Oracle® WebLogic Server

Command Reference

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Oracle WebLogic Server Command Reference, 10*g* Release 3 (10.3)

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CHAPTER 1

Introduction and Roadmap

This section describes the contents and organization of this guide—*Oracle WebLogic Server Command Reference*.

Document Scope and Audience

This document describes Oracle WebLogic Server command-line reference features and Java utilities and how to use them to administer Oracle WebLogic Server.

This document is written for system administrators and application developers deploying e-commerce applications using the Java Platform, Enterprise Edition (Java EE) from Sun Microsystems. It is assumed that readers are familiar with Web technologies and the operating system and platform where Oracle WebLogic Server is installed.

Guide to This Document

The document is organized as follows:

- This chapter, "Introduction and Roadmap," describes the scope of this guide and lists related documentation.

- Chapter 2, "Using the Oracle WebLogic Server Java Utilities," describes various Java utilities you can use to manage and troubleshoot an Oracle WebLogic Server domain.
- Chapter 3, "weblogic.Server Command-Line Reference," describes how to start Oracle WebLogic Server instances from a command shell or from a script.
- Chapter 4, "WebLogic SNMP Agent Command-Line Reference (Deprecated)," describes using Simple Network Management Protocol (SNMP) to communicate with enterprise-wide management systems.

Related Documentation

- Using Ant Tasks to Configure and Use a WebLogic Server Domain in *Developing Applications with Oracle WebLogic Server*.
- *WebLogic Scripting Tool*
- *Configuring WebLogic Server Environments*
- *Administration Console Online Help*

New and Changed Features in This Release

For a comprehensive listing of the new WebLogic Server features introduced in this release, see "What's New in WebLogic Server" in the *Release Notes*.

CHAPTER 2

Using the Oracle WebLogic Server Java Utilities

Oracle WebLogic Server provides a number of Java utilities and Ant tasks for performing administrative and programming tasks.

To use these utilities and tasks, you must set your `CLASSPATH` correctly. For more information, see "Modifying the Classpath" on page 3-2.

Oracle WebLogic Server provides several Java programs that simplify installation and configuration tasks, provide services, and offer convenient shortcuts. The Java utilities provided with Oracle WebLogic Server are all described below. The command-line syntax is specified for all utilities and, for some, examples are provided.

Oracle WebLogic Server also provides a number of Ant tasks that automate common application server programming tasks. The Apache Web site provides other useful Ant tasks as well, including tasks for packaging EAR, WAR, and JAR files. For more information, see http://jakarta.apache.org/ant/manual/.

appc

The appc compiler generates and compiles the classes needed to deploy EJBs and JSPs to Oracle WebLogic Server. It also validates the deployment descriptors for compliance with the current specifications at both the individual module level and the application level. See appc Reference in *Programming WebLogic Enterprise JavaBeans*.

AppletArchiver

The `AppletArchiver` utility runs an applet in a separate frame, keeps a record of all of the downloaded classes and resources used by the applet, and packages these into either a `.jar` file or a `.cab` file. (The `cabarc` utility is available from Microsoft.)

Syntax

```
$ java utils.applet.archiver.AppletArchiver URL filename
```

Table 2-1 AppletArchiver Arguments

Argument	Definition
URL	URL for the applet.
filename	Local filename that is the destination for the `.jar/.cab` archive.

autotype (deprecated)

Use the `autotype` Ant task to generate non-built-in data type components, such as the serialization class, for Web Services. The fully qualified name for the `autotype` Ant task is `weblogic.ant.taskdefs.webservices.javaschema.JavaSchema`.

Web Services are now a Java EE standard, which has resulted in many changes between 8.1 and 9.0 WebLogic Web Services. For information about what has changed between 8.1 and 9.0 Web Services, and what has been deprecated, see Differences Between 8.1 and 9.0 WebLogic Web Services in *Programming Web Services for WebLogic Server*.

For a complete list of Web Services Ant tasks, see Ant Task Reference in *WebLogic Web Services: Reference.*

BuildXMLGen

Use BuildXMLGen to generate a `build.xml` file for enterprise applications in the split-directory structure. For complete documentation of this utility, see Building Applications in a Split Development Directory in *Developing Applications with WebLogic Server*.

CertGen

The `CertGen` utility generates certificates that should only be used for demonstration or testing purposes, not in a production environment.

Syntax

```
$ java utils.CertGen

   -certfile <cert_file> -keyfile <private_key_file>
   -keyfilepass <private_key_password>
   [-cacert <ca_cert_file>][-cakey <ca_key_file>]
   [-cakeypass <ca_key_password>]
   [-selfsigned][-strength <key_strength>]
   [-e <email_address>][-cn <common_name>]
   [-ou <org_unit>][-o <organization>]
   [-l <locality>][-s <state>][-c <country_code>]
   [-keyusage [digitalSignature,nonRepudiation,keyEncipherment,
           dataEncipherment,keyAgreement,keyCertSign,
           cRLSign,encipherOnly,decipherOnly]]
```

```
[-keyusagecritical true|false]
[-subjectkeyid <subject_key_identifier>]
[-subjectkeyidformat UTF-8|BASE64]
[-help]
```

Table 2-2 CertGen Arguments

Argument	Definition
`-certfile` *`cert_file`* `-keyfile` *`private_key_file`*	Respectively, the output file names without extensions for the generated public certificate and private key. The appropriate extensions are appended when the `pem` and `der` files are created.
`-keyfilepass` *`private_key_password`*	The password for the generated private key.
`-cacert` *`ca_cert_file`* `-cakey` *`ca_key_file`* `-cakeypass` *`ca_key_password`*	Respectively, the public certificate, private key file, and private key password of the CA that will be used as the issuer of the generated certificate. If one or more of these options are not specified, the relevant demonstration CA files will be used: `CertGenCA.der` and `CertGenCAKey.der`. The `CertGen` utility first looks in the current working directory, then in the `WL_HOME/lib` directory.
`-selfsigned`	Generates a self-signed certificate that can be used as a trusted CA certificate. If this argument is specified, the *`ca_cert_filename`*, *`ca_key_filename`*, and *`ca_key_password`* arguments should not be specified.
`-strength` *`key_strength`*	The length (in bits) of the keys to be generated. The longer the key, the more difficult it is for someone to break the encryption.
`-e` *`email_address`*	The email address associated with the generated certificate.
`-cn` *`common_name`*	The name associated with the generated certificate.
`-ou` *`org_unit`*	The name of the organizational unit associated with the generated certificate.

Table 2-2 CertGen Arguments

Argument	Definition
`-o organization`	The name of the organization associated with the generated certificate.
`-l locality`	The name of a city or town.
`-s state`	The name of the state or province in which the organizational unit (ou) operates if your organization is in the United States or Canada, respectively. Do not abbreviate.
`-c country_code`	Two-letter ISO code for your country. The code for the United States is US.
`-keyusage [digitalSignature, nonRepudiation,keyEncipherment, dataEncipherment,keyAgreement, keyCertSign,cRLSign, encipherOnly,decipherOnly]`	Generate certificate with a keyusage extension, and with bits set according to the comma-separated list of bit names. Specify a key usage when you want to restrict the operation for a key that could be used for more than one operation.
`-keyusagecritical true|false`	By default, a keyusage extension is marked critical. To generate a certificate with a non-critical extension, use `-keyusagecritical false`.
`-subjectkeyid subject_key_identifier`	Generates a certificate with the specified subject key identifier.
`-subjectkeyidformat UTF-8|BASE64`	The format of the `subjectkeyid` value; UTF-8 is the default.

Example

By default, the CertGen utility looks for the `CertGenCA.der` and `CertGenCAKey.der` files in the current directory, or in the *`WL_HOME`* directory, as specified in the `weblogic.home` system property or the `CLASSPATH`. Alternatively, you can specify CA files on the command line.

Enter the following command to generate certificate files named `testcert` with private key files named `testkey`:

```
$ java utils.CertGen -keyfilepass mykeypass
-certfile testcert -keyfile testkey
```

```
Generating a certificate with common name return and key strength 1024
issued by CA with certificate from CertGenCA.der file and key from
CertGenCAKey.der file
```

ClientDeployer

You use `weblogic.ClientDeployer` to extract the client-side JAR file from a Java EE EAR file, creating a deployable JAR file. The `weblogic.ClientDeployer` class is executed on the Java command line with the following syntax:

`java weblogic.ClientDeployer` *`ear-file client`*

The *`ear-file`* argument is an expanded directory (or Java archive file with a `.ear` extension) that contains one or more client application JAR files.

For example:

```
java weblogic.ClientDeployer app.ear myclient
```

where `app.ear` is the EAR file that contains a Java EE client packaged in `myclient.jar`.

Once the client-side JAR file is extracted from the EAR file, use the `weblogic.j2eeclient.Main` utility to bootstrap the client-side application and point it to a WebLogic Server instance as follows:

```
java weblogic.j2eeclient.Main clientjar URL [application args]
```

For example:

```
java weblogic.j2eeclient.Main helloWorld.jar t3://localhost:7001
Greetings
```

clientgen

Use `clientgen` to generate the client-side artifacts, such as the JAX-RPC stubs, needed to invoke a Web Service. See Ant Task Reference in *WebLogic Web Services: Reference*.

Conversion (deprecated)

WebLogic Server 9.0 does not support conversion or upgrading from a pre-6.0 version of Oracle WebLogic Server. To upgrade from version 6.1 or later, see *Upgrading WebLogic Application Environments*.

dbping

The `dbping` command-line utility tests the connection between a DBMS and your client machine via a JDBC driver. You must complete the installation of the driver before attempting to use this utility. For more information on how to install a driver, see the documentation from your driver vendor. Also see Using Third-Party Drivers with WebLogic Server in *Programming WebLogic JDBC*.

Creating a DB2 Package with dbping

With the WebLogic Type 4 JDBC Driver for DB2, you can also use the `dbping` utility to create a package on the DB2 server. When you ping the database with the dbping utility, the driver automatically creates the default package on the database server if it does not already exist. If the default package already exists on the database server, the `dbping` utility uses the existing package.

The default DB2 package includes 200 dynamic sections. You can specify a different number of dynamic sections to create in the DB2 package with the `-d` option. The `-d` option also sets `CreateDefaultPackage=true` and `ReplacePackage=true` on the connection used in the connection test, which forces the DB2 driver to replace the DB2 package on the DB2 server. (See DB2 Connection Properties for more information.) You can use the `-d` option with dynamic sections set at `200` to forcibly recreate a default package on the DB2 server.

Notes: When you specify the `-d` option, the `dbping` utility *recreates* the default package and uses the value you specify for the number of dynamic sections. It does not modify the existing package.

To create a DB2 package, the user that you specify must have CREATE PACKAGE privileges on the database.

Syntax

```
$ java utils.dbping DBMS [-d dynamicSections] user password DB
```

Table 2-3 dbping Arguments

Argument	Definition
DBMS	Varies by DBMS and JDBC driver: DB2B—WebLogic Type 4 JDBC Driver for DB2 JCONN2—Sybase JConnect 5.5 (JDBC 2.0) driver JCONN3—Sybase JConnect 6.0 (JDBC 2.0) driver JCONNECT—Sybase JConnect driver INFORMIXB—WebLogic Type 4 JDBC Driver for Informix MSSQLSERVER4—WebLogic jDriver for Microsoft SQL Server MSSQLSERVERB—WebLogic Type 4 JDBC Driver for Microsoft SQL Server MYSQL— MySQL's Type 4 Driver ORACLE—WebLogic jDriver for Oracle ORACLEB—WebLogic Type 4 JDBC Driver for Oracle ORACLE_THIN—Oracle Thin Driver POINTBASE—PointBase Universal Driver SYBASEB—WebLogic Type 4 JDBC Driver for Sybase
[-d *dynamicSections*]	Specifies the number of dynamic sections to create in the DB2 package. This option is for use with the WebLogic Type 4 JDBC Driver for DB2 only. If the -d option is specified, the driver automatically sets CreateDefaultPackage=true and ReplacePackage=true on the connection and creates a DB2 package with the number of dynamic sections specified.
user	Valid database username for login. Use the same values you use with isql, sqlplus, or other SQL command-line tools. For DB2 with the -d option, the user must have CREATE PACKAGE privileges on the database.

Table 2-3 dbping Arguments

Argument	Definition
password	Valid database password for the user. Use the same values you use with `isql` or `sqlplus`.
DB	Name and location of the database. Use the following format, depending on which JDBC driver you use: `DB2B`—Host:Port/DBName `JCONN2`—Host:Port/DBName `JCONN3`—Host:Port/DBName `JCONNECT`—Host:Port/DBName `INFORMIXB`—Host:Port/DBName/InformixServer `MSSQLSERVER4`—Host:Port/DBName or [DBName@]Host[:Port] `MSSQLSERVERB`—Host:Port/DBName `MYSQL`—Host:Port/DBName `ORACLE`—DBName (as listed in tnsnames.ora) `ORACLEB`—Host:Port/DBName `ORACLE_THIN`—Host:Port/DBName `POINTBASE`—Host[:Port]/DBName `SYBASEB`—Host:Port/DBName Where: • *`Host`* is the name of the machine hosting the DBMS. • *`Port`* is port on the database host where the DBMS is listening for connections. • *`DBName`* is the name of a database on the DBMS. • *`InformixServer`* is an Informix-specific environment variable that identifies the Informix DBMS server.

Example

```
C:\>java utils.dbping ORACLE_THIN scott tiger dbserver1:1561:demo

**** Success!!! ****

You can connect to the database in your app using:
```

```
java.util.Properties props = new java.util.Properties();
  props.put("user", "scott");
  props.put("password", "tiger");
  props.put("dll", "ocijdbc9");
  props.put("protocol", "thin");
  java.sql.Driver d =
    Class.forName("oracle.jdbc.driver.OracleDriver").newInstance();
  java.sql.Connection conn =
    Driver.connect("jdbc:oracle:thin:@dbserver1:1561:demo", props);
```

ddcreate (deprecated)

This Ant task calls EARInit, which generates an `application.xml` and a `weblogic-application.xml` file for an `EAR`. For more information, see "EarInit (deprecated)" on page 2-12.

DDInit

`DDInit` is a utility for generating deployment descriptors for applications to be deployed on Oracle WebLogic Server. Target a module's archive or folder and `DDInit` uses information from the module's class files to create appropriate deployment descriptor files.

In its command-line version, `DDInit` writes new files that overwrite existing descriptor files. If `META-INF` or `WEB-INF` does not exist, `DDInit` creates it.

Specify the type of Java EE deployable unit (either Web Application or Enteprise Application) for which you want deployment descriptors generated by using the `DDInit` command specific to the type, as described below.

WebInit

Target a `WAR` file or a folder containing files that you intend to archive as a `WAR` file, and `WebInit` will create `web.xml` and `weblogic.xml` files for the module.

```
prompt> java weblogic.marathon.ddinit.WebInit <module>
```

EarInit (deprecated)

The `EarInit` tool is deprecated in this version of Oracle WebLogic Server. As a result, you should not:

- Use the `DDInit` utility to generate deployment descriptors for Enterprise applications.
- Use the `ddcreate` ant task, which calls `EarInit`.

Generate an `application.xml` and a `weblogic-application.xml` file for an `EAR` using this command. Target an existing `EAR` or a folder containing `JAR` or `WAR` files you intend to archive into an `EAR` file.

```
prompt> java weblogic.marathon.ddinit.EarInit <module>
```

Deployer

Using the `weblogic.Deployer` tool, you can deploy Java EE applications and components to WebLogic Servers in a command-line or scripting environment. For detailed information on using this tool, see weblogic.Deployer Command-Line Reference in *Deploying Applications to Oracle WebLogic Server*.

The `weblogic.Deployer` utility replaces the `weblogic.deploy` utility, which has been deprecated.

der2pem

The `der2pem` utility converts an X509 certificate from DER format to PEM format. The `.pem` file is written in the same directory and has the same filename as the source `.der` file.

Syntax

```
$ java utils.der2pem derFile [headerFile] [footerFile]
```

Table 2-4 der2pem Arguments

Argument	Description
derFile	The name of the file to convert. The filename must end with a `.der` extension, and must contain a valid certificate in `.der` format.
headerFile	The header to place in the PEM file. The default header is "-----BEGIN CERTIFICATE-----". Use a header file if the DER file being converted is a private key file, and create the header file containing one of the following: • "-----BEGIN RSA PRIVATE KEY-----" for an unencrypted private key. • "-----BEGIN ENCRYPTED PRIVATE KEY-----" for an encrypted private key. **Note:** There must be a new line at the end of the header line in the file.
footerFile	The header to place in the PEM file. The default header is "-----END CERTIFICATE-----". Use a footer file if the DER file being converted is a private key file, and create the footer file containing one of the following in the header: • "-----END RSA PRIVATE KEY-----" for an unencrypted private key. • "-----END ENCRYPTED PRIVATE KEY-----" for an encrypted private key. **Note:** There must be a new line at the end of the header line in the file.

Example

```
$ java utils.der2pem graceland_org.der
Decoding
.............................................................
```

ejbc (deprecated)

See appc Reference in *Programming Weblogic Enterprise JavaBeans*.

EJBGen

EJBGen is an Enterprise JavaBeans 2.0 code generator. You can annotate your Bean class file with javadoc tags and then use EJBGen to generate the Remote and Home classes and the deployment descriptor files for an EJB application, reducing to one the number of EJB files you need to edit and maintain.

See EJBGen Reference in *Programming WebLogic Enterprise JavaBeans*.

encrypt

The `weblogic.security.Encrypt` utility encrypts cleartext strings for use with Oracle WebLogic Server. The utility uses the encryption service of the current directory, or the encryption service for a specified Oracle WebLogic Server domain root directory.

Note: An encrypted string must have been encrypted by the encryption service in the Oracle WebLogic Server domain where it will be used. If not, the server will not be able to decrypt the string.

You can only run the `weblogic.security.Encrypt` utility on a machine that has at least one server instance in an Oracle WebLogic Server domain; it cannot be run from a client.

Note: Oracle recommends running the utility from the Administration Server domain directory or on the machine hosting the Administration Server and specifying a domain root directory.

Syntax

```
java   [ -Dweblogic.RootDirectory=dirname ]
       [ -Dweblogic.management.allowPasswordEcho=true ]
       weblogic.security.Encrypt [ password ]
```

Table 2-5 encrypt Arguments

Argument	Definition
`weblogic.RootDirectory`	Optional. Oracle WebLogic Server domain directory in which the encrypted string will be used. If not specified, the default domain root directory is the current directory (the directory in which the utility is being run).
`weblogic.management.allow PasswordEcho`	Optional. Allows echoing characters entered on the command line. `weblogic.security.Encrypt` expects that no-echo is available; if no-echo is not available, set this property to `true`.
`password`	Optional. Cleartext string to be encrypted. If omitted from the command line, you will be prompted to enter a password.

Examples

The utility returns an encrypted string using the encryption service of the domain located in the current directory.

```
java weblogic.security.Encrypt xxxxxx
```

```
{3DES}Rd39isn4LLuF884Ns
```

The utility returns an encrypted string using the encryption service of the specified domain location.

```
java -Dweblogic.RootDirectory=./mydomain weblogic.security.Encrypt xxxxxx
```

```
{3DES}hsikci118SKFnnw
```

The utility returns an encrypted string in the current directory, without echoing the password.

```
java weblogic.security.Encrypt
```

```
Password:
```

```
{3DES}12hsIIn56KKKs3
```

getProperty

The `getProperty` utility gives you details about your Java setup and your system. It takes no arguments.

Syntax

```
$ java utils.getProperty
```

Example

```
$ java utils.getProperty
-- listing properties --
user.language=en
java.home=c:\java11\bin\..
awt.toolkit=sun.awt.windows.WToolkit
file.encoding.pkg=sun.io
java.version=1.1_Final
file.separator=\
line.separator=
user.region=US
file.encoding=8859_1
java.vendor=Sun Microsystems Inc.
user.timezone=PST
user.name=mary
os.arch=x86
os.name=Windows NT
java.vendor.url=http://www.sun.com/
user.dir=C:\weblogic
java.class.path=c:\weblogic\classes;c:\java\lib\cla...
java.class.version=45.3
os.version=4.0
path.separator=;
user.home=C:\
```

host2ior

The host2ior utility obtains the Interoperable Object Reference (IOR) of an Oracle WebLogic Server.

Syntax

```
$ java utils.host2ior hostname port
```

ImportPrivateKey

The `ImportPrivateKey` utility is used to load a private key into a private keystore file.

Syntax

```
$ java utils.ImportPrivateKey

-certfile <cert_file> -keyfile <private_key_file>
[-keyfilepass <private_key_password>]
-keystore <keystore> -storepass <storepass> [-storetype <storetype>]
-alias <alias> [-keypass <keypass>]
[-help]
```

Table 2-6 ImportPrivateKey Arguments

Argument	Definition
cert_file	The name of the certificate associated with the private key.
private_key_file	The name of the generated private key file.
private_key_password	The password for the private key.
keystore	The name of the keystore. A new keystore is created if one does not exist.
storepass	The password to open the keystore.
storetype	The type (format) of the keystore. The *storetype* argument, which is the same as that used by the `keytool` command, specifies the type of Java keystore. The default *storetype* is `jks`, defined by the `keystore.type` property in the `java.security` file: `keystore.type=jks` You can specify another *storetype* (for example, `pcks12` or `nCipher.SWorld`) if a configured security provider supports that type.

Table 2-6 ImportPrivateKey Arguments

Argument	Definition
alias	The name that is used to look up certificates and keys in the keystore.
keypass	The password of the key entry in the keystore. If *keypass* is not specified, the first default is to look for a *keyfile_pass*, the second default is to look for *storepass*. Note that if you used CertGen to create a private keyfile protected by a password (-keyfilepass *keyfile_pass*), that password is the one required by ImportPrivateKey to extract the key from the keyfile and insert the key in the newly created keystore (which will contain both the certificate(s) from *cert_file* and the private key from *keyfile*).

Example

Use the following steps to:

- Generate a certificate and private key using the CertGen utility
- Create a keystore and store a private key using the ImportPrivateKey utility

To generate a certificate:

Note: By default, the CertGen utility looks for the CertGenCA.der and CertGenCAKey.der files in the current directory, or in the *WL_HOME*/server/lib directory, as specified in the weblogic.home system property or the CLASSPATH.

Alternatively, you can specify CA files on the command line. If you want to use the default settings, there is no need to specify CA files on the command line.

1. Enter the following command to generate certificate files named testcert with private key files named testkey:

```
$ java utils.CertGen -keyfilepass mykeypass
-certfile testcert -keyfile testkey
```

```
Generating a certificate with common name return and key strength 1024
issued by CA with certificate from CertGenCA.der file and key from
CertGenCAKey.der file
```

2. Convert the certificate from DER format to PEM format.

```
$ java utils.der2pem CertGenCA.der
```

3. Concatenate the certificate and the Certificate Authority (CA).

```
$ cat testcert.pem CertGenCA.pem >> newcerts.pem
```

4. Create a new keystore named `mykeystore` and load the private key located in the `testkey.pem` file.

```
$ java utils.ImportPrivateKey -keystore mykeystore -storepass mypasswd
-keyfile mykey -keyfilepass mykeypass -certfile newcerts.pem -keyfile
testkey.pem -alias passalias


No password was specified for the key entry
Key file password will be used

Imported private key testkey.pem and certificate newcerts.pem
into a new keystore mykeystore of type jks under alias passalias
```

jhtml2jsp

Converts JHTML files to JSP files. Be sure to inspect the results carefully. Given the unpredictability of the JHTML code, `jhtml2jsp` will not necessarily produce flawless translations.

The output is a new JSP file named after the original file.

The HTTP servlets auto-generated from JSP pages differ from the regular HTTP servlets generated from JHTML. JSP servlets extend `weblogic.servlet.jsp.JspBase`, and so do not have access to the methods available to a regular HTTP servlet.

If your JHTML pages reference these methods to access the `servlet context` or `config` objects, you must substitute these methods with the reserved words in JSP that represent these implicit objects.

If your JHTML uses variables that have the same name as the reserved words in JSP, the tool will output a warning. You must edit your Java code in the generated JSP page to change the variable name to something other than a reserved word.

Syntax

```
$ java weblogic.utils.jhtml2jsp -d <directory> filename.jhtml
```

or

```
$ java weblogic.utils.jhtml2jsp filename.jhtml
```

Table 2-7 html2jsp Arguments

Argument	Definition
`-d`	Specify the target directory. If the target directory isn't specified, output is written to the current directory.

jspc (deprecated)

JSP-specific compiler task. Use "appc" on page 2-3.

logToZip

The `logToZip` utility searches an HTTP server log file, finds the Java classes loaded into it by the server, and creates an uncompressed `.zip` file that contains those Java classes. It is executed from the document root directory of your HTTP server.

To use this utility, you must have access to the log files created by the HTTP server.

Syntax

```
$ java utils.logToZip logfile codebase zipfile
```

Table 2-8 logToZip Arguments

Argument	Definition
`logfile`	Required. Fully-qualified pathname of the log file.
`codebase`	Required. Code base for the applet, or `""` if there is no code base. By concatenating the code base with the full package name of the applet, you get the full pathname of the applet (relative to the HTTP document root).
`zipfile`	Required. Name of the `.zip` file to create. The resulting `.zip` file is created in the directory in which you run the program. The pathname for the specified file can be relative or absolute. In the examples shown below, a relative pathname is given, so the `.zip` file is created in the current directory.

Examples

The following example shows how a `.zip` file is created for an applet that resides in the document root itself, that is, with no code base:

```
$ cd /HTTP/Serv/docs
$ java utils.logToZip /HTTP/Serv/logs/access "" app2.zip
```

The following example shows how a `.zip` file is created for an applet that resides in a subdirectory of the document root:

```
C:\>cd \HTTP\Serv
C:\HTTP\Serv>java utils.logToZip \logs\applets\classes app3.zip
```

MBean Commands

Use the MBean commands (`CREATE`, `DELETE`, `GET`, `INVOKE`, and `SET`) to administer MBeans. See Editing Commands in *WebLogic Scripting Tool*.

MulticastTest

The `MulticastTest` utility helps you debug multicast problems when configuring a WebLogic Cluster. The utility sends out multicast packets and returns information about how effectively multicast is working on your network. Specifically, `MulticastTest` displays the following types of information via standard output:

1. A confirmation and sequence ID for each message sent out by the current server.
2. The sequence and sender ID of each message received from any clustered server, including the current server.
3. A missed-sequenced warning when a message is received out of sequence.
4. A missed-message warning when an expected message is not received.

To use `MulticastTest`, start one copy of the utility on each node on which you want to test multicast traffic.

WARNING: Do NOT run the `MulticastTest` utility by specifying the same multicast address (the `-a` parameter) as that of a currently running WebLogic Cluster. The utility is intended to verify that multicast is functioning properly before starting your clustered WebLogic Servers.

For information about setting up multicast, see the configuration documentation for the operating system and hardware of the WebLogic Server host machine. For more information about configuring a cluster, see *Using WebLogic Server Clusters*.

Syntax

```
$ java utils.MulticastTest -n name -a address [-p portnumber]
   [-t timeout] [-s send]
```

Table 2-9 MulticastTest Arguments

Argument	Definition
`-n name`	Required. A name that identifies the sender of the sequenced messages. Use a different name for each test process you start.
`-a address`	The multicast address on which: (a) the sequenced messages should be broadcast; and (b) the servers in the clusters are communicating with each other. (The default is 237.0.0.1.)
`-p portnumber`	Optional. The multicast port on which all the servers in the cluster are communicating. (The multicast port is the same as the listen port set for WebLogic Server, which defaults to 7001 if unset.)
`-t timeout`	Optional. Idle timeout, in seconds, if no multicast messages are received. If unset, the default is 600 seconds (10 minutes). If a timeout is exceeded, a positive confirmation of the timeout is sent to `stdout`.
`-s send`	Optional. Interval, in seconds, between sends. If unset, the default is 2 seconds. A positive confirmation of each message sent out is sent to `stdout`.

Example

```
$ java utils.MulticastTest -N server100 -A 237.155.155.1
Set up to send and receive on Multicast on Address 237.155.155.1 on port 7001
Will send a sequenced message under the name server100 every 2 seconds.
Received message 506 from server100
Received message 533 from server200
   I (server100) sent message num 507
Received message 507 from server100
Received message 534 from server200
```

```
   I (server100) sent message num 508
Received message 508 from server100
Received message 535 from server200
   I (server100) sent message num 509
Received message 509 from server100
Received message 536 from server200
   I (server100) sent message num 510
Received message 510 from server100
Received message 537 from server200
   I (server100) sent message num 511
Received message 511 from server100
Received message 538 from server200
   I (server100) sent message num 512
Received message 512 from server100
Received message 539 from server200
   I (server100) sent message num 513
Received message 513 from server100
```

myip

The `myip` utility returns the IP address of the host.

Syntax

```
$ java utils.myip
```

Example

```
$ java utils.myip
Host toyboat.toybox.com is assigned IP address: 192.0.0.1
```

pem2der

The `pem2der` utility converts an X509 certificate from PEM format to DER format. The `.der` file is written in the same directory as the source `.pem` file.

Syntax

```
$ java utils.pem2der pemFile
```

Table 2-10 pem2der Arguments

Argument	Description
pemFile	The name of the file to be converted. The filename must end with a `.pem` extension, and it must contain a valid certificate in `.pem` format.

Example

```
$ java utils.pem2der graceland_org.pem
Decoding
.....................................................................
.....................................................................
.....................................................................
.....................................................................
.....................................................................
```

pointbase

PointBase is bundled with WebLogic Server as a sample database. Its documentation is also included at `WL_HOME\common\eval\pointbase\docs`, where `WL_HOME` is the WebLogic Server installation directory, typically `C:\bea\wlserver_10.3`.

rmic

The WebLogic RMI compiler is a command-line utility for generating and compiling remote objects. Use `weblogic.rmic` to generate dynamic proxies on the client-side for custom remote object interfaces in your application, and to provide hot code generation for server-side objects. See Using the WebLogic RMI Compiler in *Programming WebLogic RMI*.

Schema

The `Schema` utility lets you upload SQL statements to a database using the WebLogic JDBC drivers. For additional information about database connections, see *Programming WebLogic JDBC*.

Syntax

```
$ java utils.Schema driverURL driverClass [-u username]
   [-p password] [-verbose] SQLfile
```

Table 2-11 Schema Arguments

Argument	Definition
driverURL	Required. URL for the JDBC driver.
driverClass	Required. Pathname of the JDBC driver class.
-u *username*	Optional. Valid username.
-p *password*	Optional. Valid password for the user.
-verbose	Optional. Prints SQL statements and database messages.
SQLfile	Required. Text file with SQL statements.

Example

The following code shows a `Schema` command line for the `examples.utils` package:

```
$ java utils.Schema
"jdbc:pointbase:server://localhost/demo"
"com.pointbase.jdbc.jdbcUniversalDriver" -u "examples"
-p "examples" examples/utils/ddl/demo.ddl

utils.Schema will use these parameters:

url: jdbc:pointbase:server://localhost/demo
driver: com.pointbase.jdbc.jdbcUniversalDriver
dbserver: null
user: examples
password: examples
SQL file: examples/utils/ddl/demo.ddl
```

servicegen (deprecated)

The `servicegen` Ant task takes as input an EJB JAR file or a list of Java classes, and creates all the needed Web Service components and packages them into a deployable EAR file.

Web Services are now a Java EE standard, which has resulted in many changes between 8.1 and 9.0 WebLogic Web Services. For information about what has changed between 8.1 and 9.0 Web Services, and what has been deprecated, see Differences Between 8.1 and 9.0 WebLogic Web Services in *Programming Web Services for Weblogic Server*.

For a complete list of Web Services Ant tasks, see Ant Task Reference in *WebLogic Web Services: Reference*.

SearchAndBuild

This Ant task executes `build.xml` files that are included within the `FileSet`. The task assumes that all of the files defined in `FileSet` are valid build files, and executes the `Ant` task of each of them.

Make certain that your `FileSet` filtering is correct. If you include the `build.xml` file that `SearchAndBuildTask` is being called from, you will be stuck in an infinite loop as this task will execute the top level build file—itself—forever. See FileSet at `http://ant.apache.org/manual/CoreTypes/fileset.html`.

Example

```
<project name="all_modules" default="all" basedir=".">
<taskdef name="buildAll"
classname="weblogic.ant.taskdefs.build.SearchAndBuildTask"/>
<target name="all">
<buildAll>
<fileset dir="${basedir}">
<include name="**\build.xml"/>
<exclude name="build.xml"/>
</fileset>
</buildAll>
</target>
</project>
```

source2wsdd (deprecated)

Generates a `web-services.xml` deployment descriptor file from the Java source file for a Java class-implemented WebLogic Web Service.

Web Services are now a Java EE standard, which has resulted in many changes between 8.1 and 9.0 WebLogic Web Services. For information about what has changed between 8.1 and 9.0 Web Services, and what has been deprecated, see Differences Between 8.1 and 9.0 WebLogic Web Services in *Programming Web Services for Weblogic Server.*

For a complete list of Web Services Ant tasks, see Ant Task Reference in *WebLogic Web Services: Reference.*

system

The `system` utility displays basic information about your computer's operating environment, including the manufacturer and version of your JDK, your `CLASSPATH`, and details about your operating system.

Syntax

```
$ java utils.system
```

Example

```
$ java utils.system
* * * * * * * java.version * * * * * * *
1.5.0_03
* * * * * * * java.vendor * * * * * * *

* * * * * * * java.class.path * * * * * * *
C:\src_15003jr\bea\wlserver_10.3\server\classes;
C:\dev\src\build\JROCKI~2.0_0\lib\tools.jar;
...
* * * * * * * os.name * * * * * * *
Windows 2000
* * * * * * * os.arch * * * * * * *
x86
* * * * * * * os.version * * * * * * *
5.0
```

ValidateCertChain

WebLogic Server provides the `ValidateCertChain` utility to check whether or not an existing certificate chain will be rejected by WebLogic Server. The utility uses certificate chains from PEM files, PKCS-12 files, PKCS-12 keystores, and JKS keystores. A complete certificate chain must be used with the utility. The following is the syntax for the `ValidateCertChain` utility:

```
java utils.ValidateCertChain -file pemcertificatefilenamejava
utils.ValidateCertChain -pem pemcertificatefilenamejava
utils.ValidateCertChain -pkcs12store pkcs12storefilenamejava
utils.ValidateCertChain -pkcs12file pkcs12filename passwordjava
utils.ValidateCertChain -jks alias storefilename [storePass]
```

Example of valid certificate chain:

```
java utils.ValidateCertChain -pem zippychain.pemCert[0]: CN=zippy,OU=FOR
TESTINGONLY,O=MyOrganization,L=MyTown,ST=MyState,C=USCert[1]:
CN=CertGenCAB,OU=FOR TESTINGONLY,O=MyOrganization,L=MyTown,ST=MyState,C=US

Certificate chain appears valid
```

Example of invalid certificate chain:

```
java utils.ValidateCertChain -jks mykey mykeystoreCert[0]: CN=corba1,OU=FOR
TESTING ONLY, O=MyOrganization,L=MyTown,ST=MyState,C=US

CA cert not marked with critical BasicConstraint indicating it is a
CACert[1]: CN=CACERT,OU=FOR TESTING ONLY,
O=MyOrganization,L=MyTown,ST=MyState,C=USCertificate chain is invalid
```

verboseToZip

When executed from the document root directory of your HTTP server, `verboseToZip` takes the standard output from a Java application run in verbose mode, finds the Java classes referenced, and creates an uncompressed `.zip` file that contains those Java classes.

Syntax

```
$ java utils.verboseToZip inputFile zipFileToCreate
```

Table 2-12 verboseToZip Arguments

Argument	Definition
inputFile	Required. Temporary file that contains the output of the application running in verbose mode.
zipFileToCreate	Required. Name of the `.zip` file to be created. The resulting `.zip` file is be created in the directory in which you run the program.

Example

```
$ java -verbose myapplication > & classList.tmp
$ java utils.verboseToZip classList.tmp app2.zip
```

wlappc

This utility compiles and validates a Java EE EAR file, an EJB JAR file, or a WAR file for deployment.

For more information, see Building Modules and Applications Using wlappc in *Developing Applications with WebLogic Server*.

wlcompile

Use the `wlcompile` Ant task to invoke the `javac` compiler to compile your application's Java files in a split development directory structure. See Building Applications in a Split Development Directory in *Developing Applications with WebLogic Server*.

wlconfig

The wlconfig Ant task enables you to configure a WebLogic Server domain by creating, querying, or modifying configuration MBeans on a running Administration Server instance. For complete documentation on this Ant task, see Using Ant Tasks to Configure a WebLogic Server Domain in *Developing Applications with WebLogic Server*.

wldeploy

The `wldeploy` Ant task enables you to perform `Deployer` functions using attributes specified in an Ant task. See Deploying and Packaging from a Split Development Directory in *Developing Applications with WebLogic Server*.

wlpackage

You use the `wlpackage` Ant task to package your split development directory application as a traditional EAR file that can be deployed to WebLogic Server. See Deploying and Packaging from a Split Development Directory in *Developing Applications with WebLogic Server*.

wlserver

The `wlserver` Ant task enables you to start, reboot, shutdown, or connect to a WebLogic Server instance. The server instance may already exist in a configured WebLogic Server domain, or you can create a new single-server domain for development by using the `generateconfig=true` attribute. For complete documentation on this Ant task, see Starting Servers and Creating Domains Using the wlserver Ant Task in *Developing Applications with WebLogic Server*.

wsdl2Service

The `wsdl2Service` Ant task is a Web Services tool that takes as input an existing WSDL file and generates the Java interface that represents the implementation of your Web Service and the `web-services.xml` file that describes the Web Service. See Developing WebLogic Web Services Starting From a WSDL File: Main Steps in *Programming Web Services for Weblogic Server*.

wsdlgen (deprecated)

The `wsdlgen` Ant task is a Web Services tool that generates a WSDL file from the EAR and WAR files that implement your Web Service.

Web Services are now a Java EE standard, which has resulted in many changes between 8.1 and 9.0 WebLogic Web Services. For information about what has changed between 8.1 and 9.0 Web Services, and what has been deprecated, see Differences Between 8.1 and 9.0 WebLogic Web Services in *Programming Web Services for Weblogic Server*.

For a complete list of Web Services Ant tasks, see Ant Task Reference in *WebLogic Web Services: Reference*.

wspackage (deprecated)

Use the Web Services `wspackage` Ant task to package the various components of a WebLogic Web Service into a new deployable EAR file and add extra components to an already existing EAR file.

Web Services are now a Java EE standard, which has resulted in many changes between 8.1 and 9.0 WebLogic Web Services. For information about what has changed between 8.1 and 9.0 Web Services, and what has been deprecated, see Differences Between 8.1 and 9.0 WebLogic Web Services in *Programming Web Services for Weblogic Server*.

For a complete list of Web Services Ant tasks, see Ant Task Reference in *WebLogic Web Services: Reference*.

CHAPTER 3

weblogic.Server Command-Line Reference

The `weblogic.Server` class is the main class for a WebLogic Server instance. You start a server instance by invoking `weblogic.Server` in a Java command. You can invoke the class directly in a command prompt (shell), indirectly through scripts, or through the Node Manager.

Oracle recommends using `java weblogic.Server` primarily for initial development but not as a standard mechanism for starting production systems for the following reasons:

- `java weblogic.Server` will not function if you select a product directory outside of the BEA home directory.
- When executing `java weblogic.Server`, patches will not be recognized by the WebLogic Server run time.

This section describes the following:

For information about using scripts to start an instance of WebLogic Server, see Starting an Administration Server with a Startup Script and Starting Managed Servers With a Startup Script in *Managing Server Startup and Shutdown*.

For information about using the Node Manager to start an instance of WebLogic Server, see Using Node Manager to Control Servers in the *Node Manager Administrator's Guide*.

Required Environment and Syntax for weblogic.Server

This section describes the environment that you must set up before you can start a server instance. Then it describes the syntax for invoking `weblogic.Server`.

Environment

To set up your environment for the `weblogic.Server` command:

1. Install and configure the WebLogic Server software, as described in the *Installation Guide*.
2. If desired, modify the `CLASSPATH` environment variable, as described in "Modifying the Classpath" on page 3-2.
3. Include a Java Virtual Machine (JVM) in your `PATH` environment variable. You can use any JVM that is listed in the Supported Configurations page at http://e-docs.bea.com/platform/suppconfigs/index.html.

   If you do not include a JVM in the `PATH` environment variable, you must provide a pathname for the Java executable file that the JVM provides.

Modifying the Classpath

After installation, WebLogic Server's classpath is already set, but you may choose to modify it for a number of reasons such as adding a patch to WebLogic Server, updating the version of PointBase you are using, or adding support for Log4j logging.

To apply a patch to ALL of your WebLogic Server domains without the need to modify the classpath of a domain, give the patch JAR file the name, `weblogic_sp.jar`, and copy it into the *`WL_HOME`*`/server/lib` directory. The `commEnv.cmd/sh` script will automatically include a JAR named `weblogic_sp` on the classpath for you.

If you would rather not use the name `weblogic_sp.jar` for your patch file or you would just like to make sure a JAR file, such as one mentioned below, comes before `weblogic.jar` on the classpath:

- For ALL domains, edit the `commEnv.cmd/sh` script in *`WL_HOME`*`/common/bin` and prepend your JAR file to the `WEBLOGIC_CLASSPATH` environment variable.
- To apply a patch to a SPECIFIC WebLogic Server domain, edit the `setDomainEnv.cmd/sh` script in that domain's `bin` directory, and prepend the JAR file to the `PRE_CLASSPATH` environment variable.

If you use the trial version of PointBase, an all-Java database management system, include the following files on the classpath:

`WL_HOME``/common/eval/pointbase/lib/pbembedded51.jar and pbclient51.jar`

If you use WebLogic Enterprise Connectivity, include the following files on the classpath:

`WL_HOME``/server/lib/wlepool.jar`
`WL_HOME``/server/lib/wleorb.jar`

If you use Log4j logging, include the following file on the classpath:

`WL_HOME``/server/lib/log4j.jar`

The shell environment in which you run a server determines which character you use to separate path elements. On Windows, you typically use a semicolon (;). In a BASH shell, you typically use a colon (:).

Syntax

The syntax for invoking `weblogic.Server` is as follows:

`java [`*`options`*`] weblogic.Server [-help]`

The `java weblogic.Server -help` command returns a list of frequently used options.

Default Behavior

If you have set up the required environment described in "Environment" on page 3-2, when you enter the command `java weblogic.Server` with no options, WebLogic Server does the following:

1. Looks in the *`domain_name`*`/config` directory for a file named `config.xml`.
2. If `config.xml` exists in the *`domain_name`*`/config` directory, WebLogic Server does the following:
   a. If only one server instance is defined in `config/config.xml`, it starts that server instance.

For example, if you issue `java weblogic.Server` from `WL_HOME\samples\domains\medrec`, WebLogic Server starts the MedRec server.

b. If there are multiple server instances defined in `config/config.xml`:

– If an Administration Server is defined, it looks for the server with that name.

– If an Administration Server is not defined, it looks for a server configuration named `myserver`. If it finds such a server configuration, it starts the `myserver` instance.

– If it does not find a server named `myserver`, WebLogic Server exits the `weblogic.Server` process and generates an error message.

3. If there is no `config.xml` file in the current directory, WebLogic Server prompts you to create one. If you respond y, WebLogic Server does the following:

a. Creates a server configuration named `myserver`, and persists the configuration in a file named `config/config.xml`.

Any options that you specify are persisted to the `config.xml` file. For example, if you specify `-Dweblogic.ListenPort=8001`, then WebLogic Server saves `8001` in the `config.xml` file. For any options that you do not specify, the server instance uses default values.

You can configure WebLogic Server to make backup copies of the configuration files. This facilitates recovery in cases where configuration changes need to be reversed or the unlikely case that configuration files become corrupted. For more information, see Configuration File Archiving in *Understanding Domain Configuration*.

b. Uses the username and password that you supply to create a user with administrative privileges. It stores the definition of this user along with other basic, security-related data in *`domain_name`*`/security` files named `DefaultAuthenticatorInit.ldift`, `DefaultRoleMapperInit.ldift`, and `SerializedSystemIni.dat`.

WebLogic Server also encrypts and stores your username and password in a *`server_name`*`/security/boot.properties` file, which enables you to bypass the login prompt during subsequent instantiations of the server. For more information, see Boot Identity Files in *Managing Server Startup and Shutdown*.

c. Creates two scripts, `bin/startWebLogic.cmd` and `bin/startWebLogic.sh`, that you can use to start subsequent instantiations of the server. You can use a text editor to modify startup options such as whether the server starts in production mode or development mode. The `startWebLogic` script contains comments that describe each option.

Note that the server starts as an Administration Server in a new domain. There are no other servers in this domain, nor are any of your deployments or third-party solutions included. You can add them as you would add them to any WebLogic domain.

weblogic.Server Configuration Options

You can use `weblogic.Server` options to configure the attributes of a server instance. The following attributes are commonly used when starting a server instance:

- "JVM Parameters" on page 3-5
- "Location of Configuration Data" on page 3-6
- "Options that Override a Server's Configuration" on page 3-9

WebLogic Server provides other startup options that enable you to temporarily override a server's saved configuration. For information about these startup options, see "Options that Override a Server's Configuration" on page 3-9.

Unless you are creating a new domain as described in "Using the weblogic.Server Command Line to Create a Domain" on page 3-27, all startup options apply to the current server instantiation; they do not modify the persisted values in an existing `config.xml` file. Use the Administration Console or WebLogic Scripting Tool (WLST) to modify the `config.xml` file. See Creating Domains Using WLST Offline in *WebLogic Scripting Tool*.

For information on verifying the WebLogic Server attribute values that you set, see "Verifying Attribute Values That Are Set on the Command Line" on page 3-29.

JVM Parameters

The following table describes frequently used options that configure the Java Virtual Machine (JVM) in which the server instance runs. For a complete list of JVM options, see the documentation for your specific JVM. For a list of JVMs that can be used with WebLogic Server, see the Supported Configurations page at http://e-docs.bea.com/platform/suppconfigs/index.html.

Table 3-1 Frequently Used Options for Setting JVM Parameters

Option	Description
`-Xms` and `-Xmx`	Specify the minimum and maximum values (in megabytes) for Java heap memory. For example, you might want to start the server with the default allocation of 256 megabytes of Java heap memory to the WebLogic Server. To do so, start the server using the `java -Xms256m` and `-Xmx512m` options. The values assigned to these parameters can dramatically affect the performance of your WebLogic Server and are provided here only as general defaults. In a production environment you should carefully consider the correct memory heap size to use for your applications and environment.
`-classpath`	The minimum content for this option is described under "Modifying the Classpath" on page 3-2. Instead of using this argument, you can use the `CLASSPATH` environment variable to specify the classpath.
`-client` `-server`	Used by some JVMs to start a HotSpot virtual machine, which enhances performance. For a list of JVMs that can be used with WebLogic Server, see the Supported Configurations page at http://e-docs.bea.com/platform/suppconfigs/index.html.
`-Dfile.encoding=`*`Canonical Name`* `weblogic.Server`	To display special characters on Linux browsers, set the JVM's `file.encoding` system property to `ISO8859_1`. For example, `java -Dfile.encoding=ISO8859_1 weblogic.Server`. For a complete listing, see Sun's "Supported Encodings" page for J2SE 1.6.

Location of Configuration Data

All server instances must have access to configuration data. The following table provides options for indicating the location of this data.

Table 3-2 Options for Indicating the Location of Configuration Data

Option	Description
`-Dbea.home=`*`bea_home`*	Specifies the location of the BEA home directory, which contains essential information. By default, `weblogic.Server` determines the location of the BEA home directory based on values in the classpath.
`-Dweblogic.RootDirectory=`*`path`*	Specifies the server's root directory. See A Server's Root Directory in *Understanding Domain Configuration*. By default, the root directory is the directory from which you issue the start command.

`-Dweblogic.ConfigFile=`*`file_name`*	**Note:** This option was removed as of WebLogic Server 9.0.
	Specifies a configuration file for your domain. The *`file_name`* value must see a valid XML file that conforms to the schema at http://www.bea.com/ns/weblogic/920/domain.xsd.
	The XML file must exist in the Administration Server's root directory, which is either the current directory or the directory that you specify with `-Dweblogic.RootDirectory`.
	The *`file_name`* value cannot contain a pathname component. For example, the following value is invalid:
	`-Dweblogic.ConfigFile=c:\mydir\myfile.xml`
	Instead, use the following arguments:
	`-Dweblogic.RootDirectory=c:\mydir`
	`-Dweblogic.ConfigFile=myfile.xml`
	If you do not specify this value, the default is `config/config.xml` in the server's root directory.

Table 3-2 Options for Indicating the Location of Configuration Data (Continued)

Option	Description
`-Dweblogic.management.GenerateDefaultConfig=true`	Prevents the `weblogic.Server` class from prompting for confirmation when creating a `config.xml` file. Valid only if you invoke `weblogic.Server` in an empty directory. See "Default Behavior" on page 3-3.
`-Dweblogic.Domain=`*`domain`*	Specifies the name of the domain. If you are using `weblogic.Server` to create a domain, you can use this option to give the domain a specific name. In addition, this option supports a directory structure that WebLogic Server required in releases prior to 7.0 and continues to support in current releases. Prior to 7.0, all configuration files were required to be located at the following pathname: `.../config/`*`domain_name`*`/config.xml` where *`domain_name`* is the name of the domain. If your domain's configuration file conforms to that pathname, and if you invoke the `weblogic.Server` command from a directory other than `config/`*`domain_name`*, you can include the `-Dweblogic.Domain=`*`domain`* argument to cause WebLogic Server to search for a `config.xml` file in a pathname that matches `config/`*`domain_name`*`/config.xml`.

For information on how a Managed Server retrieves its configuration data, see the `-Dweblogic.management.server` entry in Table 3-3.

The Administration Console does not display values that you set on the command line. For information on verifying the attribute values that you set, see "Verifying Attribute Values That Are Set on the Command Line" on page 3-29.

Example

The following example starts a Managed Server instance named SimpleManagedServer. Specifying a `config.xml` file is not valid because Managed Servers contact the Administration Server for their configuration data. Multiple instances of WebLogic Server can use the same root directory. However, if your server instances share a root directory, make sure that all relative filenames are unique. In this example, SimpleManagedServer shares its root directory with

SimpleServer. The command itself is issued from the `D:\` directory after running *`WL_HOME`*`\server\bin\setWLSEnv.cmd`:

```
D:\> java -Dweblogic.Name=SimpleManagedServer
-Dweblogic.management.server=http://localhost:7001
-Dweblogic.RootDirectory=c:\my_domains\SimpleDomain weblogic.Server
```

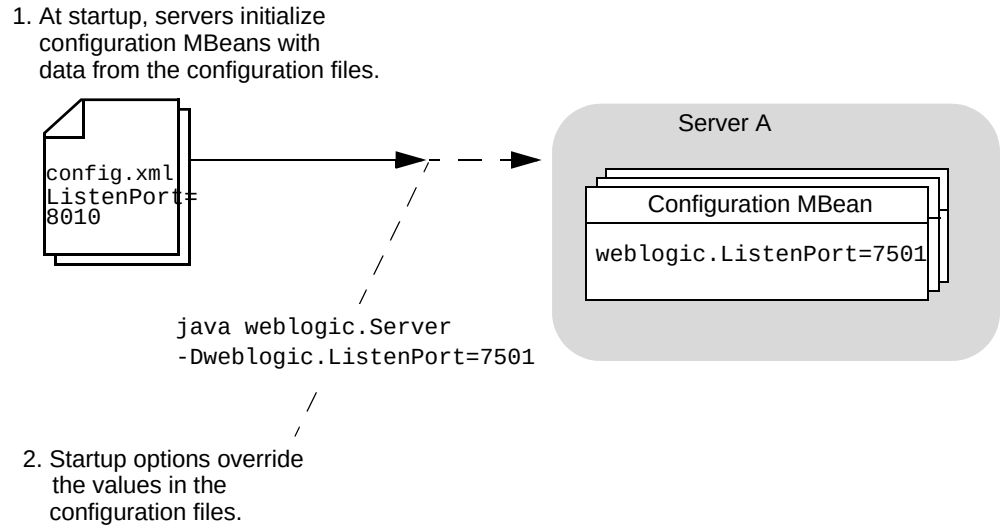
Options that Override a Server's Configuration

In most cases, you do not use startup options to override the configuration that is saved in the domain's `config.xml` file. However, in some extraordinary cases you might need to do so.

Caution: When you use a startup option to override a configuration value, the server instance uses this value for the duration of its life cycle. Even if you use the Administration Console, the WebLogic Scripting Tool, or some other utility to change the value in the configuration, the value will remain overridden until you restart the server without using the override.

For example, in a production environment, your organization might have a policy against modifying the domain's `config.xml` file, but you need to shut down the Administration Server and restart it using a temporary listen port. In this case, when you use the `weblogic.Server` command to start the Administration Server, you can include the `-Dweblogic.ListenPort=7501` startup option to change the listen port for the current server session. The server instance initializes its configuration MBeans from the `config.xml` file but substitutes `7501` as the value of its listen port. When you subsequently restart the server without passing the startup option, it will revert to using the value from the `config.xml` file, `8010`. (See Figure 3-1.)

Figure 3-1 Overriding config.xml Values



The following options temporarily override a server's configuration:

- "Server Communication" on page 3-10
- "SSL" on page 3-13
- "Security" on page 3-17
- "Message Output and Logging" on page 3-21
- "Clusters" on page 3-26
- "Deployment" on page 3-26
- "Other Server Configuration Options" on page 3-23

Server Communication

The following table describes the options for configuring how servers communicate.

Table 3-3 Options for Configuring Server Communication

Option	Description
`-Dweblogic.management.server=[`*`protocol`*`://]`*`Admin-host:port`*	Starts a server instance as a Managed Server and specifies the Administration Server that will configure and manage the server instance. The domain's configuration file does not specify whether a server configuration is an Administration Server or a Managed Server. You determine whether a server instance is in the role of Administration Server or Managed Server with the options that you use to start the instance. If you omit the `-Dweblogic.management.server` option in the start command, the server starts as an Administration Server (although within a given domain, there can be only one active Administration Server instance). Once an Administration Server is running, you must start all other server configurations as Managed Servers by including the `-Dweblogic.management.server` option in the start command. For *`protocol`*, specify `HTTP`, `HTTPS`, `T3`, or `T3S`. The T3S and HTTPS protocols require you to enable SSL on the Managed Server and the Administration Server and specify the Administration Server's SSL listen port. **Note:** Regardless of which protocol you specify, the initial download of a Managed Server's configuration is over HTTP or HTTPS. After the RMI subsystem initializes, the server instance can use the T3 or T3S protocol. For `Admin-host`, specify localhost or the DNS name or IP address of the machine where the Administration Server is running. For `port`, specify the Administration Server's listen port. If you set up the domain-wide administration port, `port` must specify the domain-wide administration port. For more information on configuring a connection to the Administration Server, see Configuring Managed Server Connections to the Administration Server in *Managing Server Startup and Shutdown*.

Table 3-3 Options for Configuring Server Communication (Continued)

Option	Description
`-Dweblogic.ListenAddress=`*`host`*	Specifies the address at which this server instance listens for requests. The *`host`* value must be either the DNS name or the IP address of the computer that is hosting the server instance. This startup option overrides any listen address value specified in the `config.xml` file. The override applies to the current server instantiation; it does not modify the value in the `config.xml` file. Use the Administration Console or WLST to modify the `config.xml` file. For more information, see Configure listen addresses in the *Administration Console Online Help* and Creating Domains Using WLST Offline in *WebLogic Scripting Tool*.
`-Dweblogic.ListenPort=`*`portnumber`*	Enables and specifies the plain-text (non-SSL) listen port for the server instance. This startup option overrides any listen port value specified in the `config.xml` file. The override applies to the current server instantiation; it does not modify the value in the `config.xml` file. Use the Administration Console or WLST to modify the `config.xml` file. The default listen port is 7001. For more information, see Configure listen ports in the *Administration Console Online Help* and Creating Domains Using WLST Offline in *WebLogic Scripting Tool*.
`-Dweblogic.ssl.ListenPort=`*`portnumber`*	Enables and specifies the port at which this WebLogic Server instance listens for SSL connection requests. This startup option overrides any SSL listen port value specified in the `config.xml` file. The override applies to the current server instantiation; it does not modify the value in the `config.xml` file. Use the Administration Console or WLST to modify the `config.xml` file. The default SSL listen port is 7002. For more information, see Configure listen ports in the *Administration Console Online Help* and Creating Domains Using WLST Offline in *WebLogic Scripting Tool*.

Table 3-3 Options for Configuring Server Communication (Continued)

Option	Description
`-Dweblogic.management.discover={true | false}`	**Note:** This option was removed as of WebLogic Server 9.0. Determines whether an Administration Server recovers control of a domain after the server fails and is restarted. A `true` value causes an Administration Server to communicate with all known Managed Servers and inform them that the Administration Server is running. A false value prevents an Administration Server from communicating with any Managed Servers that are currently active in the domain. **Caution:** Specify `false` for this option only in the development environment of a single server. Specifying `false` can cause server instances in the domain to have an inconsistent set of deployed modules. In WebLogic Server 9.0, this command is deprecated because if an Administration Server stops running while the Managed Servers in the domain continue to run, each Managed Server will periodically attempt to reconnect to the Administration Server at the interval specified by the `ServerMBean` attribute `AdminReconnectIntervalSecs`. For more information, see Managed Servers and Re-started Administration Server in *Managing Server Startup and Shutdown*.

The Administration Console does not display values that you set on the command line. For information on verifying the attribute values that you set, see "Verifying Attribute Values That Are Set on the Command Line" on page 3-29.

SSL

Each Weblogic Server instance uses an instance of `weblogic.management.configuration.SSLMBean` to represent its SSL configuration. All of the options in the following table that start with `-Dweblogic.security.SSL` modify the configuration of the server's `SSLMBean`. For example, the `-Dweblogic.security.SSL.ignoreHostnameVerification` option sets the value of the `SSLMBean`'s `ignoreHostnameVerification` attribute.

The following table describes the options for configuring a server to communicate using Secure Sockets Layer (SSL).

Table 3-4 Options for Configuring SSL

Option	Description
`-Dweblogic.security.SSL.ignoreHostnameVerification=true`	Disables host name verification, which enables you to use the demonstration digital certificates that are shipped with WebLogic Server. By default, when a WebLogic Server instance is in the role of SSL client (it is trying to connect to some other server or application via SSL), it verifies that the host name that the SSL server returns in its digital certificate matches the host name of the URL used to connect to the SSL server. If the host names do not match, the connection is dropped. If you disable host name verification, either by using this option or by modifying the server's configuration in the `config.xml` file, the server instance does not verify host names when it is in the role of SSL client. **Note:** Oracle does not recommend using the demonstration digital certificates or turning off host name verification in a production environment. This startup option overrides any Host Name Verification setting in the `config.xml` file. The override applies to the current server instantiation; it does not modify the value in the `config.xml` file. Use the Administration Console or WLST to modify the `config.xml` file. For more information, see Using Hostname Verification in *Securing WebLogic Server*.
`-Dweblogic.security.SSL.HostnameVerifier=`*`hostnameverifierimplmentation`*	Specifies the name of a custom Host Name Verifier class. The class must implement the `weblogic.security.SSL.HostnameVerifier` interface.

Table 3-4 Options for Configuring SSL

Option	Description
`-Dweblogic.security.SSL.nojce=true`	Specifies server uses a FIPS-compliant (FIPS 140-2) crypto module for SSL. **Note:** To start a server instance so that it uses a FIPS-compliant (FIPS 140-2) crypto module in its SSL implementation, you must also ensure that `jsafeFIPS.jar` is added to the `PRE_CLASSPATH` variable in the server start script (for example, `startWebLogic.cmd/sh`).
`-Dweblogic.security.SSL.sessionCache.ttl=`*`sessionCacheTimeToLive`*	Modifies the default server-session time-to-live for SSL session caching. The *`sessionCacheTimeToLive`* value specifies (in milliseconds) the time to live for the SSL session. The default value is 90000 milliseconds (90 seconds). This means if a client accesses the server again (via the same session ID) within 90 seconds, WebLogic Server will use the existing SSL session. You can change this value by setting -Dweblogic.security.SSL.sessionCache.ttl in the server startup script. For `sessionCache.ttl`: • The minimum value is `1` • The maximum value is `Integer.MAX_VALUE` • The default value is `90000`

Table 3-4 Options for Configuring SSL

Option	Description
`-Dweblogic.management.pkpassword=`*`pkpassword`*	Specifies the password for retrieving SSL private keys from an encrypted flat file. Use this option if you store private keys in an encrypted flat file.
`-Dweblogic.security.SSL.trustedCAKeyStore=`*`path`*	**Deprecated**. If you configure a server instance to use the SSL features that were available before WebLogic Server 8.1, you can use this argument to specify the certificate authorities that the server or client trusts. The *`path`* value must be a relative or qualified name to the Sun JKS keystore file (contains a repository of keys and certificates). If a server instance is using the SSL features that were available before 8.1, and if you do not specify this argument, the WebLogic Server or client trusts all of the certificates that are specified in *`JAVA_HOME`*`\jre\lib\security`. Oracle recommends that you do not use the demonstration certificate authorities in any type of production deployment. For more information, see Configuring SSL in the *Securing Weblogic Server*.

The Administration Console does not display values that you set on the command line. For information on verifying the attribute values that you set, see "Verifying Attribute Values That Are Set on the Command Line" on page 3-29.

Setting Additional SSL Attributes

To set additional SSL attributes from the startup command, do the following:

1. To determine which SSL attributes can be configured from startup options, view the WebLogic Server Javadoc for the `SSLMBean` and `ServerMBean`. The Javadoc also indicates valid values for each attribute.

   Each attribute that `SSLMBean` and `ServerMBean` expose as a setter method can be set by a startup option.

2. To set attributes in the `SSLMBean`, add the following option to the start command:
   `-Dweblogic.ssl.`*`attribute-name=value`*

   where *`attribute-name`* is the name of the MBean's setter method without the `set` prefix.

3. To set attributes in the `ServerMBean`, add the following option to the start command:
   `-Dweblogic.server.`*`attribute-name=value`*

   where *`attribute-name`* is the name of the MBean's setter method without the `set` prefix.

For example, the `SSLMBean` exposes its `Enabled` attribute with the following setter method:

```
setEnabled()
```

To enable SSL for a server instance named MedRecServer, use the following command when you start MedRecServer:

```
java -Dweblogic.Name=MedRecServer
     -Dweblogic.ssl.Enabled=true weblogic.Server
```

The Administration Console does not display values that you set on the command line. For information on verifying the attribute values that you set, see "Verifying Attribute Values That Are Set on the Command Line" on page 3-29.

Security

The following table describes the options for configuring general security parameters.

Table 3-5 Options for General Security Parameters

Option	Description
`-Dweblogic.management.username=`*`username`*	Specifies the username under which the server instance will run. The username must belong to a role that has permission to start a server. For information on roles and permissions, see Users, Groups, an Security Roles in *Securing WebLogic Resources*. This option prevents a server instance from using any boot identity file and overrides other startup options that cause a server to use boot identity files. For more information, see Boot Identity Files in *Managing Server Startup and Shutdown*.
`-Dweblogic.management.password=`*`password`*	Specifies the user password. This option prevents a server instance from using any boot identity file and overrides other startup options that cause a server to use boot identity files. For more information, see Boot Identity Files in *Managing Server Startup and Shutdown*. **Note:** If you supply the password, but no username, you will be prompted for both the username and the password.

Table 3-5 Options for General Security Parameters

Option	Description
`-Dweblogic.system.StoreBootIdentity=true`	Creates a `boot.properties` file in the server's root directory. The file contains the username and an encrypted version of the password that was used to start the server. Do not specify this argument in a server's `ServerStartMBean`. For more information, see Specifying User Credentials When Starting a Server with the Node Manager in *Managing Server Startup and Shutdown*. Oracle recommends that you do not add this argument to a startup script. Instead, use it only when you want to create a `boot.properties` file. For more information, see Boot Identity Files in *Managing Server Startup and Shutdown*.
`-Dweblogic.system.BootIdentityFile=`*`filename`*	Specifies a boot identity file that contains a username and password. The *`filename`* value must be the fully qualified pathname of a valid boot identity file. For example: `-Dweblogic.system.BootIdentityFile=`*`WL_HOME`*`\mydomain\servers\myserver\security\boot.properties` If you do not specify a filename, a server instance or the `weblogic.Admin SHUTDOWN` and `FORCESHUTDOWN` commands use the `boot.properties` file in the server's root directory. If there is no boot identity file: • When starting a server, the server instance prompts you to enter a username and password. • When using the `weblogic.Admin SHUTDOWN` and `FORCESHUTDOWN` commands, you must use the `-username` and `-password` arguments to provide user credentials. **Note:** The weblogic.Admin utility is deprecated in WebLogic Server 9.0. Oracle recommends that you use the WebLogic Scripting Tool (WLST) for equivalent functionality such as `SHUTDOWN` and `FORCESHUTDOWN`. For more information on using these commands, see "Life Cycle Commands" in the *WLST Command and Variable Reference*.

Table 3-5 Options for General Security Parameters

Option	Description
`-Dweblogic.system.RemoveBootIdentity=true`	Removes the boot identity file after a server starts.
`-Dweblogic.security.anonymousUserName=`*`name`*	Assigns a user ID to anonymous users. By default, all anonymous users are identified with the string `<anonymous>`. To emulate the security behavior of WebLogic Server 6.x, specify `guest` for the *`name`* value and create a user named `guest` in your security realm. For more information, see "Users, Groups, an Security Roles" in *Securing WebLogic Resources*.
`-Djava.security.manager` `-Djava.security.policy[=]=`*`filename`*	Standard Java EE options that enable the Java security manager and specify a filename (using a relative or fully-qualified pathname) that contains Java 2 security policies. To use the WebLogic Server sample policy file, specify *`WL_HOME`*`\server\lib\weblogic.policy`. Using `-Djava.security.policy==`*`filename`* (note the double equal sign (==)) causes the policy file to override any default security policy. This causes WebLogic Server to ignore any policy files that are used for servlet and EJB authorization when JACC is enabled. A single equal sign (=) causes the policy file to be appended to an existing security policy. For more information, see "Using the Java Security Manager to Protect WebLogic Resources" in the *Programming WebLogic Security* guide.
`-Dweblogic.security.fullyDelegateAuthorization=true`	By default, roles and security policies cannot be set for an EJB or Web application through the Administration Console unless security constraints were defined in the deployment descriptor for the EJB or Web application. Use this option when starting WebLogic Server to override this problem. This startup option does not work with EJBs or EJB methods that use `<unchecked>` or `<restricted>` tags or Web applications that do not have a role-name specified in the `<auth-constraint>` tag.

Table 3-5 Options for General Security Parameters

Option	Description
`-Dweblogic.management.anonymousAdminLookupEnabled=true`	Enables you to retrieve an `MBeanHome` interface without specifying user credentials. The `MBeanHome` interface is part of the WebLogic Server JMX API. If you retrieve `MBeanHome` without specifying user credentials, the interface gives you read-only access to the value of any MBean attribute that is not explicitly marked as protected by the Weblogic Server MBean authorization process. This startup option overrides the Anonymous Admin Lookup Enabled setting on the *`domain_name`*→Security→General page in the Administration Console. By default, the `MBeanHome` API allows access to MBeans only for WebLogic users who are in one of the default security roles. For more information, see Users, Groups, an Security Roles in *Securing WebLogic Resources*.
`-Dweblogic.security.identityAssertionTTL=`*`seconds`*	Configures the number of seconds that the Identity Assertion cache stores a Subject. When using an Identity Assertion provider (either for an X.509 certificate or some other type of token), Subjects are cached within the server. This greatly enhances performance for servlets and EJB methods with `<run-as>` tags as well as for other places where identity assertion is used but not cached (for example, signing and encrypting XML documents). There might be some cases where this caching violates the desired semantics. By default, Subjects remain in the cache for 300 seconds, which is also the maximum allowed value. Setting the value to `-1` disables the cache. Setting a high value generally improves the performance of identity assertion, but makes the Identity Assertion provider less responsive to changes in the configured Authentication provider. For example, a change in the user's group will not be reflected until the Subject is flushed from the cache and recreated.

Table 3-5 Options for General Security Parameters

Option	Description

`-Djava.security.manager`
`-Djava.security.policy=<insert the location of your policy file here>`
`-Djavax.security.jacc.PolicyConfigurationFactory.provider=weblogic.security.jacc.simpleprovider.PolicyConfigurationFactoryImpl`
`-Djavax.security.jacc.policy.provider=weblogic.security.jacc.simpleprovider.SimpleJACCPolicy`
`-Dweblogic.security.jacc.RoleMapperFactory.provider=weblogic.security.jacc.simpleprovider.RoleMapperFactoryImpl`
	Defining these five system properties is required to enable the use of the JACC provider in the security realm. When these providers are in use, the JACC handles authorization decisions for the EJB and Servlet containers for external applications. Any other authorization decisions for internal applications are handled by the authorization in the WebLogic Security framework. JACC authorization requires the use of J2SE security and therefore requires that WebLogic Server be booted with a Java EE security manager and a policy file (specified by the server startup properties, `java.security.manager` and `java.security.policy`). For more information, see "Using the Java Security Manager to Protect WebLogic Resources" in *Programming WebLogic Security*.
	The WebLogic JACC implementation expects that the policy object is the default `sun.security.provider.PolicyFile` class.
	When starting, WebLogic Server attempts to locate and instantiate the classes specified by the JACC startup properties and fails if it cannot find or instantiate them (if, for example, the files specified by the startup properties are not valid classes).

`-Dweblogic.security.ldap.maxSize=<max bytes>`	Limits the size of the data file used by the embedded LDAP server. When the data file exceeds the specified size, WebLogic Server eliminates from the data file space occupied by deleted entries.
`-Dweblogic.security.ldap.changeLogThreshold=<number of entries>`	Limits the size of the change log file used by the embedded LDAP server. When the change log file exceeds the specified number of entries, WebLogic Server truncates the change log by removing all entries that have been sent to all managed servers.

The Administration Console does not display values that you set on the command line. For information on verifying the attribute values that you set, see "Verifying Attribute Values That Are Set on the Command Line" on page 3-29.

Message Output and Logging

The following table describes options for configuring a server instance's message output.

Table 3-6 Options for Configuring Message Output

Option	Description
`-Dweblogic.Stdout="filename"`	Redirects the server and JVM's standard output stream to a file. You can specify a pathname that is fully qualified or relative to the WebLogic Server root directory. For more information, see Redirect JVM output in the *Administration Console Online Help*.
`-Dweblogic.Stderr="filename"`	Redirects the server and JVM's standard error stream to a file. You can specify a pathname that is fully qualified or relative to the WebLogic Server root directory. For more information, see Redirecting JVM output in *Configuring Log Files and Filtering Log Messages*.
`-Dweblogic.AdministrationMBeanAuditingEnabled={true | false}`	Determines whether the Administration Server emits configuration auditing log messages when a user changes the configuration or invokes management operations on any resource within a domain. By default, the Administration Server does not emit configuration auditing messages. See "Enable configuration auditing" in the *Administration Console Online Help*.

The Administration Console does not display values that you set on the command line. For information on verifying the attribute values that you set, see "Verifying Attribute Values That Are Set on the Command Line" on page 3-29.

Setting Logging Attributes

Each Weblogic Server instance uses an instance of `weblogic.management.configuration.LogMBean` to represent the configuration of its logging services.

To set values for `LogMBean` attributes from the startup command, do the following:

1. To determine which log attributes can be configured from startup options, view the WebLogic Server Javadoc for the `LogMBean`. The Javadoc also indicates valid values for each attribute.

   Each attribute that the `LogMBean` exposes as a setter method can be set by a startup option.

2. Add the following option to the start command:
   `-Dweblogic.log.`*`attribute-name`*`=`*`value`*

   where *`attribute-name`* is the name of the MBean's setter method without the `set` prefix.

The `LogMBean` exposes its `FileName` attribute with the following setter method:

```
setFileName()
```

To specify the name of the MedRecServer instance's local log file, use the following command when you start MedRecServer:

```
java -Dweblogic.Name=MedRecServer
     -Dweblogic.log.FileName="C:\logfiles\myServer.log"
     weblogic.Server
```

The Administration Console does not display values that you set on the command line. For information on verifying the attribute values that you set, see "Verifying Attribute Values That Are Set on the Command Line" on page 3-29.

Other Server Configuration Options

The following table describes options for configuring additional attributes of a server instance.

Table 3-7 Options for Configuring Server Attributes

Option	Description
`-DserverType=wlx`	Starts the server without starting EJB, JCA, and JMS services.
`-Dweblogic.Name=`*`servername`*	Specifies the name of the server instance that you want to start. The specified value must refer to the name of a server that has been defined in the domain's `config.xml` file.

Table 3-7 Options for Configuring Server Attributes

Option	Description
`-Dweblogic.ProductionModeEnabled=` `{true | false}`	This attribute is **deprecated** in WebLogic Server 9.0. Determines whether a server starts in production mode. A `true` value prevents a WebLogic Server from automatically deploying and updating applications that are in the *`domain_name`*`/autodeploy` directory. If you do not specify this option, the assumed value is `false`. To enable production mode, you can use WLST to set `DomainMBean.isProductionModeEnabled` to `true`, or use the Administration Console. See Change to production mode in the *Administration Console Online Help*. **Note:** It is recommended that you enable production mode via the Administration Console or in config.xml. You should only enable production mode from the command line on the Administration Server. **Note:** It is important to note that when ProductionModeEnabled is set from the command line on the Administration Server, this value is propogated to all managed servers.
`-Dweblogic.management.startupMode=`*`STARTUPMODE`*	• `STANDBY` starts a server and places it in the `STANDBY` state. See `STANDBY` state in *Managing Server Startup and Shutdown*. To use this startup argument, the domain must be configured to use the domain-wide administration port. For information about administration ports, see "Administration Port and Administrative Channel" in *Configuring WebLogic Server Environments* and Configure the domain-wide administration port in the *Administration Console Online Help*. • `ADMIN` starts a server and places it in the `ADMIN` state. See `ADMIN` state in *Managing Server Startup and Shutdown*. Specifying the startup mode startup option overrides any startup mode setting in the `config.xml` file. The override applies to the current server instantiation; it does not modify the value in the `config.xml` file. Use the Administration Console or WLST to modify the `config.xml` file. If you do not specify this value (either on the command line or in `config.xml`), the default is to start in the `RUNNING` state.

Table 3-7 Options for Configuring Server Attributes

Option	Description
`-Dweblogic.apache.xerces.maxentityrefs=`*`numerical-value`*	Limits the number of entities in an XML document that the WebLogic XML parser resolves. If you do not specify this option, the XML parser that WebLogic Server installs resolves 10,000 entity references in an XML document, regardless of how many an XML document contains.
`-Dweblogic.jsp.windows.caseSensitive=true`	Causes the JSP compiler on Windows systems to preserve case when it creates output files names. See "Using the WebLogic JSP Compiler" in *Developing Web Applications, Servlets, and JSPs for WebLogic Server*.
`-Dweblogic.servlet.optimisticSerialization=true`	When `optimistic-serialization` is turned on, WebLogic Server does not serialize-deserialize context and request attributes upon `getAttribute(name)` when the request is dispatched across servlet contexts. This means that you must make sure that the attributes common to Web applications are scoped to a common parent classloader (application scoped) or you must place them in the system classpath if the two Web applications do not belong to the same application. When `optimistic-serialization` is turned off (default value), WebLogic Server serialize-deserializes context and request attributes upon `getAttribute(name)` to avoid the possibility of ClassCastExceptions. The optimistic-serialization value can also be specified at domain level in the `WebAppContainerMBean`, which applies for all Web applications. The value in weblogic.xml, if specified, overrides the domain level value. The default value is false.

The Administration Console does not display values that you set on the command line. For information on verifying the attribute values that you set, see "Verifying Attribute Values That Are Set on the Command Line" on page 3-29.

Clusters

The following table describes options for configuring additional attributes of a cluster.

Table 3-8 Options for Configuring Cluster Attributes

Option	Description
`-Dweblogic.cluster.multicastAddress`	Determines the Multicast Address that clustered servers use to send and receive cluster-related communications. By default, a clustered server refers to the Multicast Address that is defined in the `config.xml` file. Use this option to override the value in `config.xml`. **Note:** The Administration Console does not display values that you set on the command line. For information on verifying the attribute values that you set, see "Verifying Attribute Values That Are Set on the Command Line" on page 3-29. Regardless of how you set the Multicast Address, all servers in a cluster must communicate at the same Multicast Address.

Deployment

The following table describes options for configuring additional attributes for deployment.

Table 3-9 Options for Configuring Cluster Attributes

Option	Description
`-Dweblogic.deployment.IgnorePrepareStateFailures=true`	Overrides the default deployment behavior by allowing a server to transition to Running even with static deployment Prepare failures. **Note:** This server level flag may cause inconsistent deployment behavior within clusters, such as issues with HttpSessionReplication or SFSB replication.

Using the weblogic.Server Command Line to Start a Server Instance

A simple way to start a server instance is as follows:

1. In a command shell, set up the required environment variables by running the following script:
   WL_HOME`\server\bin\setWLSEnv.cmd` (on Windows)
   WL_HOME`/server/bin/setWLSEnv.sh` (on UNIX)

   where *WL_HOME* is the directory in which you installed the WebLogic Server software.

2. In the command shell, change to the root of the domain directory, usually *BEA_HOME*`\user_projects\domains\`*DOMAIN_NAME*. For example, change to the *WL_HOME*`\samples\domains\medrec` directory.

3. To start an Administration Server, enter the following command:
   ```
   java weblogic.Server
   ```

   Note: The password you use must be a string of at least 8 case-sensitive characters. The space character is not supported. For more information, see "Configure an Administrator Username and Password" in *Creating WebLogic Domains Using the Configuration Wizard*.

4. If the domain's Administration Server is already running, and if you have already defined a Managed Server in the `config.xml` file, you can start a Managed Server as follows:
   ```
   java -Dweblogic.Name=managed-server-name
   -Dweblogic.management.server=url-for-Administration-Server
   weblogic.Server
   ```

   For example, if you create a Managed Server named MedRecManagedServer in the MedRec domain, you can enter the following command:
   ```
   java -Dweblogic.Name=MedRecManagedServer
   -Dweblogic.management.server=localhost:7011
   weblogic.Server
   ```

Using the weblogic.Server Command Line to Create a Domain

You can use `weblogic.Server` to create a domain that contains a single server instance. You cannot use `weblogic.Server` to add Managed Server instances to a domain, nor can you use `weblogic.Server` to modify an existing domain.

As described in "Default Behavior" on page 3-3, if `weblogic.Server` is unable to find a `config.xml` file, it offers to create the file. Any command option that you specify and that corresponds to an attribute that is persisted in the `config.xml` file will be persisted. For example, the `-Dweblogic.Name` and `-Dweblogic.Domain` options specify the name of a server configuration and the name of a domain. If `weblogic.Server` is unable to find a `config.xml`

file, both of these values are persisted in `config.xml`. However, the `-Dweblogic.system.BootIdentityFile` option, which specifies a file that contains user credentials for starting a server instance, is not an attribute that the `config.xml` file persists.

To create and instantiate a simple example domain and server, do the following:

1. In a command shell, set up the required environment variables by running the following script:
   WL_HOME`\server\bin\setWLSEnv.cmd` (on Windows)
   WL_HOME`/server/bin/setWLSEnv.sh` (on UNIX)

   where *WL_HOME* is the directory in which you installed the WebLogic Server software.
2. In the command shell, create an empty directory.
3. In the empty directory, enter the following command:

```
java -Dweblogic.Domain=SimpleDomain -Dweblogic.Name=SimpleServer
-Dweblogic.management.username=weblogic
-Dweblogic.management.password=weblogic -Dweblogic.ListenPort=7001
weblogic.Server
```

After you enter this command, WebLogic Server asks if you want to create a new `config.xml` file. If you enter `y`, it then instantiates a domain named SimpleDomain. The domain's Administration Server is configured as follows:

- The name of the Administration Server is SimpleServer.
- The domain's security realm defines one administrative user, `weblogic`, with a password of `weblogic`.
- For the listen address of the Administration Server, you can use `localhost`, the IP address of the host computer, or the DNS name of the host computer. For more information about setting the listen address, see Configure the listen addresses in the *Administration Console Online Help*.
- The Administration Server listens on port 7001.

Entering the `weblogic.Server` command as described in this section creates the following files:

- `config.xml`
- `DefaultAuthenticatorInit.ldift`, `DefaultRoleMapperInit.ldift`, and `SerializedSystemIni.dat`, which store basic security-related data.
- `boot.properties` file, which contains the username and password in an encrypted format. This file enables you to bypass the prompt for username and password when you

start the server. For more information, see Boot Identity Files in *Managing Server Startup and Shutdown*.

- `startWebLogic.cmd` and `startWebLogic.sh`, that you can use to start subsequent instantiations of the server.

Note: Invoking `weblogic.Server` in an empty directory results in implicit domain creation which uses the same configuration process as WLST offline and the Configuration Wizard and thus ensures that you always see uniform domains. As a result, implicitly creating a domain in an empty directory using `weblogic.Server` may take around 15 seconds.

Verifying Attribute Values That Are Set on the Command Line

The Administration Console does not display values that you set on the command line because the startup options set attribute values for the server's local configuration MBean. To see the values that are in a server's local configuration MBean, use WLST as follows:

1. Follow "Main Steps for Using WLST" which includes "Setting Up Your Environment" and "Invoking WLST" in *WebLogic Scripting Tool*.

   ```
   >java weblogic.WLST
   ```

2. Start a WebLogic Server instance (see Starting and Stopping Servers) and connect WLST to the server using the `connect` command. For detailed information about the `connect` command, see "connect" in the *WLST Command and Variable Reference*.

   ```
   wls:/(offline)> connect('username','password','t3s://localhost:7002')
   Connecting to weblogic server instance running at t3s://localhost:7002
   as username weblogic ...

   wls:/mydomain/serverConfig>
   ```

3. For example, to determine the multicast address that a cluster member is using, connect WLST to that server instance and enter the following commands:

   ```
   wls:/mydomain/serverConfig> cd('Clusters/cluster_name')
   wls:/mydomain/serverConfig/Clusters/mycluster>
   cmo.getMulticastAddress()

   '239.192.0.0'
   ```

4. To determine the severity level of messages that the server instance prints to standard out, connect WLST to that server instance and enter the following commands:

```
wls:/mydomain/serverConfig> cd('Servers/server_name/Log/server_name')
wls:/mydomain/serverConfig/Servers/myserver/Log/myserver>cmo.getStdoutS
everity()

'Notice'
```

For more information on using WLST, see *WebLogic Scripting Tool*. For more information about configuration MBeans, see Understanding WebLogic Server MBeans in *Developing Custom Management Utilities with JMX*.

CHAPTER 4

WebLogic SNMP Agent Command-Line Reference (Deprecated)

Note: The command-line utility that this document describes is deprecated in WebLogic Server 10.0. Instead, use the command-line utility that is described in WebLogic SNMP Command-Line Utility in *WebLogic SNMP Management Guide*.

WebLogic Server can use Simple Network Management Protocol (SNMP) to communicate with enterprise-wide management systems. The WebLogic Server subsystem that gathers WebLogic management data (managed objects), converts it to SNMP communication modules (trap notifications), and forwards the trap notifications to third-party SNMP management systems is called the WebLogic SNMP agent. The WebLogic SNMP agent runs on the Administration Server and collects managed objects from all Managed Servers within a domain.

The WebLogic SNMP agent provides a command-line interface that lets you:

- Retrieve WebLogic Server managed objects.
- Generate and receive WebLogic Server traps for testing purposes.

The following sections describe working with the WebLogic SNMP agent through its command-line interface:

For more information about using SNMP with WebLogic Server, see:

- WebLogic SNMP Management Guide
- WebLogic Server SNMP MIB Reference

Required Environment for the SNMP Command-Line Interface

To set up your environment for the WebLogic SNMP agent command-line interface:

1. Install and configure the WebLogic Server software, as described in the *Installation Guide*.
2. If you want to retrieve WebLogic Server managed objects, enable the WebLogic SNMP agent as described in Use SNMP to Monitor WebLogic Server in the *Administration Console Online Help*.
3. Open a command prompt (shell) and invoke the following script:

   `WL_HOME\server\bin\setWLSEnv.sh` (or `setWLSEnv.cmd` on Windows)

   where `WL_HOME` is the directory in which you installed WebLogic Server.

   The script adds a supported JDK to the shell's `PATH` environment variable and adds WebLogic Server classes to the `CLASSPATH` variable.

Syntax and Common Arguments for the SNMP Command-Line Interface

All WebLogic SNMP agent commands take the following form:

`java` *`command-name arguments`*

Table 4-1 describes arguments that are common to most WebLogic SNMP agent commands.

Table 4-1 Common Command Line Arguments

Argument	Definition
`-d`	Includes debugging information and packet dumps in the command output.
`-v {v1 | v2}`	Specifies whether to use SNMPv1 or SNMPv2 to communicate with the SNMP agent. You must specify the same SNMP version that you set in the Trap Version field when you configured the SNMP agent (as described in Create SNMP agents in the *Administration Console Online Help*). If you do not specify a value, the command assumes `-v v1`.
`-c snmpCommunity [@server_name | @domain_name`	The community name that you set for the WebLogic SNMP agent **and** optionally specifies the server instance that hosts the objects with which you want to interact. To request a managed object on the Administration Server, specify: *`snmpCommunity`* where *`snmpCommunity`* is the SNMP community name that you set in the Community Prefix field when you configured the SNMP agent (as described in Create SNMP agents in the *Administration Console Online Help*). To request a managed object on a single Managed Server, specify: *`snmpCommunity@server_name`* where *`server_name`* is the name of the Managed Server. To request a managed object for all server instances in a domain, specify a community string with the following form: *`snmpCommunity@domain_name`* where *`domain_name`* is the name of the WebLogic Server domain. If you do not specify a value for this argument, the command assumes `-c public`, which uses the default community name, and assumes that the specified managed object is on the Administration Server.
`-p snmpPort`	The port number on which the WebLogic SNMP agent listens for requests. If you do not specify a value, the command assumes `-p 161`.
`-t timeout`	The number of milliseconds the command waits to successfully connect to the SNMP agent. If you do not specify a value, the command assumes `-t 5000`.

Table 4-1 Common Command Line Arguments

Argument	Definition
`-r retries`	The number of times the command retries unsuccessful attempts to connect to the SNMP agent. If you do not specify a value, the command exits on the first unsuccessful attempt.
host	The DNS name or IP address of the computer that hosts the WebLogic Server Administration Server, which is where the WebLogic SNMP agent runs.

Commands for Retrieving WebLogic Server Managed Objects

Table 4-2 is an overview of commands that retrieve WebLogic Server managed objects and object instances.

Table 4-2 Overview of Commands for Retrieving Data from WebLogic Server Managed Objects

Command	Description
`snmpwalk`	Returns all managed objects and instances that are below a specified node in the MIB. See "snmpwalk" on page 4-4.
`snmpgetnext`	Returns the managed object or instance that immediately follows an OID that you specify. See "snmpgetnext" on page 4-6.
`snmpget`	Returns managed object instances that correspond to one or more OIDs. See "snmpget" on page 4-8.

snmpwalk

Returns all managed objects or instances that are below a specified node in the MIB.

If you specify the OID for a tabular object, the command returns all of its object instances along with all related (child) objects and instances.

Syntax

```
java snmpwalk [-d] [-v (v1,v2)] [-c snmpCommunity] [-p snmpPort]
              [-t timeout] [-r retries] host OID
```

Table 4-3 snmpwalk Arguments

Argument	Definition
OID	The object ID of the node from which you want to retrieve a set of child objects and instances. Start the value with '.'; otherwise, references are assumed to be relative to the standard MIB (`.1.3.6.1.2.1`), not the WebLogic Server MIB.

Example

The following example retrieves the names of all applications that have been deployed on the Administration Server. The managed object for an application name is `applicationRuntimeName`, which is a child of the `applicationRuntimeTable` object. (See WebLogic Server SNMP MIB Reference.)

```
java snmpwalk localhost .1.3.6.1.4.1.140.625.105.1.15
```

If you invoke this command from a computer that is running the example MedRecServer, the command returns output similar to the following truncated output. Note that the output includes the full OID for each instance of the `applicationRuntimeName` object.

```
Object ID:
.1.3.6.1.4.1.140.625.105.1.15.32.49.102.98.97.100.97.102.99.57.48.50.
102.48.98.53.54.100.100.49.54.50.54.99.54.99.49.97.97.98.53.100.97
STRING: MedRecServer_uddiexplorer

Object ID:
.1.3.6.1.4.1.140.625.105.1.15.32.54.98.49.101.57.56.54.98.98.50.57.10
0.54.55.48.100.56.98.101.101.97.55.48.53.57.99.49.51.56.98.97.99
STRING: MedRecServer_StartupEAR

Object ID:
.1.3.6.1.4.1.140.625.105.1.15.32.56.48.97.53.50.52.99.101.53.54.57.54
.52.52.99.54.48.55.54.100.102.49.54.97.98.52.48.53.98.100.100.49
STRING: MedRecServer_wl_management_internal2

...
```

The following example retrieves the name of all applications that have been deployed on all servers in the `medrec` domain.

```
java snmpwalk -c public@medrec localhost .1.3.6.1.4.1.140.625.105.1.15
```

The following example retrieves the name of all applications that have been deployed on a Managed Server named `MS1`.

```
java snmpwalk -c public@MS1 localhost .1.3.6.1.4.1.140.625.105.1.15
```

snmpgetnext

Returns a description of the managed object or object instance that immediately follows one or more OIDs that you specify. If you specify a tabular object, this command returns the first child managed object. If you specify a scalar object, this command returns the first instance of the object.

Instead of the recursive listing that the `snmpwalk` command provides, this command returns the description of only one managed object or instance whose OID is the next in sequence. You could string together a series of `snmpgetnext` commands to achieve the same result as the `snmpwalk` command.

Syntax

```
java snmpgetnext [-d] [-v (v1,v2)] [-c snmpCommunity] [-p snmpPort]
             [-t timeout] [-r retries] host OID [OID]...
```

Table 4-4 snmpgetnext Arguments

Argument	Definition
OID [*OID*]...	One or more object IDs. Use a space to delimit multiple OIDs. You can specify OIDs for objects or instances. Start the values with '.'; otherwise, references are assumed to be relative to the standard MIB (`.1.3.6.1.2.1`), not the WebLogic Server MIB.

Example

The following example retrieves the name of an application that has been deployed on the Administration Server. The managed object for an application name is `applicationRuntimeName`, which is a scalar object and is a child of the `applicationRuntimeTable` object. (See WebLogic Server SNMP MIB Reference.)

```
java snmpgetnext localhost .1.3.6.1.4.1.140.625.105.1.15
```

If you invoke this command from a computer that is running the example MedRecServer, the command returns output similar to the following:

```
Response PDU received from /127.0.0.1, community: public
Object ID:
.1.3.6.1.4.1.140.625.105.1.15.32.49.102.98.97.100.97.102.99.57.48.50.
102.48.98.53.54.100.100.49.54.50.54.99.54.99.49.97.97.98.53.100.97
STRING: MedRecServer_uddiexplorer
```

To determine whether there are additional applications deployed on the Administration Server, you can use the output of the `snmpgetnext` command as input for an additional `snmpgetnext` command:

```
java snmpgetnext localhost
.1.3.6.1.4.1.140.625.105.1.15.32.49.102.98.97.100.97.102.99.57.48.50.102.
48.98.53.54.100.100.49.54.50.54.99.54.99.49.97.97.98.53.100.97
```

The command returns output similar to the following:

```
Response PDU received from /127.0.0.1, community: public
Object ID:
.1.3.6.1.4.1.140.625.105.1.15.32.54.98.49.101.57.56.54.98.98.50.57.10
0.54.55.48.100.56.98.101.101.97.55.48.53.57.99.49.51.56.98.97.99
STRING: MedRecServer_StartupEAR
```

The following example specifies two OIDs to retrieve the name of an application that has been deployed on the Administration Server **and** the name of a JDBC connection pool. The OIDs in the example command are for the `applicationRuntimeName` object, which is the name of an application, and `jdbcConnectionPoolRuntimeName`, which is the name of a JDBC connection pool.

```
java snmpgetnext localhost .1.3.6.1.4.1.140.625.105.1.15
.1.3.6.1.4.1.140.625.190.1.15
```

If you invoke this command from a computer that is running the example MedRecServer, the command returns output similar to the following:

```
Response PDU received from /127.0.0.1, community: public
Object ID:
.1.3.6.1.4.1.140.625.105.1.15.32.49.102.98.97.100.97.102.99.57.48.50.
102.48.98.53.54.100.100.49.54.50.54.99.54.99.49.97.97.98.53.100.97
STRING: MedRecServer_uddiexplorer
```

```
Object ID:
.1.3.6.1.4.1.140.625.190.1.15.32.53.53.49.48.50.55.52.57.57.49.99.102
.55.48.98.53.50.54.100.48.100.53.53.52.56.49.57.49.49.99.99.99
STRING: MedRecPool-PointBase
```

snmpget

Retrieves the value of one or more object instances. This command does not accept OIDs for managed objects.

Syntax

```
java snmpget [-d] [-v (v1,v2)] [-c snmpCommunity] [-p snmpPort]
             [-t timeout] [-r retries] host object-instance-OID
             [object-instance-OID]...
```

Table 4-5 snmpget Arguments

Argument	Definition
object-instance-OID [*object-instance-OID*]...	The object ID of an object **instance**. This command does not accept OIDs for managed objects. Start the value with '.'; otherwise, references are assumed to be relative to the standard MIB, not the WebLogic Server MIB.

Example

The following example retrieves the `serverRuntimeState` and `serverRuntimeListenPort` managed object instances for the Administration Server. Both of these objects are children of the `serverRuntimeTable` object. (See WebLogic Server SNMP MIB Reference.)

```
java snmpget localhost
.1.3.6.1.4.1.140.625.360.1.60.32.102.100.48.98.101.102.100.99.102.52.98.
97.48.48.49.102.57.53.51.50.100.102.53.55.97.101.52.56.99.99.97.99
.1.3.6.1.4.1.140.625.360.1.35.32.102.100.48.98.101.102.100.99.102.52.
98.97.48.48.49.102.57.53.51.50.100.102.53.55.97.101.52.56.99.99.97.99
```

If you invoke this command from a computer that is running the example MedRecServer, the command returns output similar to the following:

```
Response PDU received from /127.0.0.1, community: public
Object ID:
.1.3.6.1.4.1.140.625.360.1.60.32.102.100.48.98.101.102.100.99.102.52.
98.97.48.48.49.102.57.53.51.50.100.102.53.55.97.101.52.56.99.99.97.99
STRING: RUNNING
Object ID:
.1.3.6.1.4.1.140.625.360.1.35.32.102.100.48.98.101.102.100.99.102.52.
98.97.48.48.49.102.57.53.51.50.100.102.53.55.97.101.52.56.99.99.97.99
INTEGER: 7001
```

Commands for Testing Traps

Table 4-6 is an overview of commands that generate and receive traps for testing purposes.

Table 4-6 Overview of Commands for Retrieving Information about WebLogic Server

Command	Description
`snmptrapd`	Starts a daemon that receives traps and prints information about the trap. See "snmptrapd" on page 4-9.
`snmpv1trap`	Constructs an SNMPv1 trap and distributes it to the SNMP manager or trap daemon that is running on the specified host and listening on the specified port number. See "snmpv1trap" on page 4-10.

snmptrapd

Starts a daemon that receives traps and prints information about the trap.

Syntax

```
java snmptrapd [-d] [-c snmpCommunity] [-p TrapDestinationPort]
```

Table 4-7 snmptrapd Arguments

Argument	Definition
`-c snmpCommunity`	The community name that the SNMP agent (or `snmpv1trap` command) used to generate the trap. If you do not specify a value, the command assumes `-c public`.
`-p TrapDestinationPort`	The port number on which the trap daemon receives traps. If you do not specify a value, the command assumes `-p 162`.

Example

The following command starts a trap daemon and instructs it to listen for requests on port 165. The daemon runs in the shell until you kill the process or exit the shell:

```
java snmptrapd -p 165
```

If the command succeeds, the trap daemon returns a blank line with a cursor. The trap daemon waits in this state until it receives a trap, at which point it prints the trap.

snmpv1trap

Constructs an SNMPv1 trap and distributes it to the SNMP manager or trap daemon that is running on the specified host and listening on the specified port number.

As part of invoking this command, you specify the value for fields within the trap packet that you want to send. **The values that you specify must resolve to traps that are defined in the WebLogic Server MIB**. For information about WebLogic Server traps and the fields that trap packets require, refer to OIDs for WebLogic Server Notifications in the *WebLogic SNMP Management Guide*.

Syntax

```
java snmpv1trap [-d] [-c snmpCommunity] [-p TrapDestinationPort]
          TrapDestinationHost .1.3.6.1.4.140.625
          agent-addr generic-trap specific-trap timestamp
          [OID {INTEGER | STRING | GAUGE | TIMETICKS | OPAQUE |
          IPADDRESS | COUNTER} value] ...
```

Table 4-8 snmpv1trap Arguments

Argument	Definition
`-c snmpCommunity`	A community name for the trap. SNMP managers (or the trap daemon) can access the trap only if they are configured to use this community name. If you do not specify a value, the command assumes `-c public`.
`-p TrapDestinationPort`	The port number on which the SNMP manager or trap daemon is listening. If you do not specify a value, the command assumes `-p 162`.
`TrapDestinationHost`	The DNS name or IP address of the computer that hosts the SNMP manager or trap daemon.
`.1.3.6.1.4.140.625`	The value of the trap's `enterprise` field, which contains the beginning portion of the OID for all WebLogic Server traps.
`agent-addr`	The value of the trap's `agent address` field. This field is intended to indicate the computer on which the trap was generated. When using the `snmpv1trap` command to generate a trap, you can specify any valid DNS name or IP address.
`generic-trap`	The value of the trap's `generic trap type` field. For a list of valid values, refer to OIDs for WebLogic Server Notifications in the *WebLogic SNMP Management Guide*.
`specific-trap`	The value of the trap's `specific trap type` field. For a list of valid values, refer to OIDs for WebLogic Server Notifications in the *WebLogic SNMP Management Guide.*

Table 4-8 snmpv1trap Arguments

Argument	Definition
timestamp	The value of the trap's `timestamp` field. This field is intended to indicate the length of time between the last re-initialization of the SNMP agent and the time at which the trap was issued. When using the `snmpv1trap` command to generate a trap, any number of seconds is sufficient.
`OID {INTEGER | STRING | GAUGE | TIMETICKS | OPAQUE | IPADDRESS | COUNTER}` *value*	(Optional) The value of the trap's `variable bindings` field, which consists of name–value pairs that further describe the trap notification. For each name–value pair, specify an OID, a value type, and a value. For example, a log message trap includes a `trapTime` binding to indicate the time at which the trap is generated. To include this variable binding in the test trap that you generate, specify the OID for the `trapTime` variable binding, the `STRING` keyword, and a string that represents the time: `.1.3.6.1.4.1.140.625.100.5 STRING "2:00 pm"`

Example

The following example generates a log message trap that contains the `trapTime` and `trapServerName` variable bindings. It broadcasts the trap through port 165. In the example:

- `6` is the generic trap value that specifies "other WebLogic Server traps."
- `60` is the specific trap value that WebLogic Server uses to identify log message traps.
- `.1.3.6.1.4.1.140.625.100.5` is the OID for the `trapTime` variable binding and `.1.3.6.1.4.1.140.625.100.10` is the OID for the `trapServerName` variable binding.

```
java snmpv1trap -p 165 localhost .1.3.6.1.4.140.625 localhost 6 60 1000
.1.3.6.1.4.1.140.625.100.5 STRING "2:00 pm" .1.3.6.1.4.1.140.625.100.10
STRING localhost
```

The SNMP manager (or trap daemon) that is listening at port number `165` receives the trap. If the trap daemon is listening on `165`, it returns the following:

```
Trap received from: /127.0.0.1, community: public
Enterprise: .1.3.6.1.4.140.625
Agent: /127.0.0.1
TRAP_TYPE: 6
SPECIFIC NUMBER: 60
```

```
Time: 1000
VARBINDS:
Object ID: .1.3.6.1.4.1.140.625.100.5
STRING: 2:00 pm
Object ID: .1.3.6.1.4.1.140.625.100.10
STRING: localhost
```

Example: Using snmpv1trap to Send Traps to the Trap Daemon

To use the `snmpv1trap` command to generate WebLogic Server traps and receive them through the trap daemon:

1. Open a command prompt (shell) and invoke the following script:

   `WL_HOME\server\bin\setWLSEnv.sh` (or `setWLSEnv.cmd` on Windows)
   where `WL_HOME` is the directory in which you installed WebLogic Server.

2. To start the trap daemon, enter the following command:

   ```
   java snmptrapd
   ```

3. Open another shell and invoke the following script:

   `WL_HOME\server\bin\setWLSEnv.sh` (or `setWLSEnv.cmd` on Windows)

4. To generate a trap, enter the following command:

   ```
   java snmpv1trap localhost .1.3.6.1.4.140.625 localhost 6 60 1000
   ```

The `snmpv1trap` command generates a `serverStart` trap and broadcasts it through port 162.

In the shell in which the trap daemon is running, the daemon prints the following:

```
Trap received from: /127.0.0.1, community: public
Enterprise: .1.3.6.1.4.140.625
Agent: /127.0.0.1
TRAP_TYPE: 6
SPECIFIC NUMBER: 60
Time: 1000
VARBINDS:
```

Example: Using the WebLogic SNMP Agent to Send Traps to the Trap Daemon

To use WebLogic SNMP agent to generate WebLogic Server traps and receive them through the trap daemon:

1. Start the Administration Server for a domain and enable the SNMP agent.

   See Create SNMP agents in the *Administration Console Online Help*.

2. Create a trap destination to represent the trap daemon. Configure the trap destination to use port `165`. Keep all other default settings that the Administration Console presents.

   See Create Trap Destinations in the *Administration Console Online Help*.

3. Open a command prompt (shell) and invoke the following script:

   `WL_HOME\server\bin\setWLSEnv.sh` (or `setWLSEnv.cmd` on Windows)
   where `WL_HOME` is the directory in which you installed WebLogic Server.

4. To start the trap daemon, enter the following command:

   ```
   java snmptrapd -p 165
   ```

5. Restart the Administration Server.

When the Administration Server starts, the SNMP agent generates a `serverStart` trap and broadcasts it through port 165.

In the shell in which the trap daemon is running, the daemon prints the following:

```
Trap received from: /127.0.0.1, community: public
Enterprise: .1.3.6.1.4.140.625
Agent: /127.0.0.1
TRAP_TYPE: 6
SPECIFIC NUMBER: 65
Time: 1000
VARBINDS:
```