



BEA WebLogic Collaborate

Installation Guide

BEA WebLogic Collaborate 1.0
Document Edition 1.0
December 2000

Copyright

Copyright © 2000 BEA Systems, Inc. All Rights Reserved.

Restricted Rights Legend

This software and documentation is subject to and made available only pursuant to the terms of the BEA Systems License Agreement and may be used or copied only in accordance with the terms of that agreement. It is against the law to copy the software except as specifically allowed in the agreement. This document may not, in whole or in part, be copied photocopied, reproduced, translated, or reduced to any electronic medium or machine readable form without prior consent, in writing, from BEA Systems, Inc.

Use, duplication or disclosure by the U.S. Government is subject to restrictions set forth in the BEA Systems License Agreement and in subparagraph (c)(1) of the Commercial Computer Software-Restricted Rights Clause at FAR 52.227-19; subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013, subparagraph (d) of the Commercial Computer Software--Licensing clause at NASA FAR supplement 16-52.227-86; or their equivalent.

Information in this document is subject to change without notice and does not represent a commitment on the part of BEA Systems. THE SOFTWARE AND DOCUMENTATION ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. FURTHER, BEA Systems DOES NOT WARRANT, GUARANTEE, OR MAKE ANY REPRESENTATIONS REGARDING THE USE, OR THE RESULTS OF THE USE, OF THE SOFTWARE OR WRITTEN MATERIAL IN TERMS OF CORRECTNESS, ACCURACY, RELIABILITY, OR OTHERWISE.

Trademarks or Service Marks

BEA, WebLogic, Tuxedo, and Jolt are registered trademarks of BEA Systems, Inc. How Business Becomes E-Business, BEA WebLogic E-Business Platform, BEA Builder, BEA Manager, BEA eLink, BEA WebLogic Commerce Server, BEA WebLogic Personalization Server, BEA WebLogic Process Integrator, BEA WebLogic Collaborate, BEA WebLogic Enterprise, and BEA WebLogic Server are trademarks of BEA Systems, Inc.

All other product names may be trademarks of the respective companies with which they are associated.

BEA WebLogic Collaborate Installation Guide

| Document Edition | Part Number | Date | Software Version |
|-------------------------|--------------------|---------------|-------------------------|
| 1.0 | 870-001044-001 | December 2000 | 1.0 |

Contents

| | |
|--|------|
| What You Need to Know | v |
| How to Print the Document..... | vi |
| Related Information..... | vi |
| Documentation Conventions | viii |
| 1. Installation Overview | |
| Your Software Package | 1-1 |
| The WebLogic Collaborate CD ROM Distribution | 1-1 |
| The WebLogic Collaborate Web Distribution | 1-3 |
| Platform Support | 1-3 |
| Installation Steps | 1-4 |
| Installing Your Software License | 1-4 |
| 2. WebLogic Collaborate Installation on Windows Systems | |
| Installation Prerequisites | 2-2 |
| Installing the BEA WebLogic Collaborate Software Package..... | 2-4 |
| Verifying the Software Installation | 2-11 |
| How the Installation Verification Example Works | 2-11 |
| Running the Installation Verification Example..... | 2-12 |
| Troubleshooting Your Installation | 2-14 |
| Accessing Verifier.html | 2-14 |
| Starting the C-Hub | 2-14 |
| Running the Verification Example..... | 2-15 |
| Uninstalling the BEA WebLogic Collaborate Software Package | 2-15 |
| 3. WebLogic Collaborate Installation on UNIX Systems | |
| Installation Prerequisites | 3-2 |
| Installing the BEA WebLogic Collaborate Software Package..... | 3-4 |
| Using the BEA Installation Program on Solaris Systems | 3-4 |

| | |
|--|------|
| Using the Console-Mode Installation on UNIX Systems..... | 3-11 |
| Customizing the Run-Time Environment..... | 3-13 |
| Environment Variables | 3-13 |
| Repository Data Files | 3-14 |
| WebLogic Properties File Settings..... | 3-14 |
| Verifying the Software Installation | 3-16 |
| How the Installation Verification Example Works | 3-16 |
| Running the Installation Verification Example..... | 3-17 |
| Troubleshooting Your Installation..... | 3-19 |
| Starting the Installer | 3-19 |
| Starting the C-Hub..... | 3-19 |
| Running the Verification Example..... | 3-19 |
| Accessing Verifier.html..... | 3-20 |
| Uninstalling the BEA WebLogic Collaborate Software Package | 3-20 |

Index

About This Document

This document explains how to install the BEA WebLogic Collaborate™ 1.0 software on Windows NT and UNIX systems.

This document is organized as follows:

- Chapter 1, “Installation Overview,” lists the contents of the WebLogic Collaborate product box, summarizes the installation steps, and explains how to install the software license.
- Chapter 2, “WebLogic Collaborate Installation on Windows Systems,” explains how to install the WebLogic Collaborate software on Windows NT systems.
- Chapter 3, “WebLogic Collaborate Installation on UNIX Systems,” explains how to install the WebLogic Collaborate software on UNIX systems.

What You Need to Know

This document is for programmers who are interested in creating secure, scalable, transaction-based server applications. It is assumed that you have a working knowledge of the BEA WebLogic Server product, XML, Enterprise JavaBeans, and Java programming.

How to Print the Document

You can print a copy of this document from a Web browser, one file at a time, by using the File—>Print option on your Web browser.

A PDF version of this document is available on the BEA WebLogic Collaborate documentation CD. You can open the PDF in Adobe Acrobat Reader and print the entire document, or a portion of it, in book format. To access the PDFs, open the BEA WebLogic Collaborate documentation Home page, click the PDF Files button, and select the document you want to print.

If you do not have Adobe Acrobat Reader installed, you can download it for free from the Adobe Web site at <http://www.adobe.com/>.

Related Information

For more information about WebLogic Server, XML, or Java 2 Enterprise Edition (J2EE), see the [Bibliography](#) in the BEA WebLogic Collaborate online documentation.

Contact Us!

Your feedback on the WebLogic Collaborate 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 WebLogic Collaborate documentation.

In your e-mail message, please indicate that you are using the documentation for the WebLogic Collaborate 1.0 release.

If you have questions about this version of WebLogic Collaborate, or if you have problems installing and running WebLogic Collaborate, contact BEA Customer Support at <http://www.bea.com>. You can also contact Customer Support by using the contact information provided on the Customer Support Card, 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.

| Convention | Item |
|--------------------------------------|--|
| Ctrl+Tab | Indicates that you must press two or more keys simultaneously. |
| <i>italics</i> | Indicates emphasis or book titles. |
| monospace text | Indicates code samples, commands and their options, data structures and their members, data types, directories, and filenames and their extensions. Monospace text also indicates text that you must enter from the keyboard. <i>Examples:</i> <pre>#include <iostream.h> void main () the pointer psz chmod u+w * \tux\data\ap .doc tux.doc BITMAP float</pre> |
| <i>monospace italic text</i> | Identifies variables in code. <i>Example:</i> <code>String expr</code> |
| UPPERCASE TEXT | Indicates device names, environment variables, and logical operators. <i>Examples:</i> LPT1 SIGNON OR |
| { } | Indicates a set of choices in a syntax line. The braces themselves should never be typed. |

| Convention | Item |
|------------|---|
| [] | Indicates optional items in a syntax line. The brackets themselves should never be typed. <i>Example:</i> <code>buildobjclient [-v] [-o name] [-f file-list]... [-l file-list]...</code> |
| | Separates mutually exclusive choices in a syntax line. The symbol itself should never be typed. |
| ... | Indicates one of the following in a command line: <ul style="list-style-type: none">■ 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. <i>Example:</i> <code>buildobjclient [-v] [-o name] [-f file-list]... [-l file-list]...</code> |
| . | Indicates the omission of items from a code example or from a syntax line. The vertical ellipsis itself should never be typed. |



1 Installation Overview

The following sections list the contents of the BEA WebLogic Collaborate™ 1.0 package and summarize the installation steps:

- Your Software Package
- Platform Support
- Installation Steps
- Installing Your Software License

Your Software Package

The BEA WebLogic Collaborate 1.0 software is available for download from the BEA Web site and from the software CD ROM.

The WebLogic Collaborate CD ROM Distribution

The CD ROM is part of a distribution package that has the following components:

- WebLogic Collaborate software CD
The WebLogic Collaborate installation includes installation of the BEA WebLogic Process Integrator and the Apache XML Server software.
- WebLogic Collaborate documentation CD

The documentation CD contains the following documents:

- *BEA WebLogic Collaborate Installation Guide* (this document)
- *BEA WebLogic Collaborate Getting Started*
- *BEA WebLogic Collaborate C-Hub Administration Guide*
- *BEA WebLogic Collaborate C-Enabler Administration Guide*
- *BEA WebLogic Collaborate Developer Guide*
- *BEA WebLogic Process Integrator Studio User Guide*
- *BEA WebLogic Process Integrator Worklist User Guide*
- *BEA WebLogic Process Integrator Tutorial*
- *BEA WebLogic Collaborate Glossary*
- **Javadoc API**

The Javadoc for the WebLogic Collaborate API is automatically installed as part of the WebLogic Collaborate installation; see the following location:

```
%WLC_HOME%\classdocs
```

where %WLC_HOME% is the environment variable that is set to the WebLogic Collaborate root directory on your system.

Using a Web browser, open the `index.html` start page in that directory.

You do not need to install the BEA WebLogic Collaborate online documentation CD. You can either browse the contents of the CD directly, or copy the contents onto your hard drive and then browse the local copy. The top level HTML file to browse the contents of the CD is named `index.htm` and is located in the `docs/wlc/v1_0` directory.

- **Hardcopy documentation:**
 - *BEA WebLogic Collaborate Installation Guide* (this document)
 - *BEA WebLogic Collaborate Release Notes*
- You will receive a license by email when you purchase the WebLogic Collaborate software. The license is valid for WebLogic Collaborate, WebLogic Process Integrator, and the Apache XML Server software. For more information about installing the WebLogic Collaborate software license, see the section “Installing Your Software License” on page 1-4.

The WebLogic Collaborate Web Distribution

The downloadable distribution is available for Windows and UNIX systems from the BEA Web site, and contains the following:

- The installation script for your Windows or UNIX system
 - The WebLogic Collaborate installation includes installation of the BEA WebLogic Process Integrator and the Apache XML Server software.
- An evaluation license file that you must install on your machine. For more information about installing the WebLogic Collaborate software license, see the section “Installing Your Software License” on page 1-4.
- The following documentation:
 - *BEA WebLogic Collaborate Installation Guide* (this document)
 - *BEA WebLogic Collaborate Release Notes*

Note: You can access the complete WebLogic Collaborate documentation set at the following URL:

http://edocs.bea.com/wlcollab/v1_0/index.html

Platform Support

WebLogic Collaborate is available on the following platforms.

| Platform | Version |
|-----------------------|------------------------------|
| Microsoft Windows NT | 4.0 with Service Pack 5 or 6 |
| Microsoft Windows | 2000 |
| Sun Solaris | 2.7 |
| IBM AIX | 4.3.3 |
| Hewlett-Packard HP-UX | 11.0 |

For up-to-date information about platform support for WebLogic Collaborate, go to the following Web site:

<http://www.bea.com/products/weblogic/collaborate/index.shtml>

Installation Steps

Installing the WebLogic Collaborate software involves the following steps:

1. Make sure your machine has the required hardware and software configuration.
2. Install the WebLogic Collaborate software and license.
3. Run the installation verification sample application.

To install the WebLogic Collaborate software, and run the installation verification sample application on Windows systems, see Chapter 2, “WebLogic Collaborate Installation on Windows Systems.”

To install the WebLogic Collaborate software, and run the installation verification sample application on UNIX systems, see Chapter 3, “WebLogic Collaborate Installation on UNIX Systems.”

Installing Your Software License

Your WebLogic Collaborate distribution requires a valid license to run. The WebLogic Collaborate license is valid for the entire WebLogic Collaborate distribution, including the WebLogic Process Integrator, and Apache Software Foundation software.

If you download WebLogic Collaborate from the BEA Web site, an evaluation license is included with the distribution. If you purchase WebLogic Collaborate on a CD, you will receive a license by email from BEA.

After you install the WebLogic Collaborate software, copy the license file into the `WLC_HOME/license` directory on your machine.

2 WebLogic Collaborate Installation on Windows Systems

The following sections describe WebLogic Collaborate installation procedures for Windows systems:

- Installation Prerequisites
- Installing the BEA WebLogic Collaborate Software Package
- Verifying the Software Installation
- Troubleshooting Your Installation
- Uninstalling the BEA WebLogic Collaborate Software Package

Installation Prerequisites

Before you install the WebLogic Collaborate software, make sure you have the following software and hardware configuration for your machine:

■ Hardware requirements and recommendations:

- Intel Pentium II processor or later
- 400 MHz recommended
- 256 MB RAM recommended (512 MB preferable)

Note: The 256 MB RAM recommendation is for one instance of WebLogic Server, where the c-hub and c-enabler are colocated. You may need more memory if you run two instances of WebLogic Server.

- 100 MB free disk space

■ A Microsoft Windows operating system:

- Microsoft Windows NT 4.0 with Service Pack 5 or 6
- Windows 2000

■ Java 2 SDK, Standard Edition, v1.2.2

The Java 2 SDK v1.2.2 software must be installed to run the WebLogic Collaborate sample applications, including the installation verification example. To avoid Java errors, modify `PATH` so that `%JAVA_HOME%\bin` is first in your `PATH`:

```
prompt> PATH=%JAVA_HOME%\bin;%PATH%
```

■ BEA WebLogic Server 5.1 with Service Pack 7

WebLogic Collaborate is supported on platforms that are certified and approved for WebLogic Server 5.1. For details about WebLogic Server 5.1 platforms, refer to <http://www.weblogic.com/platforms/index.html>.

- One of the following databases:

- Cloudscape 3.5.0

BEA ships the Cloudscape software—a pure-Java relational database management system (RDBMS)—with WebLogic Server. If you installed WebLogic Server before October 1 2000, you should update your Cloudscape database with the 3.5.0 version. You can download Cloudscape 3.5.0 from the WebLogic Server 5.1.0 Service Packs section at the following URL:

http://commerce.bea.com/downloads/weblogic_server.jsp#wlssp.

- Oracle 8i (8.1.5)

The Oracle 8.1.5 client libraries must be installed on the machine running WebLogic Server 5.1. You must also have access to an Oracle 8.1.5 or 8.1.6 server. WebLogic Collaborate uses the WebLogic jDriver for Oracle, which is included with your WebLogic Server software.

For more information about configuring Oracle with WebLogic Server, see http://www.weblogic.com/docs51/install/install_jdbc.html.

Note: The following variables should be defined in the user you create for WebLogic Collaborate, to use an Oracle Database. Contact your Oracle Database Administrator for more information.

```
ORACLE_HOME=directory_where_Oracle_is_installed
PATH=$PATH:$ORACLE_HOME/bin
LD_LIBRARY_PATH=$LD_LIBRARY_PATH:$ORACLE_HOME/lib
```

- Microsoft SQL Server 7.0 and WebLogic jDriver for Microsoft SQL Server (MSSQLServer4 Kit Version 7)

For more information about configuring Microsoft SQL Server with WebLogic Server, see

http://www.weblogic.com/docs51/classdocs/API_jmsq4.html.

For more details about using the JDBC specification for database access, see <http://www.weblogic.com/docs51/classdocs/jdbcdrivers.html>.

- Access to a CD reader (if you get the WebLogic Collaborate software on a CD ROM and not from the BEA Web site)
- A network connection

- A Web browser
 - Microsoft Internet Explorer 5.x or above
 - Netscape Navigator 4.7 or above

Installing the BEA WebLogic Collaborate Software Package

The WebLogic Collaborate installation procedure installs the following components:

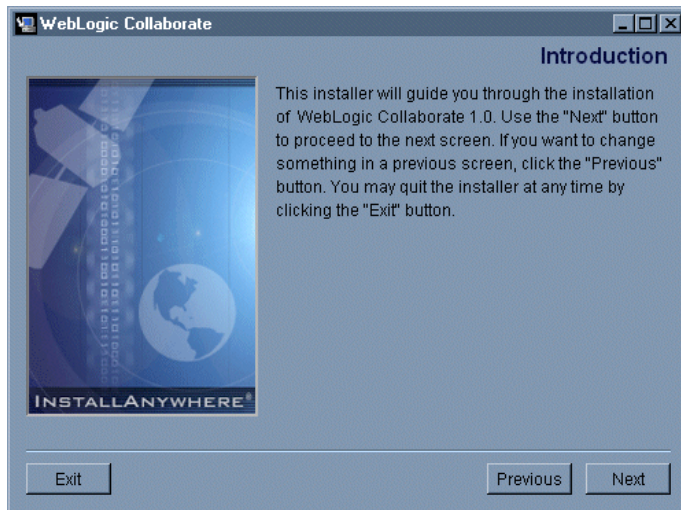
- BEA WebLogic Collaborate, including examples and Javadoc API descriptions
- BEA WebLogic Process Integrator (Studio and run-time engine)
- Apache XML Server (XSLT and XPath):
 - Xalan 1.0.1
 - Xerces 1.2.0

To install the BEA WebLogic Collaborate software, complete the following steps:

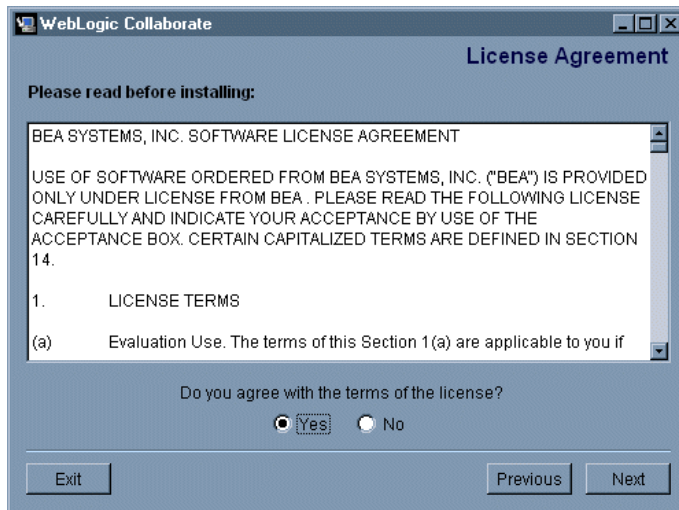
1. Confirm that your system has all of the prerequisites as described in “Installation Prerequisites” on page 2-2.
2. Uninstall previous versions of WebLogic Collaborate before proceeding with a new installation. Refer to “Uninstalling the BEA WebLogic Collaborate Software Package” on page 2-15.
3. Download the WebLogic Collaborate `install.exe` distribution from <http://www.bea.com>, or locate the `install.exe` program in the Windows folder on your WebLogic Collaborate software CD.
4. Double-click the `install.exe` program to display the Setup screen.



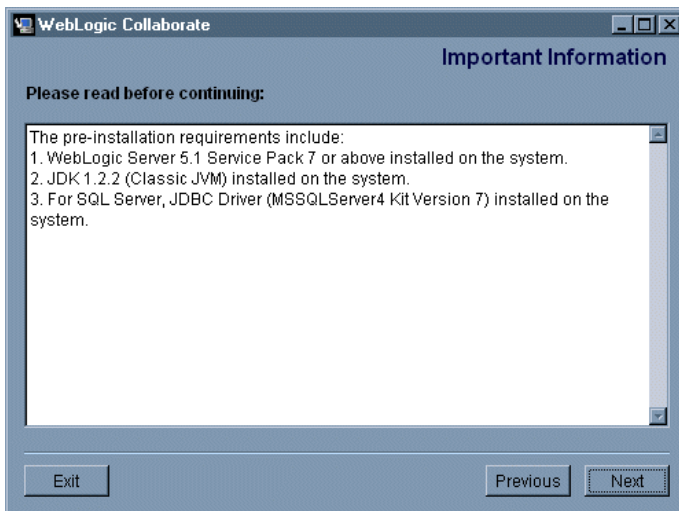
5. Click OK to continue the WebLogic Collaborate installation.
The WebLogic Collaborate Introduction screen is displayed.



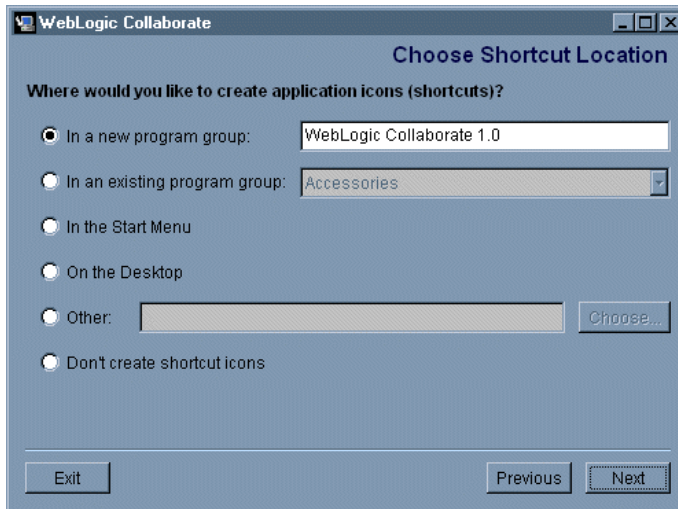
6. Click Next to display the Software License Agreement screen.



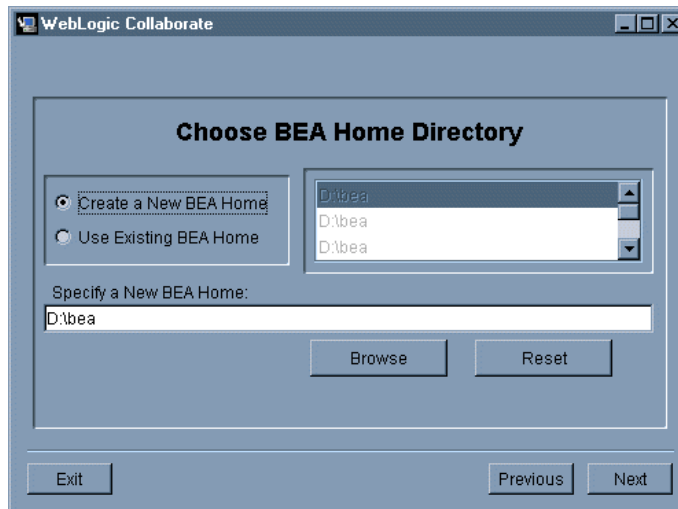
7. Select Yes to accept the software license agreement. Then click Next to display a list of the installation prerequisites.



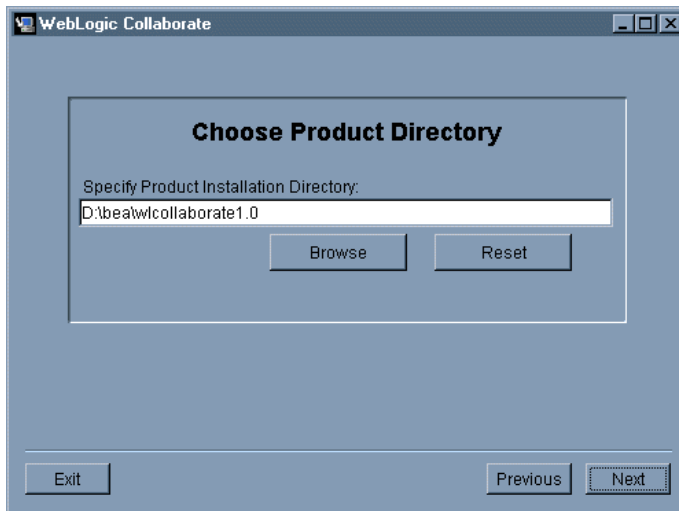
8. Click Next to display the Choose Shortcut Location dialog box, which prompts you to specify a shortcut location for BEA WebLogic Collaborate.



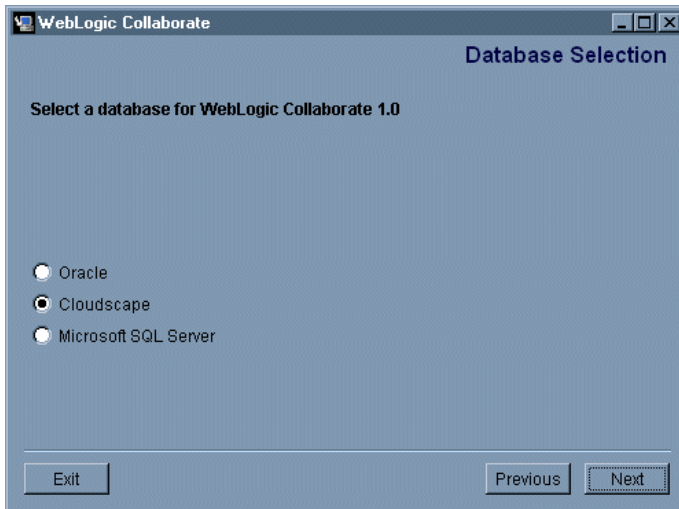
9. Select the location for the shortcut and click Next to display a dialog box prompting you to choose a home directory.



10. Create a new BEA home directory or choose an existing one. Click Next to display a dialog box that prompts you to choose a product directory.



11. Specify the product installation directory and click Next to display a dialog box that prompts you to select a database.

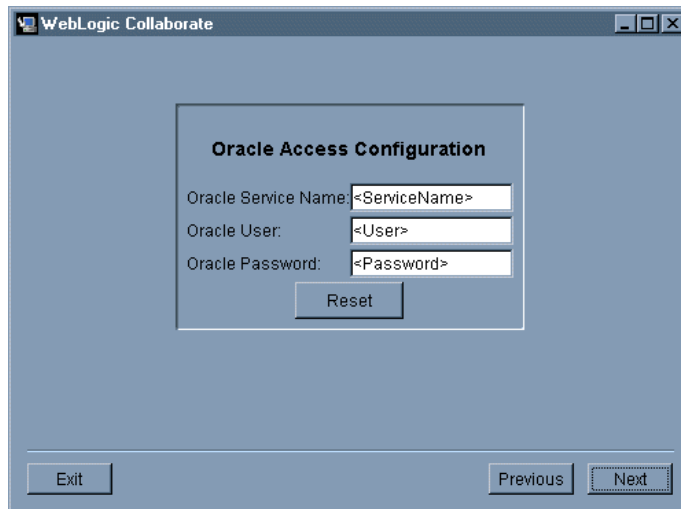


12. Select a database and click Next.

The next screen displayed in the installation process depends on the database you selected.

- If you selected the Cloudscape database, the installation begins.
Cloudscape is the default database. It is a pure-Java relational database management system that BEA ships with WebLogic Server and requires no configuration to use.
- If you selected the Oracle database or the Microsoft SQL Server database, a database configuration dialog box is displayed before the WebLogic Collaborate installation begins.

The configuration dialog box prompts you to enter Oracle or SQL Server access configuration information.



The screenshot shows a window titled "WebLogic Collaborate" with a central dialog box titled "Oracle Access Configuration". The dialog box contains three text input fields: "Oracle Service Name:" with a placeholder "<ServiceName>", "Oracle User:" with a placeholder "<User>", and "Oracle Password:" with a placeholder "<Password>". Below these fields is a "Reset" button. At the bottom of the window, there are three buttons: "Exit", "Previous", and "Next". The "Next" button is highlighted with a dashed border, indicating it is the active or default action.

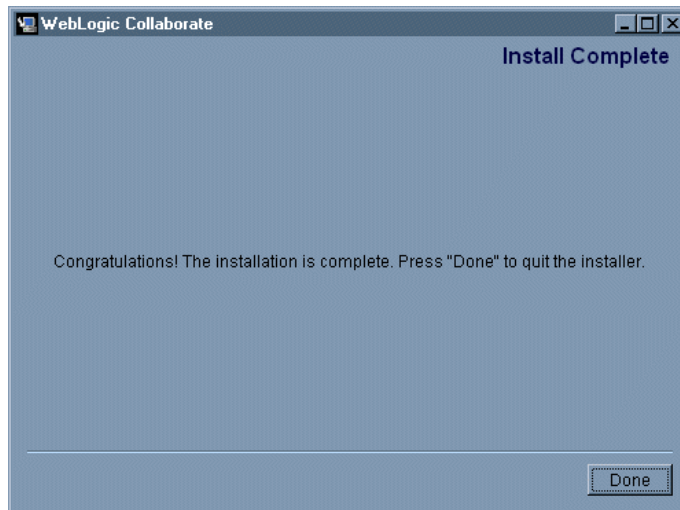
To configure the Oracle database, enter the Oracle Service name, user, and password in the appropriate fields and click Install.

To configure the Microsoft SQL Server database, enter the Microsoft SQL Server host name, SQL user, and SQL password in the appropriate fields, and click Install.

When the installation begins, a screen showing the status of the installation process is displayed.



After all WebLogic Collaborate components are installed, the Install Complete screen is displayed, indicating that the installation procedure is complete.



13. Click Done.

14. Install the software license.

Copy the license file into the following directory:

```
%WLC_HOME%\license
```

Your license file is in the downloaded distribution if you downloaded the product from the BEA Web site, or is sent to you by email if you purchased the software on a CD.

Verifying the Software Installation

An installation verification example is provided to ensure that the installation of WebLogic Collaborate is successful. This section explains what the installation verification example does and how you run it.

How the Installation Verification Example Works

The installation verification example is a simple application that is automatically configured during the WebLogic Collaborate installation. You can run this example immediately after the installation procedure to verify that WebLogic Collaborate was installed successfully on your system. The verification example does the following:

- Starts a c-hub and two c-enablers colocated on a single WebLogic Server instance.
- From an HTML page, allows you to access a servlet that sends messages from one c-enabler to another c-enabler.
- When the verification example runs, the following actions occur:
 - a. One c-enabler, identified as Partner1, sends an upper-case string to the second c-enabler, Partner2.
 - b. The Partner2 c-enabler converts the string to lower-case and returns it to the Partner1 c-enabler.

Running the Installation Verification Example

When you complete the installation as described in “Installing the BEA WebLogic Collaborate Software Package” on page 2-4, verify that the installation is successful by completing the following procedure:

1. From the Start menu on the Microsoft Windows Task Bar, go to the folder where you installed WebLogic Collaborate.

This example assumes the folder is named WebLogic Collaborate 1.0 and is installed in the Programs folder. For example, select:
Start—>Programs—>WebLogic Collaborate 1.0.

2. Choose Repository—>Create Database Schema.

A Command window opens and the database schemas are created in the repository. Wait for this step to complete.

3. Choose Start—>Programs—>WebLogic Collaborate 1.0—>Repository—>Bulkload Repository Data.

A Command window opens and the database repository data is loaded into the repository. Wait for this step to complete.

4. Choose Start—>Programs—>WebLogic Collaborate 1.0—>C-Hub—>Start C-Hub.

A Command window opens. The WebLogic Server and one c-hub starts. Wait for the message “WebLogic Server started” to appear in the window.

5. Choose Start—>Programs—>WebLogic Collaborate 1.0—>Verifier—>Start Verifier.

The Verifier application is invoked, which in turn launches a Web browser with the following URL:

```
http://localhost:7001/Verifier.html
```

where *localhost* represents the name of the machine where you are running WebLogic Server.

6. Click the Start WLC Verification button displayed in the Web browser.

The verification example starts. During verification, the Partner1 c-enabler sends a message to the Partner2 c-enabler. The message sent by Partner1 is the string ABCDEFGHI, and the message returned by Partner2 is abcdefghi.

If the verification sample executes successfully, a report containing a “verification SUCCESS” message is displayed in the browser. The report identifies the process flow and the status of the verifier application.

The following is an extract from a typical report:

```
WLC Verifier

Partner 2 enabler started
Waiting for request...

Partner 1 process flow.
Starting enabler... done.
Creating conversation... done.
Sending message: conversation id=verifierConv ...
string=ABCDEFGHJI
Status=success
Waiting for response... done.
Processing reply:
Received string=abcdefghi
Verification SUCCESS
Termination conversation:verifierConversation:1.0requ...
success
```

7. If errors occur, check the WebLogic Server log for more information.

Troubleshooting Your Installation

The following information can help you to troubleshoot the WebLogic Collaborate software installation.

Accessing Verifier.html

If your Web browser is unable to connect to the URL, it could indicate that your browser is using a proxy server and is preventing you from connecting to your local WebLogic Server.

To bypass the proxy server, change your browser's proxy settings so that the browser does not use the proxy server to access the servlet. For example, in Netscape:

1. Choose Edit—>Preferences—>Advanced—>Proxies, and select Manual proxy configuration view.
2. In the Exceptions text field, specify a value for the local host and the listening port using the following syntax:

```
localhost:listening_port
```

In the preceding syntax, *listening_port* is the listening port number specified in the `weblogic.properties` file. The default listening port number is 7001.

Note: If you are using Microsoft Internet Explorer, you can access the proxy settings by selecting Tools—>Internet Options—>Connections in your browser window.

Also check for error messages in the command prompt window in which WebLogic Server was started.

Starting the C-Hub

If the c-hub fails to start, the license may not be installed. Check for error messages in the command prompt window in which WebLogic Server was started (refer to step 4 in “Running the Installation Verification Example” on page 2-12).

Running the Verification Example

Confirm that your system has the installation prerequisites as described in “Installation Prerequisites” on page 2-2, and that the software prerequisites are installed in the correct locations.

Run the `set` command to confirm that the following environment variables are correct:

■ `JAVA_HOME`

This environment variable should be set to the location of the Java 2 SDK v1.2.2 software on your machine; for example:

```
JAVA_HOME=D:\jdk1.2.2
```

■ `WL_HOME`

This environment variable should be set to the location of the WebLogic Server 5.1 software on your machine; for example:

```
WL_HOME=D:\weblogic
```

■ `WLC_HOME`

This environment variable should be set to the location of the WebLogic Collaborate software on your machine; for example:

```
WLC_HOME=D:\bea\wlcollaborate1.0
```

Uninstalling the BEA WebLogic Collaborate Software Package

To remove the WebLogic Collaborate software from your system:

1. Invoke the Uninstall script by using one of the following methods:

- Choose Uninstall from the WebLogic Collaborate folder.

For example, on the Microsoft Windows Task Bar choose Start—>Programs—>WebLogic Collaborate 1.0—>Uninstall.

2 *WebLogic Collaborate Installation on Windows Systems*

- Choose the WebLogic Collaborate program from the Add/Remove Programs dialog box.

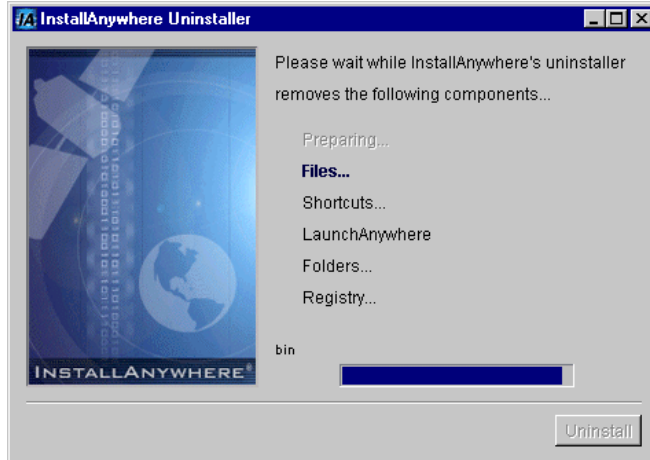
On the Microsoft Windows Task Bar, choose Start—>Settings—>Control Panel. Choose Add/Remove Programs and then choose the WebLogic Collaborate program name from the list of programs. Click Add/Remove.

When you invoke the Uninstall script, a screen prompting you to confirm the removal of the software is displayed.

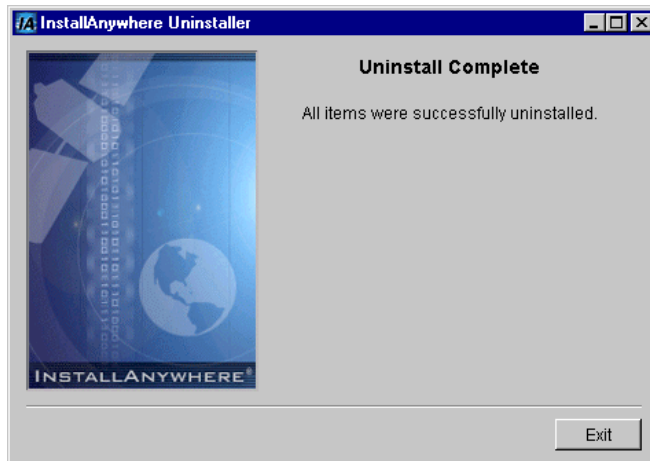


2. Click Uninstall to continue.

The WebLogic Collaborate software is uninstalled from your system. A screen showing the status of the process is displayed.



When the uninstall process is complete, a screen is displayed to indicate that it was successful.



3. Click Exit.

The WebLogic Collaborate product is removed from your system and from the Windows Registry.

3 WebLogic Collaborate Installation on UNIX Systems

The following sections describe WebLogic Collaborate installation procedures for a UNIX system:

- Installation Prerequisites
- Installing the BEA WebLogic Collaborate Software Package
 - Using the BEA Installation Program on Solaris Systems
 - Using the Console-Mode Installation on UNIX Systems
- Customizing the Run-Time Environment
- Verifying the Software Installation
- Troubleshooting Your Installation
- Uninstalling the BEA WebLogic Collaborate Software Package

Installation Prerequisites

Before you install the WebLogic Collaborate software, you must have the following software and hardware configuration for your machine:

- Sun Solaris
 - Solaris 2.7 operating system
 - UltraSparc 5 or later
 - Sparc 168 MHz or faster
 - Java 2 SDK, Standard Edition, v1.2.2_05a
 - Solaris OS patches for the Java 2 JDK, including the Solaris OpenWindows Motif patches. Refer to the BEA WebLogic Collaborate *Release Notes* for a complete list of OS patches required.
- HP-UX
 - HP-UX 11.0 operating system
 - Java 2 SDK, Standard Edition, v1.2.2_05a HotSpot VM
- IBM AIX
 - AIX 4.3.3 operating system
 - Java 2 SDK, Standard Edition, v1.2.2 Classic VM

Note: The Java 2 SDK software must be installed to run the WebLogic Collaborate sample applications, including the installation verification example. To avoid Java errors, modify `PATH` so that `$JAVA_HOME/bin` is first in your `PATH`:

```
prompt> PATH=$JAVA_HOME/bin:$PATH
```

- 256 MB RAM recommended (512 MB preferable)

Note: The 256 MB RAM recommendation is for one instance of WebLogic Server, where the `c-hub` and `c-enabler` are colocated. You may need more memory if you run two instances of WebLogic Server.

- 100 MB free disk space

- BEA WebLogic Server 5.1 with Service Pack 7

WebLogic Collaborate is supported on platforms that are certified and approved for WebLogic Server 5.1. For details about WebLogic Server 5.1 platforms, refer to <http://www.weblogic.com/platforms/index.html>.

- One of the following databases:

- Cloudscape 3.5.0

BEA ships the Cloudscape software—a pure-Java relational database management system (RDBMS)—with WebLogic Server. If you installed WebLogic Server before October 1 2000, you should update your Cloudscape database with the 3.5.0 version. You can download Cloudscape 3.5.0 from the WebLogic Server 5.1.0 Service Packs section at the following URL:

http://commerce.bea.com/downloads/weblogic_server.jsp#wlssp.

- Oracle 8i (8.1.5)

The Oracle 8.1.5 client libraries must be installed on the machine running WebLogic Server 5.1. You must also have access to an Oracle 8.1.5 or 8.1.6 server. WebLogic Collaborate uses the WebLogic jDriver for Oracle, which is included with your WebLogic Server software.

For more information about configuring Oracle with WebLogic Server, see http://www.weblogic.com/docs51/install/install_jdbc.html.

Note: The following variables should be defined in the user you create for WebLogic Collaborate, to use an Oracle Database. Contact your Oracle Database Administrator for more information.

```
ORACLE_HOME=directory_where_Oracle_is_installed
PATH=$PATH:$ORACLE_HOME/bin
LD_LIBRARY_PATH=$LD_LIBRARY_PATH:$ORACLE_HOME/lib
```

For more details about using the JDBC specification for database access, see <http://www.weblogic.com/docs51/classdocs/jdbcdrivers.html>.

- Access to a CD reader (if you get the WebLogic Collaborate software on a CD ROM and not from the BEA Web site)
- A network connection
- A Web browser
 - Netscape Navigator 4.7 or above

Installing the BEA WebLogic Collaborate Software Package

The WebLogic Collaborate installation procedure installs the following components:

- BEA WebLogic Collaborate, including examples and Javadoc API descriptions
- WebLogic Process Integrator (Studio and run-time engine)
- Apache XML Server (XSLT and XPath):
 - Xalan 1.0.1
 - Xerces 1.2.0

The following sections describe how you can install the WebLogic Collaborate software on UNIX systems.

On Solaris:

- Using the BEA Installation Program on Solaris Systems

On all UNIX platforms:

- Using the Console-Mode Installation on UNIX Systems

Using the BEA Installation Program on Solaris Systems

You can install WebLogic Collaborate on Solaris systems using either a graphical installation program or a text-based installation program. To install WebLogic Collaborate using a text-based installation program, refer to “Using the Console-Mode Installation on UNIX Systems” on page 3-11.

To install WebLogic Collaborate on a Solaris system using the graphical installation program, complete the following procedure:

1. Confirm that your system has all of the prerequisites as described in “Installation Prerequisites” on page 3-2.
2. Log on to the system with administrative privileges.

3. It is recommended that you create a UNIX user such as `WLC` to install WebLogic Collaborate. This allows you to control access to the distribution and to set permissions for your WebLogic Collaborate software. You may also want to create a group that has permissions to access the software.
4. Log in as the WebLogic Collaborate user you created in step 3.
5. Download the WebLogic Collaborate `install.bin` distribution from <http://www.bea.com>, or locate the `install.bin` program in the `unix` directory on your WebLogic Collaborate CD.

Consult your UNIX documentation for information about mounting and unmounting CDs.

Note: The Solaris Volume Management software automatically mounts CDs on `/cdrom/cdrom0/`. It is not necessary to unmount CDs on Solaris systems. However, to open the CD reader, you need to issue an `eject` command from the `root` directory.

6. Invoke the `install.bin` command to start the installation procedure. The setup screen is displayed.

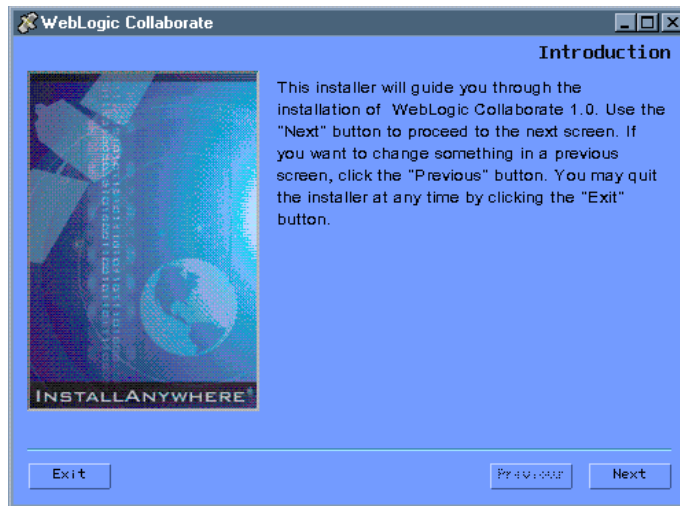
Warning: The installation fails if `$JAVA_HOME/bin` is not in your `PATH`. If necessary, update your `PATH` as follows:

```
prompt> PATH=$JAVA_HOME/bin:$PATH
```

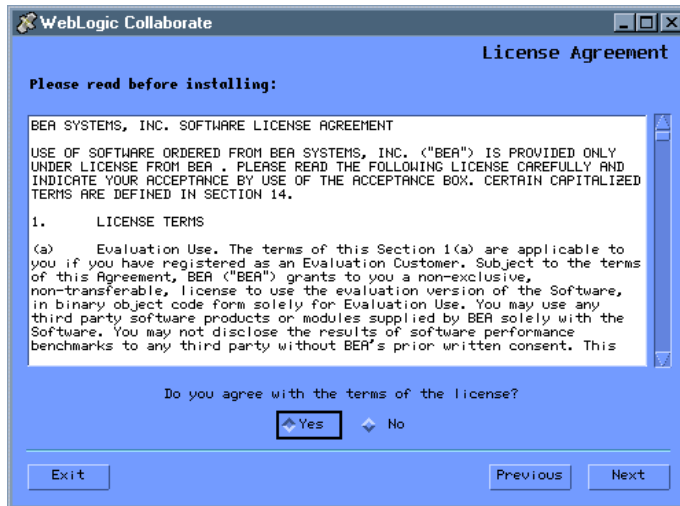


7. Click OK to continue the WebLogic Collaborate installation and display the WebLogic Collaborate Introduction screen.

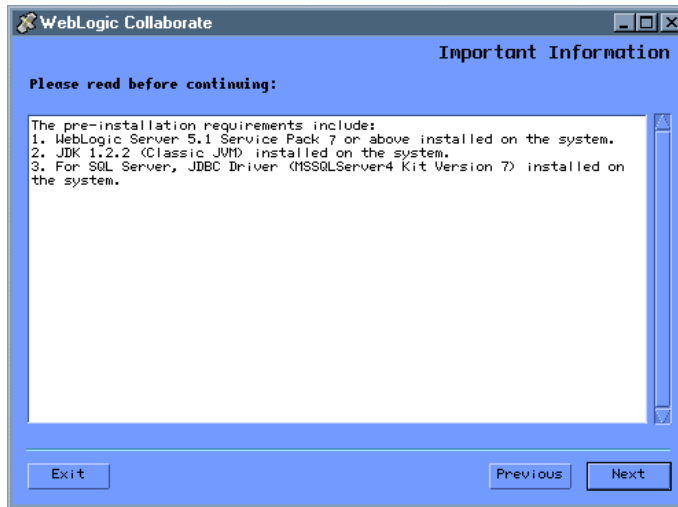
3 WebLogic Collaborate Installation on UNIX Systems



8. Click Next to display the Software License Agreement screen.



9. Select Yes to accept the software license agreement. Then click Next to display a list of the installation prerequisites.



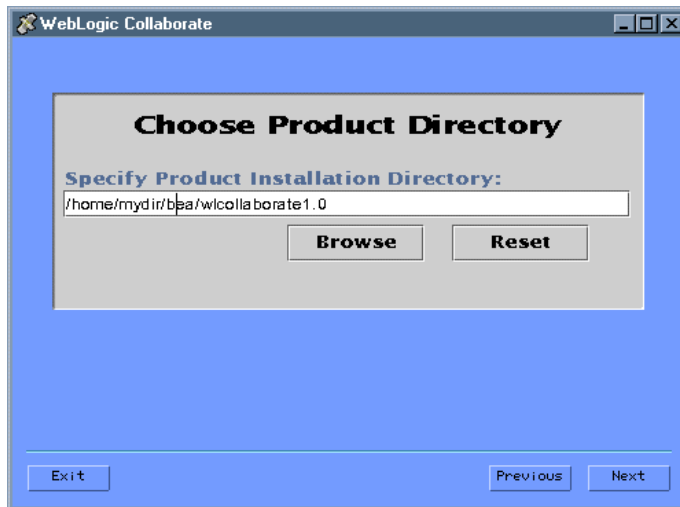
10. Click Next to display a dialog box that prompts you to specify a BEA product directory. The BEA product directory serves as the root directory for all BEA products.



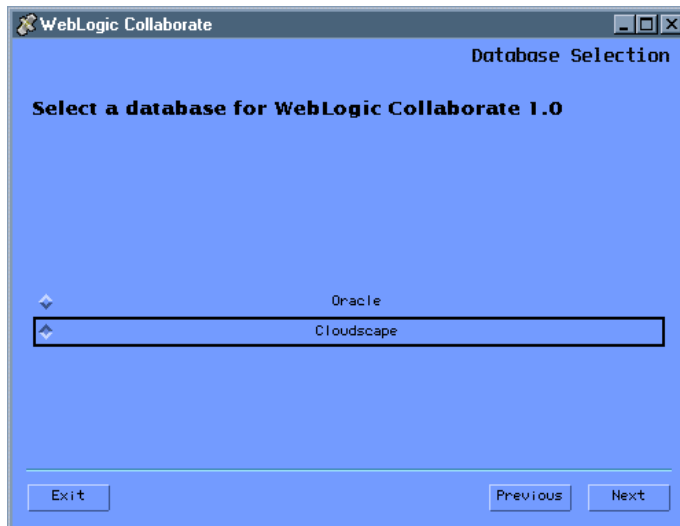
11. Select your BEA home directory and click Next to display a dialog box that prompts you to specify a BEA product directory.

3 *WebLogic Collaborate Installation on UNIX Systems*

Note: When the product is installed, the bea home directory is created under \$HOME. A beahomelist file which contains a list of known BEA home directories for the current user is created in the bea directory.



12. Specify the product installation directory and click Next to display a dialog box that prompts you to select a database.



13. Select a database and click Next.

The next screen displayed in the installation process depends on the database you selected.

- If you selected the Cloudscape database, the installation begins.

Cloudscape is the default database. It is a pure-Java relational database management system that BEA ships with WebLogic Server and requires no database configuration to use.

- If you selected the Oracle database, a database configuration dialog box is displayed before the WebLogic Collaborate installation begins.

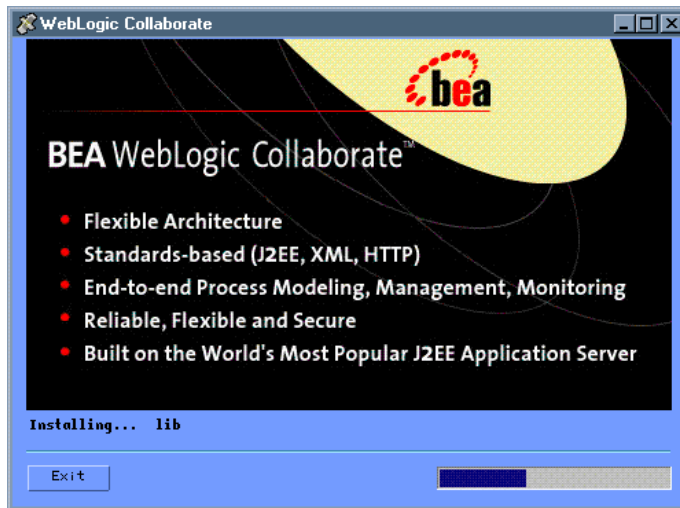


The screenshot shows a window titled "WebLogic Collaborate" with a blue background. Inside the window, there is a central panel titled "Oracle Access Configuration". This panel contains three text input fields: "Oracle Service Name:" with a placeholder "<ServiceName>", "Oracle User:" with a placeholder "<User>", and "Oracle Password:" with a placeholder "<Password>". Below these fields is a "Reset" button. At the bottom of the window, there are three buttons: "Exit" on the left, "Previous" in the middle, and "Install" on the right.

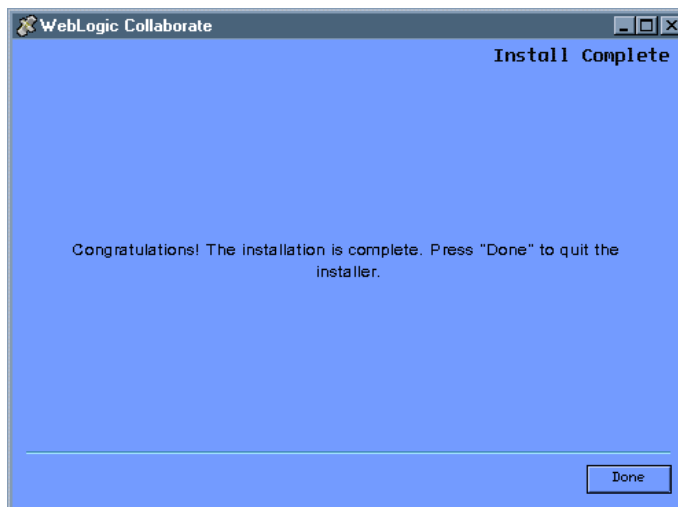
To configure the Oracle database, enter the Oracle Service name, user, and password in the appropriate fields and click Install.

3 *WebLogic Collaborate Installation on UNIX Systems*

When the installation begins, a screen showing the status of the installation process is displayed.



After you install all the WebLogic Collaborate components, the Install Complete screen is displayed, indicating that the installation procedure is finished.



14. Click Done.

15. Install the software license.

Copy the license file into the following directory:

```
$WLC_HOME/license
```

Your license file is in the downloaded distribution if you downloaded the product from the BEA Web site, or is sent to you by email if you purchased the software on a CD.

Using the Console-Mode Installation on UNIX Systems

Console-mode installation provides a method to install WebLogic Collaborate using a text-based installation program that offers the same capabilities as the graphics-based installation program. You can install WebLogic Collaborate on Solaris, HP-UX, and AIX operating systems using the console mode.

1. Confirm that your system has all the prerequisites as described in “Installation Prerequisites” on page 3-2.
2. Log on to the system with administrative privileges.
3. It is recommended that you create a UNIX user, such as `wlc`, to install WebLogic Collaborate. This allows you to control access to the distribution and to set permissions for your WebLogic Collaborate software. You may also want to create a group that has permissions to access the software.
4. Log in as the WebLogic Collaborate user you created in step 3.
5. Download the WebLogic Collaborate `install.bin` distribution from <http://www.bea.com>, or locate the `install.bin` program in the `unix` directory on your WebLogic Collaborate CD.

Consult your AIX, HP-UX, or Solaris documentation for information on mounting and unmounting CDs.

Note: The Solaris Volume Management software automatically mounts CDs on `/cdrom/cdrom0/`. It is not necessary to unmount CDs on Solaris systems. However, to open the CD reader, you need to issue an `eject` command from the `root` directory.

6. Invoke the installation procedure:

```
prompt> sh install.bin -i console
```

A series of prompts is displayed.

Warning: The installation fails if `$JAVA_HOME/bin` is not in your `PATH`. If necessary, update your `PATH` as follows:

```
prompt> PATH=$JAVA_HOME/bin:$PATH
```

7. Respond to the prompts by entering the number associated with your choice, or by pressing Enter to accept the default. To exit the installation process, enter `quit` in response to any prompt. The console-based installation process is divided into sections outlined in the following table.

| Section | Action to perform |
|-------------------------------|---|
| Choose Locale | Specify the language in which you want the text of the installation program to be displayed by entering the number associated with that language. |
| Introduction | Press Enter to continue. |
| License Agreement | Read the BEA Software License Agreement and indicate your acceptance or rejection of the terms of the agreement by entering Y or N, respectively, at the prompt. To review the entire agreement, you must press Enter several times. To proceed with the installation, you must agree with the terms of the license. If you enter N, the installation process terminates. |
| Choose BEA Home Directory | Enter 1 to create a new BEA home directory, or 2 to use an existing home directory. Use the full pathname when specifying the name of the BEA Home directory. The BEA Home directory is the root directory in which you want to install all BEA products. |
| Choose Product Directory | Enter 1 to modify or 2 to use a default selection. |
| Select a Database | Enter 1 to choose Oracle, or 2 to choose Cloudscape. |
| Enter Database Configurations | If you use an Oracle database, enter the Oracle Service Name, User ID, and Password. The Oracle Service Name is defined in the Oracle client <code>tnsnames.ora</code> file and is usually the Oracle system ID. |
| Install Complete | Press Enter to exit the installation program. |

8. Copy the file `license.bea` into the following directory:

```
$WLC_HOME/license
```

Your license file is in the downloaded distribution if you downloaded the product from the BEA Web site, or is sent to you by email if you purchased the software on a CD.

Customizing the Run-Time Environment

The installation procedure configures some of your WebLogic Collaborate system. You should confirm the system configuration before you run the Installation Verifier example (see “Verifying the Software Installation” on page 3-16). The following sections describe the system configurations you should set or confirm:

- Environment Variables
- Repository Data Files
- WebLogic Properties File Settings

Environment Variables

You must set the environment variables in the `setenv.sh` and `createDB.sh` files by completing the following procedure:

1. Change to the root directory in which the BEA WebLogic Collaborate software was installed; for example, `/usr/local/beanwlcollaborate1.0`.
2. Open the `setenv.sh` file in a text editor and set the following variables to match your environment:
 - `JAVA_HOME`

This environment variable should be set to the location of the Java 2 SDK 1.2.2 software on your machine, for example:

```
set JAVA_HOME=/usr/local/jdk1.2.2
```

- WL_HOME

This environment variable should be set to the location of the WebLogic Server 5.1 software on your machine, for example:

```
set WL_HOME=/usr/local/weblogic51
```

- WLC_HOME

This environment variable should be set to the location of the WebLogic Collaborate software on your machine, for example:

```
set WLC_HOME=/usr/local/boa/wlcollaborate1.0
```

3. If you are using an Oracle database, change directory to the \$WLC_HOME/bin directory and open the createDB.sh file in a text editor.

If necessary, substitute the environment variables at the beginning of the file (<ORACLE_USER>, <ORACLE_PASSWORD>, and <ORACLE_SERVICENAME>) with the user ID, password, and ORACLE_SERVICENAME values for your system. ORACLE_SERVICENAME is defined in the Oracle client tnsnames.ora file and is usually the Oracle system ID.

Repository Data Files

XML files are used to configure the repository and load it with the data for the example verifier application. If you are using an Oracle database, confirm that the BulkloadOracleConfig.xml file is configured as follows:

1. Change directory to the \$WLC_HOME/examples directory.
2. Open the BulkloadOracleConfig.xml file in a text editor and confirm that the <ORACLE_USER>, <ORACLE_PASSWORD>, and <ORACLE_SERVICENAME> values are set to the user ID, password, and ORACLE_SERVICENAME values for your system. ORACLE_SERVICENAME is defined in the Oracle client tnsnames.ora file and is usually the Oracle system ID.

WebLogic Properties File Settings

Confirm that the weblogic.properties file in the \$WLC_HOME/hub directory matches your environment, as described in this section.

1. Change directory to the `$WLC_HOME/hub` directory.
2. Open the `weblogic.properties` file with a text editor.
3. Ensure that the appropriate `weblogic.jdbc.connectionPool.wlcPool` property for your system is uncommented, and the others are commented.

The following is an example extract from the file showing the `weblogic.jdbc.connectionPool.wlcPool` property settings for the supported databases. This example shows that the file is configured for the Cloudscape database (that is, the Oracle property is commented and the equivalent Cloudscape property is uncommented).

```
##Oracle##weblogic.jdbc.connectionPool.wlcPool=\
##Oracle##url=jdbc:weblogic:oracle,\
##Oracle##driver=weblogic.jdbc.oci.Driver,\
##Oracle##loginDelaySecs=1,\
##Oracle##initialCapacity=1,\
##Oracle##maxCapacity=5,\
##Oracle##capacityIncrement=1,\
##Oracle##allowShrinking=true,\
##Oracle##shrinkPeriodMins=15,\
##Oracle##refreshTestMinutes=10,\
##Oracle##props=user=<ORACLE_USER>; \
##Oracle##password=<ORACLE_PASSWORD>; \
##Oracle##server=<ORACLE_SERVICENAME>
#
# Cloudscape
#
weblogic.jdbc.connectionPool.wlcPool=\
    url=jdbc:cloudscape:wlcdb,\
    driver=COM.cloudscape.core.JDBCDriver,\
    loginDelaySecs=1,\
    initialCapacity=1,\
    maxCapacity=10,\
    capacityIncrement=1,\
    allowShrinking=true,\
    shrinkPeriodMins=15,\
    refreshTestMinutes=10
```

4. If you are using an Oracle database, ensure that the `weblogic.jdbc.connectionPool.wlcPool` property is configured as follows: `<ORACLE_USER>`, `<ORACLE_PASSWORD>`, and `<ORACLE_SERVICENAME>` (shown in bold in the extract above) should be replaced with the user ID, password, and

ORACLE_SERVICENAME values for your system . ORACLE_SERVICENAME is defined in the Oracle client tnsnames .ora file and is usually the Oracle system ID.

Verifying the Software Installation

An installation verification example is provided to ensure that the installation of WebLogic Collaborate is successful. This section explains what the installation verification example does and how you run it.

How the Installation Verification Example Works

Run this example immediately after the installation procedure to verify that WebLogic Collaborate was installed successfully on your system. The verification example does the following:

- Starts a c-hub and two c-enablers colocated on a single WebLogic Server instance.
- From an HTML page, allows you to access a servlet that sends messages from one c-enabler to another c-enabler.
- When the verification example runs, the following actions occur:
 - a. One c-enabler, identified as Partner1, sends an upper-case string to the second c-enabler, Partner2.
 - b. The Partner2 c-enabler converts the string to lower-case and returns it to the Partner1 c-enabler.

Running the Installation Verification Example

After you complete the installation, as described in “Installing the BEA WebLogic Collaborate Software Package” on page 3-4, and customize your environment, as described in “Customizing the Run-Time Environment” on page 3-13, verify that the installation is successful as follows:

1. Open a terminal window on your machine.

2. Change to the WebLogic Collaborate directory:

```
prompt> cd $WLC_HOME
```

3. Prepare the environment by running the `setenv` script (refer to “Customizing the Run-Time Environment” on page 3-13 for more information):

```
prompt> . ./setenv.sh
```

Note: You must run the `setenv.sh` script in a Bourne or Korn shell. If you use a `csh`, change to the Korn shell by typing `ksh` at your UNIX prompt.

4. Create the database schema:

```
prompt> createDB.sh [oracle|cloudscape]
```

where the database name you use corresponds to your database.

5. Load the repository with the example data:

```
prompt> cd examples/verifier
```

```
prompt> bulkloader.sh \  
../[BulkloadOracleConfig.xml|BulkloadCloudscapeConfig.xml]
```

where the XML filename you use corresponds to your database.

6. Build the verifier example to populate the compiled classes and required scripts:

```
prompt> build.sh
```

7. Start WebLogic Server and one c-hub:

```
prompt> cd $WLC_HOME/hub
```

```
prompt> ./startweblogic.sh
```

8. Start a Web browser and enter the following URL:

```
http://localhost:7001/Verifier.html
```

where *localhost* represents the name of the machine where you are running WebLogic Server.

9. Click the Start WLC Verification button displayed in the Web browser.

The verification example starts. During verification, the Partner1 c-enabler sends a message to the Partner2 c-enabler. The message sent by Partner1 is the string ABCDEFGHI, and the message returned by Partner2 is abcdefghi.

If the verification sample executes successfully, a report containing a “verification SUCCESS” message is displayed in the browser. The report identifies the process flow and the status of the verifier application.

The following is an extract from a typical report:

```
WLC Verifier

Partner 2 enabler started
Waiting for request...

Partner 1 process flow.
Starting enabler... done.
Creating conversation... done.
Sending message: conversation id=verifierConv ...
string=ABCDEFGHI
Status=success
Waiting for response... done.
Processing reply:
Received string=abcdefghi
Verification SUCCESS
Termination conversation:verifierConversation:1.0requ...
success
```

10. If errors occur, check the WebLogic Server log for more information.

Troubleshooting Your Installation

The following information can help you to troubleshoot the WebLogic Collaborate software installation.

Starting the Installer

If the graphical installer fails to start, it might be because the necessary operating system patches for the JDK are not installed. In particular, you must install the Solaris OpenWindows Motif patches. Refer to the BEA WebLogic Collaborate *Release Notes* for a list of OS patches required for this release of WebLogic Collaborate. Refer to the following URL for more details about Solaris patches for the JDK:

<http://www.java.sun.com/products/jdk/1.2/install-solaris-patches.html>

Starting the C-Hub

If the c-hub fails to start, the license may not be installed. Check for error messages in the window in which WebLogic Server was started.

Running the Verification Example

If you have problems running the installation verification example:

- Confirm that your system has the installation prerequisites as described in “Installation Prerequisites” on page 3-2, and that the software prerequisites are installed in the correct locations.
- Verify that your system configurations are set correctly. Refer to “Customizing the Run-Time Environment” on page 3-13 for more details.

Accessing Verifier.html

If your Web browser is unable to connect to the URL, it could indicate that your browser is using a proxy server and is preventing you from connecting to your local WebLogic server.

To bypass the proxy server, change your browser's proxy settings so the browser does not use the proxy server to access the servlet. For example, in Netscape:

1. Choose Edit—>Preferences—>Advanced—>Proxies, and select Manual proxy configuration view.
2. In the Exceptions text field, specify a value for the local host and the listening port using the following syntax:

```
localhost:listening_port
```

In the preceding syntax, *listening_port* is the listening port number specified in the `weblogic.properties` file. The default listening port number is 7001.

Also check for error messages in the terminal window in which WebLogic Server was started.

Uninstalling the BEA WebLogic Collaborate Software Package

You can remove the WebLogic Collaborate software from your system by deleting the directory where you installed it.

Alternatively, you can invoke the Uninstall script as follows:

```
prompt> $WLC_HOME/UninstallerData/uninstall
```

A screen prompting you to confirm the removal of the software is displayed. Click Uninstall to continue and WebLogic Collaborate is uninstalled from your system.

Index

A

- Apache Server software
 - installing (UNIX) 3-4
 - installing (Windows) 2-4

C

- Cloudscape. *See* databases.
- customer support vi
- customizing. *See* run-time environment.

D

- databases
 - Cloudscape (Windows) 2-8
 - Microsoft SQL Server (Windows) 2-3
 - Oracle (Solaris) 3-2
 - Oracle (Windows) 2-2
- disk space requirements
 - UNIX 3-2
 - Windows 2-2

E

- example applications
 - verifier (UNIX) 3-16
 - verifier (Windows) 2-11

H

- hardware requirements
 - memory (UNIX) 3-2

- memory (Windows) 2-2

I

- installation
 - console mode (UNIX) 3-11
 - graphical mode (UNIX) 3-4
 - graphical mode (Windows) 2-4
 - prerequisites (UNIX) 3-2
 - prerequisites (Windows) 2-2
 - troubleshooting (UNIX) 3-19
 - troubleshooting (Windows) 2-14
 - verification (UNIX) 3-16
 - verification (Windows) 2-11
- installation requirements
 - database (UNIX) 3-2
 - database (Windows) 2-2
 - disk space (UNIX) 3-2
 - disk space (Windows) 2-2
 - hardware (UNIX) 3-2
 - hardware (Windows) 2-2
 - Java 2 SDK (UNIX) 3-2
 - Java 2 SDK (Windows) 2-2
 - UNIX 3-2
 - WebLogic Server (UNIX) 3-2
 - WebLogic Server (Windows) 2-2
 - Windows 2000 2-2

J

- Java 2 SDK
 - JAVA_HOME (UNIX) 3-13

JAVA_HOME (Windows) 2-15
required (UNIX) 3-2
required (Windows) 2-2
JDK. *See* Java 2 SDK

L

license
for WebLogic Collaborate 1-4
UNIX installation 3-17
Windows installation 2-12

M

memory requirements
UNIX 3-2
Windows 2-2
Microsoft SQL Server, *See* databases.

O

Oracle. *See* databases.

P

printing product documentation vi

R

related information vi
requirements. *See* installation requirements.
run-time environment
customizing (Solaris) 3-13
customizing (Windows) 2-11

S

SQL Server. *See* databases.
support, technical vii

T

troubleshooting
UNIX 3-19
Windows 2-14

U

uninstall
UNIX 3-20
Windows 2-15
UNIX, installation requirements 3-2

V

verifier example
UNIX 3-16
Windows 2-11
verifying the installation
UNIX 3-16
Windows 2-11

W

WebLogic Collaborate
contents of software package 1-1
customizing. *See* run-time environment.
installation prerequisites (UNIX) 3-2
installation prerequisites (Windows) 2-2
installing Apache Server on UNIX 3-4
installing Apache Server on Windows 2-4
software license 1-4
uninstalling (UNIX) 3-20
uninstalling (Windows) 2-15
WebLogic Process Integrator
installing (UNIX) 3-4
installing (Windows) 2-4
Windows, installation requirements 2-2
WLC. *See* WebLogic Collaborate.
WLPI. *See* WebLogic Process Integrator.

X

Xalan 1.0.1

- installing on UNIX 3-4

- installing on Windows 2-4

Xerces 1.2.0

- installing on UNIX 3-4

- installing on Windows 2-4

