



# **Sun N1 Service Provisioning System User's Guide for BEA WebLogic 6 and WebLogic 7 Plug-In 2.0**



Sun Microsystems, Inc.  
4150 Network Circle  
Santa Clara, CA 95054  
U.S.A.

Part No: 819-6391-10  
April 2006

Copyright 2006 Sun Microsystems, Inc. 4150 Network Circle, Santa Clara, CA 95054 U.S.A. All rights reserved.

Sun Microsystems, Inc. has intellectual property rights relating to technology embodied in the product that is described in this document. In particular, and without limitation, these intellectual property rights may include one or more U.S. patents or pending patent applications in the U.S. and in other countries.

U.S. Government Rights – Commercial software. Government users are subject to the Sun Microsystems, Inc. standard license agreement and applicable provisions of the FAR and its supplements.

This distribution may include materials developed by third parties.

Parts of the product may be derived from Berkeley BSD systems, licensed from the University of California. UNIX is a registered trademark in the U.S. and other countries, exclusively licensed through X/Open Company, Ltd.

Sun, Sun Microsystems, the Sun logo, the Solaris logo, the Java Coffee Cup logo, docs.sun.com, Java, and Solaris are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. and other countries. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. in the U.S. and other countries. Products bearing SPARC trademarks are based upon an architecture developed by Sun Microsystems, Inc.

The OPEN LOOK and Sun™ Graphical User Interface was developed by Sun Microsystems, Inc. for its users and licensees. Sun acknowledges the pioneering efforts of Xerox in researching and developing the concept of visual or graphical user interfaces for the computer industry. Sun holds a non-exclusive license from Xerox to the Xerox Graphical User Interface, which license also covers Sun's licensees who implement OPEN LOOK GUIs and otherwise comply with Sun's written license agreements.

Products covered by and information contained in this publication are controlled by U.S. Export Control laws and may be subject to the export or import laws in other countries. Nuclear, missile, chemical or biological weapons or nuclear maritime end uses or end users, whether direct or indirect, are strictly prohibited. Export or reexport to countries subject to U.S. embargo or to entities identified on U.S. export exclusion lists, including, but not limited to, the denied persons and specially designated nationals lists is strictly prohibited.

DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

---

Copyright 2006 Sun Microsystems, Inc. 4150 Network Circle, Santa Clara, CA 95054 U.S.A. Tous droits réservés.

Sun Microsystems, Inc. détient les droits de propriété intellectuelle relatifs à la technologie incorporée dans le produit qui est décrit dans ce document. En particulier, et ce sans limitation, ces droits de propriété intellectuelle peuvent inclure un ou plusieurs brevets américains ou des applications de brevet en attente aux Etats-Unis et dans d'autres pays.

Cette distribution peut comprendre des composants développés par des tierces personnes.

Certains composants de ce produit peuvent être dérivées du logiciel Berkeley BSD, licenciés par l'Université de Californie. UNIX est une marque déposée aux Etats-Unis et dans d'autres pays; elle est licenciée exclusivement par X/Open Company, Ltd.

Sun, Sun Microsystems, le logo Sun, le logo Solaris, le logo Java Coffee Cup, docs.sun.com, Java et Solaris sont des marques de fabrique ou des marques déposées de Sun Microsystems, Inc. aux Etats-Unis et dans d'autres pays. Toutes les marques SPARC sont utilisées sous licence et sont des marques de fabrique ou des marques déposées de SPARC International, Inc. aux Etats-Unis et dans d'autres pays. Les produits portant les marques SPARC sont basés sur une architecture développée par Sun Microsystems, Inc.

L'interface d'utilisation graphique OPEN LOOK et Sun a été développée par Sun Microsystems, Inc. pour ses utilisateurs et licenciés. Sun reconnaît les efforts de pionniers de Xerox pour la recherche et le développement du concept des interfaces d'utilisation visuelle ou graphique pour l'industrie de l'informatique. Sun détient une licence non exclusive de Xerox sur l'interface d'utilisation graphique Xerox, cette licence couvrant également les licenciés de Sun qui mettent en place l'interface d'utilisation graphique OPEN LOOK et qui, en outre, se conforment aux licences écrites de Sun.

Les produits qui font l'objet de cette publication et les informations qu'il contient sont régis par la législation américaine en matière de contrôle des exportations et peuvent être soumis au droit d'autres pays dans le domaine des exportations et importations. Les utilisations finales, ou utilisateurs finaux, pour des armes nucléaires, des missiles, des armes chimiques ou biologiques ou pour le nucléaire maritime, directement ou indirectement, sont strictement interdites. Les exportations ou réexportations vers des pays sous embargo des Etats-Unis, ou vers des entités figurant sur les listes d'exclusion d'exportation américaines, y compris, mais de manière non exclusive, la liste de personnes qui font objet d'un ordre de ne pas participer, d'une façon directe ou indirecte, aux exportations des produits ou des services qui sont régis par la législation américaine en matière de contrôle des exportations et la liste de ressortissants spécifiquement désignés, sont rigoureusement interdites.

LA DOCUMENTATION EST FOURNIE "EN L'ETAT" ET TOUTES AUTRES CONDITIONS, DECLARATIONS ET GARANTIES EXPRESSES OU TACITES SONT FORMELLEMENT EXCLUES, DANS LA MESURE AUTORISEE PAR LA LOI APPLICABLE, Y COMPRIS NOTAMMENT TOUTE GARANTIE IMPLICITE RELATIVE A LA QUALITE MARCHANDE, A L'APTITUDE A UNE UTILISATION PARTICULIERE OU A L'ABSENCE DE CONTREFACON.

# Contents

---

|   |    |
|---|----|
| <b>Preface</b> .....  | 7  |
| <b>1 Overview of WebLogic Plug-In</b> .....   | 11 |
| Purpose of the WebLogic Plug-In .....   | 11 |
| What the BEA WebLogic Plug-In Includes .....  | 11 |
| Requirements for Using the BEA WebLogic Plug-In .....                                   | 12 |
| <b>2 Release Notes for the WebLogic 6 and 7 Plug-In</b> .....                           | 13 |
| Installation Issues .....   | 13 |
| Runtime Issues .....  | 13 |
| Error Displayed after Successfully Stopping the WebLogic 7 Admin Server (6305069) ..... | 13 |
| <b>3 Installing and Configuring the BEA WebLogic Plug-In</b> .....                      | 15 |
| Acquiring the BEA WebLogic Plug-In .....  | 15 |
| Adding the BEA WebLogic Plug-In for Solaris .....                                       | 16 |
| ▼ To Add the BEA WebLogic Plug-In for Solaris .....                                     | 16 |
| Adding the BEA WebLogic Plug-In for Linux .....   | 16 |
| ▼ To Add the BEA WebLogic Plug-In for Linux .....                                       | 16 |
| Adding the BEA WebLogic Plug-In for Windows .....                                       | 16 |
| ▼ To Add the BEA WebLogic Plug-In for Windows .....                                     | 17 |
| Importing the BEA WebLogic Plug-In to the Sun N1 Service Provisioning System .....      | 17 |
| ▼ How to Import the BEA WebLogic Plug-In Using the Browser Interface .....              | 17 |
| ▼ How to Import the BEA WebLogic Plug-In using the CLI .....                            | 18 |
| Customizing the Solution for Your Environment .....                                     | 18 |
| Patching the BEA WebLogic Plug-In .....   | 18 |

|  |           |
|--|-----------|
| <b>4 Using the BEA WebLogic Plug-In .....</b>                    | <b>19</b> |
| Creating and Managing WebLogic Servers and Clusters .....        | 19        |
| ▼ To Create a WebLogic Admin Server for 7.0 .....                | 20        |
| ▼ To Create a WebLogic Admin Server for 6.1 .....                | 21        |
| ▼ To Create a WebLogic Cluster .....                             | 23        |
| ▼ To Manage WebLogic Server Instances .....                      | 24        |
| Capturing and Editing WebLogic Applications .....                | 27        |
| ▼ To Capture a WebLogic Enterprise Application or EAR File ..... | 28        |
| ▼ To Capture a WebLogic Web Application or WAR File .....        | 28        |
| ▼ To Capture a WebLogic JAR File .....                           | 29        |
| Component Types .....  | 29        |
| Enterprise Application (EAR) Component Type .....                | 29        |
| Web Application (WAR) Component Type .....                       | 30        |
| Java Archive Files Containing EJBs Component Type .....          | 31        |
| Plans .....  | 32        |
| Resources .....  | 32        |
| <br>   |           |
| <b>Index .....</b>   | <b>33</b> |

# Tables

---

|           |  |    |
|-----------|--|----|
| TABLE 4-1 | WebLogic Enterprise Application Error Conditions ..... | 30 |
| TABLE 4-2 | WebLogic Web Application Error Conditions .....        | 31 |
| TABLE 4-3 | WebLogic EJB container Error Conditions .....          | 32 |



# Preface

---

This book explains how to use the Sun N1 Service Provisioning System software to capture and deploy BEA WebLogic 6.1 and 7 applications and files.

## Who Should Use This Book

The main audience for the Sun N1 Service Provisioning System User's Guide for BEA WebLogic 6 and 7 Plug-In includes system administrators and operators of N1 Service Provisioning System software who want to be able to incorporate BEA WebLogic 6.1 and 7 functionality with Sun N1 Service Provisioning System software. These users are expected to have the following background:

- Familiar with the N1 Service Provisioning System product
- Familiar with standard UNIX<sup>®</sup> and Windows commands and utilities
- Familiar with the general concepts and management features available in the BEA WebLogic 6.1 and 7 product

## Before You Read This Book

If you are not already familiar with using the Sun N1 Service Provisioning System software, read the following books:

- *Sun N1 Service Provisioning System 5.2 System Administration Guide*
- *Sun N1 Service Provisioning System 5.2 Operation and Provisioning Guide*
- *Sun N1 Service Provisioning System 5.2 Release Notes*

## How This Book Is Organized

[Chapter 1](#) provides an overview of the BEA WebLogic plug-in solution.

[Chapter 3](#) explains how to install and configure the plug-in.

[Chapter 4](#) explains how to capture and deploy BEA WebLogic applications and files through the plug-in and describes the WebLogic-specific component types.

## Related Third-Party Web Site References

Third-party URLs are referenced in this document and provide additional, related information.

---

**Note** – Sun is not responsible for the availability of third-party web sites mentioned in this document. Sun does not endorse and is not responsible or liable for any content, advertising, products, or other materials that are available on or through such sites or resources. Sun will not be responsible or liable for any actual or alleged damage or loss caused or alleged to be caused by or in connection with use of or reliance on any such content, goods, or services that are available on or through such sites or resources.

---

## Documentation, Support, and Training

The Sun web site provides information about the following additional resources:

- Documentation (<http://www.sun.com/documentation/>)
- Support (<http://www.sun.com/support/>)
- Training (<http://www.sun.com/training/>)

## Typographic Conventions

The following table describes the typographic conventions that are used in this book.

TABLE P-1 Typographic Conventions

| Typeface         | Meaning   | Example   |
|------------------|---|---|
| AaBbCc123        | The names of commands, files, and directories, and onscreen computer output | Edit your <code>.login</code> file.<br>Use <code>ls -a</code> to list all files.<br><code>machine_name% you have mail.</code> |
| <b>AaBbCc123</b> | What you type, contrasted with onscreen computer output                     | <code>machine_name% su</code><br>Password:  |
| <i>aabbcc123</i> | Placeholder: replace with a real name or value                              | The command to remove a file is <code>rm filename.</code>   |



TABLE P-1 Typographic Conventions (Continued)

| Typeface         | Meaning  | Example   |
|------------------|--|---|
| <i>AaBbCc123</i> | Book titles, new terms, and terms to be emphasized | Read Chapter 6 in the <i>User's Guide</i> .<br>A <i>cache</i> is a copy that is stored locally.<br>Do <i>not</i> save the file.<br><b>Note:</b> Some emphasized items appear bold online. |

## Shell Prompts in Command Examples

The following table shows the default UNIX system prompt and superuser prompt for the C shell, Bourne shell, and Korn shell.

TABLE P-2 Shell Prompts

| Shell                                     | Prompt        |
|---|---------------|
| C shell                                   | machine_name% |
| C shell for superuser                     | machine_name# |
| Bourne shell and Korn shell               | \$            |
| Bourne shell and Korn shell for superuser | #             |



# Overview of WebLogic Plug-In

---

This chapter explains general information about using Sun N1 Service Provisioning System to provision BEA WebLogic 6.1 and 7 applications. This chapter includes the following information:

- “Purpose of the WebLogic Plug-In” on page 11
- “What the BEA WebLogic Plug-In Includes” on page 11
- “Requirements for Using the BEA WebLogic Plug-In” on page 12

## Purpose of the WebLogic Plug-In

The Sun N1 Service Provisioning System software provides enhanced capabilities in out-of-the-box support for BEA WebLogic 6.1 and 7 applications. You can capture a BEA WebLogic application from a reference server, select precisely how this application should be configured, and deploy the application to standalone, managed, or clustered BEA WebLogic environments.

---

**Note** – If you use the plug-in to manage your BEA WebLogic environment, do not deploy or manage BEA WebLogic applications outside of the provisioning software. You must manage your BEA WebLogic applications exclusively with the Sun N1 Service Provisioning System software.

---

## What the BEA WebLogic Plug-In Includes

The BEA WebLogic Plug-In includes several WebLogic-specific component types, along with pre-defined components and resource files that enable you to easily capture, configure and deploy WebLogic Enterprise, Enterprise JavaBeans (EJB), and Web Applications. These component types can be grouped into three families:

- Component types to support three kinds of WebLogic virtual hosts:
  - WebLogic Admin Server
  - WebLogic (Managed) Server

- WebLogic Cluster
- Special components to deploy and pull applications for deployment on the WebLogic 6.x and 7.x application servers
- Special component logic implemented with the WebLogic platform's Enterprise JavaBeans™ technology-based APIs

## Requirements for Using the BEA WebLogic Plug-In

Any host on which you intend to deploy the BEA WebLogic Plug-In must meet the following requirements:

|                                 |  |
|---------------------------------|--|
| WebLogic software               | BEA Systems WebLogic version 6.1 or 7.0 must exist within your Sun N1 Service Provisioning System environment so that you can capture the applications and files to deploy   |
| Operating system                | Appropriate version of the UNIX or Windows operating systems, as specified by BEA Systems  |
| Disk space                      | <p>For Windows systems, approximately 236 Mbytes free storage space for the installed product and 170 Mbytes of temporary storage space required by the installer</p> <p>For UNIX systems, approximately 196 Mbytes free storage space for the installed product and 162 Mbytes of temporary storage space required by the installer</p>   |
| RAM                             | 256 Mbytes (minimum); 512 Mbytes (recommended)   |
| Java run-time environment (JRE) | The WebLogic Server installation program requires a JRE to run. A Java 2 Software Development Kit (SDK), which includes a JRE, is bundled in the Windows installation program and in some UNIX installation programs (those with filenames ending in <code>.bin</code> ). For other UNIX platforms, the WebLogic Server installation program does not include the Java 2 SDK in the installation program (those with filenames ending in <code>.jar</code> ). To run the <code>.jar</code> installation programs, you must have the appropriate version of the Java 2 SDK installed on your system, and include the <code>bin</code> directory of the SDK at the front of the <code>PATH</code> variable. It is important that you use an SDK because the installation process sets the <code>JAVA_HOME</code> and related variables to point to this directory. |

In addition, you must have a current WebLogic environment from which you can capture the WebLogic application to deploy. This environment must meet the following requirements:

|                      |   |
|----------------------|---|
| WebLogic application | A functional WebLogic 6.1 or 7.0 application that is configured the way that you need |
|----------------------|---|

# Release Notes for the WebLogic 6 and 7 Plug-In

---

This chapter describes late-breaking news and known issues with the WebLogic 8 plug-in. The chapter contains the following information:

- “Installation Issues” on page 13
- “Runtime Issues” on page 13

## Installation Issues

There are no known installation issues.

## Runtime Issues

The following issue is known to exist when using the WebLogic 6 and 7 plug-in.

### **Error Displayed after Successfully Stopping the WebLogic 7 Admin Server (6305069)**

**Description:** If you stop the WebLogic 7 Admin Server by using the component’s stopServer component procedure, the provisioning software generates an error message after successfully completing the task.

**Workaround:** Ignore the error message.



# Installing and Configuring the BEA WebLogic Plug-In

---

This chapter explains how to install and configure the BEA WebLogic plug-in. The chapter contains the following information:

- “Acquiring the BEA WebLogic Plug-In” on page 15
- “Importing the BEA WebLogic Plug-In to the Sun N1 Service Provisioning System” on page 17
- “Customizing the Solution for Your Environment” on page 18
- “Patching the BEA WebLogic Plug-In” on page 18

## Acquiring the BEA WebLogic Plug-In

Acquiring the BEA WebLogic plug-in is a two-step process. First, you must add the package file that contains the BEA WebLogic plug-in JAR file to your system. Then you must import the BEA WebLogic plug-in JAR file.

The BEA WebLogic Plug-In is packaged as a *plug-in* to the Sun N1 Service Provisioning System software. Plug-ins are packaged in Java™ Archive (JAR) files. The plug-in files for the BEA WebLogic Plug-In are available from the Sun N1 Service Provisioning System Supplement CD or from the Sun Download Center.

Once the package file is added to your system, the BEA WebLogic plug-in is available for import from two different JAR files. Choose the correct file depending on your situation.

- If you are importing the BEA WebLogic Plug-In for the first time, acquire the `com.sun.weblogic_2.0.jar` file.
  - If you have already imported the previous version of the BEA WebLogic Plug-In, acquire the `com.sun.weblogic_1.1_2.0.jar` file.
1. Add the package containing the JAR file.
    - “Adding the BEA WebLogic Plug-In for Solaris” on page 16
    - “Adding the BEA WebLogic Plug-In for Linux” on page 16
    - “Adding the BEA WebLogic Plug-In for Windows” on page 16

2. Import the JAR file – “Importing the BEA WebLogic Plug-In to the Sun N1 Service Provisioning System” on page 17

## Adding the BEA WebLogic Plug-In for Solaris

The BEA WebLogic plug-in is contained in the SUNWspswlg package.

### ▼ To Add the BEA WebLogic Plug-In for Solaris

- 1 In a terminal window, become superuser.
- 2 Move to the directory containing the plug-in package.
- 3 Type the following command and press Return.

```
# pkgadd -d . SUNWspswlg
```

The standalone JAR file is in the /opt/SUNWn1sps/plugins/com.sun.weblogic/ directory. The upgrade JAR file is in the /opt/SUNWn1sps/plugins/com.sun.weblogic/Upgrade directory.

## Adding the BEA WebLogic Plug-In for Linux

The BEA WebLogic plug-in is contained in the sun-spswlg-2.0-1.noarch.rpm file.

### ▼ To Add the BEA WebLogic Plug-In for Linux

- 1 In a terminal window, become superuser.
- 2 Move to the directory containing the sun-spswlg-2.0-1.noarch.rpm file.
- 3 Type the following command and press Return.

```
# rpm -i sun-spswlg-2.0-1.noarch.rpm
```

The standalone JAR file is in the /opt/sun/N1\_Service\_Provisioning\_System/plugins/com.sun.weblogic/ directory. The upgrade JAR file is in the /opt/sun/N1\_Service\_Provisioning\_System/plugins/com.sun.weblogic/Upgrade directory.

## Adding the BEA WebLogic Plug-In for Windows

The BEA WebLogic plug-in is contained in the sun-spswlg-2.0.msi file.



## ▼ To Add the BEA WebLogic Plug-In for Windows

- 1 Move to the directory containing the `sun-spswlg-2.0.msi` file.
- 2 Double-click the `sun-spswlg-2.0.msi` file.

The Installer GUI starts. The JAR file is copied to the `C:\Program Files\N1 Service Provisioning System\plugins\com.sun.weblogic` directory.

# Importing the BEA WebLogic Plug-In to the Sun N1 Service Provisioning System

To make a given plug-in known to the Sun N1 Service Provisioning System, you need to import the plug-in to the Master Server. If you have already imported a previous version of the BEA WebLogic Plug-In you need to upgrade to the new plug-in.

## ▼ How to Import the BEA WebLogic Plug-In Using the Browser Interface

To import or upgrade a plug-in, follow these steps as explained in detail in Chapter 5, “Plug-In Administration,” in *Sun N1 Service Provisioning System 5.2 System Administration Guide*

- 1 In the Administrative section of the browser interface main window, click **Plug-ins**.
- 2 In the Action column of the Plug-ins page, click **Import**.
- 3 Navigate to the location of the JAR file.
  - If you are importing the BEA WebLogic Plug-In for the first time, select the `com.sun.weblogic_2.0.jar` file.
  - If you have already imported a previous version of the BEA WebLogic Plug-In, select the `com.sun.weblogic_1.1_2.0.jar` file.
- 4 Click the **Continue to Import** button.

When the import completes successfully, a plug-in details page appears and shows you the objects that the plug-in provides.

## ▼ How to Import the BEA WebLogic Plug-In using the CLI

You can also import a plug-in by using the command line.

### ► To import a plug-in file from the CLI, type:

```
% cr_cli -cmd plg.p.add -path plugin-filename -u username -p password
```

- If you are importing the BEA WebLogic Plug-In for the first time, *plugin-filename* is `com.sun.weblogic_2.0.jar`.
- If you have already imported the previous version of the BEA WebLogic Plug-In, *plugin-filename* is `com.sun.weblogic_1.1_2.0.jar`.

## Customizing the Solution for Your Environment

Information about customizing the BEA WebLogic plug-in for your environment is provided in the `readme.txt` file in the `com.sun.weblogic_2.0.jar` or `com.sun.weblogic_1.1_2.0.jar` files.

## Patching the BEA WebLogic Plug-In

Check the SunSolve (<http://sunsolve.sun.com>) site for available patches for the BEA WebLogic plug-in. To apply the patch, follow the instructions in the patch README file.

## Using the BEA WebLogic Plug-In

---

The BEA WebLogic Plug-In provides a number of specific component types and provides easy access to functions for working with WebLogic applications. This chapter describes the following information:

- “Creating and Managing WebLogic Servers and Clusters” on page 19
- “Capturing and Editing WebLogic Applications” on page 27
- “Component Types” on page 29
- “Plans” on page 32

---

**Note** – The value for the `installPath` variable is treated as a relative path to the default Remote Agent directory, unless you specify an absolute path, such as `/opt` or `c:\mydir`. For example, for a Windows Remote Agent, if you set the `installPath` variable to `c/mydir`, and deploy the file to an Agent with a default Remote Agent directory of `c:\Program Files\N1 Service Provisioning System\agent`, the file is deployed to `c:\Program Files\N1 Service Provisioning System\agent\c\mydir`.

---

## Creating and Managing WebLogic Servers and Clusters

Use the WebLogic common tasks page to create and manage WebLogic server and clusters in the provisioning software. You can perform several specific tasks:

- “To Create a WebLogic Admin Server for 7.0” on page 20
- “To Create a WebLogic Admin Server for 6.1” on page 21
- “To Create a WebLogic Cluster” on page 23
- “To Manage WebLogic Server Instances” on page 24

## ▼ To Create a WebLogic Admin Server for 7.0

- 1 From the Common Tasks section in the browser interface, click WebLogic.
- 2 On the WebLogic Common Tasks page, click Manage 7.0 Admin Servers.
- 3 On the Components Details page for the 7.0 Admin Server component, click the Run action next to default:install.
- 4 To set variables for this Admin Server, click Select from List in the Plan Parameters section of the window.

- To create a new set of variables that have different values from the default values, click Create Set.

The Select Variable Setting From List window appears.

- a. In the text field at the top of the table, enter the name of the new variable settings set.
- b. To specify the name of the WebLogic Admin Server, click the box next to `adminHost` and type the name into the field.
- c. To change the port number for the WebLogic Admin Server from the default value of 7001, click the box next to `adminPort` and type the new number into the field.
- d. To specify that secure HTTP be used to connect to the WebLogic Admin Server, click the box next to `secureConnect` and type `True` into the field.
- e. To change the path to where WebLogic is installed, click the box next to `wlHomeDir` and type the path into the field.
- f. To change the WebLogic domain name, click the box next to `domainName` and type the domain name into the field.

The remaining variables are pre-defined for you, although you can modify them if necessary.

- The `targetRefName` is created based on the values for the host name and for the domain name. This variable follows the format : `[target:sys.hostName]_admin_:[domainName]`
- The `installPath` is created based on the value for the domain name. This variable follows the format `admin_:[domainName]`
- The `webLogicJARPath` is created based on the value for the WebLogic home directory. This variable follows the format  
: `[wlHomeDir]:[/]weblogic700:[/]server:[/]lib:[/]weblogic.jar`
- The `domainRoot` is `user_projects`

**g. After updating the component variable values, click Save.**

The new variable settings display in the table.

**h. Click Select.**

▪ **To use variable settings for another component, click Import Set.**

The Import Variable Settings window displays.

**a. If necessary, navigate to the Folder that contains the component with the variable settings to import.**

**b. Select the component version.**

---

**Note** – Variable settings can vary between component versions.

---

**c. Click Import Variable Settings.**

The imported variable settings display in the table.

**d. Click Select.**

**5 Select the target host.**

**6 Click Run Plan (includes preflight).**

## ▼ **To Create a WebLogic Admin Server for 6.1**

**1 From the Common Tasks section in the browser interface, click WebLogic.**

**2 On the WebLogic Common Tasks page, click Manage 6.1 Admin Servers.**

**3 On the Components Details page for the 6.1 Admin Server component, click the Run action next to default:install.**

**4 To set variables for this Admin Server, click Select from List in the Plan Parameters section of the window.**

▪ **To create a new set of variables that have different values from the default values, click Create Set.**

The Select Variable Setting From List window appears.

**a. In the text field at the top of the table, enter the name of the new variable settings set.**

- b. To specify the name of the WebLogic Admin Server, click the box next to `adminHost` and type the name into the field.
- c. To change the port number for the WebLogic Admin Server from the default value of 7001, click the box next to `adminPort` and type the new number into the field.
- d. To specify that secure HTTP be used to connect to the WebLogic Admin Server, click the box next to `secureConnect` and type `True` into the field.
- e. To change the path to where WebLogic is installed, click the box next to `wlHomeDir` and type the path into the field.
- f. To change the WebLogic domain name, click the box next to `domainName` and type the domain name into the field.

The remaining variables are pre-defined for you, although you can modify them if necessary.

- The `targetRefName` is created based on the values for the host name and for the domain name. This variable follows the format : `[target:sys.hostName]_admin_:[domainName]`
- The `installPath` is created based on the value for the domain name. This variable follows the format `admin_:[domainName]`
- The `webLogicJARPath` is created based on the value for the WebLogic home directory. This variable follows the format : `[wlHomeDir]:[/]lib:[/]weblogic.jar`

- g. After updating the component variable values, click **Save**.

The new variable settings display in the table.

- h. Click **Select**.

- To use variable settings for another component, click **Import Set**.

The Import Variable Settings window displays.

- a. If necessary, navigate to the Folder that contains the component with the variable settings to import.
- b. Select the component version.

---

**Note** – Variable settings can vary between component versions.

---

- c. Click **Import Variable Settings**.

The imported variable settings display in the table.

- d. Click **Select**.

- 5 **Select the target host.**
- 6 **Click Run Plan (includes preflight).**

## ▼ **To Create a WebLogic Cluster**

A WebLogic server cluster consists of multiple WebLogic server instances running simultaneously and working together to provide increased scalability and reliability. A cluster appears to clients to be a single WebLogic server instance. The server instances that constitute a cluster can run on the same machine, or can be located on different machines. Each server instance in a cluster must run the same version of WebLogic server.

---

**Note** – In the Sun N1 Service Provisioning System environment, you must create a cluster, then create the managed servers that are in that cluster. While creating the managed server, one of the optional arguments in the variable list is the cluster host name. When installing a managed server, this cluster host name is used to create a dependency on it. If you create the managed servers before the cluster, there will be no cluster host and therefore the dependency creation will fail.

---

- 1 **From the Common Tasks section in the browser interface, click WebLogic.**
- 2 **On the WebLogic Common Tasks page, click Manage Clusters.**
- 3 **On the Components Details page for the WebLogic cluster component, click the Run action next to default:install.**
- 4 **To set variables for this cluster, click Select from List in the Plan Parameters section of the window.**
  - **To create a new set of variables that have different values from the default values, click Create Set.**

The Select Variable Setting From List window appears.

    - a. **In the text field at the top of the table, enter the name of the new variable settings set.**
    - b. **To specify the name of the cluster, click the box next to `targetName` and type the cluster name into the field.**
    - c. **After updating the component variable values, click Save.**

The new variable settings display in the table.
    - d. **Click Select.**

- **To use variable settings for another component, click Import Set.**

The Import Variable Settings window displays.

- a. **If necessary, navigate to the Folder that contains the component with the variable settings to import.**
- b. **Select the component version.**

---

**Note** – Variable settings can vary between component versions.

---

- c. **Click Import Variable Settings.**

The imported variable settings display in the table.

- d. **Click Select.**

- 5 **Select the target WebLogic Admin server on which to define the cluster.**
- 6 **Click Run Plan (includes preflight).**
- 7 **Create server instances to be part of the cluster, as described in**

## ▼ **To Manage WebLogic Server Instances**

For each actual WebLogic admin server, you can run multiple server instances. This task explains how to create, start, and stop WebLogic server instances.

---

**Note** – Do not manage your WebLogic applications outside of the Sun N1 Service Provisioning System. If you use the provisioning software, you must manage your WebLogic applications exclusively with the provisioning software.

---

- 1 **From the Common Tasks section in the browser interface, click WebLogic.**
- 2 **On the WebLogic Common Tasks page, click Manage Server Instances.**



- 3 To create a managed server instance, click the Run action next to Default: Install in the Components Procedures list.
  - a. To choose a set of variables that apply to this managed server, click Select from List in the Plan Parameters section of the window.
    - To create a new set of variables that have different values from the default values, click Create Set.

The Select Variable Setting From List window appears.

- i. In the text field at the top of the table, enter the name of the new variable settings set.
- ii. To specify the name of the WebLogic Admin Server on which this managed service instance will run, click the box next to `adminServerHostName` and type the name into the field. This must be an existing WebLogic Admin Server name.
- iii. To provide a name for the managed server instance, click the box next to `targetName` and type the name into the field.

This name will be used in the `targetRefName` to create the actual name for the managed server instance.

- iv. To provide a full name for the managed server instance, click the box next to `targetRefName` and type the name into the field.

By default, the `targetRefName` is created based on the host name, followed by the type of the host (such as “server”), followed by the `targetName` you provided in the previous step.

- v. To provide a path to where to install the managed server instance, click the box next to `installPath` and provide a complete path name.

By default, the `installPath` is generated based on the type of the host, followed by the domain name of either the `adminServerHostName` or some other targetable component, followed by the `targetName`.

---

**Note** – The value for the `installPath` variable is treated as a relative path to the default Remote Agent directory, unless you specify an absolute path, such as `/opt` or `c:\mydir`. For example, for a Windows Remote Agent, if you set the `installPath` variable to `c/mydir`, and deploy the file to an Agent with a default Remote Agent directory of `c:\Program Files\N1 Service Provisioning System\agent`, the file is deployed to `c:\Program Files\N1 Service Provisioning System\agent\c\mydir`.

---

- vi. If this managed server is part of a cluster, provide the `clusterHostName`.

---

**Note** – The managed server depends on the existence of this cluster. If the cluster does not yet exist, you must create it and then return to create the managed server instance.

---

**vii. Provide a complete path to the WebLogic startup script.**

If an appropriate script does not exist, you cannot start the WebLogic server instance. You might need to modify the default WebLogic startup script. Specifically, make sure that you provide values for the following variables:

- `SERVER_NAME=server_name` — The name of the WebLogic admin server; for example, `managed2`
- `ADMIN_URL=URL_for_server` — The URL to the WebLogic server; for example, `http://myplace.domain.me.com:7001/`
- `WLS_USER=${1}` — The username to be used for the WebLogic server. The `${1}` nomenclature sets the WebLogic username to the first argument that you provide when you call the script. This usage bypasses the username prompt during server startup.
- `WLS_PW=${2}` — The password for the WebLogic username. The `${2}` nomenclature sets the WebLogic password to the password that you provide as the second argument when you call the script. This usage bypasses the password prompt during server startup.

---

**Note** – When you make these changes to the startup script, make sure that you delete any old information in the script that would override the values that you defined. Also, be sure to set the script to run in the background, and to redirect the input and output streams for the script.

---

**viii. After updating the component variable values, click Save.**

The new variable settings display in the table.

**ix. Click Select.**

You are returned to the Components Details page for the managed server instance.

- **To use variable settings for another component, click Import Set.**

The Import Variable Settings window displays.

**i. If necessary, navigate to the Folder that contains the component with the variable settings to import.**

**ii. Select the component version.**

---

**Note** – Variable settings can vary between component versions.

---

- iii. **Click Import Variable Settings.**  
The imported variable settings display in the table.
  - iv. **Click Select.**  
You are returned to the Components Details page for the managed server instance.
- b. **On the Components Details page for the managed server instance, select the target host on which to run this managed server instance.**
  - c. **Click Run Plan (includes preflight).**
- 4 To start a WebLogic managed server instance, click the Run action next to Start in the Component Procedures list on the Components Details page for the managed server instance.**
- a. **Choose a managed server.**
  - b. **Click Run Selected Installations.**
  - c. **Click Run Plan (includes preflight).**
- 5 To stop a WebLogic managed server instance, click the Run action next to Stop in the Component Procedures list on the Components Details page for the managed server instance.**
- a. **Choose a managed server.**
  - b. **Click Run Selected Installations.**
  - c. **Click Run Plan (includes preflight).**

## Capturing and Editing WebLogic Applications

The WebLogic Common Tasks page enables you to capture, configure, and deploy WebLogic Enterprise, EJB™, and Web Applications.

You can perform several specific tasks:

- “To Capture a WebLogic Enterprise Application or EAR File” on page 28
- “To Capture a WebLogic Web Application or WAR File” on page 28
- “To Capture a WebLogic JAR File” on page 29

---

**Note** – Do not deploy or manage your WebLogic applications outside of the Sun N1 Service Provisioning System. If you use the provisioning software, you must manage your WebLogic applications exclusively with the provisioning software.

---

## ▼ **To Capture a WebLogic Enterprise Application or EAR File**

- 1 From the Common Tasks section in the browser interface, click WebLogic.
- 2 Click Create New in the Enterprise Applications (EARs) section of the WebLogic Common Tasks page.
- 3 Type a label for this component.
- 4 Type a description for this component.
- 5 Select the WebLogic Admin Server on which this enterprise application resides.
- 6 Navigate through the hierarchy to find the enterprise application to capture.
- 7 Click Check-in Selected Item.
- 8 Confirm the information on the check-in page, then click Continue to Check-in.

## ▼ **To Capture a WebLogic Web Application or WAR File**

- 1 From the Common Tasks section in the browser interface, click WebLogic.
- 2 Click Create New in the Web Applications (WARs) section of the WebLogic Common Tasks page.
- 3 Type a label for this component.
- 4 Type a description for this component.
- 5 Select the WebLogic Admin Server on which this web application resides.
- 6 Navigate through the hierarchy to find the web application to capture.
- 7 Click Check-in Selected Item.
- 8 Confirm the information on the check-in page, then click Continue to Check-in.

## ▼ To Capture a WebLogic JAR File

- 1 From the Common Tasks section in the browser interface, click **WebLogic**.
- 2 Click **Create New** in the **Java Archives Containing EJBs (JARs)** section of the **WebLogic Common Tasks** page.
- 3 Type a label for this component.
- 4 Type a description for this component.
- 5 Select the **WebLogic Admin Server** on which this JAR file resides.
- 6 Navigate through the hierarchy to find the JAR file to capture.
- 7 Click **Check-in Selected Item**.
- 8 Confirm the information on the check-in page, then click **Continue to Check-in**.

## Component Types

The BEA WebLogic Plug-In includes several WebLogic-specific component types. These component types enable you to quickly model many of the most common WebLogic application components and to automatically associate install, uninstall, export, and snapshot behavior with a particular resource. Many of the component types are used by the software when you create and manage servers and clusters. As a result, there are only a few component types that you will work with directly:

- Enterprise application (EAR)
- Web application (WAR)
- Java Archive (JAR) files that contain Enterprise JavaBeans (EJB)

### Enterprise Application (EAR) Component Type

A component of this type models an enterprise application. The component can contain either an enterprise application archive (EAR) or the expanded version of an EAR as a package.

#### Browsing for an Enterprise Application

You can use one of the following browsers to select your enterprise application for this component type:

- An admin server browser from which you can select one of the installed applications and its relevant settings. The admin server browser provides an alphabetical list of enterprise applications on the admin server. You can choose one enterprise application for a component.

- A file system browser from which you can select the EAR file to create a component that does not include settings. The file system browser provides a list of files and directories from which you can choose. You can choose to see only those files or type \*.ear in the browser.

## Installing an Enterprise Application

To install an enterprise application component, you must use a WebLogic server or cluster as the target host. The installation process performs three main tasks:

1. Install the EAR file on that target.
2. Register the EAR with the WebLogic admin server.
3. Apply any properties previously captured during domain browse.

## Uninstalling an Enterprise Application

When you uninstall an enterprise application component, the enterprise application is untargeted from the target. If the enterprise application is not targeted elsewhere, the registration component is removed from the admin sever.

## Error Conditions

TABLE 4-1 WebLogic Enterprise Application Error Conditions

| Action                     | Condition  | Result                  |
|----------------------------|--|-------------------------|
| Install                    | The topology is incorrectly configured (target host does not point at correct domain host) | Targeting fails         |
| Install                    | The target host is not a valid WebLogic target.  | Installation prohibited |
| Browsing/Install/Uninstall | Credentials are not properly configured.   | Operation fails         |
| Browsing                   | Path not correctly configured in domain host.  | Browsing fails          |

## Web Application (WAR) Component Type

A component of this type includes a web application. The component can contain either a web application and its relevant settings or the web application without its settings.

### Browsing for a Web Application

You can use one of the following browsers to select your web application for this component type:

- An admin server browser from which you can select one of the installed applications and its relevant settings. The admin server browser provides an alphabetical list of web applications on the admin server. You can choose one web application for a component.

- A file system browser from which you can select the WAR file to create a component that does not include settings. The file system browser provides a list of files and directories from which you can choose. You can choose to see only those files or type \*.war in the browser.

## Installing a Web Application

To install a web application component, you must use a WebLogic server or cluster as the target host. The installation process will install the component on that target, and install the contained registration component on the admin server of the target.

## Uninstalling a Web Application

When you uninstall a web application component, the web application is untargeted from the target. If the web application is not targeted elsewhere, the registration component is removed from the admin sever.

## Error Conditions

TABLE 4–2 WebLogic Web Application Error Conditions

| Action                     | Condition   | Result                   |
|----------------------------|---|--------------------------|
| Install                    | The topology is incorrectly configured (target host doesn't point at correct domain host) | Targeting fails.         |
| Install                    | The target host is not a valid WL target.   | Installation prohibited. |
| Browsing/Install/Uninstall | Credentials aren't properly configured.   | Operation fails.         |
| Browsing                   | Path not correctly configured in domain host.   | Browsing fails.          |

## Java Archive Files Containing EJBs Component Type

### Browsing

You can use one of the following browsers to select your EJB or JAR files for this component type:

- An admin server browser from which you can select one of the installed applications and its relevant settings. The admin server browser provides an alphabetical list of applications on the admin server. You can choose one EJB for a component.
- A file system browser from which you can select the JAR file to create a component that does not include settings. The file system browser provides a list of files and directories from which you can choose. You can choose to see only those files or type \*.jar in the browser.

## Installation

When you install a component of this type, the file or directory is copied to the filesystem based on the install path. Once that copy finishes, the file or directory is registered with the WebLogic admin server.

## Uninstall

When you uninstall a component of this type, the file or directory is removed from the master server.

## Error Conditions

TABLE 4-3 WebLogic EJB container Error Conditions

| Action    | Condition                                    | Result                                     |
|-----------|--|--|
| Uninstall | A dependant WebLogic EJB is still installed. | Uninstall fails indicating the dependency. |

## Plans

There are no pre-defined plans included with the BEA WebLogic Plug-In.

## Resources

There are no additional resources included with the BEA WebLogic Plug-In.



# Index

---

## A

- admin server
  - WebLogic 6.1, 21-23
  - WebLogic 7.0, 20-21

## C

- capturing a JAR file, 29
- capturing a web application, 28
- capturing an enterprise application, 28
- capturing EJBs, 29
- cluster, 23-24
- component type
  - EAR, 29-30
  - EJB, 31-32
  - enterprise application, 29-30
  - JAR, 31-32
  - WAR, 30-31
  - web application, 30-31
- configuring the plug-in, 18

## D

- deployment server requirements, 12

## E

- EAR
  - capturing, 28
  - component type, 29-30

## EJB

- capturing, 29
- component type, 31-32
- enterprise application
  - capturing, 28
  - component type, 29-30

## I

- importing the plug-in, 17-18

## J

- JAR
  - capturing, 29
  - component type, 31-32
- JAR file, 15
- Java archive, *See* JAR file

## M

- managed server instances, 24-27

## P

- plug-in files
  - importing, 17-18
  - location of, 15

## **W**

### WAR

- capturing, 28
- component type, 30-31

### web application

- capturing, 28
- component type, 30-31

### WebLogic 6.1

- admin server, 21-23
- cluster, 23-24
- managed server instances, 24-27

### WebLogic 7.0

- admin server, 20-21
- cluster, 23-24
- managed server instances, 24-27

### WebLogic plug-in

- configuration, 18
- deployment server requirements, 12
- importing, 17-18
- parts, 11-12