

Configuring a WebLogic Server Environment

At the end of this module you will be able to:

- ✓ Configure domains, machines, and managed servers
- ✓ Start the WebLogic Server Administration Console
- ✓ Start managed servers at boot time
- ✓ Set Basic properties using the Administration Console
- ✓ Perform basic Administration from the Command Line
- ✓ Administer servers and managed servers

1. **Configuring Domains**

- How WebLogic Server Domain works
- Domain Directory Structure and Files
- Creating a Domain

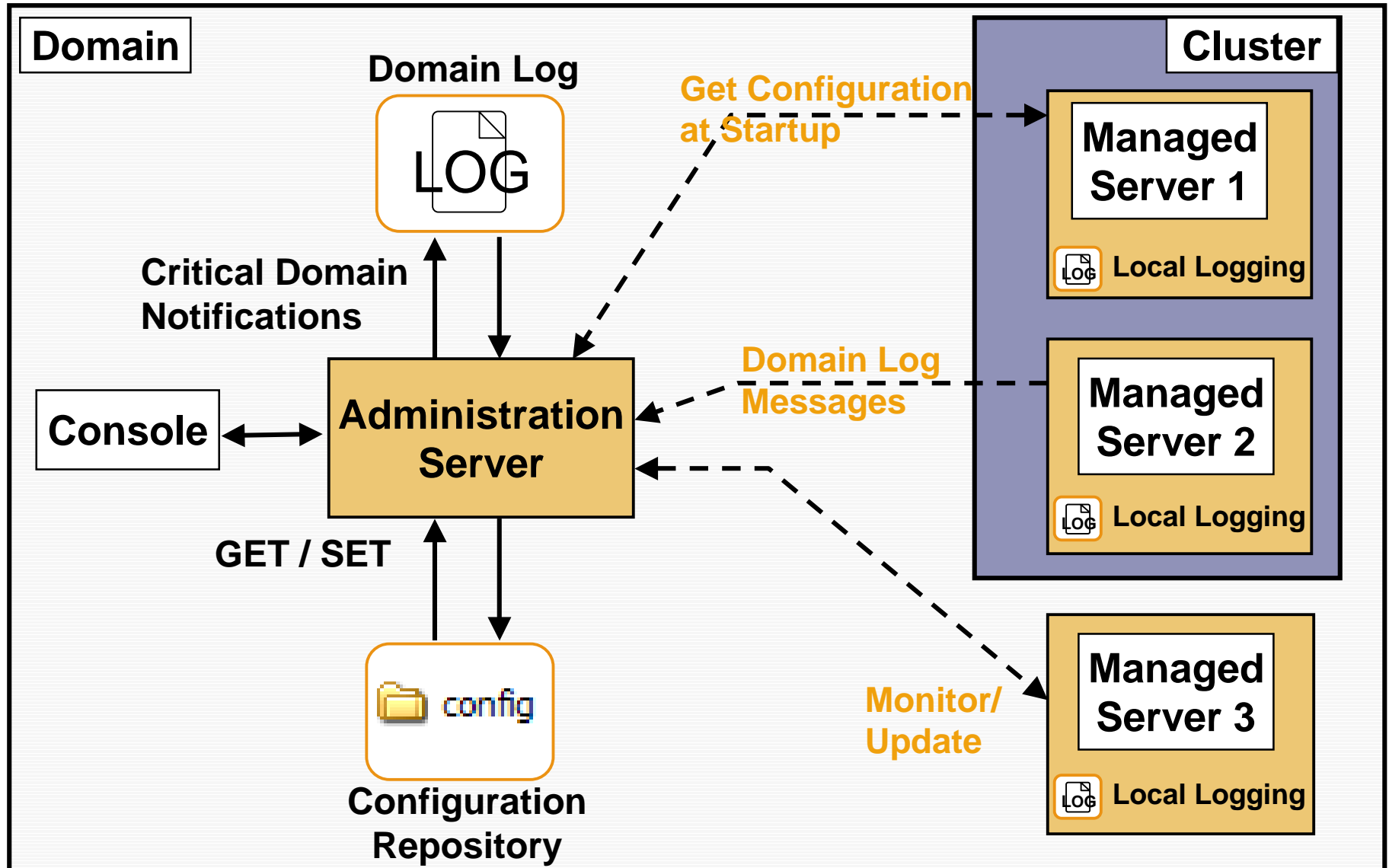
2. Configuring Servers

3. Domain Templates

4. Console Administration

5. Command Line Administration

Domain Overview



Configuring a Domain



- ▶ After installing, configure a WLS domain on which to develop and deploy applications.
- ▶ When you create a domain, you define a collection of *resources*, such as:
 - Managed servers
 - Clusters
 - Database connections
 - Security services
 - J2EE applications
- ▶ Use the Configuration Wizard to create and configure WLS domains.

Starting Configuration Wizard

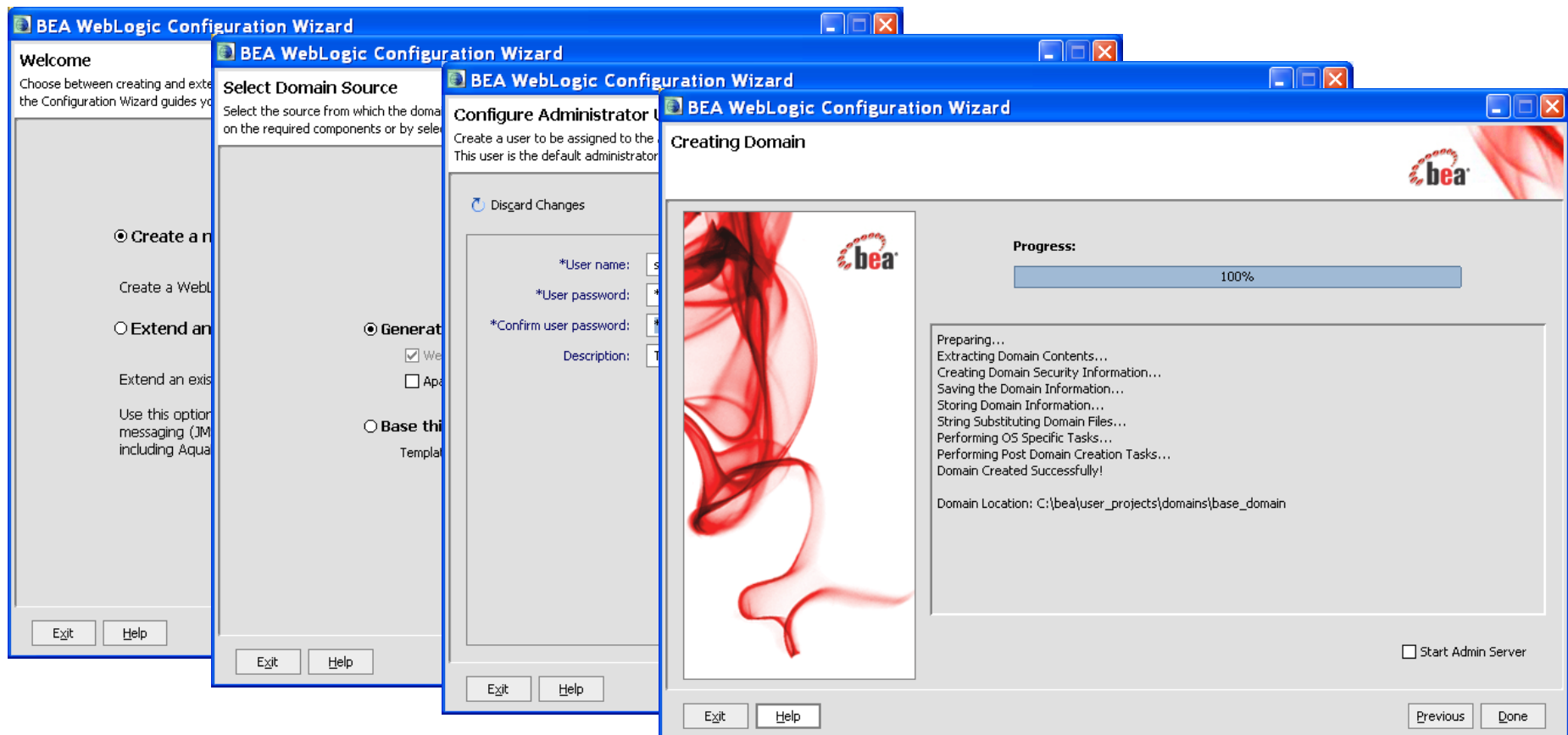


- ▶ Scripts in `<WEBLOGIC_HOME>/common/bin` directory
- ▶ Graphical mode
 - Windows Start menu
 - [Windows] `config.cmd`
 - [Unix/Linux] `config.sh`
- ▶ Console mode
 - [Windows] `config.cmd -mode=console`
 - [Unix/Linux] `config.sh -mode=console`
- ▶ Note: silent mode is deprecated in WebLogic Server 9.X












Configuration Wizard – Graphical Mode



- The graphical version of the domain configuration wizard walks the user through each step.



Domain Directory Structure

Directory	Column Head
 <i>domain-name</i>	The name of this directory is the name of the domain.
 autodeploy	In development mode, WLS automatically deploys any applications or modules that you place in this directory.
 bin	The scripts for starting and stopping the Administration Server and the Managed Servers in the domain.
 config	The current configuration and deployment state of the domain. config.xml.
 console-ext	Console extensions.
 init-info	Server initialization information.
 lib	JAR files added to the classpath of each server instance.
 pending	Domain configuration changes that have been requested, but not yet activated.
 security	Domain-wide security-related files.
 server	One subdirectory for each server in the domain.
 <i>server-name</i>	The server directory for the WLS instance with the same name.

Section Review



In this section we discussed:

- ✓ How a WebLogic Server domain works
- ✓ The domain directory structure
- ✓ Domain files
- ✓ How to create a domain



Road Map



1. Configuring Domains
2. **Configuring Servers**
 - Configuring Managed Servers
 - Starting Managed Servers
 - Running Multiple WLS Instances
3. Domain Templates
4. Console Administration
5. Command Line Administration

Configuring Managed Servers



Domain Structure

- wl_server
 - Environment
 - Servers** 1
 - Clusters
 - Virtual Hosts
 - Migratable Targets
 - Machines
 - Work Managers
 - Startup & Shutdown Classes
 - Deployments

[Customize this table](#)
Servers
2 Showing 1 - 1 of 1 Previous | Next

<input type="checkbox"/>	Name ^	Cluster	Machine	State	Health	Listen Port
<input type="checkbox"/>	examplesServer(admin)			RUNNING	OK	7001

 Showing 1 - 1 of 1 Previous | Next

3 {

Create a New Server

Server Properties

The following properties will be used to identify your new server.

* Indicates required fields

What would you like to name your new server?

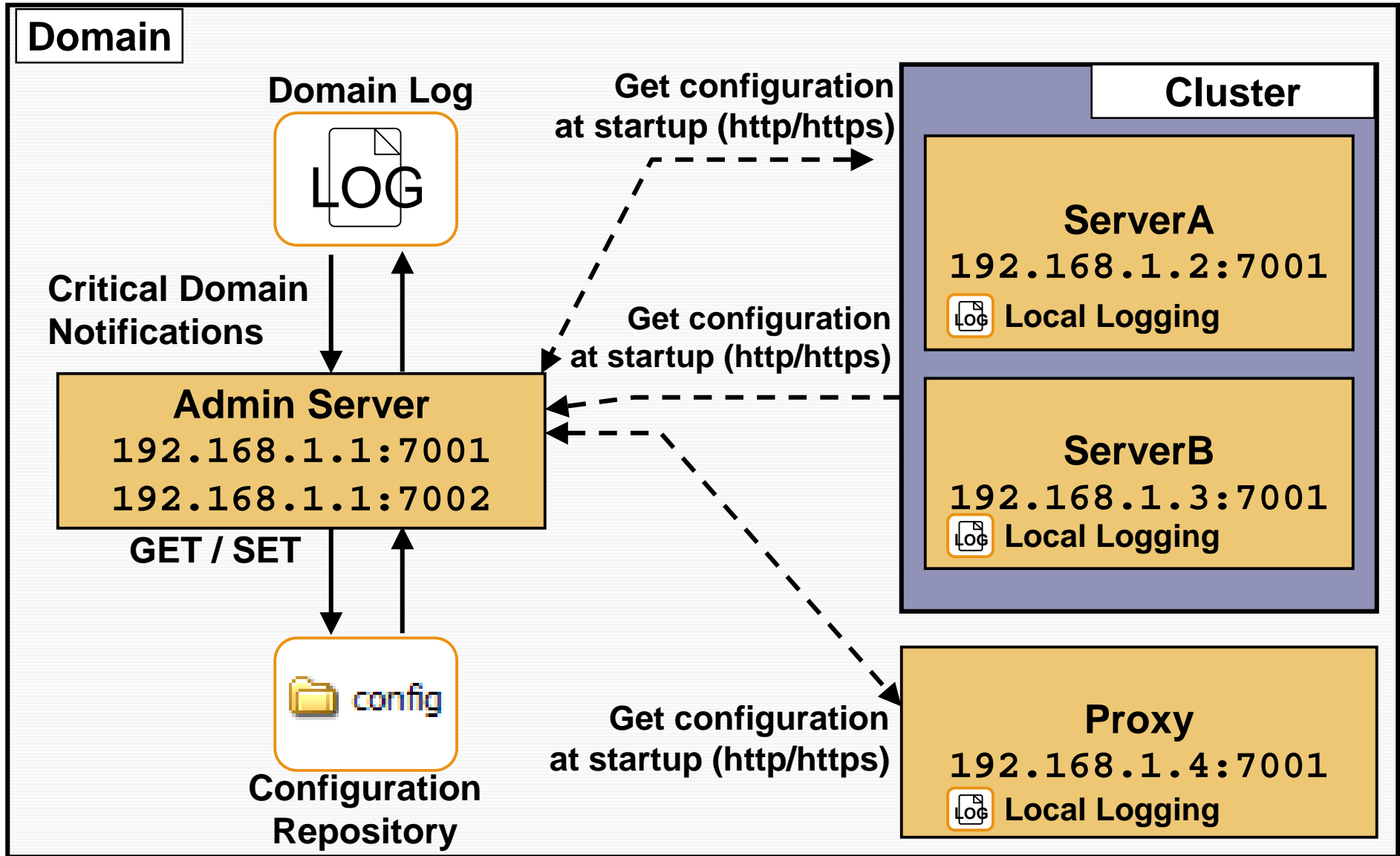
*Name:

What would you like to use for this server's listen address and port?

Listen Address:

Listen Port:

Starting Managed Servers



Starting Managed Servers



- ▶ To start a managed server you must:
 - Specify a server name
 - Specify an administration server URL from which to load configuration information

To start a managed server:

```
java -server -Xms256m -Xmx512m
1 -Dweblogic.Name=%SERVER_NAME% -Dplatform.home=C:\bea\weblogic91
  -Dweblogic.management.username=%WLS_USER%
2 -Dweblogic.management.password=%WLS_PW%
  -Dweblogic.management.server=%ADMIN_URL% ←
  -Dweblogic.ProductionModeEnabled=%STARTMODE%
  -Djava.security.policy=%WL_HOME%\server\lib\weblogic.policy
weblogic.Server
```

<startManagedWeblogic.cmd>



Creating a Boot Identity File








- ▶ Create a file called `boot.properties` located in the domain's root directory containing 2 lines:
 - `username=username`
 - `password=password`
- ▶ First time you start the server, the server reads the Boot Identity file and overwrites it with an encrypted version of the username and password.
- ▶ Thereafter, the server will remember your identity for the subsequent startup cycles.

Managed Server Independence...



- ▶ By default, managed servers can function independently of the administration server.
- ▶ Configure Managed Server Independence Mode from the Console:

▼ Advanced

 <input checked="" type="checkbox"/> Managed Server Independence Enabled	Specifies whether this Managed Server can be started when the Administration Server is unavailable. More Info...
 <input type="checkbox"/> MSI File Replication Enabled	Specifies whether the Administration Server replicates its configuration files to this Managed Server. More Info...
 Period Length:	<input type="text" value="60000"/> The time interval in milliseconds of the heartbeat period. A value of 0 indicates that heartbeats are turned off. More Info...
 Idle Periods Until Timeout:	<input type="text" value="4"/> The number of idle periods until peer is considered unreachable. More Info...
 DGC Idle Periods Until Timeout:	<input type="text" value="5"/> The number of idle periods allowed before object is collected. More Info...

...Managed Server Independence



- ▶ If the administration server is unavailable at boot time, managed servers search for:
 - `config.xml`
 - `SerializedSystemIni.dat`
 - `boot.properties(optional)`
- ▶ Each managed server looks in its local config directory for `config.xml` - a replica of the domain's `config.xml`

What If an Admin Server Is Down?



- ▶ The administration server:
 - Can go down without affecting the operation of managed servers
 - Can be restarted while managed servers are still running
- ▶ When an administration server goes down:
 - Domain log entries are lost while it is down
 - Managed servers can start in independent mode
 - The administration console and management tools are unavailable

Administration Server Backup



- ▶ WLS allows the creation of a backup of the server as follows:
 - Install (if necessary) WLS on backup machine
 - Copy application files to backup machine
 - Copy configuration files to backup machine
 - Restart Administration server on new machine
- ▶ The new Administration server will contact managed servers and inform them that it is running on a new IP address.

Running Multiple WLS Instances

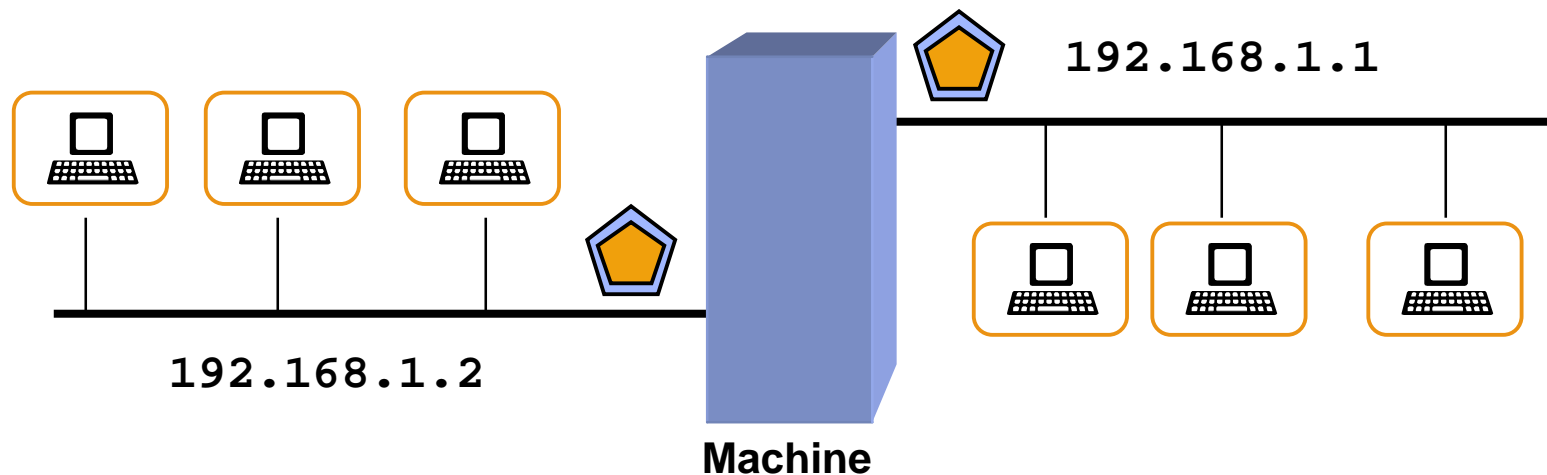


- ▶ You can run multiple instances of WLS using different configurations on the same physical machine at the same time by:
 - Assigning multiple IP address to a machine (multihoming) and defining each server to use a unique IP address
- ▶ or by:
 - Specifying the same IP address but using different listen ports

Multihoming



- ▶ A multihomed machine:
 - Is a machine with multiple IP addresses
 - Can run a different WLS instance bound to each IP address
 - Can be used to configure a cluster on a single machine



Section Review



In this section we discussed:

- ✓ How to define and start an administration server
- ✓ How to create and start a managed server
- ✓ Managed server independence
- ✓ Administration server backup



Road Map



1. Configuring Domains
2. Configuring Servers
3. **Domain Templates**
 - Creating customized domain templates
4. Console Administration
5. Command Line Administration

Custom Domain Templates



- ▶ A domain template defines the full set of resources within a domain.
- ▶ Although BEA provides templates for creating any platform domain, you may wish to create your own or customize an existing template.
- ▶ The Domain Template Builder lets you define templates:
 - Define a domain and replicate it across multiple projects
 - Distribute a domain packed with an application that has been developed to run in it

Creating a Domain Template



To create a domain template:

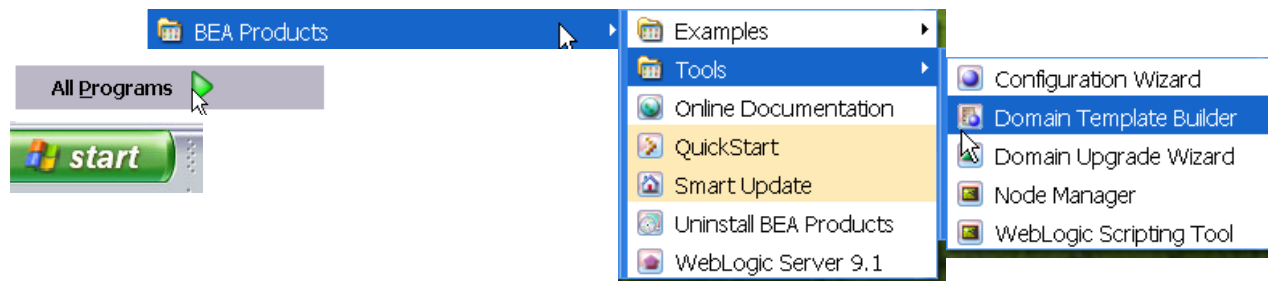
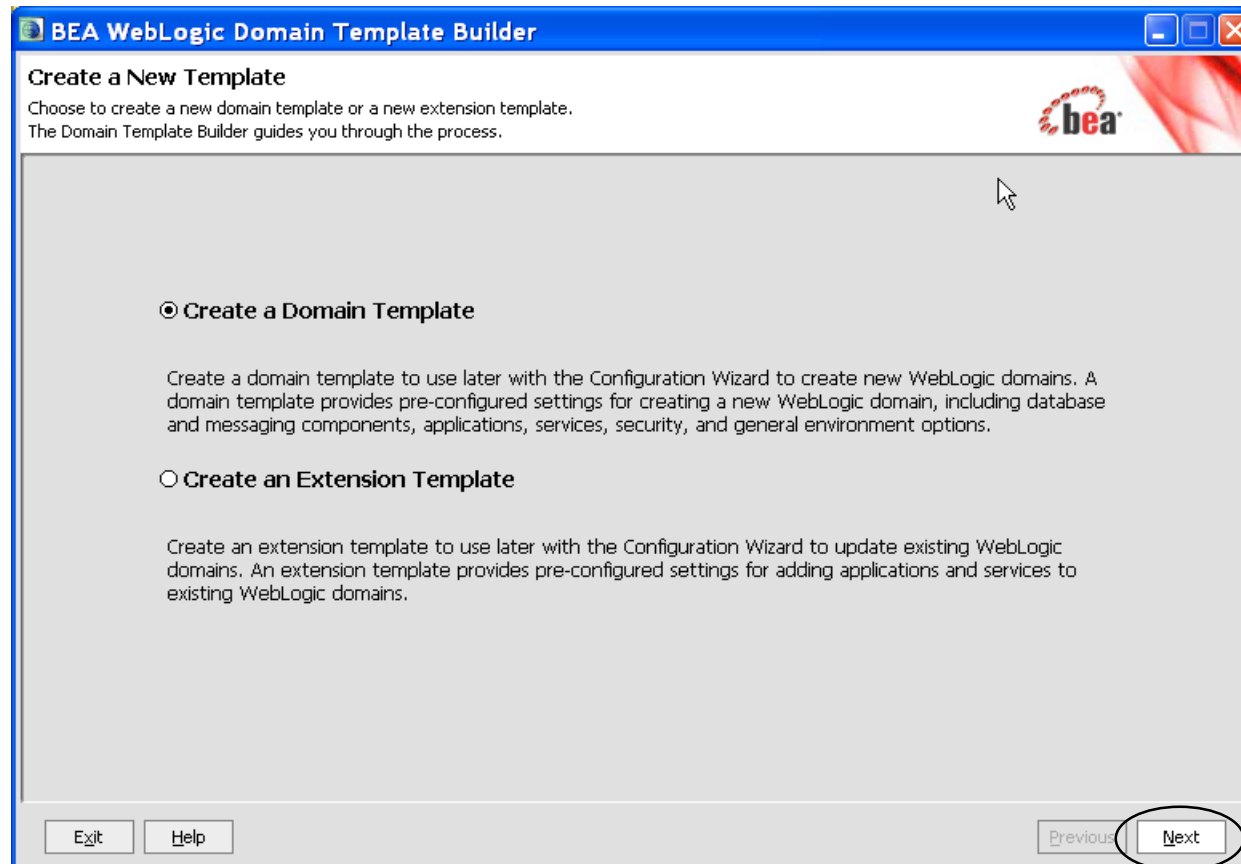
1. Create a new template using Domain Template Builder
2. Select Configuration Template Source
3. Describe the template.
4. Add files to the Template.
5. Add SQL Scripts to the Template
6. Configure the Administration Server, Username and Password.
7. Specify Start Menu entries.
8. Review Domain Template
9. Create Template

Starting Domain Template Builder

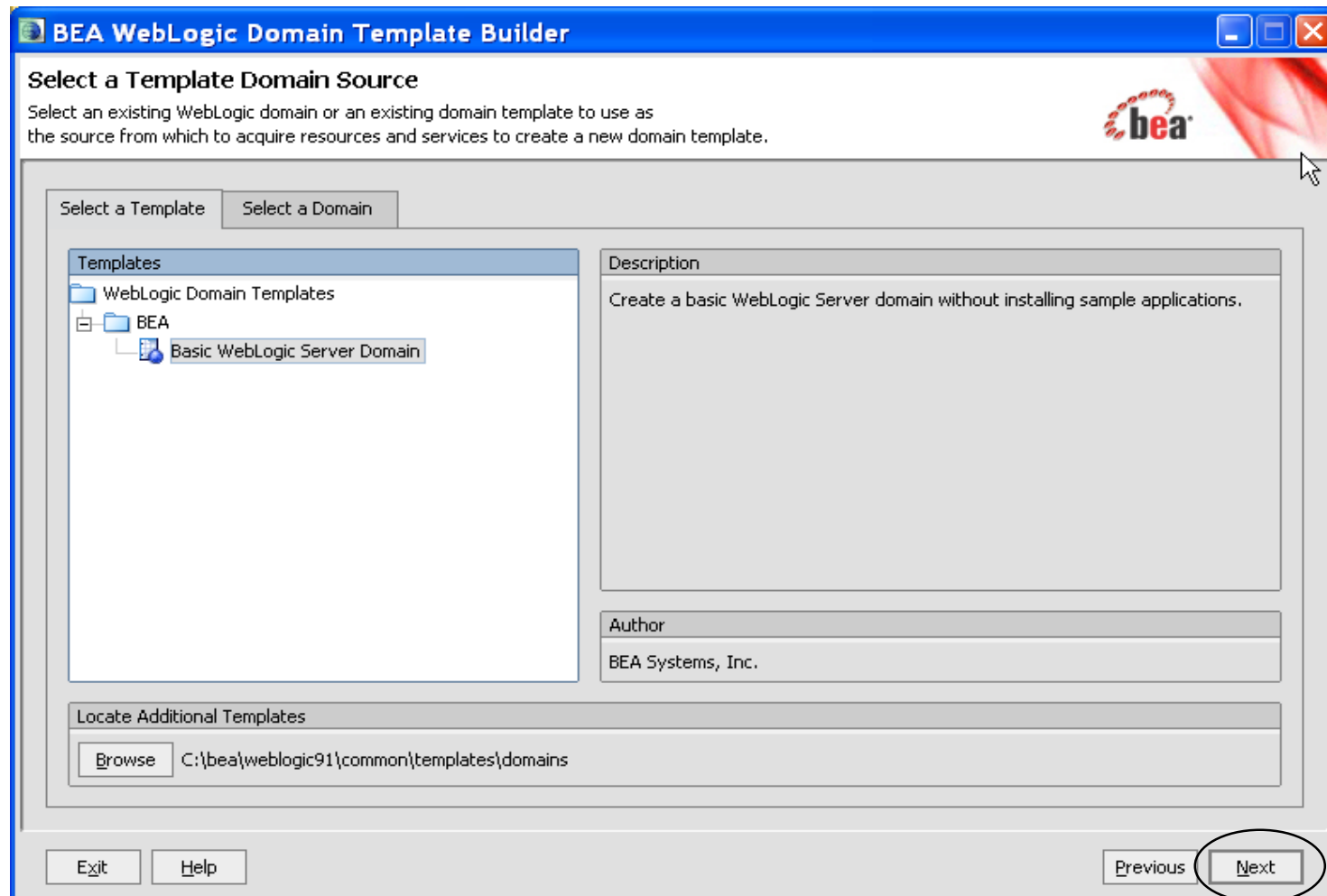


- ▶ Using the GUI mode in Windows environment or
- ▶ Using script `config_builder.cmd` or `sh config_builder.sh` under `\common\bin` directory

Create a New Template



Select Configuration Template Source




Describe the Template



BEA WebLogic Domain Template Builder

Describe the Template
Enter descriptive information about the template you are creating.



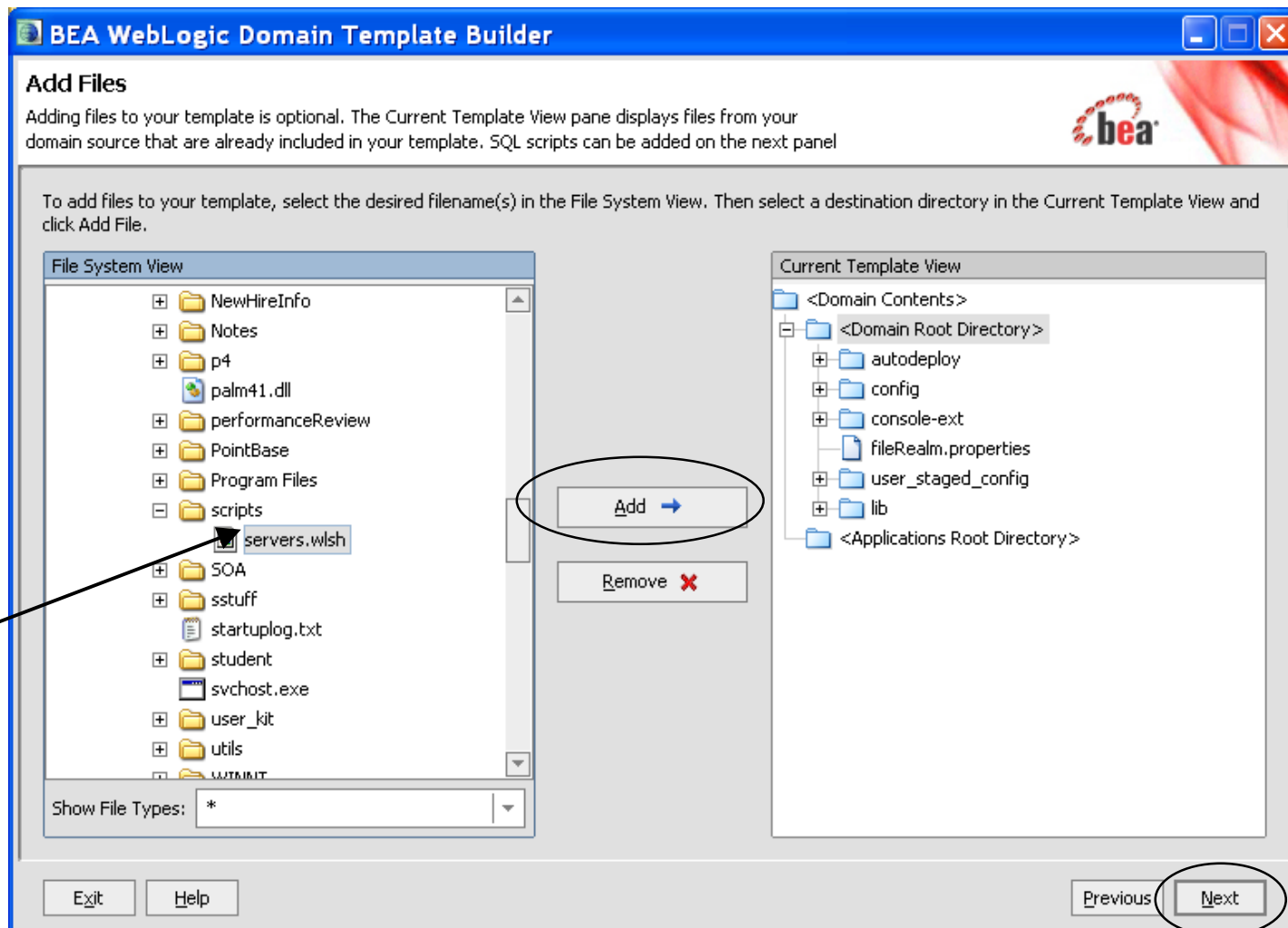
*Name:

Author:

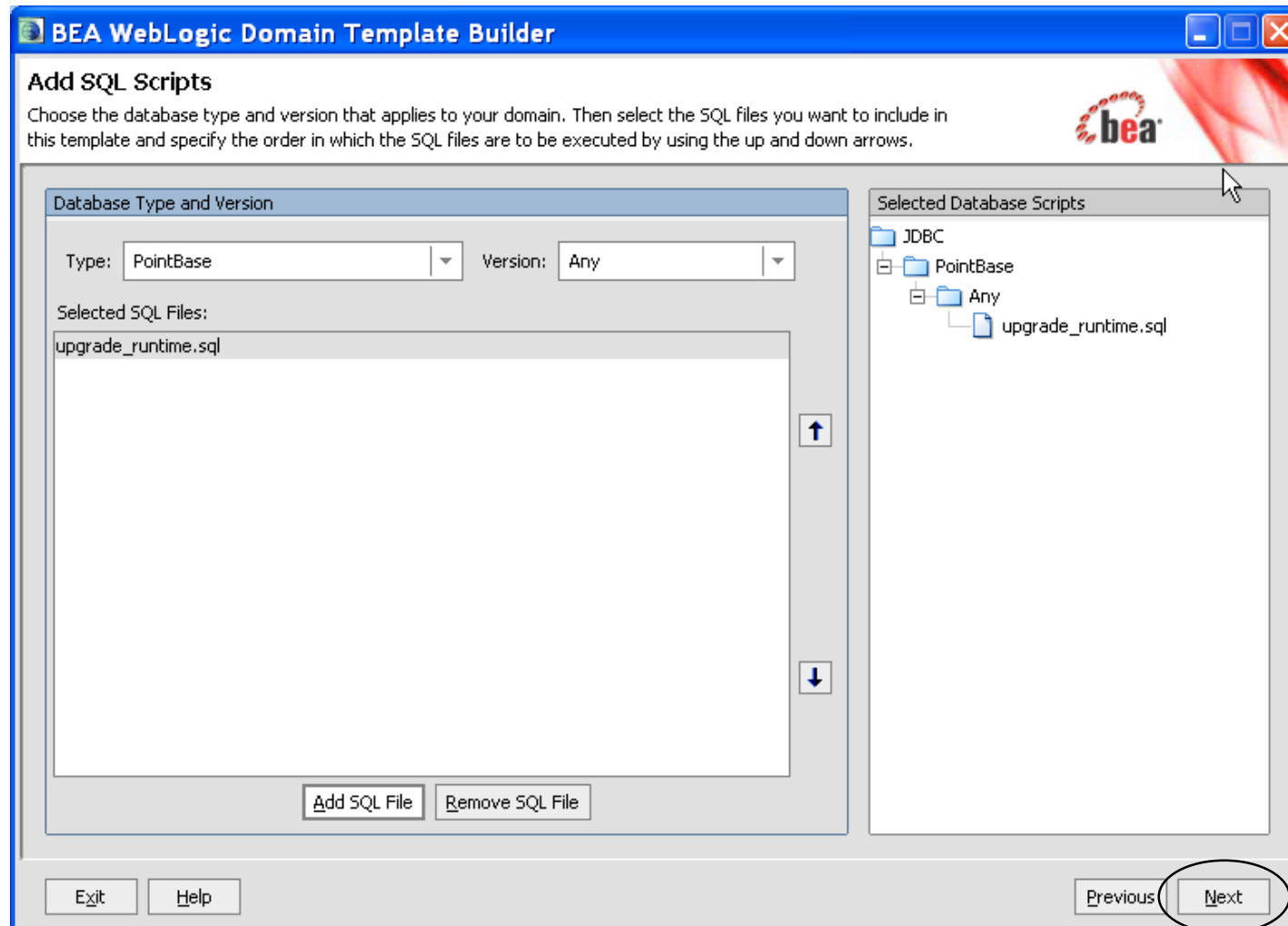
Category:

Description:

Add Files to the Template



Add SQL Files to the Template



Configure the Administration Server



BEA WebLogic Domain Template Builder

Configure the Administration Server

Enter administration server configurations. Each WebLogic Server domain must have one Administration Server. The Administration Server hosts the Administration Console which is used to perform administrative tasks.

Discard Changes

*Name:	<input type="text" value="AdminServer"/>
Listen address:	<input type="text" value="All Local Addresses"/>
Listen port:	<input type="text" value="7001"/>
SSL listen port:	<input type="text" value="N/A"/>
SSL enabled:	<input type="checkbox"/>

Configure Administrator Username and Password



BEA WebLogic Domain Template Builder

Configure Administrator Username and Password

Create a user to be assigned to the Administrator role.
This user is the default administrator used to start development mode servers.

Discard Changes

*User name:	<input type="text" value="system"/>
*User password:	<input type="password" value="*****"/>
*Confirm user password:	<input type="password" value="*****"/>
Description:	<input type="text" value="This user is the default administrator."/>

Configure additional users, groups, and global roles.

☒ No ☐ Yes

Specify Start Menu Entries



BEA WebLogic Domain Template Builder

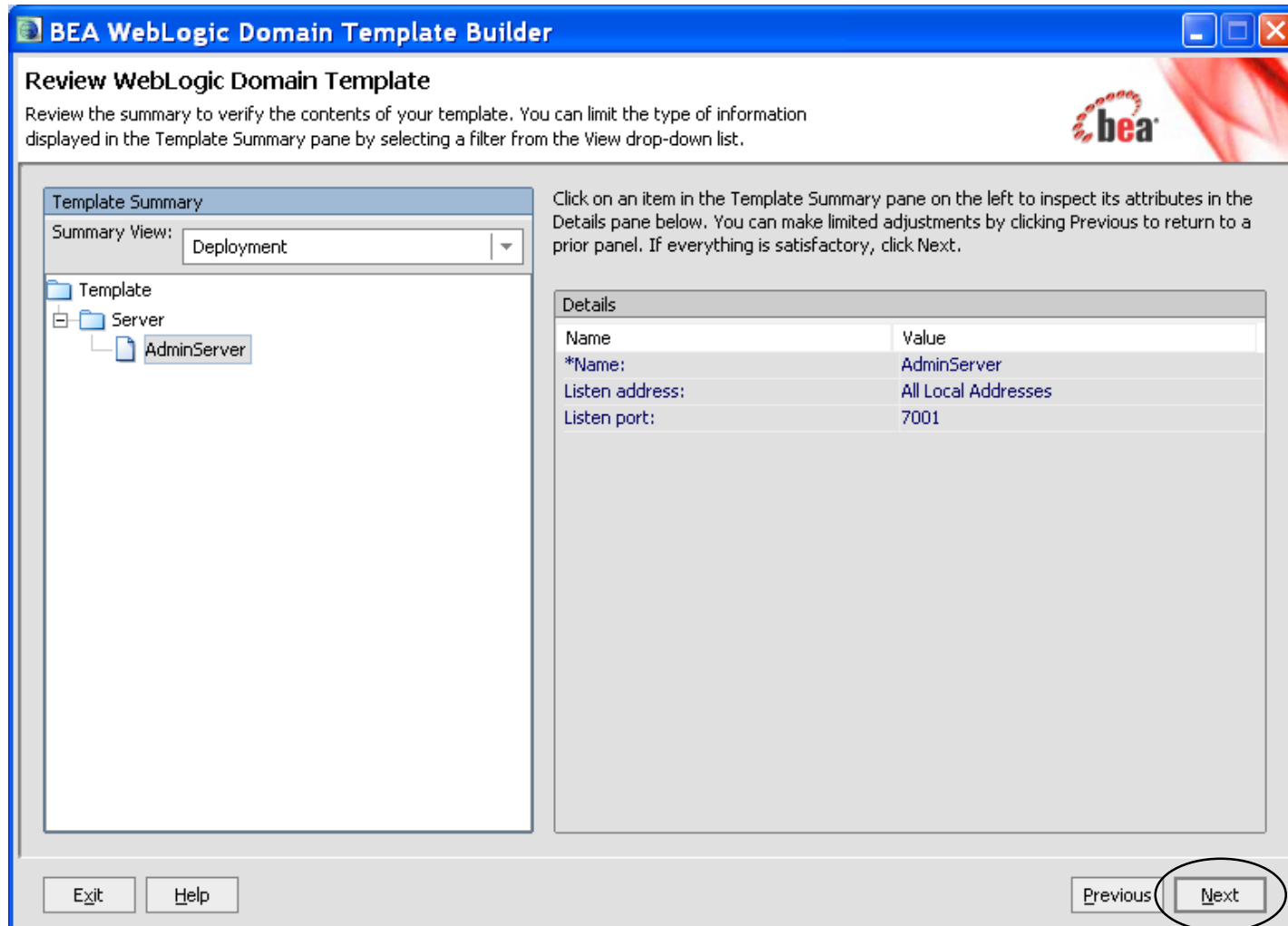
Specify Start Menu Entries

Add or delete Windows Start Menu entries.

Add Delete

Start Admin Server for Weblogic Server Domain	Admin Server Console	Stop Admin Server
<div>Start Admin Server for Weblogic Server Domain</div> <div>Shortcut link name: <input type="text" value="Start Admin Server for Weblogic Server Domain"/></div> <div>Program: <input type="text" value="\$DOMAIN_DIRECTORY\$\bin\startWebLogic.cmd"/></div> <div>Argument: <input type="text"/></div> <div>Working directory: <input type="text" value="\$DOMAIN_DIRECTORY\$"/></div> <div>Description: <input type="text"/></div>		

Review Domain Template



Create Template



BEA WebLogic Domain Template Builder

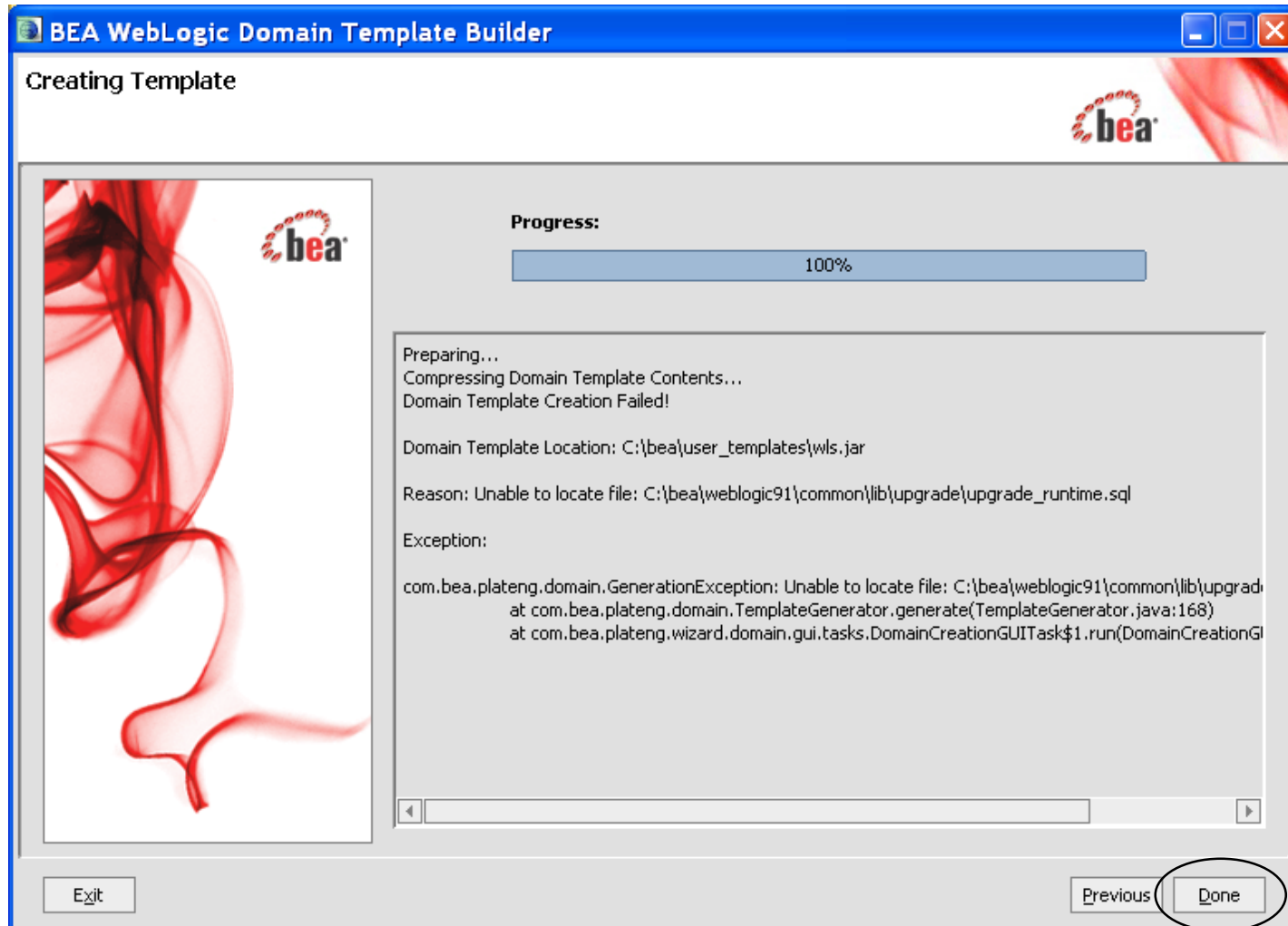
Create a Template
Specify the template name and location.

Enter the name and location for the domain template:

Template jar name:

Template location:

Domain Template Created



Section Review



In this section, we learned how to:

- ✓ Understand the benefits of using a custom domain template
- ✓ Create a custom domain template



Create a Domain Template

- ▶ For details on the exercise, refer to the Lab Guide.
- ▶ If questions arise, ask the instructor.
- ▶ The instructor will determine the stop time.



Road Map



1. Configuring Domains
2. Configuring Servers
3. Domain Templates
- 4. Console Administration**
 - WebLogic Server Administration Console
 - Setting Basic Properties Via Console
5. Command Line Administration

Administration Using the Console



- ▶ Using the Administration Console you can:
 - Configure attributes of resources
 - Deploy applications or components
 - Configure, collect and view diagnostic information
 - Start and shutdown servers, or perform other management actions

Starting the Console



- ▶ After starting the administration server, you can start the console in the browser of your choice:

Starting the Administration Console:

`http://hostname:port/console` ◀..... (unsecure)

`https://hostname:secureport/console` ◀..... (secure)

hostname := name or IP address of the administration server

port := port number the administration server is listening on

secureport := SSL port number the administration server is listening on

Example URLs:

`http://localhost:7001/console`

`http://adminDNSName:7001/console`

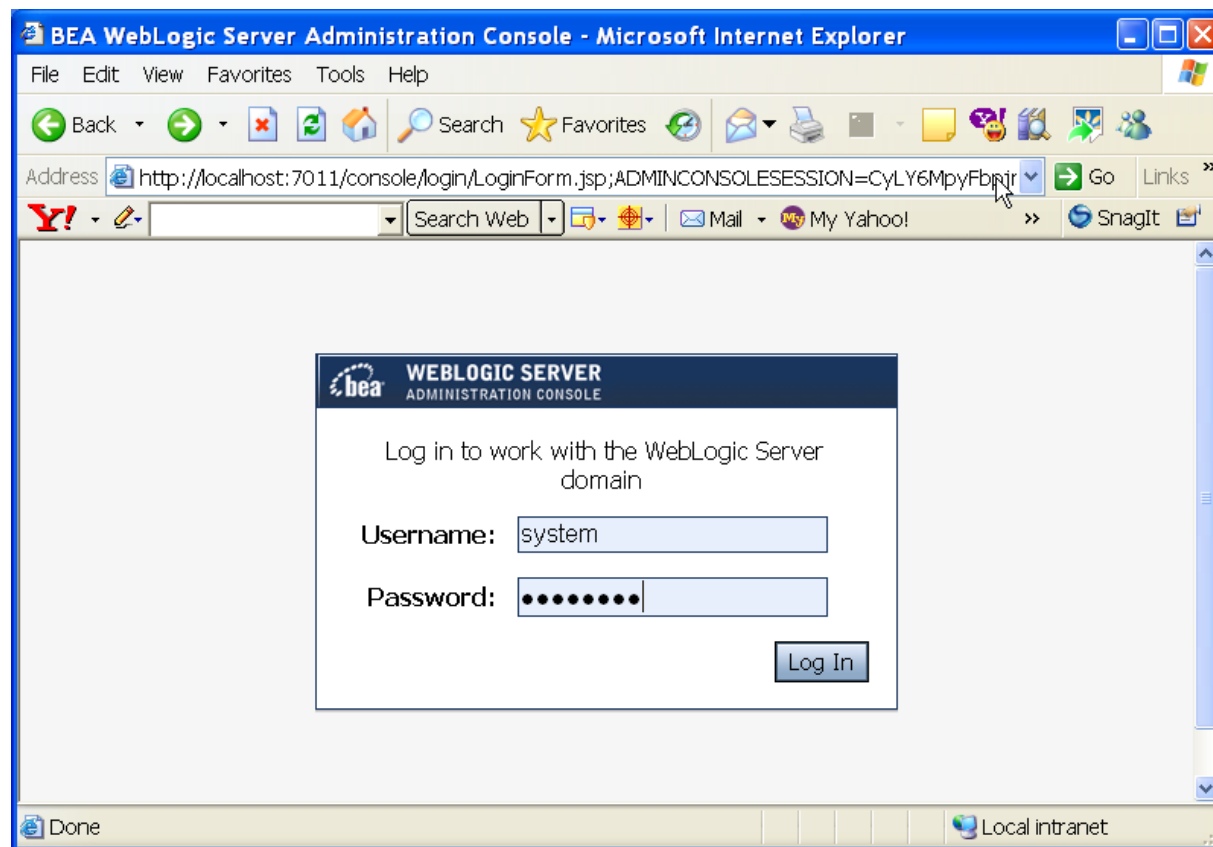
`https://127.0.0.1:7002/console`



Console Login



- ▶ Enter the user name and password that you set when creating your domain.



Using the Administration Console



BEA WebLogic Server Administration Console - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://localhost:7011/console/console.portal?_nfpb=true&_pageLabel=CoreServerServerTablePage

WEBLOGIC SERVER ADMINISTRATION CONSOLE

Change Center

View changes and restarts

Click the Lock & Edit button to modify, add or delete items in this domain.

Lock & Edit

Release Configuration

Domain Structure

humanresources

Environment

Servers

Clusters

Virtual Hosts

Migratable Targets

Machines

Work Managers

Startup & Shutdown Classes

Deployments

Services

Security Realms

Interoperability

Diagnostics

Welcome, system

Connected to: humanresources

Home Log Out Preferences Help AskBEA

Home > Summary of Servers

Summary of Servers

A server is an instance of WebLogic Server that runs in its own Java Virtual Machine (JVM) and has its own configuration.

This page summarizes each server that has been configured in the current WebLogic Server domain.

Customize this table

Servers

Click the **Lock & Edit** button in the Change Center to activate all the buttons on this page.

New Clone Delete

Showing 1 - 2 of 2 Previous Next

<input type="checkbox"/>	Name	Cluster	Machine	State	Health	Listen Port
<input type="checkbox"/>	adminserver(admin)			RUNNING	OK	7011
<input type="checkbox"/>	mainserver			Unknown	Unknown	7013

New Clone Delete

Showing 1 - 2 of 2 Previous Next

Local intranet

Using the Administration Console...



WEBLOGIC SERVER
ADMINISTRATION CONSOLE

1

Welcome, system Connected to: **humanresources** Home Log Out Preferences Help AskBEA

Change Center
View changes and restarts
Click the Lock & Edit button to modify, add or delete items in this domain.
Lock & Edit
Release Configuration

Domain Structure
humanresources
Environment
Deployments
Services
Security Realms
Interoperability
Diagnostics

How do I...
Use the Change Center
View pending changes

Settings for Placeholder

2

Preferences
Save

This page allows you to specify preferences about Console behavior that apply globally to all users in this domain.

<input checked="" type="checkbox"/> Show Inline Help	Determines whether inline help appears for forms. More Info...
File Browser Start: <input type="text"/>	Determines the directory the deployment file browser starts in. More Info...
<input type="checkbox"/> Remember Last Browsed Path	Causes the deployment file browser to remember the last path browsed to before selecting an application. More Info...
<input type="checkbox"/> Warn If User Holds Lock	Causes a warning message to be issued when the user logs out, reminding them that they are currently owner of the domain configuration lock. More Info...
<input type="checkbox"/> Perform Asynchronous Activation	Causes changes to be activated asynchronously when the user

Setting Basic Properties



► Changing Stdout severity threshold:

WEBLOGIC SERVER ADMINISTRATION CONSOLE

Change Center
View changes and restarts
No pending changes exist. Click the Release Configuration button to allow others to edit the domain.
Lock & Edit
Release Configuration

Domain Structure
humanresources
├ Environment
│ ├── Servers
│ ├── Clusters
│ ├── Virtual Hosts
│ ├── Migratable Targets
│ ├── Machines
│ ├── Work Managers
│ └ Startup & Shutdown Classes
├ Deployments
├ Services
├ Security Realms
└ Interoperability

Welcome, system Connected to: humanresources Home Log Out Preferences Help AskBEA

Home > humanresources > adminserver > Summary of Servers > mainserver

Settings for mainserver

Configuration Protocols Logging Debug Monitoring Control Deployments Services Security Notes

General HTTP

Save

Use this page to define the general logging settings for this server.

Log file name: logs/mainserver.log The name of the file that stores current log messages. Usually it is a computed value based on the name of the parent of this MBean. For example, for a server log, it is serverName.log. [More Info...](#)

Advanced

Logging implementation: JDK Specifies whether the server logging is based on a Log4j implementation. By default, WebLogic logging uses an implementation based on the Java Logging APIs which are part of the JDK. [More Info...](#)

Message destination(s)

Log file :

Severity level: Debug The minimum severity of log messages going to the server log file. By default all messages go to the log file. Only messages of severity DEBUG and INFO can be stopped from going to the log

Standard out :

Severity level: Notice The minimum severity of log messages going to the standard out. Messages with a lower severity than the specified value will not be published to standard out. [More Info...](#)

Shutting Down a Server



Change Center
[View changes and restarts](#)
No pending changes exist. Click the Release Configuration button to allow others to edit the domain.

Lock & Edit
Release Configuration

Domain Structure

1

- humanresources
 - Environment
 - Servers
 - Clusters
 - Virtual Hosts
 - Migratable Targets
 - Machines
 - Work Managers
 - Startup & Shutdown Classes
 - Deployments

Welcome, systemConnected to: **humanresources**

HomeLog OutPreferencesHelpAskBEA

Home > humanresources > adminserver > Summary of Servers > mainserver > Summary of Servers > **mainserver**

Settings for mainserver2

ConfigurationProtocolsLoggingDebugMonitoringControlDeploymentsServicesSecurityNotes

Start/StopRemote Start OutputMigration

Save

Use this page to change the state of the current server. You can also specify particular shutdown settings or view the current status of this server. (Some operations require the Node Manager and the domain-wide administration port.)

☐ Ignore Sessions During Shutdown

Indicates whether a graceful shutdown operation drops all HTTP sessions immediately. [More Info...](#)

Graceful Shutdown Timeout:

0

Number of seconds a graceful shutdown operation waits before forcing a shut down. A graceful shutdown gives WebLogic Server subsystems time to complete certain application processing currently in progress. If subsystems are unable to complete

[Customize this table](#)

Server Status4

StartResumeSuspendShutdownRestart SSLShowing 1 - 1 of 1PreviousNext

3

<input type="checkbox"/>	Server ^	Machine	State	Status of Last Action
<input type="checkbox"/>	mainserver		SHUTDOWN	None

StartResumeSuspendShutdownRestart SSLShowing 1 - 1 of 1PreviousNext

Configuring a WebLogic Server Environment-45

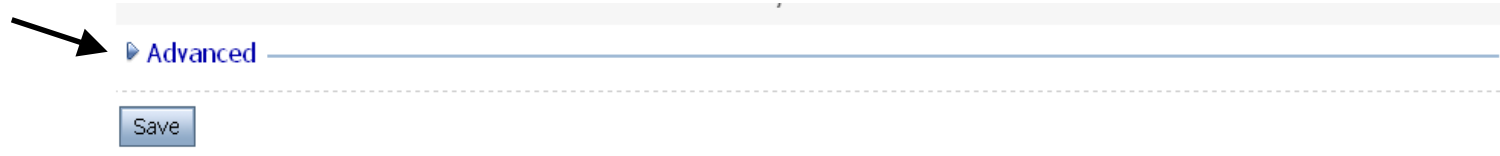
© 2006 BEA Systems, Inc.

111

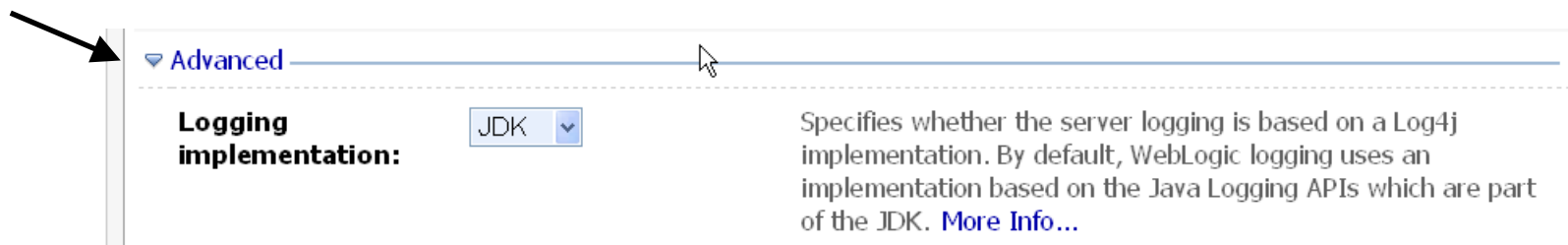
Advanced Options in Console



- ▶ The Weblogic Server Administration Console hides options which are not frequently used
- ▶ To display the Advanced Options section, click the “Advanced” link.



- ▶ If you do not want to see the Advanced Options on the console display, click the “Advanced” link one more time.













XML Schema for `config.xml`



- ▶ The `config.xml` file adheres to an XML schema that can be used for validation
- ▶ `config.xml` aggregates configuration information from other configuration files representing WLS subsystems, which adhere to their own XML schemas
- ▶ `config.xml` is now located (by default) in the `user_projects/domains/domain_name/config` folder
- ▶ Subsidiary configuration files are located in subfolders

Configuration Directory Structure



Directory	Column Head
 config	The current domain configuration and deployment state (config.xml).
 configCache	Cached configuration information.
 deployments	The staging area for staged applications.
 diagnostics	System modules for instrumentation in the WebLogic Diagnostic Service.
 jdbc	System modules for JDBC.
 jms	System modules for JMS.
 lib	Jar files added to the system classpath of the server.
 nodemanager	Node Manager configuration information.
 security	System modules for the security framework.
 startup	System modules that contain startup plans. Startup plans are used to generate shell scripts that can be used as part of server startup.

Predictable Distribution of Domain Configuration Changes

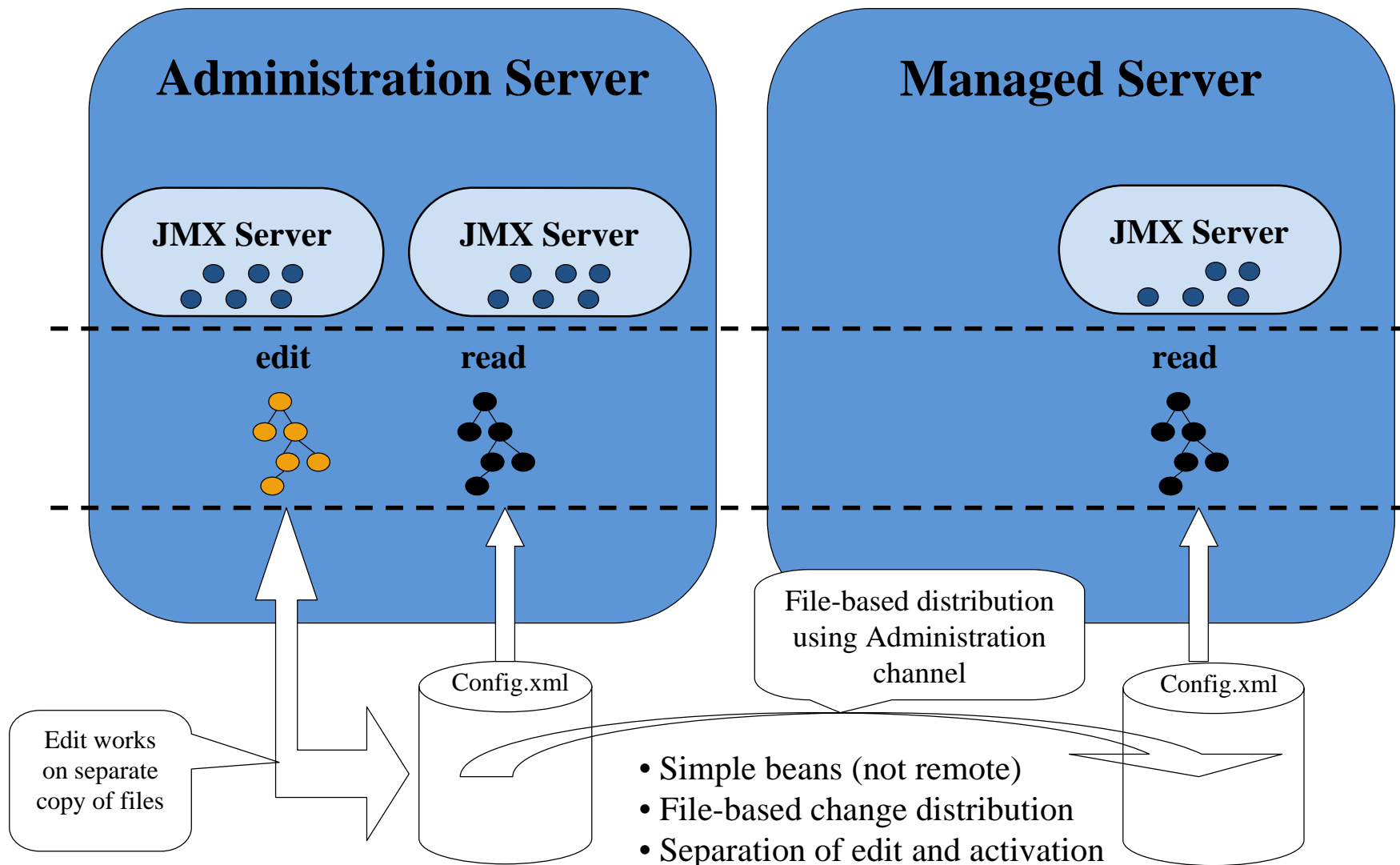


- ▶ Change management features of WLS enables you to distribute configuration changes throughout a domain securely, consistently, and predictably.
- ▶ Change management behavior is the same, regardless of whether you are using:
 - The WLS Administration Console
 - The new WebLogic Scripting Tool
 - JMX
- ▶ To use change management, use the *Change Center* region in the WLS Administration Console.

The Configuration Change Process

- ▶ WLS configuration change management process loosely resembles a database transaction.
- ▶ The domain configuration is represented two ways:
 - On the file system by a set of XML configuration files, centralized in the `config.xml` file
 - At run time by a hierarchy of Configuration MBeans
- ▶ When you edit the domain configuration, you edit a separate hierarchy of Configuration MBeans that resides on the administration server.
- ▶ When you activate changes, it's a 2-phase commit (2PC) process:
 - Each server determines whether it can accept the change.
 - If all servers are able to accept the change, they update their working configuration hierarchy and the change is completed.

Configuration Management Architecture



Section Review



In this section we discussed:

- ✓ How to start the Administration Console
- ✓ Setting basic properties using the console



Exercise



Using the Administration Console

- ▶ In this lab you will configure and stop WLS using the Console.
- ▶ Ask the instructor for any clarification.
- ▶ The instructor will determine the stop time.



Lab Exercise



Road Map



1. Configuring Domains
2. Configuring Servers
3. Domain Templates
4. Console Administration
- 5. Command Line Administration**
 - Managing WebLogic Server Via the Command Line WLST tool

The WebLogic Scripting Tool (WLST)



- ▶ Command-line tools are useful:
 - For automating administration using scripts
 - As an alternative to the Administration Console
- ▶ WLST provides a command-line interface that:
 - Configures WLS instances and domains
 - Manages and persists WLS configuration changes

► WLST enables you to:

- Retrieve domain configuration and runtime information
- Edit the domain configuration and persist the changes in `config.xml`
- Navigate and edit custom, user-created management beans (MBeans) and non-WLS MBeans such as WebLogic Integration Server and WebLogic Portal Server MBeans
- Automate configuration tasks and application deployment (repeatability)
- Clone WebLogic Server domains
- Access Node Manager and start, stop, and suspend server instances remotely or locally, without requiring the presence of a running Administration Server

Built on Jython



- ▶ Jython advantages include:
 - 100% pure Java implementation of Python
 - Simple & clear syntax
 - Proven to be fast and reliable
 - Highly extensible (create your own commands, use any existing Java classes)
- ▶ WLST interprets commands in two ways:
 - Interactively, supplied one-at-a-time from a command prompt
 - In batch supplied in a file (script), or embedded in your Java code

Main Steps for using WLST



- ▶ Setting environment
- ▶ Invoking WLST
- ▶ Requirement for entering WLST commands
- ▶ Running Scripts
- ▶ Importing WLST as a Jython Module
- ▶ Exiting WLST

Setting Environment



- ▶ Install and configure the WebLogic Server software
- ▶ Add WebLogic Server classes to the CLASSPATH environment variable
- ▶ Add *WL_HOME*\server\bin to the PATH environment variable

Invoking WLST



- ▶ Connecting to WLS through SSL listen port
 - java -
Dweblogic.security.SSL.ignoreHostnameVerification=true -
Dweblogic.security.TrustKeyStore=DemoTrust
weblogic.WLST
- ▶ Not connecting to WLS through the SSL listen port
 - java weblogic.WLST
 - A welcome message and WLST prompt appears:
wls:/(offline)>
 - To use WLST online:
connect('username','password','t3s://localhost:7012')
 - To shut down a server, for example:
shutdown('myserver','Server','false',1000)
 - To exit WLST:
exit()

Requirement for Entering WLST commands



- ▶ Case sensitive names and arguments of commands
- ▶ Arguments enclosed in single or double quotes
- ▶ Precede the quoted string by **r** while specifying backslash (\) in a string
 - Example: `readTemplate(r'c:\mytemplate.jar')`
- ▶ Invalid characters in object names while using WLST offline:
 - Period (.)
 - Forward slash (/)
 - Backward slash (\)
- ▶ Cannot access security information through WLST while updating a domain
- ▶ Display help
 - Example: `wls:/mydomain/serverConfig> help('disconnect')`

Running Scripts



- ▶ WLST incorporates two Jython functions that support running scripts:
 - `java weblogic.WLST filePath.py`, which invokes WLST and executes a script file in a single command,
 - `execfile("filePath.py")` which executes a script file after you invoke WLST.

Import WLST as a Jython Module

1) Invoke WLST:

```
c:\>java weblogic.WLST  
wls:/offline>
```

2) Use the writeIniFile command to convert WLST definitions and method declarations to a .py file:

```
wls:/offline> writeIniFile("wl.py")
```

3) Open a new command shell and invoke Jython directly by entering the following command:

```
c:\>java org.python.util.jython
```

4) Import the WLST module into your Jython module using the Jython import command:

```
>>>import wl
```

5) Now you can use WLST methods in the module. For example, to connect WLST to a server instance:

```
wl.connect('username','password')
```

Exiting WLST



Exit WLST:

```
wls:/mydomain/serverConfig> exit()  
Exiting WebLogic Scripting Tool ...  
c:\>
```


Online and Offline Modes



- ▶ Online (connected to a running server):
 - WLST provides simplified access to MBeans.
 - You can perform administrative tasks and initiate WLS configuration changes while connected to a running server.
- ▶ Offline (not connected to a running server):
 - WLST limits access to only persisted configuration information.
 - You can create a new domain or update an existing domain without connecting to a running WLS—this functionality resembles that of the Configuration Wizard.

Modes of Operation



► Interactive

- When you enter a command in the WLST console and view the response immediately

► Script

- When you create a text file, with .py extension, that contains a series of WLST commands

► Embedded

- When you instantiate an instance of the WLST interpreter in your Java code and use it to run WLST commands

Simplified Command-Line Access



- ▶ WLST includes the capabilities of:
 - `weblogic.Admin` (deprecated in 9.X)
 - `weblogic.Deployer`
 - `wlconfig` Ant tasks
 - Configuration wizard (silent mode, deprecated in 9.X)
- ▶ It allows you to navigate the WLS MBean tree like a file system.
- ▶ To access WLST:
 - In a non-secure environment use: `java weblogic.WLST`
 - In a secure environment use:

`java -Dweblogic.security.SSL.ignoreHostnameVerification=true
-Dweblogic.security.TrustKeyStore=DemoTrust weblogic.WLST`

WLST Example



```
C:\>java weblogic.WLST
Initializing WebLogic Scripting Tool (WLST) ...
Welcome to WebLogic Server Administration Scripting Shell
Type help(<) for help on available commands
wls:/offline> connect('system','weblogic','t3://localhost:7011')
Connecting to weblogic server instance running at t3://localhost:7011 as username system ...
Successfully connected to Admin Server 'adminserver' that belongs to domain 'humanresources'.
Warning: An insecure protocol was used to connect to the server.
To ensure on-the-wire security, the SSL port or Admin port
should be used instead.
wls:/humanresources/serverConfig> cd('Servers')
wls:/humanresources/serverConfig/Servers> ls()
dr--    adminserver
dr--    mainserver
wls:/humanresources/serverConfig/Servers> cd('mainserver')
wls:/humanresources/serverConfig/Servers/mainserver> get('StartupMode')
'RUNNING'
wls:/humanresources/serverConfig/Servers/mainserver> exit()
Exiting WebLogic Scripting Tool ...
```

Some WLST Commands...



Command	Description	Syntax
connect	Connects to a server instance (online mode)	<code>connect('weblogic', 'weblogic', 't3://localhost:7011')</code>
disconnect	Disconnects from a server instance (online mode)	<code>disconnect()</code>
exit	Exits WLST (online mode)	<code>exit()</code>
readDomain	Opens an existing domain for updating (offline mode)	<code>readDomain('c:/bea/user_projects/domains/onlinestore')</code>
updateDomain	Updates and saves the current domain (offline mode)	<code>updateDomain()</code>

...Some WLST Commands



Command	Description	Syntax
start	Start a managed server instance or a cluster (online mode)	<code>start('mycluster', 'Cluster')</code>
suspend	Suspends a running server (online mode)	<code>suspend('mainserver')</code>
shutdown	Gracefully shuts down a WLS instance or a cluster (online mode)	<code>shutdown('myCluster', 'Cluster')</code>
startServer	Starts the administration server (offline mode)	<code>startServer('adminserver', 'humanresources', 't3://localhost:7011')</code>
resume	Resumes a server that is in the ADMIN state (online mode)	<code>resume('mainserver')</code>

Section Review



In this section we discussed:

- ✓ Managing WebLogic Server from the command-line



Using Command-line Administration

- ▶ In this exercise you are going to gain experience using the command-line administration utility.
- ▶ Ask the instructor for any clarification.
- ▶ The instructor will determine the stop time.



Lab Exercise



Module Review



In this module we discussed:

- ✓ The WebLogic Server Administration Console
- ✓ Domain concepts
- ✓ How to create domains
- ✓ How to create and start Administration server and managed servers
- ✓ The creation and use of domain templates

