home directory. If you are installing your software in an existing BEA Home, the installation program automatically adds the development license included with your product distribution to the existing `license.bea` file.

In some cases, however, you must update the `license.bea` file separately, independent of the installation process. For example, you must update your license file if at least one of the following is true:

- You purchase a product for production use and you receive a production license to replace your development license.
- You want to upgrade production systems to a new release of the software. After installing the current release of the software, you must upgrade your license to the current version. To do so, see "Upgrading Licenses from Previous Software Releases" on page 6-7.
- You purchase a new release of a product you are already using in production and you want to use both the old and the new releases in production on the same system. For example, you are currently using WebLogic Server 8.1, you purchase WebLogic Server 9.1, and you want to use both releases on the same system.
- You purchase additional WebLogic Real Time software with production licenses, and you want to add the production licenses for the new software to the production licenses for software already in production use on your system.
- You want to consolidate existing production licenses for different component products onto a single machine.
- You want to transfer existing production licenses from one machine to another machine with a different IP address.

In each of these cases, you will receive a new license file from BEA, the contents of which must be included in the `license.bea` file in the target BEA Home directory. To facilitate the license update process, BEA provides an `UpdateLicense` utility that merges the new license into the existing license in the BEA Home directory, and deletes any expired or duplicate entries.

The `UpdateLicense` merge process is not intended to modify the license attributes for any component or feature in the license files being merged. For example:

- If you merge a WebLogic Server 8.1 production license with a WebLogic Server 9.1 development license, the development and production rights associated with the different WebLogic Server license versions are retained. The merge process creates a single license file which can be used for both WebLogic Server 8.1 production and WebLogic Server 9.1 development. The merge process does not change the development and production rights associated with either the WebLogic Server 8.1 or WebLogic Server 9.1 entry. If you want to upgrade the WebLogic Server 8.1 production license to WebLogic Server 9.1, see "Upgrading Licenses from Previous Software Releases" on page 6-7.
- If you merge a WebLogic Server 8.1 license for IP address *A* with a WebLogic Server 9.1 license for IP address *B*, the IP addresses for both WebLogic Server license versions are retained. The merge process creates a single license file that can be used to run WebLogic Server 8.1 on IP address *A* and WebLogic Server 9.1 on IP address *B*. The merge process does not change the IP address associated with either the WebLogic Server 8.1 or WebLogic Server 9.1 entry. If you want to change the IP address for a given license file, you must use the BEA eLicense system at `http://elicense.bea.com`.

Important Considerations for Updating Your license.bea File

When determining how to update your `license.bea` file, you should consider the following:

- If you want to merge the functionality enabled by both your new license and your existing license, you must use the `UpdateLicense` utility. For instructions, see "Updating license.bea Using the UpdateLicense Utility" on page 6-5.
- You may choose to replace an existing `license.bea` file with a new `license.bea` file, but if you do so, you run the risk of losing the product usage rights enabled by your existing license file.

Note: Do not edit the `license.bea` file manually. Doing so may cause operating problems for the currently installed BEA products, or result in problems later when BEA products are installed for maintenance upgrades.

Updating license.bea Using the UpdateLicense Utility

To update your `license.bea` file, perform the following procedure:

1. Save the license update file that you received through e-mail, with a name other than `license.bea`, in the target BEA Home directory. For example, save the file as `new_license.bea`. Use this file as the *`license_update_file`* in step 4 of this procedure.

   WARNING: Do not overwrite or change the name of the existing `license.bea` file.

2. Perform the step appropriate for your platform:
   - On a Windows system, open an MS-DOS command window and go to the target BEA Home directory.
   - On a Linux system, go to the target BEA Home directory.

3. If it is not already included, add the JDK to your `PATH` variable by entering the following commands:
   - On a Windows system:

     ```
     set PATH=BEA_HOME\JDK\bin;%PATH%
     ```

   - On a Linux system:

     ```
     PATH=BEA_HOME/JDK/bin:$PATH
     export PATH
     ```

   In this command, *`JDK`* represents the directory that contains the JDK being used for this installation, for example, `jdk150_04` or `jrockit90_150_04`.

4. Merge the license update file into your existing license by entering one of the following commands:
   - On a Windows system:

     ```
     UpdateLicense license_update_file
     ```

   - On a Linux system:

     ```
     sh UpdateLicense.sh license_update_file
     ```

   `license_update_file` represents the name to which you saved the license update file in step 1.

5. Save a copy of your updated `license.bea` file in a safe place outside your BEA software and application installation directories.

   Although no one else can use your license file, you should save a copy of it in a place that is protected from both malicious and innocent tampering.

Updating Your BEA JRockit License for the Deterministic Garbage Collector

For WebLogic Real Time 1.0, access to the BEA JRockit 5.0 Deterministic Garbage Collection option requires an additional evaluation or production license key to replace the empty `license.bea` file in the `BEA_HOME/jrockit-realtime1.0_XXX/jre/` directory. To enable deterministic garbage collection, this key must be replaced with an evaluation or production Deterministic GC license.

These steps explain how to update the empty BEA JRockit license file with the evaluation Deterministic GC license key:

1. Download the evaluation JRockit Deterministic GC license from the WebLogic Real Time Product download page at `http://commerce.bea.com/showproduct.jsp?family=WLRT&major=1.0&minor=0`.
2. To install the evaluation JRockit Deterministic GC license, simply copy it to:

   `BEA_HOME/jrockit-realtime1.0_XXX/jre/`

   WARNING: If you already have a JRockit Mission Control license, you should make a backup copy before overwriting it with the Deterministic GC license.
3. The name of the license should be `license.bea`, thus, the full path to the license should be:

   `BEA_HOME/jrockit-realtime1.0_XXX/jre/license.bea`
4. To enable the Deterministic GC option, you can:
   - For WebLogic Server, start the server with the `-Xgcprio:deterministic` option in the startup script.
   - For standalone Java applications, enter the `-Xgcprio:deterministic` option from a Java command line.
   - Use Start→BEA Home→Tools→Configuration Wizard to create a WebLogic domain with the Deterministic GC enabled.

   Note: Follow steps 2-4 when updating the BEA JRockit license with either a WebLogic Real Time 1.0 CD-ROM kit evaluation license or a WebLogic Real Time 1.0 production license obtained from BEA.

Upgrading Licenses from Previous Software Releases

The format of the `license.bea` file changes with each release of WebLogic Real Time software. To upgrade a `license.bea` file from a previous release to a license for the current release, complete the following steps:

1. Log in to the BEA eLicense Web site at `http://elicense.bea.com`.

   Note: You need a BEA eLicense account to log in to this Web site. If you do *not* have a BEA eLicense account, click the Register link on the Customer Support site to register for one.

2. In the left navigation area of the Web page, click Upgrade/Downgrade and follow the instructions on the page. If the license you want to upgrade is not listed, click the Add a Missing License link. The BEA Licensing team will research the missing license for you.

   You will receive an upgraded license file through e-mail. To update the `license.bea` file on your system, see "Updating license.bea Using the UpdateLicense Utility" on page 6-5.

Installing Licenses for Use with Promotional CD Distributions

In some cases, BEA distributes software for promotional purposes on CD. Such CDs include installers that do not automatically generate a development license key. Instead, the CD folio directs you to a BEA Web site, where you can obtain a development license file after you supply a code from the CD folio. The license file you obtain allows you to begin using the software immediately, and entitles you to the same usage rights described for the development license in Table 6-1, "WebLogic Real Time License File Types," on page 6-2.

When you receive this license file from BEA, complete the following steps:

1. Save the license file using the name `license.bea`. Make sure that the filename does not include a suffix, such as `.txt`.

2. Copy the `license.bea` file into the BEA Home directory in which your WebLogic Real Time software was installed. For example, `c:\bea`.

CHAPTER 7

Post-Installation Information

This section covers the following topics:

- Starting the Configuration Wizard
- Creating a New WebLogic Real Time Domain
- Understanding the Windows Shortcuts
- Understanding the Product Directory Structure

Starting the Configuration Wizard

This section describes how to invoke the Configuration Wizard in graphical and console modes. Topics include:

- Starting in Graphical Mode
- Starting in Console Mode

Starting in Graphical Mode

When run in graphical mode, the Configuration Wizard is executed in a graphical environment. The console for the machine on which the product installation resides must support a Java-based GUI. All Windows-based consoles support Java-based GUIs; only a subset of UNIX-based consoles support Java-based GUIs.

Note: If you attempt to start the Configuration Wizard in graphical mode on a system that cannot support a graphical display, the Configuration Wizard automatically starts in console mode.

You can start the Configuration Wizard in graphical mode from either the Windows Start menu or from the command line.

- To start the Configuration Wizard in graphical mode on a Windows platform, choose the Configuration Wizard option from the BEA program group in the Windows Start Menu:

  Start→Programs→BEA Products→Tools→Configuration Wizard

- To start the Configuration Wizard in graphical mode from a Windows command prompt or on a UNIX platform:

  a. Log in to the target system on which the product installation resides.

  b. Open an MS-DOS command prompt window (on Windows) or a command shell (on UNIX).

  c. Go to the `\common\bin` subdirectory of the product installation directory. For example:

     ```
     cd c:\bea\realtime10\common\bin
     ```

  d. Invoke one of the following scripts to start the Configuration Wizard in graphical mode:

     Windows: `config.cmd`

     UNIX: `sh config.sh`

Starting in Console Mode

When run in console mode, the Configuration Wizard is executed in a text-based environment.

To start the Configuration Wizard in console mode:

1. Log in to the target system on which the product installation resides.
2. Open a command-line shell.
3. Go to the `\common\bin` subdirectory of the product installation directory. For example:

   ```
   cd c:\bea\realtime10\common\bin
   ```

4. Invoke one of the following scripts:
   - Windows: `config.cmd -mode=console`
   - UNIX: `sh config.sh -mode=console`

Note: The command and arguments must be entered in lower-case.

To finish creating your domain, respond to the prompts in each section by entering the number associated with your choice, pressing Enter, or typing `next` (or `n`) to accept the current selection. The arrow (→) indicates the value currently selected. To quit the Configuration Wizard, enter `Exit` in response to any prompt. To review or change your selection, enter `Previous` at the prompt.

Note: Instead of typing complete words when you want to enter `[Exit]`, `[Previous]`, and `[Next]`, you can use the following one-letter shortcuts: `x`, `p`, and `n`, respectively.

Creating a New WebLogic Real Time Domain

Before you can develop and run WebLogic-based applications, you must first create a domain. The Configuration Wizard guides you through the process of creating a new domain quickly and easily, by selecting the product components you want to include in your domain, or by using domain templates.

The following topics describe the steps required to create a new domain using the Configuration Wizard:

- Create or Extend a Domain
- Select a Domain Source
- Configure an Administrator Username and Password
- Specify the Server Start Mode and JDK
- Customize Environment and Services Settings
- Create the WebLogic Domain
- Creating Domain

Create or Extend a Domain

The **Welcome** window prompts you to choose whether you want to create a new domain or extend an existing one.

Table 7-1 Welcome Window Prompts

Choose this option . . .	When you want to . . .
Create a new WebLogic domain	Create a new domain that is configured to meet your requirements. Begin by selecting the product components you want to include in your domain, or a domain template to be used as the basis for your domain. Then modify settings as required.
Extend an existing WebLogic domain	Add product component functionality or support for additional applications and services to an existing domain. Begin by selecting the directory of the domain that you want to update. Then specify the product components you want to add, or identify the extension template you want to use for adding applications and services. You then have the option of customizing the JDBC connections to your database and the WebLogic file store, if defined. To learn more, see "Extending Domains" in the *Creating WebLogic Domains Using the Configuration Wizard* at `http://e-docs.bea.com/wls/common/docs91/configwiz/exten.html`.

Select a Domain Source

The **Select a Domain Source** window prompts you to select the source from which to create the domain. You can select the product components to include in your domain.

Choose one of the following options for selecting the source for your domain:

- **Generate a domain configured automatically to support the following BEA products:**

  WebLogic Real Time is required for this option and is selected by default. You can also select the check boxes associated with the other components you want to include, such as Apache Beehive, and then click **Next** to continue.

- **Base this domain on an existing template**

  The pathname for the WebLogic Real Time template, `wlrt.jar`, is selected by default, and is required to create a valid WebLogic Real Time domain. To use this option, click **Next**.

  Optionally, you can manually enter the full pathname to a template in the **Template location** field and click **Next**, or click **Browse** to navigate to the directory containing the desired template. Select the domain template that contains the settings you want to use as the basis for your domain.

Note: While using the Configuration Wizard or WLST Offline to create or extend a clustered domain with a template that has applications containing application-scoped JDBC and/or JMS resources, you may need to perform additional steps (after the domain is created or extended) to make sure that the application and its application-scoped resources are targeted and deployed properly in a clustered environment. For more information on the targeting and deployment of application-scoped modules, see "Deploying Applications and Modules" in *Deploying Applications to WebLogic Server* at the following URL: `http://e-docs.bea.com/wls/docs91/deployment/deploy.html`.

Configure an Administrator Username and Password

The **Configure Administrator Username and Password** window prompts you to specify a username and password to be used for starting the Administration Server.

1. Enter a valid value in the **Username** field. This name is used to boot the Administration Server and connect to it.

   Do not use commas or any characters in the following comma-separated list: `\t`, `< >`, `#`, `|`, `&`, `?`, `( )`, `{ }`. User names are case sensitive.

2. Enter a valid value in the **User password** field: a string of at least 8 case-sensitive characters. The password value is encrypted.

   Note: Do not use the name/password combination `weblogic/weblogic` in a production environment.

3. Reenter the password in the **Confirm user password** field.

4. Optionally, enter a login description for this username.

5. Click **Next** to proceed to the next configuration window.

Specify the Server Start Mode and JDK

The **Configure Server Start Mode and JDK** window prompts you to specify the:

- Startup mode for your domain
- JDK to be used for the domain

Choose the Startup Mode

Specify the startup mode for your domain as shown in the following table.

Table 7-2 Startup Mode Prompts

Choose this mode . . .	When . . .
Development	You are creating your applications. In this mode, the configuration of security is relatively relaxed, allowing you to auto-deploy applications.
Production	Your application is running in its final form. In this mode, security is fully configured. **Note:** Before putting a domain into production, BEA recommends that you familiarize yourself with the content of *Ensuring the Security of Your Production Environment* at http://e-docs.bea.com/wls/docs91/lockdown/practices.html.

Differences Between Domain Startup Modes

The following table describes the differences between development and production modes in terms of key functions.

Table 7-3 Differences Between Development and Production Modes

Function	In development mode . . .	In production mode . . .
SSL	You can use the demonstration digital certificates and the demonstration keystores provided by the WebLogic Server security services. With these certificates, you can design your application to work within environments secured by SSL. For more information about managing security, see "Configuring SSL" in *Securing WebLogic Server* at the following URL: http://e-docs.bea.com/wls/docs91/secmanage/ssl.html	You should not use the demonstration digital certificates and the demonstration keystores. If you do so, a warning message is displayed.

Table 7-3 Differences Between Development and Production Modes (Continued)

Function	In development mode . . .	In production mode . . .
Deploying Applications	WebLogic Server instances can automatically deploy and update applications that reside in the *domain_name*/autodeploy directory (where *domain_name* is the name of a domain). It is recommended that this method be used only in a single-server development environment. For more information, see "Auto-Deploying Applications in Development Domains" in *Deploying Applications to WebLogic Server* at the following URL: http://e-docs.bea.com/wls/docs91/deployment/deploy.html#autodeploy	The auto-deployment feature is disabled, so you must use the WebLogic Server Administration Console, the weblogic.Deployer tool, or the WebLogic Scripting Tool (WLST). For more information, see *Deploying Applications to WebLogic Server* at the following URL: http://e-docs.bea.com/wls/docs91/deployment/index.html
Log File Rotation	When you start a server, the server automatically renames (rotates) its local server log file as *server-name*.log.*n*. For the remainder of the server session, the server rotates its local log file whenever the size of the file reaches 500 kilobytes.	A server rotates its local log file after the size of the file reaches 500 kilobytes.
JDBC System Resource	The default capacity is 15 connections.	The default capacity is 25 connections.

Select the JDK for the Domain

The **JDK Selection** pane prompts you to select the J2SE Development Kit (JDK) for the startup mode you selected in the **WebLogic Domain Startup Mode** pane. The Configuration Wizard presents the BEA JRockit JDK supplied by WebLogic Real Time and installed with the product.

You must use the BEA JRockit JDK to use the Deterministic Garbage Collector option. When you select the BEA JRockit JDK, the Configuration Wizard will create server startup scripts that will automatically configure the Deterministic Garbage Collector option.

1. Select the JRockit JDK supplied by WebLogic Real Time.

   Caution: To use a JDK that is not installed with the product, select **Other JDK**, click **Browse**, and navigate to the appropriate directory. However, the Configuration

Wizard does not configure the start scripts to use this type of JDK. You must change the start scripts manually.

2. Click **Next** to proceed to the next configuration window.

Related Topics

For information on changing the run-time mode after you have created a domain, see "Change to production mode" in the *WebLogic Server Administration Console Online Help* at http://e-docs.bea.com/wls/docs91/ConsoleHelp/taskhelp/domainconfig/ChangeRuntimeModes.html.

Customize Environment and Services Settings

The **Customize Environment and Services Settings** window gives you the option to change the distribution of your domain across servers, clusters, and machines, and to modify existing JDBC and JMS file store settings.

If you choose not to customize any environment or services settings by accepting the default (**No**), you proceed directly to creating the domain.

The following topics summarize the settings you can change.

Customize the Environment

You can customize the environment of your domain as follows:

- Change the configuration of the Administration Server, including listen address and listen ports
- Add or delete Managed Servers, or change the configuration of existing Managed Servers defined in the selected template
- Group the Managed Servers into clusters, which allows multiple Managed Servers to operate as a single unit to host applications and resources. To group the Managed Servers into clusters, you have the option of performing the following steps:
  - Add or delete clusters, or change the configuration of existing clusters
  - Assign the Managed Servers to a cluster in the domain
  - Create an HTTP proxy for each cluster within the domain
- Assign WebLogic Server instances to host machines. In a domain, machine definitions identify a particular, physical piece of hardware and are used to associate a computer with

the Managed Servers it hosts. To map WebLogic Server instances to host machines, you have the option of performing the following steps:

- Add or delete machines, or change the configuration of existing machines
- Assign each instance of WebLogic Server to the machine on which it runs.

For more information, see "Customizing the Environment" in the *Creating WebLogic Domains Using the Configuration Wizard* at http://e-docs.bea.com/wls/common/docs91/configwiz/custom.html.

Customize Existing JDBC and JMS Settings

If the domain source on which you are basing your domain contains a database configuration, you have the option to do the following:

- Modify JDBC Data Source settings, including database type and drivers
- Test the connections to the database
- Load the database

If a WebLogic file store has been defined in the domain source for JMS, you can also change the file store definition.

For more information, see "Customizing Existing JDBC and JMS Settings" in the *Creating WebLogic Domains Using the Configuration Wizard* at http://e-docs.bea.com/wls/common/docs91/configwiz/service.html.

Create the WebLogic Domain

The **Create WebLogic Domain** window prompts you to specify the name and pathname for the domain, and initiate its creation.

1. Make sure that the **Domain Name** field contains the name of the required domain. If you need to change the value in this field, click within the field and modify the string displayed there.
2. Make sure that the **Domain Location** field contains the name of the required domain directory. If you need to change the value in this field:
   a. Click **Browse** to invoke the **Select a WebLogic Domain Directory** dialog box.
   b. In the dialog box, navigate to the appropriate directory or manually enter its pathname in the **Location** field. Click **OK**.

The domain directory can be located anywhere on your system. By default, it resides in *BEA_HOME*\user_projects\domains*domain*, where *BEA_HOME* is the directory that contains the product installation, and *domain* is the name of the domain directory defined by the selected domain template.

3. Click **Create.**

   Note: You cannot overwrite an existing domain. If a domain with the name you specify already exists in the selected location, you must either delete the existing domain, or specify a different name or location for this domain.

   The **Creating Domain** window is opened to display status messages during the domain creation process.

   The Configuration Wizard stores the `config.xml` file and all other generated components in the domain directory that you specify.

Creating Domain

The **Creating Domain** window displays status messages during the domain creation process. When the process is complete, the new domain is ready for use.

Table 7-4 Create Domain Tasks

On this platform . . .	Perform the following task . . .
UNIX and Linux	Click **Done**.
Windows	Do one of the following: • If you want to start the server immediately, select the **Start Admin Server** check box and click **Done**. • If you do not want to start the server at this time, click **Done**.

Understanding the Windows Shortcuts

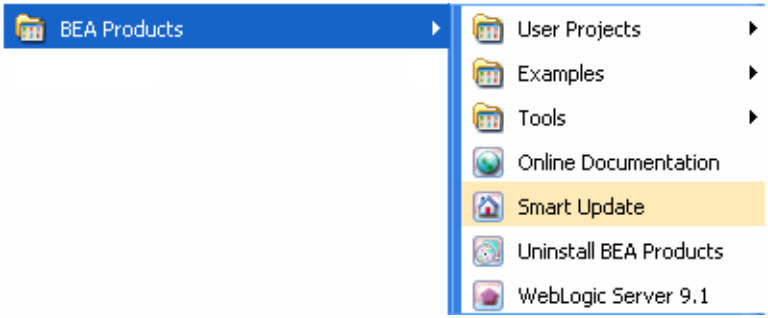
When you install your BEA Products software on a Windows system, the installation program automatically creates shortcut entries on the Start Menu.

Note: If the user performing the installation has Administrator privileges, the shortcut entries can be created in the All Users Start menu folder or in the user's local Start menu folder. For more information, see "Administrator Privileges" on page 1-7.

Options on the Start Menu vary, according to the components you choose to install.

The BEA Products folder (Start→Programs→BEA Products) contains the shortcut files shown in the following figure.

Figure 7-1 BEA Products Start Menu



- *User Projects*—WebLogic Real Time domains created with the Configuration Wizard.
- *Examples*—contains a folder for each component installed on your system that contains shortcuts for launching the examples and associated tools for the component.
- *Tools*—contains shortcuts for launching the Configuration Wizard, Domain Template Builder, Domain Upgrade Wizard, Node Manager, WebLogic Scripting Tool.
- *Online Documentation*—provides a link to the online documentation on the e-docs Web site.
- *Smart Update*—launches the Smart Update program, which checks for any updates available for installed BEA products, and installs the updates as required.
- *Uninstall BEA Products*—launches the uninstallation program. For more information, see Chapter 8, "Uninstalling the Software."
- *WebLogic Server 9.1*—contains a shortcut for launching the default WebLogic Server domain. This domain allows you to run pre-built WebLogic Server code samples, deploy J2EE applications, and quickly serve JSPs or HTML pages. You can also use this domain as a place to test your applications during development.

Understanding the Product Directory Structure

During the product installation, you are asked to select or create a BEA Home directory and a product installation directory. For information about the BEA Home directory, see "Choosing a BEA Home Directory" on page 1-9. For a complete installation, the installation program creates

a dedicated directory structure for the BEA Products software. It may or may not reside in the BEA Home directory. The following diagram shows the directory tree structure for a complete product installation.

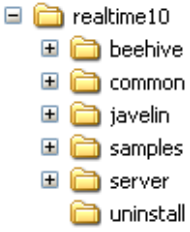


Table 7-5 describes the contents of each directory.

Note: The installation program does not create directories for components that are not installed. For example, if you choose to perform a component installation and select "WebLogic Real Time" without "WebLogic Server", then only the `common` and `uninstall` directories are created.

Table 7-5 Product Installation Directory Structure

This directory . . .	Contains . . .
`realtime10`	Folders for files shared by all product components.
`beehive`	Apache Beehive program files, including samples and user documentation.
`common`	Files shared by product components, including scripts used for setting environment attributes common to all WebLogic domains running on the machine, template JAR files used by the Configuration Wizard and WLST offline when creating domains, and evaluation software from third-party vendors.
`javelin`	A 100% Java/JSP compiler that is used by the component products for compiling `.java` and other source files generated by development tools.

Table 7-5 Product Installation Directory Structure (Continued)

This directory . . .	Contains . . .
`samples`	Sample code, resources, and preconfigured sample domains designed to help you learn how to develop your own applications using the product software. Sample domains are organized by components installed on the system. For example, the `server` folder contains the source code for `examples` and `medrec` sample applications.
`server`	WebLogic Server program files
`uninstall`	Code required to uninstall the BEA Products software

Uninstalling the Software

The following sections provide procedures for uninstalling the software:

- About the Uninstallation Program
- Uninstalling Your Software in Graphical Mode
- Uninstalling Your Software in Console Mode
- Uninstalling Your Software in Silent Mode
- Reinstalling Your Software

About the Uninstallation Program

The following sections describe how to uninstall your BEA software on Windows and UNIX systems. You can uninstall the software using graphical, console, or silent mode. To run the graphical-mode uninstallation program, your console must support a Java-based GUI. If the uninstallation program determines that your system cannot support a Java-based GUI, it automatically starts running in console mode.

You can uninstall individual components of your product distribution, or the entire installation. Dependency checking in the uninstaller ensures that the appropriate components are uninstalled.

The uninstallation program does not remove the BEA Home directory associated with the installation, the JDK, or any user-created domains. Only the components that were installed by the installation program can be removed. If you choose to uninstall the entire installation, the

uninstallation program also removes the product directory associated with the installation *unless* one of the following is true:

- The product directory contains user-created configuration or application files—*the uninstallation program does not delete user-created configuration files, application files, or domains*.
- The complete installation was not uninstalled. If an individual component is uninstalled, only the installation directory for that component is removed; the installation directories for other components are unaffected.
- The uninstallation program was invoked from within the product directory structure—specifically, from within the `uninstaller` directory.

Uninstalling Your Software in Graphical Mode

Use the following procedure to uninstall the complete product installation, or individual components, in graphical mode:

1. Shut down any servers that are running. If any of these servers is configured as a Windows service, you should stop the service(s) before uninstalling the software.
2. Start the uninstallation program as described in Table 8-1.

Table 8-1 Starting the Uninstallation Program in Graphical Mode

To start the uninstallation program on this platform . . .	Perform the following steps . . .
Windows	1. From the Windows Start menu, choose Start→Programs→BEA Products→Uninstall BEA Products. The BEA Products Uninstaller Welcome window is displayed. 2. Proceed to step 3.
UNIX	1. Go to the following directory: *WLRT_HOME*/uninstall Here *WLRT_HOME* represents the directory in which you installed your WebLogic Real Time software. 2. Enter `uninstall.sh` at the prompt. The BEA Products Uninstaller Welcome window is displayed. **Note:** If your system supports a graphical user interface, the uninstallation program starts in graphical mode. If your system does not support a graphical user interface, the uninstallation program starts in console mode. If console mode is started, see "Uninstalling Your Software in Console Mode" on page 8-4 for instructions.

3. Click **Next** to start the uninstall program.

   The Choose Components window is displayed.

4. Select the components to uninstall by selecting or clearing the appropriate check boxes. Then click **Next**. By default, all installed components are selected, indicating that they will be removed.

5. Optionally, click **Details** to view the log file that lists the uninstalled components.

6. Click **Done** in the **Uninstalling BEA Products** window to exit the uninstallation program.

Uninstalling Your Software in Console Mode

Use the following procedure to uninstall the complete product installation, or individual components, using the command-line interface:

1. Shut down any servers that are running. If any of these servers is configured as a Windows service, you should stop the service(s) before uninstalling the software.
2. Start the uninstallation program as described in Table 8-2.

Table 8-2 Starting the Uninstallation Program in Console Mode

To start the uninstallation program on this platform . . .	Perform the following steps . . .
Windows	1. Open a Command Prompt window and go to the following directory: *WLRT_HOME*\uninstall Here *WLRT_HOME* represents the directory in which you installed your WebLogic Real Time software, typically C:\bea\realtime10. 2. Enter the following command at the prompt: uninstall -mode=console The Welcome text is displayed.
UNIX	1. Go to the following directory: *WLRT_HOME*/uninstall Here *WLRT_HOME* represents the directory in which you installed WebLogic Server. 2. At the prompt, enter the following command: sh uninstall.sh -mode=console The Welcome text is displayed.

3. Press Enter or type `next` to proceed to the next panel of the uninstallation program.

   Note: Instead of typing complete words when you want to enter `[Exit]`, `[Previous]`, and `[Next]`, you can use the following one-letter shortcuts: `x`, `p`, and `n`, respectively.

   The Choose Components to uninstall panel is displayed.

4. Select the components you want to uninstall. The available components are displayed as follows:

```
Check the BEA Products components you want to uninstall.

Release 9.x.x.x
+----WebLogic Real Time [1] v
|    +----WebLogic Real Time [1.1] v
```

```
+----WebLogic Server [1] v
|    +----Server [1.1] v
|    +----Server Examples [1.2] v
|    +----Web Server Plug-Ins [1.3]

Enter number exactly as it appears in brackets to toggle selection OR
 [Exit][Previous][Next]>
```

By default, all installed components are selected, indicating that they will be removed.

To leave a component installed on your system, type the numeric code for that component on the command line, exactly as it appears within the brackets. For example, to uninstall only the Server Examples and the Web Server Plug-ins, and keep the Server installed on your system, enter `1.1` on the command line. The check mark (Windows systems) or `x` (UNIX systems) beside the entry for Server is cleared, indicating that it will *not* be uninstalled. The Server Examples and the Web Server Plug-ins will be uninstalled.

Dependency checking is performed to ensure that you do not uninstall a component that is required by another component.

5. Press Enter or type `next` to proceed with the uninstallation process.
6. When the uninstallation process is complete, press Enter or type `exit` to complete the uninstallation and exit the uninstallation program.

Uninstalling Your Software in Silent Mode

When you uninstall your BEA Products software in silent mode, the complete installation of your software is uninstalled.

When you run the uninstallation program in silent mode, it leaves behind the same files and directories as when you run the uninstallation program in graphical and console modes, including:

- The BEA Home directory, including the `logs` and `utils` subdirectories
- The JDK, if it was installed with your BEA product installation
- Domain directories, including those in `user_projects`
- Any other file created or modified after your BEA software was installed

You can manually delete these files.

Although you can use silent-mode uninstallation to manually uninstall your software, silent-mode uninstall is intended for use in scripts. You can adapt the steps in Table 8-3 for use in scripts.

Use the following procedure to uninstall your BEA Products software in silent mode:

1. Shut down any servers that are running. If you configured any of the servers as a Windows service, you must stop the service(s) before uninstalling the software.
2. Start the uninstallation program as described in Table 8-3.

Table 8-3 Starting the Uninstallation Program in Silent Mode

To start the uninstallation program on this platform . . .	Perform the following steps . . .

Windows	1. Open a Command Prompt window and go to the following directory:
	`WLRT_HOME\uninstall`
	Here *`WLRT_HOME`* represents the directory in which you installed your WebLogic Real Time software, typically `C:\bea\realtime10`.
	2. Enter the following command at the prompt:
	`uninstall -mode=silent`

UNIX	1. Go to the following directory: *`WLRT_HOME`*`/uninstall` Here *`WLRT_HOME`* represents the directory in which you installed WebLogic Real Time. 2. At the prompt, enter the following command: `sh uninstall.sh -mode=silent`

Notes: When you run the uninstallation program in silent mode, no messages are displayed indicating the uninstallation is in progress or has completed successfully, even if errors are encountered.

You can also include the `-log=`*`full_path_to_log_file`* option in the command line to create a verbose installation log. For example:

```
uninstall -mode=silent -log=C:\logs\weblogic_uninstall.log
```

For more information, see "Generating a Verbose Installation Log" on page 1-15.

Reinstalling Your Software

You cannot reinstall the same version of any BEA product on top of a previously installed version of the same product—in the same BEA Home directory or in the same file location. You can, however, add products and product components to an existing installation. For example, you can install WebLogic Server during one installation, and AquaLogic Service Bus during a separate installation.

To reinstall the same version of one of the product components or the entire BEA Products distribution in the same location, you must first uninstall the previous installation.

If you try to install a complete copy of the BEA Products software in a BEA Home directory that already contains a complete installation, an error message is displayed. Click or type OK to return to the Choose BEA Home directory prompt.

At the prompt, choose one of the following options:

- To continue installing the software using a different BEA Home directory, select an existing BEA Home directory that does not contain a previous installation, or create a new BEA Home directory.
- Exit the installation program. If you want to reinstall your BEA Products software in the same BEA Home, you must uninstall the previous installation. You can invoke the uninstall program appropriate for your platform, as described in one of the following sections:
  - "Uninstalling Your Software in Graphical Mode" on page 8-2
  - "Uninstalling Your Software in Console Mode" on page 8-4
  - "Uninstalling Your Software in Silent Mode" on page 8-6

  Then reinstall the software as described in Chapter 2, "Starting the Installation Program."

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