Content Server

Version: 6.3

Installing Content Server with BEA WebLogic Server

Document Revision Date: Jun. 15, 2011

FatWire SOFTWARE

Installing Content Server with BEA WebLogic Server
Document Revision Date: Jun. 15, 2011
Product Version: 6.3

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About This Guide

This guide describes the steps that need to be followed to install Content Server 6.3 to run as a web or portal application on Windows or UNIX with BEA WebLogic Server, and with the Oracle or SQL Server database.

Who Should Use This Guide

This guide is for professionals who have experience installing J2EE components, including databases, database drivers, application servers, and web servers. If you do not have experience installing J2EE components, **we strongly recommend contacting our Installation Services group** or an experienced Content Server system integrator.

How This Guide Is Organized

The chapters in the guide are organized in the following parts:

- Part 1, "Installation Overview" provides all the information you will need to plan the installation. This part also provides you with worksheets you can use to document the installation.
- Part 2, "Database" describes how to install and configure a supported database system for use with Content Server.
- Part 3, "WebLogic Server" describes how to install and configure the WebLogic application server.
- Part 4, "Web Server" describes how to install and configure the IIS and Apache web servers.
- Part 5, "Before Installing Content Server" explains how to prepare for the installation of Content Server.
- Part 6, "Installing Content Server" shows you how to proceed through the installation of Content Server.

This guide also contains appendixes with supplementary instructions for testing the connection pool, setting up MS SQL Server, Oracle, and DB2 databases, creating a domain on WebLogic Server, and using Content Server's property files.

Graphics in This Guide

Many steps in this guide include screen captures of dialog boxes and similar windows that you interact with in order to complete the steps. The screen captures are presented to help you follow the installation process. They are not intended to be sources of specific information, such as parameter values, options to select, or product version number.

Third-Party Software

For information about installing the third-party software that supports Content Server, refer to the product documentation and to our configuration guide, *Third-Party Software*. Licenses for the software must be obtained from the respective vendors before Content Server can be run.

Content Server Release Notes

The *readme.htm* file is provided on the Content Server installation CD to bring you the latest information concerning supported configurations, changes to installation procedures, and similar information regarding server-side and client-side components.

Content Server Documentation

For updates to Content Server documentation, check the following web site:

`http://e-docs.fatwire.com/CS`

This web site is password-protected; you will need to obtain a password from FatWire Technical Support. For Technical Support contact information, see the following url:

`http://www.fatwire.com/Support/contact_info.html`

Part 1

Installation Overview

This part provides all the information you will need before you begin the installation. It contains the following chapters:

- Chapter 1, “Planning the Installation”
- Chapter 2, “Sequence of Installation”
- Chapter 3, “Worksheets for Documenting the Installation”

Chapter 1

Planning the Installation

This book describes how to install Content Server with BEA WebLogic Server version 8.1 on Windows and UNIX systems.

This chapter is divided into two sections:

- Software Overview
- Hardware Overview

Software Overview

This section describes key areas that you should consider when planning your Content Server installation.

Supported J2EE Components

Content Server is a powerful J2EE application. Installing a J2EE application requires installation expertise with J2EE components such as:

- A web server
- A DBMS (relational database)
- A JDBC driver
- An application server
- A portal server

Content Server supports only certain versions of these J2EE components. Make sure that you are using only the versions that are named in the **Supported Platform List (SPD)** at the following URL:

```
http://e-docs.fatwire.com/CS
```

(Locate the Content Server version of interest, and click the **Supported Platform List (SPD)** link).

The J2EE components on which Content Server runs are provided by third-party vendors. This guide, therefore, does not contain full installation instructions for the J2EE components. Rather, it explains how to configure the components to work with Content Server. For example, this guide does not explain how to install the Oracle DBMS, but does explain how to configure the Oracle DBMS to work with Content Server.

When you install the components, first refer to the related vendor documentation for instructions, and then use the information in this guide as a supplement.

Supported Configurations

Configurations supported by this installation guide are available through the following URL:

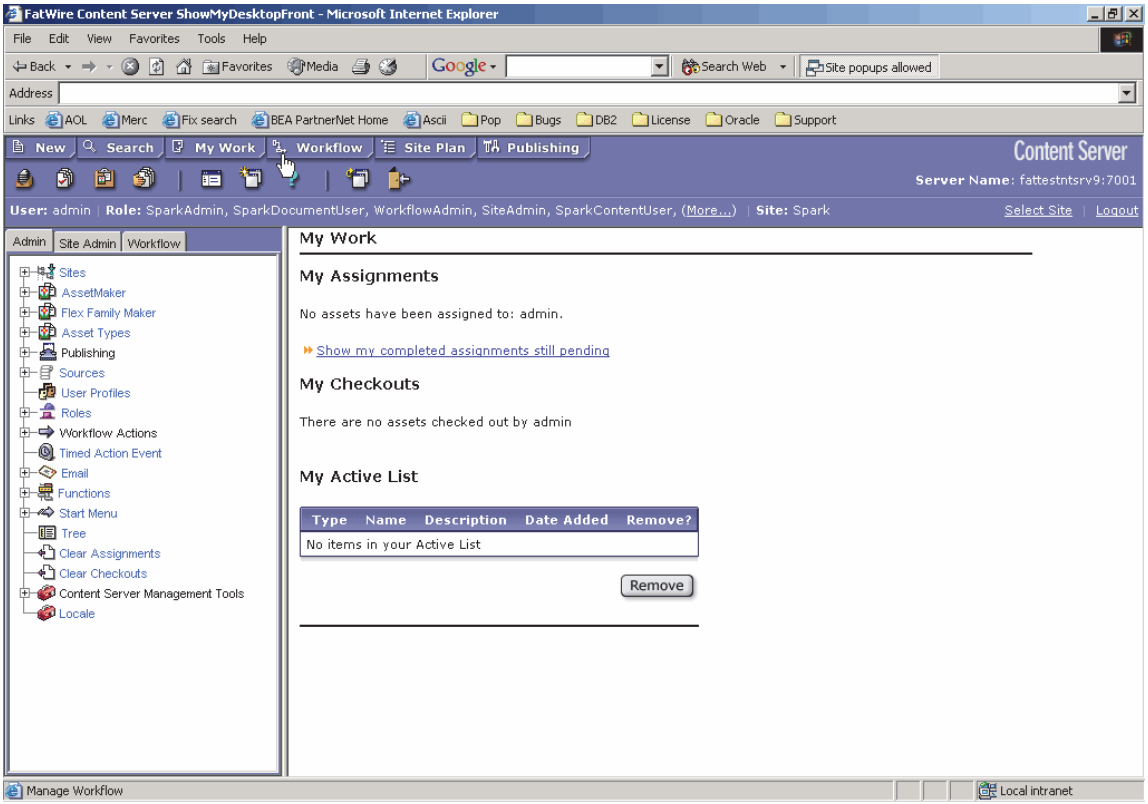
```
http://e-docs.fatwire.com/CS
```

Locate the Content Server version of interest and click the **Supported Platform List (SPD)** link. The document that opens provides hardware and software requirements, including specifications regarding third-party databases and drivers, application servers and web servers, portal servers, and other software that is required for installing and running Content Server.

Content Server Standard and Portal Interfaces

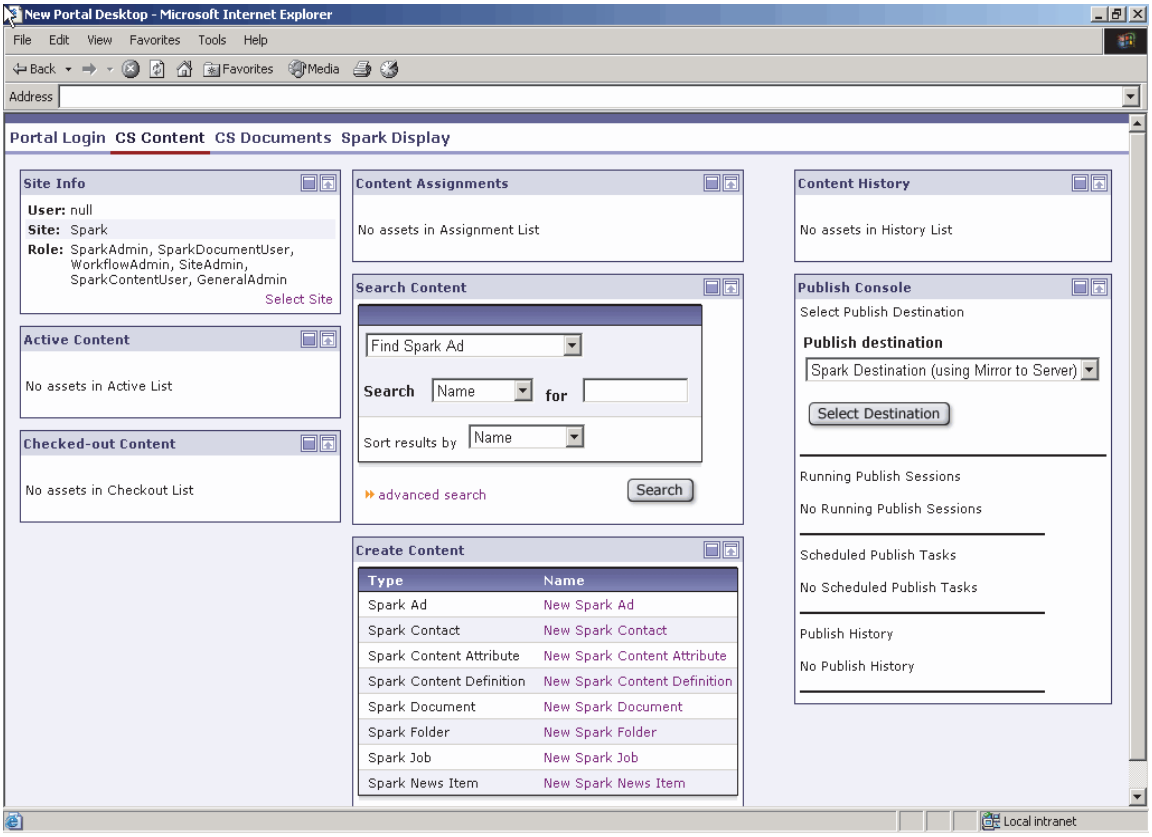
Content Server now supports content management operations in both a web-based environment and a portal environment.

By default, Content Server uses the standard tree-and-workspace interface seen below to support the web-based environment.



The tree panel on the left contains all the elements you work with, such as assets, settings, and commands. The workspace area on the right is where all the tasks and operations are performed. The standard interface is geared towards expert users who require complete control over their content management routines, and administrators who manage systems within the Content Server environment.

However, during the installation, you will have an option to install the portal interface. The portal interface displays your most common tasks and objects as portlets in the workspace area, as shown below:



The portal interface is more intuitive than the standard interface; it is arranged in a way that is similar to the graphical user interface of desktop computers. The portlets, just like windows, can be moved, minimized, and maximized. Such arrangement provides for a more user-friendly experience and makes the portal interface suitable for less-experienced users.

Before Installing Any Software

Before installing the J2EE components or Content Server, do the following:

- Read the latest *Content Server Release Notes*. They are updated periodically and posted to the FatWire e-docs web site:

  `http://e-docs.fatwire.com/CS`

- Make sure that all machines on which you will install J2EE components have a static IP address and a proper DNS configuration.
- If your Content Server system will serve content over a secure connection, you must obtain an SSL certificate from a certifying authority such as VeriSign. Obtaining the certificate may take some time, so submit your request well in advance to ensure that you have it before installing Content Server.
- If you will be installing software on UNIX, note the following:

- The Content Server installation program requires an X-Windows display in order for Content Server to be installed on either remote or local machines. (Nearly all UNIX machines already have an X-Windows server installed. X-Windows servers that support Windows are also available.)
- You typically install several components while logged in as `root`. So, make sure you know the root password.
- We recommend that you create a UNIX user named `csuser` on all UNIX systems running the application server. The UID (user ID number) for the `csuser` account must be identical on all the UNIX systems that are running the application server.

While Installing Content Server

During the Content Server installation, you have the following options:

- You can create a portal or a non-portal installation.
- On both a portal and a non-portal installation, you can do the following:
  - You can install the content applications such CS-Direct and CS-Direct Advantage, both of which are provided with Content Server. You can also install add-on offerings, such as FatWire Engage. If you need information about the CS content applications and add-on offerings, see the *Content Server Developer's Guide*.
  - You can install sample content and sample sites on the development and/or content management environments. For information about the sample sites and their content, see the *Content Server User's Guide*. For detailed information about the sites' content, see the *Content Server Administrator's Guide*.
- For a portal installation, you can elect to have the LDAP user authentication plug-in automatically installed. If you prefer to install LDAP manually or you need a different authentication plug-in that FatWire supports, you must install the plug-in after Content Server and its content applications are installed.

After Installing Content Server

After installing Content Server and its content applications, you can install the following components, as necessary:

- LDAP user authentication plug-in, if you elected to not install it with Content Server. Note that you can also install a different supported plug-in.
- The Verity search engine, if you plan to use the Verity search engine connectors. For information about installing the search engine, see the Verity release notes.
- Satellite Server on remote hosts to increase the performance of your delivery system. For installation information, see *Installing Satellite Server.*

Hardware Overview

Content Server Environments

You install Content Server and its J2EE components on three environments, four if the optional testing environment is included. The environments are:

- Development—the environment where developers create the elements that provide the web site's structure
- Content management (staging)—the environment where content providers create, edit, and manage content
- Delivery (production)—the environment that delivers the live web site to visitors on the web
- Testing—an optional environment to test performance or capabilities.

Note

The names of your environments might vary from the names used in this guide. Generally, the management system is also called “staging”; the delivery system is also called “production”; and the testing system is also called “QA” or “QA testing.”

Tiered and Clustered Environments

Each environment consists of its own set of hardware. Therefore, your site requires at least three sets of hardware. For a given environment, the hardware might consist of a single machine or many machines. Adding machines to an environment increases performance and reliability.

Single-Tier Environments

In a **single-tier** environment, all the J2EE components—including Content Server—are installed on the same machine.

Multi-Tier Environments

In a **multi-tier** environment, different J2EE components are installed on different machines. For example, in a three-tier environment, the web server is installed on one machine, the DBMS on another machine, and the application server and Content Server on a third machine. J2EE components are designed to handle multi-tier environments efficiently. A multi-tier environment provides better performance than a single-tier environment.

Clustered Environments

In a **clustered** environment, the same J2EE component is installed on multiple machines. Most commercial J2EE components support clustering. For example, you can install most application servers on two, four, or more machines in the environment. (Note that you must install Content Server on every machine on which you install the application server.)

Clustering components increases performance and reliability. Clustering provides failover—when one machine becomes unavailable, other machines take over part of the load. Thus, clustered environments provide more uptime than non-clustered environments.

A WebLogic cluster is a group of servers that work together to provide a more powerful, more reliable application platform than a single server. To clients, a cluster appears to be a single server whereas it is actually a group of servers acting as one. The cluster provides two key features that a single WebLogic host cannot:

- **Scalability** – The capacity of a cluster is not limited to a single machine. New servers can be added to the cluster dynamically to increase capacity. The only limitation on cluster membership is that all servers must be able to communicate using the same IP multicast address. If more hardware is needed, a new server on a new machine can be added.
- **High-availability** – A cluster uses the redundancy of multiple servers to insulate clients from failures. The same service can be provided on multiple servers in the cluster. If one server fails, another can take over. This failover ability increases the availability of the application to clients.

Typical Environments

Determining the optimal hardware configuration for an environment, including the number of tiers and the level of clustering, requires considerable expertise. Your FatWire sales engineer or FatWire professional services representative can help you with these decisions. More details about configurations and trade-offs are available in the *Content Server Architecture Guide* (available from your sales representative).

The following list provides some general guidelines for configuring an environment:

- Development environments typically require the least powerful hardware. Many are single-tier environments.
- Management (staging) environments typically require the more powerful hardware, compared to development environments. Most management environments are multi-tiered. Management environments that need to be in use 24 hours per day also require clustering. Factors that determine the optimum hardware configuration include the number of content contributors, the complexity of the content, and the frequency of publishing.
- Most large delivery environments are multi-tiered and clustered. Factors that determine the hardware configuration include the amount of content delivered during peak times, the percentage of content that can be cached, and the cost of downtime.

The following figure illustrates a typical management and delivery environment:

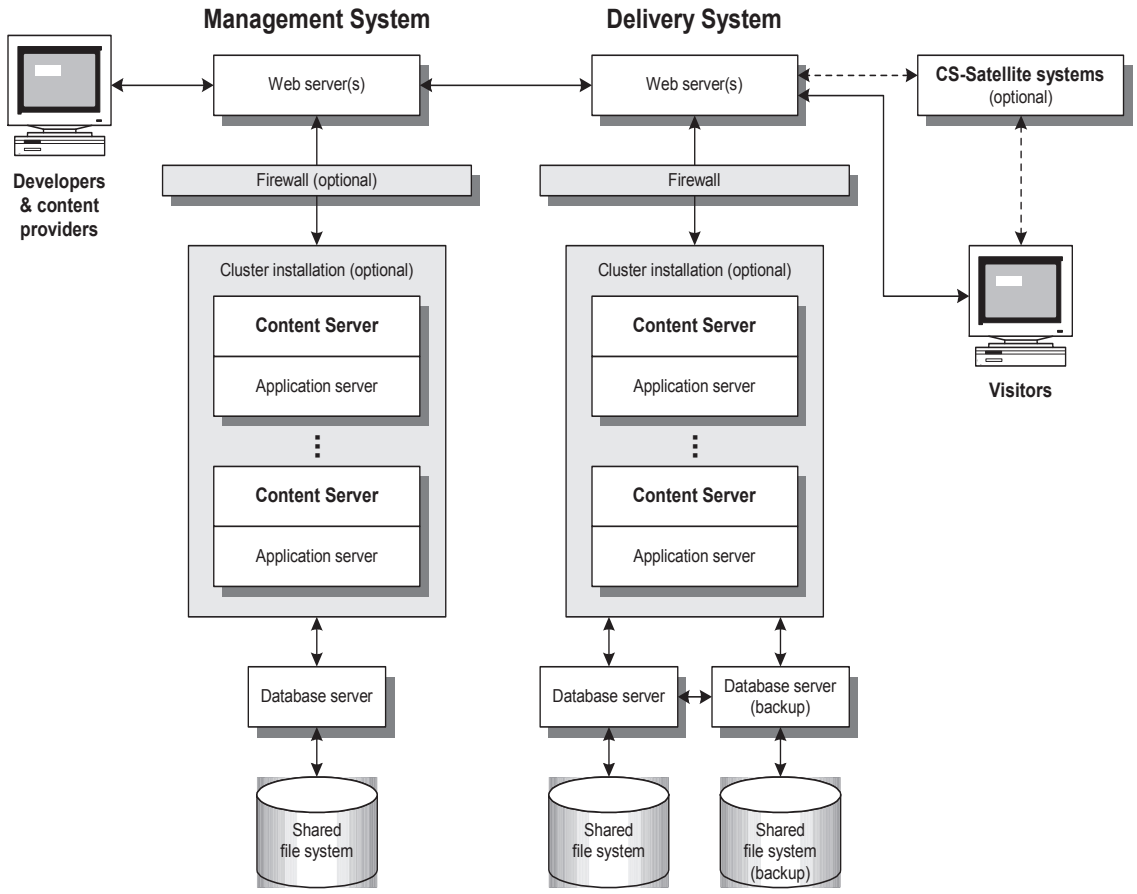


Figure 1: A Typical Management and Delivery Configuration

Minimum Hardware Requirements

Content Server imposes minimum hardware requirements on its environment according to the number of users and other factors. For example, to support five to ten users on a management system, Content Server requires the following hardware:

- For Windows environments: 1GB RAM, 3.0 GHz single CPU or the equivalent
- For Solaris environments: 1.5GB RAM, dual Sun 300 MHz Ultra Sparc II CPUs

The J2EE components on which Content Server runs impose requirements as well. Because Content Server runs on the same machine as the application server, see the documentation provided by your application server vendor for a list of hardware requirements. Also, see the documentation provided by your web server and DBMS vendors to determine the minimum hardware requirements for those components, as well.

Chapter 2

Sequence of Installation

This chapter lists the sequence in which we recommend you install software components. We describe the following:

The Installation Philosophy

The J2EE installation philosophy is this: you install various components and then "connect" them. For example, after installing Oracle and WebLogic, you connect them by configuring a JDBC driver that allows the two components to communicate.

Content Server is a J2EE web application. Before and after installing Content Server, you must configure WebLogic to handle Content Server, just as you would configure WebLogic to handle any J2EE web application. When you are using WebLogic as your application server, Content Server runs as a WebLogic web application with a WebLogic managed server instance and a WebLogic admin server instance. Note that unlike production servers, development and content management servers are typically unmanaged.

In the configuration instructions in this book, we refer to these WebLogic concepts that represent the Content Server application as the Content Server web application, the Content Server managed server, and the Content Server admin server.

The CS content applications become a part of the Content Server web application. That is, when you install the CS content applications, you do not create additional web applications: they become a part of the Content Server web application. Therefore, after you have installed Content Server and the CS content applications, the whole product—including the content applications—is called Content Server.

Options to Install

You can add several components to Content Server, including the CS content applications. Some of the components can be installed either with the content applications or afterwards, whereas other components must be installed after the Content Server applications are installed and configured.

User Authentication Plug-in

During the Content Server installation, you can choose to have the LDAP authentication plug-in automatically installed (before the CS content applications are installed). You can also choose to manually install LDAP (or any other supported user directory service) after the Content Server installation is complete (including the CS content applications; installing CS content applications creates user account records according to the user directory service that is in place at the time of installation).

Note

If you first install the CS content applications and then later add a user directory service, you will need to make a large number of adjustments to the existing data.

For information about configuring the LDAP authentication plugin, see the *Content Server Administrator's Guide*.

Satellite Server

Satellite Server is automatically installed with Content Server and this "co-resident" SatelliteServer servlet interacts with the publishing system and the CacheManager servlet. No extra steps are required to configure the co-resident Satellite Server, although you will most likely want to tune the amount of memory that is allocated to the co-resident Satellite Server. For more information, see *Installing Satellite Server*.

You are also encouraged to use the stand-alone version of Satellite Server on remote web servers to improve the performance of your CS system. If you choose to install Satellite Server on remote web servers, install them **after** the CS content applications have been installed and tested. For details, see *Installing Satellite Server*.

Search Engines

If you have the optional search engine Verity, you must install it **after** you install the CS content applications. For information about installing the search engine module, see the Verity release notes.

Steps for Installing a Single-Tier System

The steps for installing a single-tier system are as follows:

1. Install the DBMS. See Chapter 4, "Installing the DBMS" for guidelines.
2. Configure the DBMS. See Chapter 5, "Configuring the DBMS for Content Server."
3. Install WebLogic Server. See Chapter 6, "Installing BEA WebLogic Server" for guidelines.
4. Create and configure a WebLogic domain by doing one of the following:
   a. If you plan to create a non-portal installation, create and configure a new WebLogic application server domain. For instructions, see Chapter 7, "Creating and Configuring a New WebLogic Domain (Non-Portal)."
   b. If you plan to create a portal installation, create and configure the WebLogic portal server domain. For instructions, see Chapter 8, "Creating and Configuring a New WebLogic Portal Server Domain."
5. Install the web server (optional, but recommended). See one of the following chapters, as appropriate, for guidelines:
   - Chapter 9, "Installing IIS on Windows"
   - Chapter 11, "Installing Apache on Solaris or Linux"
6. If you completed step 5, configure the web server to run with WebLogic and Content Server. See one of the following chapters, as appropriate, for guidelines:
   - Chapter 10, "Configuring IIS for WebLogic and Content Server"
   - Chapter 12, "Configuring Apache for WebLogic and Content Server"

7. Prepare to install Content Server:
   a. Do one of the following:
      - For Windows installations: Ensure that requirements for installing on Windows are satisfied. For instructions, see Chapter 13, "Before Installing Content Server on Windows."
      - For Solaris installations: Ensure that requirements for installing on Solaris are satisfied. For instructions, see Chapter 14, "Before Installing Content Server on Solaris or Linux."
   b. If you plan to create a portal installation, complete the pre-installation steps in Chapter 15, "Before Installing the CS Portal on a Managed Production Server."
8. Install Content Server by doing one of the following:
   - If you plan to create a non-portal installation, install Content Server on the WebLogic Application Server. For instructions, see Chapter 16, "Installing CS on the WebLogic Application Server (Non Portal)."
   - If you plan to create a portal installation, install Content Server on the portal server and configure the portlets. For instructions, see Chapter 17, "Installing Content Server on WebLogic Portal Server."
9. (Optional) Install, configure, and test a search engine and/or user authentication plugin.

Steps for Installing a Multi-Tier System

The steps for installing a multi-tier system are as follows:

1. Install and verify the DBMS on the database host machine.
2. Install the JDBC driver on the application server host machine.
3. Install and verify the web server on the web server host machine.
4. Install and verify WebLogic on the application server host machine.
5. Configure WebLogic and your web server to work together and then test the configuration.
6. Configure the JDBC driver on your application server host to enable your application server system to communicate with your database.
7. Configure WebLogic for Content Server.
8. Install, configure, and test Content Server on the machine that hosts WebLogic.
9. If you are using the portal interface, configure the portlets.
10. (Optional) Install, configure, and test a search engine and/or user authentication plugin.

Steps for Installing a Clustered Application Server System

The steps for installing a clustered system can vary greatly depending on networking choices, on whether you also cluster your web servers, and so on, especially, how you choose to configure your WebLogic admin and managed servers. This is the basic sequence of steps for installing a clustered system:

1. Install and verify the DBMS on the database host machine. Most likely you also set up a backup database server.
2. Install the JDBC driver on each application server host machine.
3. Install and verify the web server on the web server host machines.
4. Install and verify WebLogic on the primary cluster member, that is, the first application server host machine.
5. Configure WebLogic on the primary cluster member and the web servers to work together and then test the configuration.
6. Configure the JDBC driver on the primary cluster member to enable the WebLogic application server system to communicate with your database.
7. Configure WebLogic for Content Server.
8. Create a shared file system in a location on your network where all the cluster members have access and can both read from and write to.
9. Install, configure, and test Content Server on the primary cluster member.
10. If you are using the portal interface, configure the portlets.
11. (Optional) Install, configure, and test a search engine and/or user authentication plugin on the primary cluster member.
12. Repeat steps 4 through 7 and steps 9 through 11 for each of the remaining cluster member machines.

Chapter 3

Worksheets for Documenting the Installation

This chapter contains worksheets listing all the parameters that you need to track.

Print this chapter. Then, as you install software, fill in the blank fields in these worksheets with the values of the specified parameters. You will spare yourself considerable aggravation by doing this. Plus, if something goes wrong during the installation, the information in these worksheets will be valuable while you are troubleshooting. Use a separate set of worksheets for each installation so that each installation is fully documented.

The worksheets are constructed as tables that are divided into the following categories:

Key to Sample Values

The installation worksheets list parameters along with their sample values. Each sample value is classified as one of the following:

- **Default**: the value is automatically created at the time of the installation.
- **Normal**: the value represents the normal configuration for a simple installation. Do not use a different value unless your system requires it.
- **Option**: the value must be chosen from a preset list of options.
- **Suggested**: the value is recommended for the parameter.
- **Example**: the value is only an example that must be replaced by the value that is appropriate for your installation. The example value is not likely to be valid in your environment.

Note that a **Suggested** account name has an **Example** password value. We strongly recommend that you select a password for this account that is appropriate for the security of your system.

DBMS Parameters

Table 1: DBMS Installation Parameters

Parameter	Shown As	Comments	Your Value
Type and Version	*dbType*	Example: *Oracle 9i*	
Database Host Name	*dbHost*	Example: `centralserve`	
Database Host IP Address	*dbIP*	Example: `101.222.142.173`	
Database Port Number	*dbPort*	Defaults: `1521` (Oracle) `1433` (SQL Server 2000)	
Database Identifier (also called Service Name)	*sid*	Suggested: `csdb`	
Database Root Directory (top-level directory in which DBMS is installed)	*dbroot*	Suggested: `c:\Oracle\oraHome_name` (Oracle on Windows) `/Oracle/oraHome_name` (Oracle on Solaris) `c:\Sql2000\sqlHome_name` (SQL Server on Windows)	

Table 2: DBMS Accounts

Parameter	Shown As	Comments	Your Value
Oracle DBMS Administrator (DBA) Login Name	*dbaname*	Default: `SYSTEM`	
Oracle DBMS Administrator (DBA) Password	*dbapass*	Example: `p055w0rd`	
Content Server Database User Login Name	*csdbusername*	Suggested: `csuserwl`	
Content Server Database User Password	*csdbuserpass*	Example: `c0nt3nt`	

Table 3: Tablespace Parameters

Parameter	Shown As	Comments	Your Value
Database Name	*TblSpace*	Example: ContentServer	
Size of Default Tablespace or Database	*TblSpaceSize*	Example: *10 gbytes*	
Temporary Tablespace Name (Oracle)	*TempSpace*	Suggested: TEMP	
Size of Temporary Tablespace (Oracle)	*TempSize*	Example: *2 gbytes*	

Web Server Parameters

Table 4: Web Server Parameters

Parameter	Shown As	Comments	Your Value
Web Version	*WebVersion*	Example: Apache 1.3.37	
Web Host Name	*WebHost*	Example: jeeves	
Web Host IP Address	*WebIP*	Example: 104.222.111.155	
Web Server Port	*WebPort*	Default: 80	
IIS Only: Filter Name (ISAPI plug-in name)	*FilterName*	Suggested: iisforwardfilter	
Apache Only: Apache Root Directory	*ApacheRoot*	Example: /usr/apache	

WebLogic Parameters

Table 5: Who Installed WebLogic?

Parameter	Shown As	Comments	Your Value
Installer Account Username	*installerName*	Suggested: `csuser`	
Installer Account Password	*installerPass*	Example: `m1sha`	

Table 6: WebLogic Installation Parameters

Parameter	Shown As	Comments	Your Value
WebLogic Version	*wlVersion*	Example: 7.0 SP2	
WebLogic Host Name	*wlHost*	Example: `jeeves`	
WebLogic Host IP Address (Note: this must be a fixed IP address)	*wlIP*	Example: `101.222.14.17`	
WebLogic Root Directory (BEA Home)	*beaRoot*	Default: `C:\bea` (Windows) `/bea` (Solaris)	

WebLogic Product Directory	*WL_HOME*	Default:
		`C:\bea\weblogic81`
		or
		`/bea/weblogic81`	

Content Server Domain Name	*csdomain*	Example: `csdomain`	

Table 7: WebLogic Admin Server Parameters

Parameter	Shown As	Comments	Your Value
Admin Server Server Name	*wlAdminSerName*	Example: `csadmin`	
Admin Server Listen Address	*wlAdminHost*	Example: `localhost`	

Table 7: WebLogic Admin Server Parameters

Parameter	Shown As	Comments	Your Value
Admin Server Listen Port	*wlAdminPort*	Default: 7001	
Admin Server SSL Port	*wlAdminSSL*	Default: 7002	
Admin Server Username	*wlAdminName*	Example: wluser	
Admin Server Password	*wlAdminPass*	Example: s3cr3t1v3	

Table 8: WebLogic Managed Server Parameters

Parameter	Shown As	Comments	Your Value
Managed Server Server Name	*wlManagedSerName*	Suggested: csmanaged	
Managed Server Listen Address	*wlManagedHost*	Example: localhost	
Managed Server Listen Port	*wlManagedPort*	Default: 8001	
Managed Server SSL Port	*wlManagedSSL*	Default: 8002	

Table 9: WebLogic Content Server Parameters

Parameter	Shown As	Comments	Your Value
WebLogic Content Server Name	*wlCSName*	Suggested: fwcs	
JNDI Name	*JNDIname*	Suggested: csData	

Table 10: WebLogic Cluster Parameters

Parameter	Shown As	Comments	Your Value
Content Server WebLogic Cluster Name	*CSCluster*	Example: `CSCluster`	

Names and IP addresses of all Managed Servers in the Cluster	*CSClusterManagedServer(n)*	Example:
		`csmanageA, 101.222.14.17`
		`csmanageB, 101.123.12.53`	

JDBC Parameters

Table 11: JDBC Parameters

Parameter	Shown As	Comments	Your Value

JDBC Driver Type	*JDBCtype*	Option:
		`* JSQL Connect`
		`* type 2`
		`* type 4`	

JDBC Driver Directory	*JDBCdir*	Suggested: `beaRoot/jdbc`	
Net8 Connection String (for Type 2 drivers, Oracle only)	*net8String*	Example: `oraserv1`	
JDBC Connection String	*connString*	See JDBC driver instructions.	
JDBC Connection Pool Name	*poolName*	Suggested: `csPool`	
Datasource name	*datasource*	Example: `csDataSource`	

Content Server Parameters

Table 12: Content Server Configuration

Parameter	Shown As	Comments	Your Value
Content Server Version	*csVersion*	Example: 6.3	
Content Server Administrator Username	*csAdminName*	Suggested: `ContentServer`	
Content Server Administrator Password	*csAdminPass*	Example: `c0nt3nt`	
Content Server Root Directory	*csRoot*	Example: `/local/CS`	
Web Server Document Root Directory	*csDocRoot*	Example: `/local/cs/futuretense_cs`	
CS Shared Directory	*csShare*	Accept and record the installation default value.	

Content Server Installation Type	*csType*	Options:
		`Single Server`
		`Cluster Member`	

Satelllite Server Administrator Login	*SatName*	Suggested: `SatelliteServer`	
Satellite Server Administrator Password	*SatPass*	Example: `sputnik1`	

Table 13: Content Server Cluster Parameters

Parameter	Shown As	Comments	Your Value
Shared Directory Name	*upload*	Example: `CSshare`	
Sync Folder Name	*sync*	Example: *sync*	
`ftsync` value	*ftsync*	Suggestion: `CSCluster` (the name of the Content Server cluster name)	

Table 14: Content Server LDAP Parameters

Parameter	Shown As	Comments	Your Value
LDAP Host		Name of the host where the Admin server is running. Example: `localhost`	
LDAP Port		Port number on which Admin server is running. Example: `7001`	
JNDI Password		LDAP user password used to connect to LDAP host. Password should match WebLogic Console-Security Node LDAP tab Credential textbox.	

Table 15: Content Server WebLogic Parameters

Parameter	Shown As	Comments	Your Value
WebLogic Server Directory		The directory where WebLogic is installed. Example: `c:\bea\weblogic81`	
Portal Domain Name		The portal domain that you created for CS to run in. Example: `portalDomain`	
Path to the portal application		The portal application that you created through the BEA WebLogic Workshop. Example: `D:\bea\user_projects\applications\ContentServerApp`	
Portal WebModule		The webmodule that you create using WebLogic Workshop 8.1 Example: `CS`	

Table 15: Content Server WebLogic Parameters *(continued)*

Parameter	Shown As	Comments	Your Value
WebApplication Context Path		The path to your application. Example: `/servlet`	

Next Step

Your first step is to install the database management system. For instructions, proceed to Chapter 4, “Installing the DBMS.”

Part 2

Database

This part describes how to install a database system. It contains the following chapters:

- Chapter 4, “Installing the DBMS”
- Chapter 5, “Configuring the DBMS for Content Server”

Chapter 4

Installing the DBMS

Content Server on WebLogic requires one of the following DBMS: Oracle or SQL Server 2000. Only certain versions of these DBMS are supported. See the **Supported Platform List (SPD)** at the following URL: `http://e-docs.fatwire.com/CS`

This chapter contains the following sections:

General Guidelines

If the database has already been installed, read this section to ensure that it complies with our recommendations.

Number of Machines

You can install the DBMS on the same machine as the other components or on a separate machine. To determine which is best for you, see the *Content Server Architecture Guide*.

Character Sets

The database character set must support all the characters that you intend to store. Once the data is stored in the database, it can be tricky to migrate the data to a different character set. Therefore, it is wise to configure your database for the correct character set *before* storing data.

For example, if your database will handle information in European languages only, a database configured for default Latin-1 might suffice. Similarly, if Japanese is the only language used, then the Shift-JIS character set is suitable.

However, if you plan to use the Desktop feature of CS-Direct, you must configure your system to support one of the following character sets, as appropriate:

- Oracle: UTF-8
- SQLServer: Unicode

Note

We recommend that you use the UTF-8 or Unicode character set even if you do not plan to use Desktop. These character sets give you the maximum flexibility. They take up more space in the database, but they encode all characters used in modern languages and in some archaic languages.

Guidelines for Installing Oracle

When installing the Oracle database server, follow the Oracle vendor's instructions. Content Server imposes no requirements on how you install Oracle.

The easiest way to install Oracle is simply to select the **typical** installation option and let the Oracle installation software create an initial database with default settings. Note the following additional guidelines:

- If you are installing Oracle on a single-tier Solaris system that will also host the Apache web server, do **not** have the Oracle installation software install the Apache web server.
- Additionally, in the "Database Character Set" screen, we recommend that you select **Choose one of the common character sets** and then pick **Unicode standard UTF-8 AL32UTF8**.

Caution

Our customers have run into certain Oracle installation problems in the past. To avoid these problems, we recommend that you consult Oracle's installation documentation, particularly when performing the following tasks:

- Checking the `/etc/system` file
- Creating the Oracle group account
- Creating Oracle user accounts
- Checking environment variables

As you install the DBMS, record information about the installation in Table 1, "DBMS Installation Parameters," on page 29. During the installation, you will create an Oracle database administrator (DBA) account to perform general database administration, such as creating tablespaces or other accounts.

Record the login name and password for the DBA account in Table 2, "DBMS Accounts," on page 29.

Guidelines for Installing SQL Server 2000

Follow Microsoft's instructions for installing the SQL Server 2000 database server. Content Server imposes no requirements on how you install SQL Server 2000.

The easiest way to install the database is to select the **typical** install option, and let the SQL Server 2000 installation software create an initial database with its general defaults.

As you install the DBMS, record information about the installation in Table 1, "DBMS Installation Parameters," on page 29.

Guidelines for Installing IBM DB2

Follow the IBM instructions for installing the DB2 database server. Content Server imposes no requirements on how you install DB2.

Next Step

After installing the DBMS, proceed to Chapter 5, "Configuring the DBMS for Content Server."

Chapter 5

Configuring the DBMS for Content Server

This chapter explains how to configure the DBMS for Content Server. It contains the following sections:

Use the instructions in the sections that are appropriate for your operating system.

Step I. Configure the DBMS

This section presents one set of instructions for configuring SQL Server and one set for configuring Oracle. Complete the procedures in the section that is appropriate for your DBMS.

Configuring SQL Server on Windows

There are two basic steps for configuring SQL Server. They are described in the following sections:

A. Set SQL Server Authentication

B. Create and Configure the SQL Server Database

A. Set SQL Server Authentication

By default, SQL Server is configured to use only Windows authentication. Because Content Server is a web application that will use the SLQ Server database, you must change the authentication mode to SQL Server authentication.

To change the authentication mode to SQL Server authentication:

1. Invoke the SQL Server Enterprise Manager utility.
2. Expand the server tree until you see the database server upon which the CS database was created.
3. Right-click on your server name and select **Properties** from the right-mouse menu.
4. Select the **Security** tab.
5. Under **Authentication**, select the **SQL Server and Windows** option.
6. Restart SQL Server so the change takes effect.

B. Create and Configure the SQL Server Database

1. Create the database for Content Server and reserve enough disk space for it. For instructions, consult our configuration guide, *Third-Party Software*.
2. For help with calculating the amount of disk space to reserve, consult with your database administrator. You can start with these general guidelines:
   - Development systems should reserve at least 200MB of space.
   - Management and delivery systems might need to reserve several gigabytes of space, depending on what kind of data your site will store.
3. Record the name of the database in the `TblSpace` row in Table 3, "Tablespace Parameters," on page 30.

Configuring Oracle on Solaris, Linux, or Windows

There are two basic steps for preparing your Oracle database for the Content Server installation:

A. Create and Configure the Oracle Database

B. Create and Configure the Oracle Tablespace

A. Create and Configure the Oracle Database

For information on setting up the Oracle database for your Content Server installation, consult our configuration guide, *Third-Party Software*.

B. Create and Configure the Oracle Tablespace

1. Use the Oracle Enterprise Manager Console to create the default tablespace and the temporary tablespace for the Content Server database. For example:
   - Default: 300MB

     To determine the actual number, you must estimate/calculate the amount of data that you plan to store in the database.
   - Temporary: 40MB
2. Record the following information in Table 3, "Tablespace Parameters," on page 30:
   - In the *TblSpace* row, record the name of the default tablespace.
   - In the *TempSpace* row, record the name of the system temporary tablespace.

Configuring DB2 on Linux

To prepare your DB2 database for the Content Server installation, follow instructions in our configuration guide, *Third-Party Software*.

Step II. Validate the Database Configuration

After you have created the Content Server database and the `csdbuser` account, perform the following test to verify that the csuser account has the correct access to the Content Server database. The test verifies that the `csdbuser` can create a table, add a row to the table, and drop the table.

Make sure that **all** the steps in the test work—that the `csdbuser` can create the table, add a row, and drop the table.

To perform the test:

1. Do one of the following:
   - If you are using Oracle, access SQL*Plus.
   - If you are using MS SQL Server, access SQL Query Analyzer.
2. Connect to the database (as csdbuser) that you just created as the Content Server database.
3. Log in to the default tablespace that you just created for the Content Server database as the `csdbuser`.
4. At the SQL prompt, create a simple table. For example:

   ```
   create table authors (au_id char (11) not null, au_lname
   varchar2 (40) not null);
   ```

   The DBMS should create the table.
5. Add a row to your simple table. For example:

   ```
   insert into authors values ('1001', 'Smith');
   ```

The DBMS should add the row.

6. Now, drop the simple table. For example:

   ```
   drop table authors;
   ```

   The DBMS should remove the table from the database.

7. If you could not successfully complete any of the tasks above, verify that you can access the database, and verify the permissions for the `csdbuser` account before attempting this test again.
8. When all the steps in this test work, continue with the next step, below.

Step III. Install the JDBC Driver on the Application Server Hosts

Content Server and WebLogic communicate with the DBMS via a JDBC driver. The JDBC driver must be physically located on the application server host. Therefore, the next step is to install the appropriate driver on the server(s) that WebLogic and Content Server.

SQL Server Installations

For SQL Server, the JCBC driver is installed during the WebLogic domain installation.

Oracle Installations

For Oracle, you can use either the Oracle type 2 (thick) driver or the Oracle type 4 (thin) driver. However, **FatWire recommends that you use the type 2 driver** for the following reasons:

- The Oracle type 2 driver supports CLOB data type, which means that it allows for larger amounts of text (virtually unlimited) to be stored in the DBMS.
- The type 2 driver works with other Oracle tools to perform database load balancing and failover.
- By contrast, the type 4 (thin) driver has a limit of 2000 characters in files stored in the DBMS. If a file is larger, it is stored referentially in the database but is physically stored in the Content Server file system. The advantage of this driver is that it is easy to set up. If you choose to use the Type 4 driver you must remember to set the `cc.bigtext` property in `futuretense.ini` to `VARCHAR(2000)` after you install Content Server and before you run the installer for the CS content applications.

To install the JDBC driver for your DBMS, complete the steps in one of the following procedures, as appropriate for your installation:

- “Installing the Type 2 (Thick) JDBC Driver”
- “Installing the Type 4 (Thin) JDBC Driver,” on page 47

Installing the Type 2 (Thick) JDBC Driver

The type 2 driver is installed during the Oracle installation on the database host machine. If you do not intend to install WebLogic on the database host machine, you must install it on each application server host machine.

To install the type 2 driver:

1. Obtain your Oracle installation CD.
2. On the host machine on which you plan to install the WebLogic Server software, start the Oracle installation program.
3. Select **Oracle Client** from the installation options. This option includes the type 2 driver and its name is why this driver is sometimes referred to as the "client" driver.

Note

Clustering. If you are installing a cluster, be sure to install the driver in the same location on each machine on which you plan to install the WebLogic Server software—that is, use the same path name and directory name on each machine.

Installing the Type 4 (Thin) JDBC Driver

The type 4 JDBC driver is installed during the Oracle installation on the database host machine. It is located in a zip file named `classes12.zip` that also contains all of the Oracle JDBC drivers. Note that the zip file named `nls_charset12.zip` file is located in the same directory. You need this file if you plan to support languages other than English, or if you plan to use the CS-Desktop feature.

If you do not intend to install WebLogic on the database host machine, copy the `classes12.zip` file and `nls_charset12.zip` file to any directory on each application server machine.

To "install" the Type 4 driver, complete the following steps:

1. Copy both the `classes12.zip` file and `nls_charset12.zip` file from the database host machine to the host that will run WebLogic. They are located in the following directory:

   oraHome`/jdbc/lib`

   You can copy them into any directory on that host.
2. Do **not** unzip the files.
3. Record the names of this directory in the *`JDBCdir`* row of Table 11, "JDBC Parameters," on page 33.

Note

Clustering. When you are installing a cluster, be sure to install the driver in the same location on each machine on which you plan to install the WebLogic Server software—that is, use the same path name and directory name on each machine.

Next Step

Install the BEA WebLogic server. Proceed to Chapter 6, "Installing BEA WebLogic Server" for installation guidelines.

Part 3

WebLogic Server

This part describes how to install and configure WebLogic. It contains the following chapters:

- Chapter 6, “Installing BEA WebLogic Server”
- Chapter 7, “Creating and Configuring a New WebLogic Domain (Non-Portal)”
- Chapter 8, “Creating and Configuring a New WebLogic Portal Server Domain”

Chapter 6

Installing BEA WebLogic Server

This chapter explains how to install and configure BEA WebLogic Server version 8.1. It contains the following sections:

About Cluster Installations

Because there are so many ways that you can set up a WebLogic cluster, we cannot provide definitive instructions for cluster installations. For example, you could install the cluster's admin server on a separate host or keep it on the primary cluster member. And that is only one of the many variables.

What we can do in this guide is provide tips and describe one basic methodology. But even that basic methodology is complicated by the fact that there are procedural differences depending on whether you are installing WebLogic 8.1.

With WebLogic 8.1, this issue with the cluster name and the URLs has been fixed. If you are installing an 8.1 cluster, you can create the cluster first and then install WebLogic and Content Server on all the cluster members.

Tips for All Cluster Installations

No matter which version of WebLogic you are using, the following conditions and tips are true:

- You complete a full installation on each cluster member before moving to the next. That is, you install WebLogic, Content Server, and the CS content applications on each cluster member before moving to the next.
- You use one connection pool and one datasource for all the machines in the cluster. (But of course you install a JDBC driver on each application server host.)
- The following directories and names must be the same for each cluster member:
  - The location of the JDBC driver
  - The path to and name of the *WL_Home* directory.
  - The WebLogic domain name that represents Content Server
  - The path to the WebLogic domain name

Requirements for All Cluster Installations

Before you begin installing WebLogic on the first server in your cluster, be sure that you have the following information:

- A cluster-enabled license from BEA.
- A multicast address for intercluster communications.
- The host names and IP addresses of each member of the cluster. Note that they must have fixed IP addresses.
- The server connection port for each member of the cluster.

Basic Methodology for 8.1 Clusters

As mentioned, for 8.1 clusters, you start by installing WebLogic on the primary cluster member and creating the cluster. You create one WebLogic Admin Server to administer all the managed servers in the cluster and you also create managed server instances to represent all the secondary cluster members, identifying them in the cluster definition.

When you create the connection pool and datasource, rather than identifying the individual managed servers as the target, you target the cluster name itself. And then you

install and Content Server and the rest of the Content Server products before you start installing any of the secondary cluster members.

During an installation on a secondary cluster member, you make sure that its managed server name and IP address exactly match the name and IP address that was specified for it in the WebLogic cluster instance.

Before You Begin

Before you begin installing BEA WebLogic Server, be sure that you complete the tasks in this section.

Read the WebLogic Documentation

Go to the BEA e-docs web site and examine their installation materials:

```
http://e-docs.bea.com
```

Which User?

On Solaris and Linux, we recommend installing WebLogic while you are logged in as a nonroot user. It is typical to create a new user for this purpose. We refer to the user who installs WebLogic and Content Server as the `csuser`.

Record the following information about the csuser in Table 5, "Who Installed WebLogic?," on page 31:

- In the *`installerName`* row, record the username.
- In the *`installerPass`* row, record the password.

Remember that you must install Content Server while you are logged in as this same user.

Cluster Installations

- You must examine BEA's documentation on cluster installations and obtain the proper licenses. It is also a good idea to draw a map of your cluster, identifying each member, its IP address and hostname, and its managed server or admin server name.
- Be sure that you read the sections "Tips for All Cluster Installations," on page 52 and "Requirements for All Cluster Installations," on page 52 as well.
- Synchronize clocks

  You must synchronize the internal system clocks on all the machines that are members of the cluster. If you do not, the system can suffer from problems with synchronizing processes across cluster members.

Note

We recommend that you set up an automated or manual process that periodically synchronizes system clocks daily or weekly, depending on the accuracy of your system clocks.

Linux Installations

If you are installing on Linux and the WebLogic installer does not function correctly—it does not appear, it becomes unresponsive, or something similar—set the following environmental variable in the WebLogic start script:

```
LD_ASSUME_KERNEL=2.4.3; export LD_ASSUME_KERNEL
```

Next Step

Create and configure a WebLogic domain:

- If you plan to create a non-portal installation, create and configure a new WebLogic application server domain. For instructions, see Chapter 7, "Creating and Configuring a New WebLogic Domain (Non-Portal)."
- If you plan to create a portal installation, create and configure the WebLogic portal server domain. For instructions, see Chapter 8, "Creating and Configuring a New WebLogic Portal Server Domain."

Chapter 7

Creating and Configuring a New WebLogic Domain (Non-Portal)

This chapter explains how to create and configure a BEA WebLogic application server domain. It contains the following sections:

Before You Begin

Before creating a domain, make sure that WebLogic has been installed on both the content management and production environments (including the development environment if you plan to use one). For installation guidelines, see Chapter 6, "Installing BEA WebLogic Server."

Step I. Create a WebLogic Domain

You must create a domain on each of the environments where WebLogic is installed. To create a domain, follow instructions in Appendix A, "Creating a Domain on a WebLogic Server."

Note that development and content management domains are typically unmanaged, whereas production domains are managed. Appendix A provides instructions for creating both types of domains for portal and non-portal applications.

Step II. Configure the Domain's Startup Parameters

Configuring the domain's startup parameters entails completing the following steps, all of which are given in detail in the rest of this section:

A. Set File Encoding for UTF-8

B. Set the Login Name and Password in the Startup Script (Optional)

C. Start the WebLogic Admin Server

D. Verify the Server Installation

A. Set File Encoding for UTF-8

Just as the database character set must support all the characters that you intend to store, the application server file encoding setting should also be set appropriately. If you plan to use the CS-Desktop feature, you must set the file encoding property in the `startManagedWebLogic.sh` or `startManagedWebLogic.cmd` script to UTF-8.

Complete the following steps:

1. Navigate to the directory that contains the `startManagedWebLogic.cmd` or `startManagedWebLogic.sh` file. Typically it is:

   beaRoot`\user_projects\`*csdomain*

   You recorded the value for *beaRoot* and *csDdomain* (which may be `csdomain`) in Table 6, "WebLogic Installation Parameters," on page 31.
2. Open the file in a text editor such as vi or Notepad.
3. Scroll down to the `JAVA_OPTIONS` section. At the beginning of the statement, insert:

   `-Dfile.encoding=UTF-8`

   For example:

   Windows:

```
set JAVA_OPTIONS=%JAVA_OPTIONS% -Dfile.encoding=UTF-8
```

Note that there is a space that separates the UTF-8 setting from the rest of the string.

UNIX:

```
export JAVA_OPTIONS="-Dfile.encoding=UTF-8 ${JAVA_OPTIONS}"
```

4. Save and close the file.

B. Set the Login Name and Password in the Startup Script (Optional)

While experimenting with the WebLogic admin server, you might need to restart it many times. By default, WebLogic will prompt you for a login name and password every time you restart. If this becomes annoying, you can take the following steps to embed the login and password information in the startup script (a configuration file). After you embed it in this script, WebLogic will not prompt you for a login and password, thus saving some time and aggravation.

Caution

Embedding a password in a plain text file seriously undermines security. Never do this for a live site.

To provide the login name and password in the startup script, complete the following steps:

1. Navigate to the directory that contains the `startWebLogic.cmd` or `startWebLogic.sh` file. Typically it is:

   beaRoot`\user_projects\`*csdomain*

   You recorded the value for `beaRoot` and *csDdomain* (which may be `csdomain`) in Table 6, "WebLogic Installation Parameters," on page 31.

2. Open the file in a text editor such as vi or Notepad.
3. Insert the following values:

   ```
   set WLS_USER = wlAdminName
   set WLS_PW = wlAdminPass
   ```

   You recorded the values of *wlAdminName* and *wlAdminPass* in Table 7, "WebLogic Admin Server Parameters," on page 31.

4. Save and close the file.
5. Repeat these steps for the `startManagedWebLogic.sh` or `startManagedWebLogic.cmd` file.

C. Start the WebLogic Admin Server

To start the WebLogic Admin Server on a Windows system, you can either click the **startWebLogic** icon or invoke the `startWebLogic.cmd` file from a DOS prompt.

To start the WebLogic Admin Server on a Solaris or Linux system, invoke the `startWebLogic.sh` script.

The `startWebLogic.sh` or `startWebLogic.cmd` scripts are located at:

`beaRoot``\user_projects\`*`csdomain`*

You recorded the value for *`beaRoot`* and *`csDdomain`* (which may be `csdomain`) in Table 6, "WebLogic Installation Parameters," on page 31.

After it is invoked, WebLogic displays a variety of messages in a console window. WebLogic is successfully installed and running when this final message appears:

```
<Server started in RUNNING Mode>
```

D. Verify the Server Installation

After starting WebLogic, open the Admin Console and verify that the admin and managed servers that you created during the installation were created correctly.

Complete the following steps:

1. Open a browser and enter the following URL:

   `http://`*`WebHost`*`:`*`wlAdminPort`*`/console`

   For example:

   ```
   http://MyWebHost:7001/console
   ```

   The admin server login page appears.
2. In the admin server login page, log in as the WebLogic administrator user that you created when you installed WebLogic and then recorded in Table 7, "WebLogic Admin Server Parameters," on page 31.
3. In the Admin Console, browse down the tree to the domain that you created for Content Server during the WebLogic installation (*`csDomain`*).
4. Select ***csDomain*** **>** **Servers** **>** ***AdminServerName***.
5. Verify that the servers that you specified during the WebLogic installation are listed.
6. Select the name of the managed server.
7. In the **Configuration** form, select the **Deployment** tab.
8. In the **Staging Mode** field, select **nostage** from the drop-down list.
9. Click **Apply**.

Step III. Oracle Installations: Identifying JDBC Drivers

Identifying the Type 2 JDBC Driver

Complete the following steps to specify the location of the type 2 driver:

1. Use a text editor to open the `startWebLogic` and `startManagedWebLogic` scripts:
   - On Windows: `startWebLogic.cmd` and `startManagedWebLogic.cmd`
   - On Solaris: `startWebLogic.sh` and `startManagedWebLogic.sh`
2. After the initial comments and the server name statement, do the following:

a. Insert the following lines:

```
ORACLE_HOME="complete-path-to-the-Oracle-Home-Directory"
export ORACLE_HOME
ORACLE_SID="Oracle-Net8ConnectionName"
export ORACLE_SID
LD_LIBRARY_PATH=complete-path-to-the-Oracle-Home-Directory
lib:$LD_LIBARY_PATH}
PRE_CLASSPATH=complete-path-to-the-Oracle-Home-Directory/
jdbc/lib/classes12.zip:complete-path-to-the-Oracle-Home-
Directory/jdbc/lib/nls_charset12.zip:$PRE_CLASSPATH
```

b. Add `%PRE_CLASSPATH%` to the beginning of the `CLASSPATH` line. For example:

```
set CLASSPATH=%PRE_CLASSPATH%;%WEBLOGIC_CLASSPATH%;<existing
path>
```

3. Save and close the `startManagedWebLogic.sh` (Linux or Solaris) or `startManagedWebLogic.cmd` (Windows) file.

Identifying the Type 4 JDBC Driver

Complete the following steps to specify the location of the Type 4 driver:

1. Use a text editor to open the `startWebLogic` and `startManagedWebLogic` scripts:
   - On Windows: `startWebLogic.cmd` and `startManagedWebLogic.cmd`
   - On Solaris: `startWebLogic.sh` and `startManagedWebLogic.sh`
2. In both startup scripts, do the following:
   a. Insert the following statement:

```
PRE_CLASSPATH=complete-path-to-the-Oracle-Home-Directory/
jdbc/lib/classes12.zip:complete-path-to-the-Oracle-Home-
Directory/jdbc/lib/nls_charset12.zip:$PRE_CLASSPATH
```

   b. Add `%PRE_CLASSPATH%` to the beginning of the `CLASSPATH` line. For example:

```
set CLASSPATH=%PRE_CLASSPATH%;%WEBLOGIC_CLASSPATH%;<existing
path>
```

3. Save and close the `startWebLogic.sh` and `startManagedWebLogic.sh` (Linux or Solaris) files or the `startWebLogic.cmd` and `startManagedWebLogic` (Windows) files.

Step IV. Restart WebLogic and Verify the Database Connections

After you finish the JDBC driver configuration, stop and restart WebLogic and then verify that it can connect to the database.

Stop and restart both the WebLogic Admin Server and the Managed Server

When the Managed Server stops writing status messages to the console or shell or log, scroll back and examine the output. You have successfully configured the JDBC driver when you can find output similar to the following:

```
<Aug 1, 2003 2:15:33 PM EDT> <Info> <JDBC> <001068> <Connection
for pool "mypool817" created.>
```

```
<Aug 1, 2003 2:15:33 PM EDT> <Info> <JDBC> <001082> <Creating Data
Source named myjndi817 for pool mypool817>
<Aug 1, 2003 2:15:33 PM EDT> <Info> <JDBC> <001070> <Checking
existence of connection pool mypool817 requested by user
principals=[kernel identity = 256023221]>
```

In this example, the connection pool was named “mypool817” and the data source was named “myjndi817.”

Next Step

Your next step depends on whether you are installing a web server:

- If you wish to install a web server, proceed to one of the following two chapters, depending on the web server you have chosen for your installation:
  - Chapter 9, “Installing IIS on Windows”
  - Chapter 11, “Installing Apache on Solaris or Linux”
- If you are not installing a web server, you will need to complete steps that prepare your installation for Content Server. Do one of the following:
  - For Windows installations: Ensure that requirements for installing on Windows are satisfied. See Chapter 13, “Before Installing Content Server on Windows.”
  - For Solaris installations: Ensure that requirements for installing on Solaris are satisfied. See Chapter 14, “Before Installing Content Server on Solaris or Linux.”

Chapter 8

Creating and Configuring a New WebLogic Portal Server Domain

This chapter shows you how to create and configure the BEA WebLogic portal server. It contains the following sections:

Step I. Before You Begin

Before creating a domain, make sure that WebLogic has been installed on both the content management and production environments (including the development environment if you plan to use one). For installation guidelines, see Chapter 6, "Installing BEA WebLogic Server."

Step II. Create a WebLogic Domain

You must create a domain on each of the environments where WebLogic is installed. To create a domain, follow instructions in Appendix A, "Creating a Domain on a WebLogic Server."

Note that development and content management domains are typically unmanaged, whereas production domains are managed. Appendix A provides instructions for creating both types of domains for portal and non-portal applications.

Step III. Set Up a Portal Installation and Create a Web Application

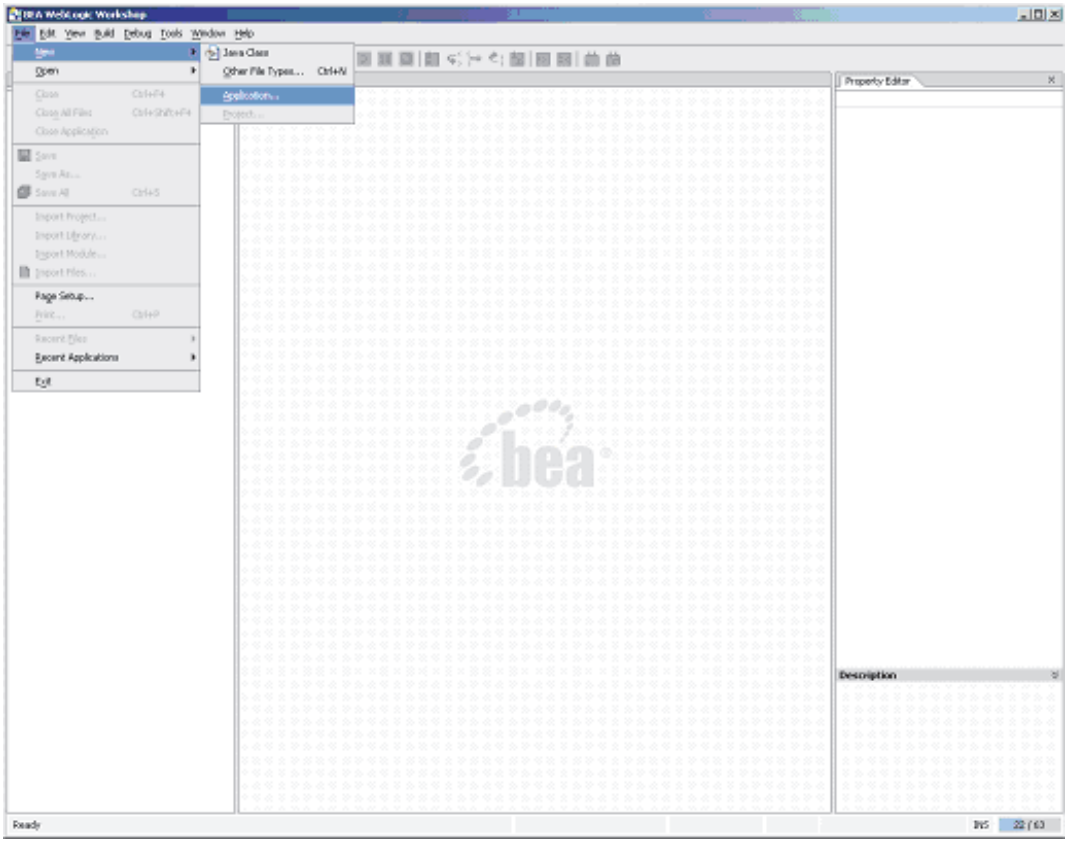
Before installing Content Server, you need a portal installation and a web application. To set up a portal installation and web application, complete the following steps:

1. Run `C:\bea\user_projects\domains\portalDomain\startWebLogic.cmd` to start the portal server.
2. Issue one of the following commands:

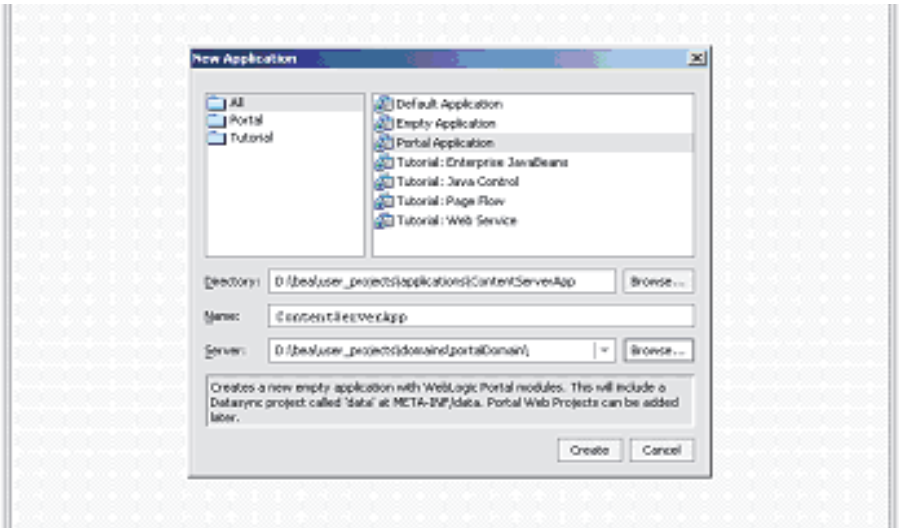
   ```
   <bea installation dir>/weblogic/workshop/Workshop.exe (or
   Workshop.sh)
   ```

3. Open the WebLogic workshop.

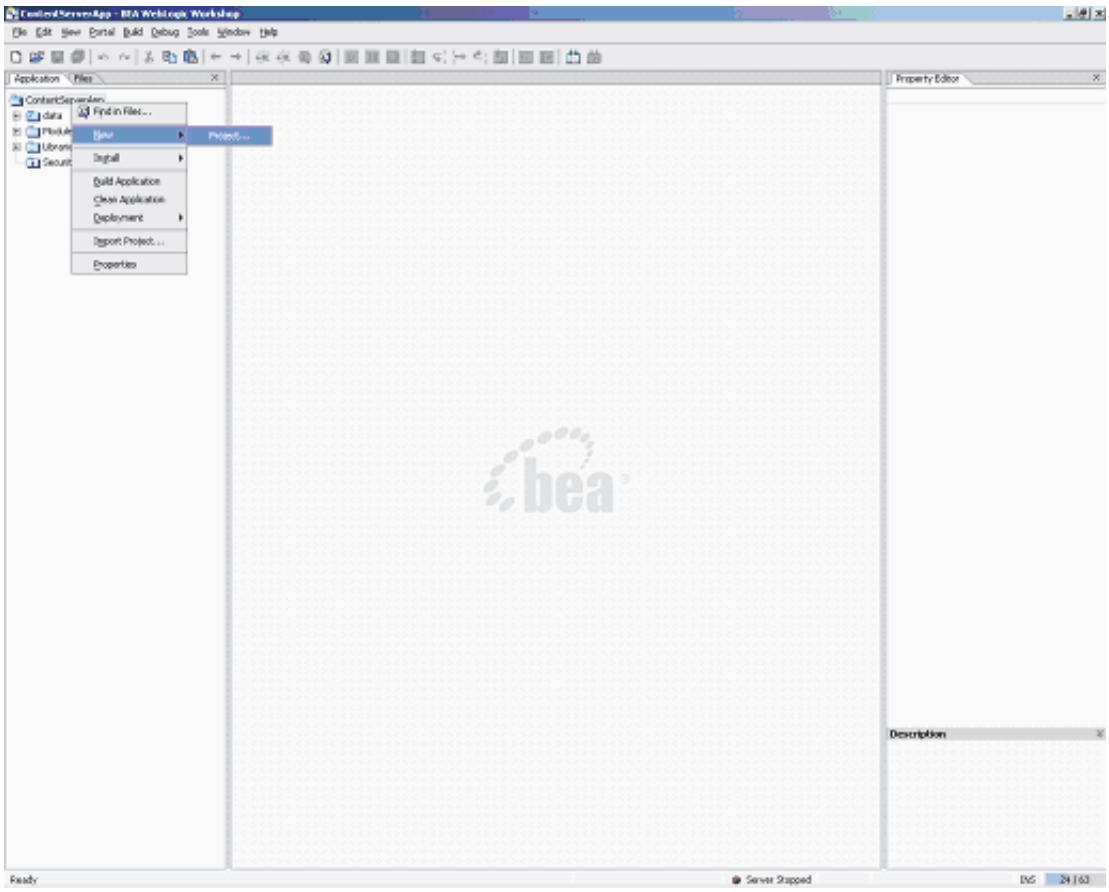
4. Click on **File > New > Application**.



5. Select the **Portal Application** option.
6. Enter **ContentServerApp** as the application name.
7. Browse and select the portalDomain server that you just created as your server. Click **Create**.



8. Right-click on **ContentServerApp** in the left-hand navigation panel and select **New >Project**.



9. In the right-hand navigation window, name the portal web project:
   a. Select **Portal Web Project**. Enter **CS** as the name, then click **Create**.

b. Record the name of the Portal Web Project that you created. You will be using this name throughout the rest of the installation process.

Note

The name that you provide for the Portal Web Project (/CS in our example) is for display purposes, and by default is set as the web application context path, /CS in our example.

Throughout this guide, however, we specify `/servlet` as the web application context path (for example, on page 78, to configure `iisproxy.ini` for the IIS web server).

To preserve the display name and ensure that the web application context path is used consistently throughout the installation process, you can override the default context path.

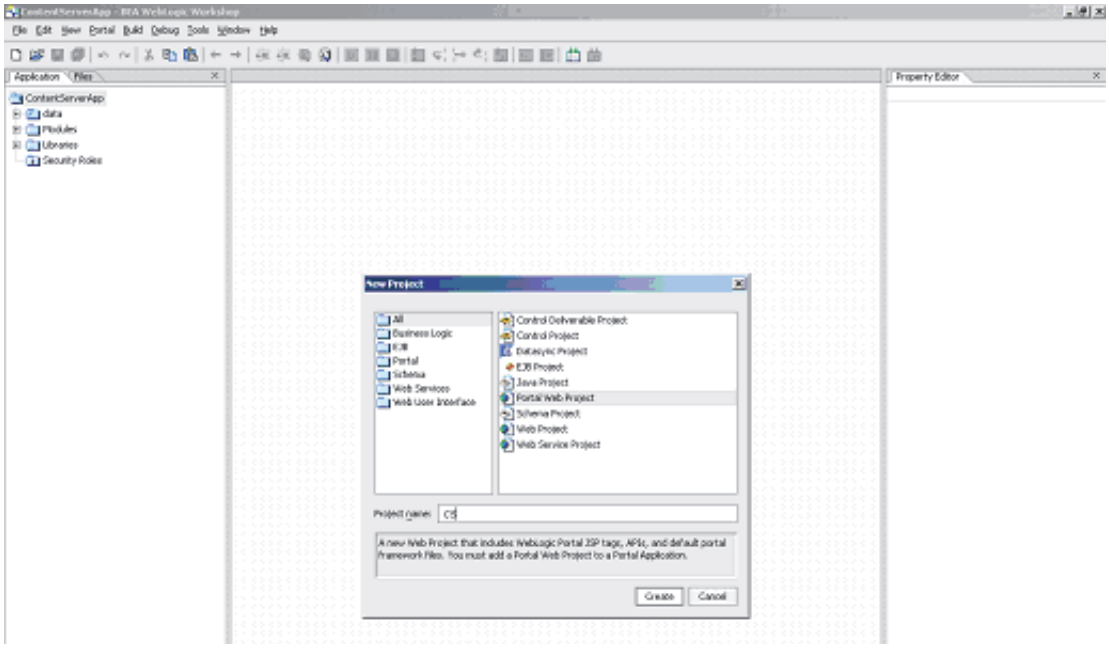
To override the default context path:

1) Right-click on **Web Project CS > Properties**.

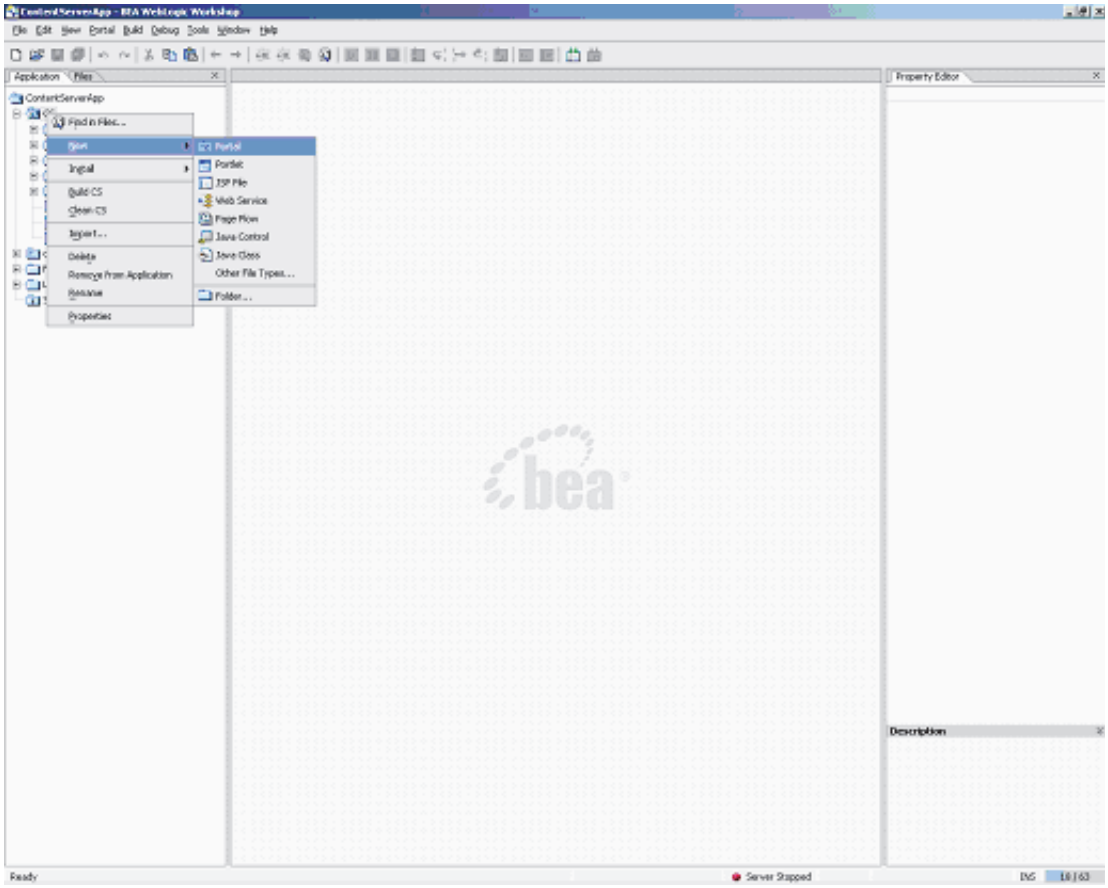
2) Deselect **Use project name** and specify the context root that you wish to use (**/servlet** in this example).

3) Click **OK**.

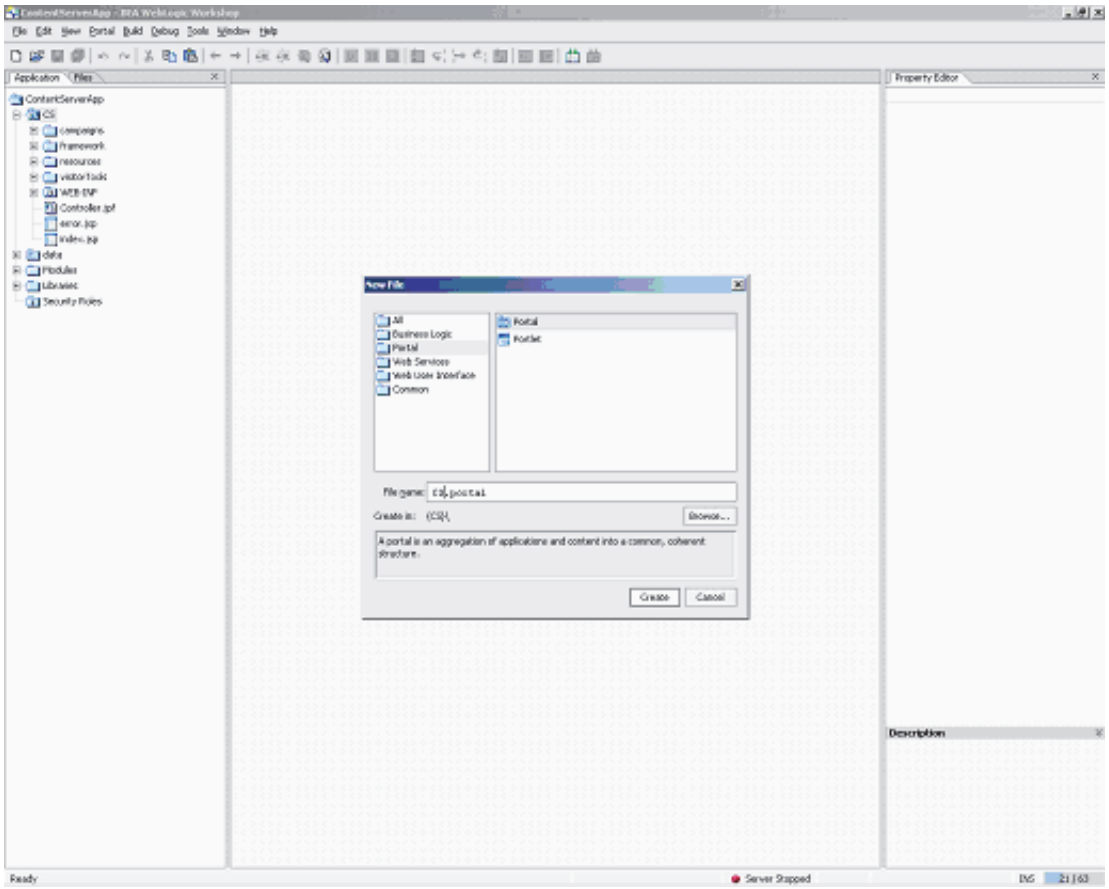
4) Use the new context path whenever you are prompted for it; for example, in the "WebLogic Parameters Screen" (for portal installations only).



10. Right-click on **CS** and select **New > Portal**.

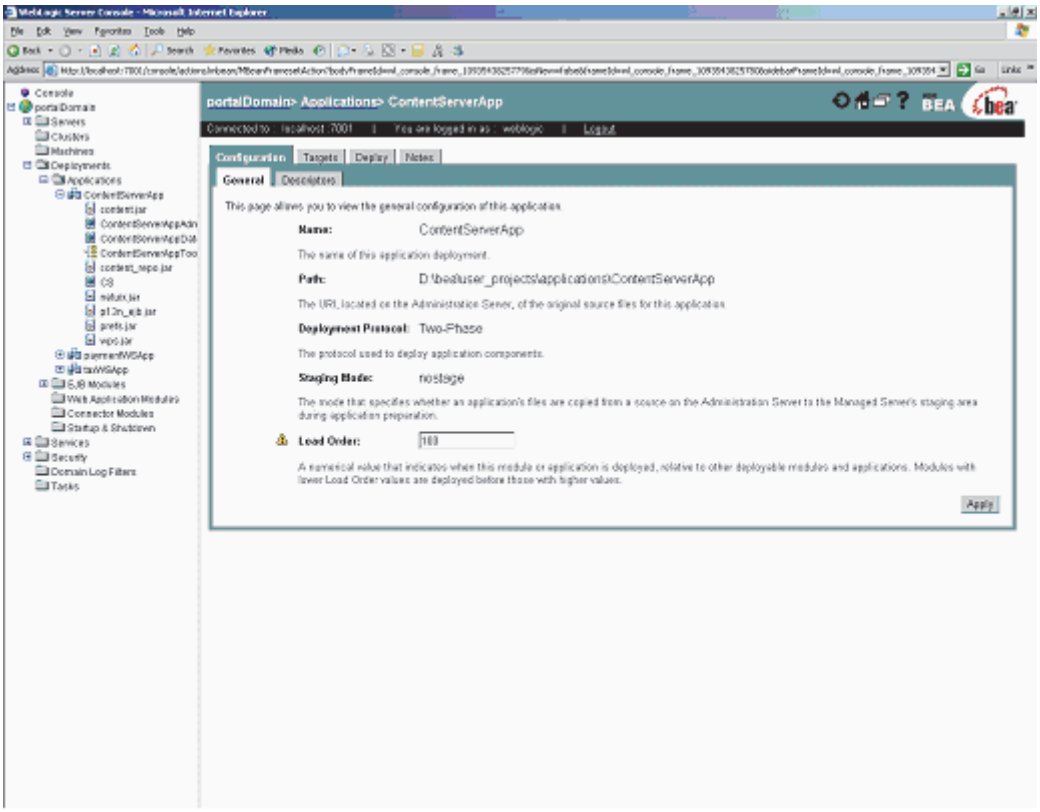


11. Enter **CS.portal** as the name, then click **Create**.

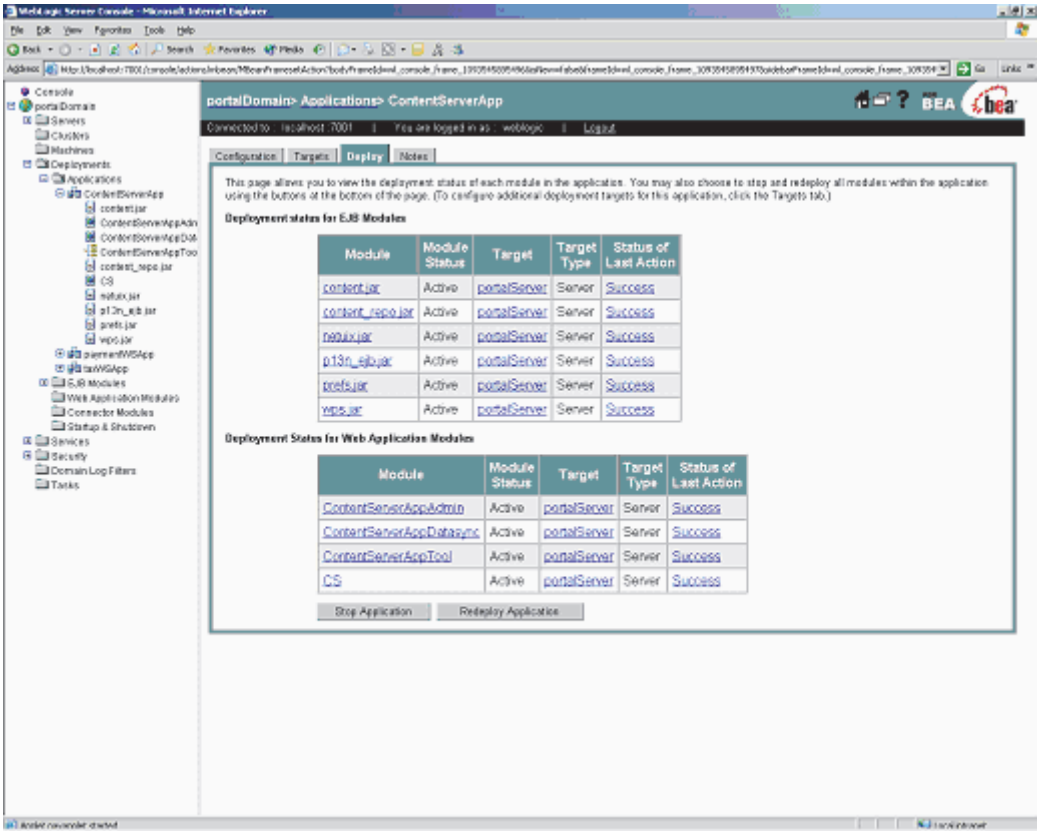


12. Start WebLogic by running the following:
    `C:\bea\user_projects\domains\portalDomain\startWebLogic.cmd`
13. Go to the WebLogic console. Log in using **AdminUserName** as the username and **AdminUserPassword** as the password.

14. In the left navigation, click on **Deployments> Applications> ContentServerApp**.



15. Select the **Deploy** tab. Click on **Redeploy application**. Wait until the "Status of last action" changes to "Success."



16. Run `C:\bea\user_projects\domains\portalDomain\stopWebLogic.cmd` to stop the portal server.

Step IV. Configure the Domain's Startup Parameters

For instructions on configuring the domain's startup parameters, see "Step II. Configure the Domain's Startup Parameters," on page 56. (Note that the step is common to portal and non-portal installations.)

Step V. Oracle Installations: Identifying JDBC Drivers

For instructions on identifying JDBC drivers, see "Step III. Oracle Installations: Identifying JDBC Drivers," on page 58. (Note that the step is common to portal and non-portal installations.)

Next Step

Prepare to install Content Server:

1. Do one of the following:
   - For Windows installations: Ensure that requirements for installing on Windows are satisfied. For instructions, see Chapter 13, "Before Installing Content Server on Windows."
   - For Solaris installations: Ensure that requirements for installing on Solaris are satisfied. For instructions, see Chapter 14, "Before Installing Content Server on Solaris or Linux."
2. Follow the pre-installation steps in Chapter 15, "Before Installing the CS Portal on a Managed Production Server."

Part 4

Web Server

This part describes how to install a Web server. It contains the following chapters:

Chapter 9

Installing IIS on Windows

This chapter explains how to install and test Microsoft's Internet Information Services (IIS). It contains the following sections:

Note

Typically, IIS is either partially or fully installed on most Windows 2000 machines.

- If IIS is only partially installed or not installed, start with the first section, "Step I. Install IIS," on page 74.
- If IIS is fully installed, start with the section "Step II. Document Your IIS Installation," on page 74.

Step I. Install IIS

If IIS is not installed or is only partially installed, follow Microsoft's instruction for installing IIS on a Windows 2000 system.

As a convenience, here is a quick synopsis of the instructions:

1. Select **Start** > **Settings** > **Control Panel**.
2. Select **Add/Remove Programs**.
3. Select the **Add/Remove Windows Components** tab on the left.

   The **Add/Remove Windows Components Wizard** appears.
4. Select **Internet Information Services (IIS)** and then follow the instructions for installing it.

Step II. Document Your IIS Installation

We strongly recommend that you document the details of your IIS installation in Table 4, "Web Server Parameters," on page 30. The following information will help you complete this table:

Table 16: IIS Parameters

Parameter	What it Holds
Web Version	The version number of the IIS software that you installed.
Web Host Name (*WebHost*)	The name by which the installation machine is known on the network.
Web Host IP Address (*WebIP*)	The numeric Internet Protocol address assigned to the web server host machine.
Web Server Port (*WebPort*)	The port number assigned for web server communications. By default, it has the value 80.

Step III. Verify the Installation

After you have installed IIS, you start it and then browse to it in a web browser to determine whether it is serving pages as it should.

A. Start IIS

You can start the various IIS services in various ways. To be sure that all the necessary services are running, start IIS from the **Services** node.

To start IIS services

1. Right-click on the **My Computer** icon.
2. Select **Manage** from the right-mouse menu.

3. In the **Computer Management** dialog box, expand the **Services and Applications** node in the tree.
4. Select **Services**.
5. In the list of services on the right, right click **IIS Admin Service**.
6. Select **Start** from the right mouse menu.

To start or stop the default web site only

1. Right-click on the **MyComputer** icon.
2. Select **Manage** from the right mouse menu.
3. In the **Computer Management** window, expand the **Services and Applications**. node in the tree.
4. Expand the **Internet Information Services** node.
5. Right-click on **Default Web Site**.
6. Select **Start** or **Stop**, as appropriate, from the right mouse menu.

B. Verify that IIS is Serving Pages

To verify that IIS can serve pages, test it from both the server that is hosting it and from another browser on the network.

To verify that IIS can serve pages

1. Start a browser on the host on which IIS is running.
2. From the browser, go to the following URL:

   `http://`*`WebHost`*`:`*`WebPort`*

3. Do one of the following:
   - If the browser displays the IIS home page, then IIS is installed and running properly. Continue to step 4.
   - If the browser returns an error, consult Microsoft's documentation, determine what went wrong, and fix it before you continue.
4. Start a browser on another machine on your network (a host other than the machine hosting IIS).
5. From the browser, go to the following URL:

   `http://`*`WebHost`*`:`*`WebPort`*

   If the browser displays the IIS "Under Construction" page, then IIS is installed and running and the network naming service appears to be working properly.

Next Step

Configure the web server to run with WebLogic and Content Server. For instructions, proceed to Chapter 10, "Configuring IIS for WebLogic and Content Server."

Chapter 10

Configuring IIS for WebLogic and Content Server

After you have installed both IIS and WebLogic, you configure IIS to interact with WebLogic and Content Server. You first configure IIS for WebLogic by setting up the ISAPI plugin that WebLogic provides. You then configure IIS for Content Server by creating a web root and document directory, and then identifying the location of the document root with an IIS virtual directory.

This chapter contains the following sections:

Step I. Configure IIS for WebLogic

You configure IIS for WebLogic by mapping two file extensions to the WebLogic application by pointing to a WebLogic-provided `.dll` and by creating an ISAPI filter that uses the WebLogic plugin or filter (`.dll`) for IIS.

Mapping the file extensions takes two steps:

- Use the IIS console to identify the file extensions and the appropriate `.dll` to use for them.
- Create a configuration file called `iisproxy.ini`, which specifies how to contact WebLogic. Creating the configuration file is a manual step that you complete outside of the IIS console.

A. Create the Application Mappings and the ISAPI Filter

Complete the following steps:

1. Right click on the **My Computer** icon on your desktop and select **Manage** from the right mouse menu.
2. In the Computer Management window, select **Services and Applications** > **Internet Information Services**.
3. Right click on **Default Web Site** and select **Properties**.
4. In the **Default Web Site Properties** dialog box, select the **Home Directory** tab.
5. Click in the **Execute Permissions** field and select **Scripts and Executables** from the drop-down list.
6. Click **Configuration**.
7. In the **Application Configuration** dialog box, select the **App Mappings** tab.
8. In the **App Mappings** dialog box, verify that the **Cache ISAPI applications** option is selected.
9. Click **Add**.
10. In the **Add/Edit Application Extension Mapping** form, create a mapping for the `.jsp` file extension. Enter the following values:

Field	Set It to This Value
Executable	Click **Browse.** Navigate to and select: *`WL_Home`*`\server\bin\iisproxy.dll` You recorded the value for *`WL_Home`* in Table 6, "WebLogic Installation Parameters," on page 31.
Extension	`jsp` (not `.jsp` — do not include the period)
Verbs	**All verbs** (the default)
Script engine	Clear this option.
Check that file exists	Clear this option.

11. Click **OK**.

12. Back in the **App Mappings** dialog box, click **Add** again.
13. This time in the **Add/Edit Application Extension Mapping** dialog box, create a mapping for the `.wlforward` file extension. Enter the following values:

Item	Set It to This Value
Executable	Click **Browse.** Navigate to and select: *WL_Home*`\server\bin\iisproxy.dll` **Note**: Be sure to select `iisproxy.dll`; do **not** select `iisforward.dll` You recorded the value for *WL_Home* in Table 6, "WebLogic Installation Parameters," on page 31.
Extension	`wlforward` (not `.wlforward` — do not include the period)
Verbs	**All verbs** (the default)
Script engine	Clear this option.
Check that file exists	Clear this option.

14. Click **OK**.
15. Back in the **App Mappings** dialog box, click **Apply**; then click **OK**.

    In the the **Application Configuration** window you see two new **Application Mapping** entries named `.jsp` and `.wlforward`.
16. Click **OK**.
17. In the **Default Web Site Properties** dialog box, select the **ISAPI Filters** tab.
18. Click **Add...**.
19. In the **Filter Properties** form, create a filter that uses the WebLogic `iisforward.dll` file. Enter the following values:

Item	Set It to This Value
Filter Name	You can specify any arbitrary name, but we recommend: `iisforwardfilter` Record your selection in the *FilterName* row of Table 4, "Web Server Parameters," on page 30.
Executable	Click **Browse.** Navigate to and select: *WL_Home*`\server\bin\iisforward.dll` You recorded the value for *WL_Home* in Table 6, "WebLogic Installation Parameters," on page 31.

20. Click **OK**.

21. In the **Default Web Site Properties** dialog box, click **Apply;** then click **OK**.

Note (for IIS only)

If you are configuring for IIS 6.0 or later:

1) Be sure to deselect the **Check that file exists** check box. The behavior of this check has changed from earlier versions of IIS: it used to check that the iisproxy.dll file exists; now it checks that files requested from the proxy exist in the root directory of the Web server. If the check does not find the files there, the iisproxy.dll file will not be allowed to proxy requests to WebLogic Server

2) Note that the installed version of IIS with its initial settings does not allow the iisproxy.dll. Use the IIS Manager console to enable the Plug-In:

   a) Open the IIS Manager console.

   b) Select Web Service Extensions.

   c) Set "All Unknown ISAPI Extensions" to **Allowed**.

B. Create the iisproxy.ini Configuration File

Next, create the `iisproxy.ini` file. Complete the following steps:

1. Open a text editor, such as Notepad, and create a new file.
2. In this file, enter the following statements. Be aware that the case of each property must exactly match the case specified here:

```
WebLogicHost=wlHost
WebLogicPort=wlManagedPort
ConnectTimeoutSecs=20
ConnectRetrySecs=5
WlForwardPath=/servlet
```

Note

In the `WlForwardPath` property, /servlet corresponds to *`WebRoot`* in the installer screens. `/servlet` is normally the application server context; however, if you are using the Portal Interface, you must specify the name of the portal web module in order for forwarding to function correctly.

   You recorded the value of *`wlHost`* Table 6, "WebLogic Installation Parameters," on page 31. (If WebLogic is on the same host system as IIS, you can set *`wlHost`* to `localhost`.) You recorded the value of *`wlManagedPort`* in Table 8, "WebLogic Managed Server Parameters," on page 32.

3. Save and name the file: `iisproxy.ini`
4. Place the file in the following directory:

   `WL_Home``\server\bin`

5. Restart all the IIS services. (See "Start IIS," on page 74 for details on restarting IIS.)

Step II. Configure IIS for Content Server

Note

The steps in this section are optional for development systems. They are recommended for production and live systems.

You configure IIS for Content Server by creating a Content Server documentation root and then identifying it to IIS with a virtual directory. This configuration is optional, as the document root and IIS virtual directories are not critical to the operation of Content Server.

The Content Server installation program creates the Content Server documentation root. However, at this stage in your installation, the directory does not yet exist because you have not yet run the Content Server installation program. In this step, you manually create this directory and then create a virtual directory for it.

Note the following:

- If you installed WebLogic and IIS on the same server, the top level of the Content Server documentation root is also the Content Server installation directory. Be sure that you specify this directory during the Content Server installation.
- If you installed IIS and WebLogic on separate machines, there is an additional step to take after the Content Server installation. After you install Content Server on the application server host, you must copy the files from the Content Server documentation root on that machine to the documentation root on the web server machine.

There are two steps in this task:

A. Create the Content Server Document Root

B. Create the IIS Virtual Directories for Content Server

A. Create the Content Server Document Root

Create the Content Server document root on the machine(s) where you installed IIS.

Complete the following steps:

1. Create the top-level directory for the Content Server documentation root. Note that if WebLogic and IIS are installed on the same host, this top-level directory will also be the Content Server installation directory. For example: `C:\ContentServer`

   If WebLogic and IIS are installed on the same host, record the name of this directory in the *`csRoot`* row of Table 4, "Web Server Parameters," on page 30.

2. In the top-level Content Server directory, create a subdirectory called `futuretense_cs` (in this example, the path to `futuretense.ini` is: `C:\ContentServer\futuretense.ini`).

> **Note**
>
> You may place the *`csRoot`* anywhere and give it any name; however, you must name its subdirectory `futuretense_cs`.

3. In the `futuretense_cs` directory, create a subdirectory named `Xcelerate`. The name is case sensitive and must be spelled exactly as shown, with an initial capital letter "X" (in this example, the path to `Xcelerate` is `C:\ContentServer\futuretense_cs\Xcelerate`).

B. Create the IIS Virtual Directories for Content Server

Follow these steps to configure IIS to use the Content Server document root directory:

1. Select **Start** > **Programs** > **Administrative Tools** > **Internet Services Manager**
2. Expand the node that represents your Content Server system.
3. Click to select the **Default Web Site**.
4. Select **Action** > **New** > **Virtual Directory**.
5. Create a virtual directory for the `futuretense_cs` directory as follows:
   - Name it `futuretense_cs`
   - In the **Web Site Content Directory** window, browse to the `futuretense_cs` directory that you created on this machine.
   - In the **Access Permissions** window, select **Read**, **Execute**, and **Browse**. Do **not** select Run Scripts or Write.
6. Select **Action > New > Virtual Directory** again and this time create a virtual directory for the `Xcelerate` directory. Name it `Xcelerate`, browse to the `Xcelerate` directory that you created, and give it the same access permissions as for the `futuretense_cs` directory.

Step III. Verify the ISAPI Plugin Configuration

To verify that the ISAPI plugin is configured correctly, you must determine whether it is running and is forwarding requests to WebLogic.

Complete the following steps:

1. Open a browser and navigate to the following URL:

   `http://`*`WebHost`*`:`*`WebPort`*`/servlet`

   You recorded the values of *`WebHost`* and *`WebPort`* in Table 4, "Web Server Parameters," on page 30.

If the IIS/WebLogic configuration is working properly, you should see an **error page returned by the ISAPI plugin.** If you do not see the ISAPI error page, the plugin is not

configured correctly. Examine all of your application mappings and the `iisproxy.ini` file. Typically, the case of a property or an incorrect value in the `iisproxy.ini` is the cause.

Next Step

Prepare to install Content Server. Do one of the following:

- For Windows installations: Ensure that requirements for installing on Windows are satisfied. For instructions, proceed to Chapter 13, "Before Installing Content Server on Windows."
- For Solaris installations: Ensure that requirements for installing on Solaris are satisfied. For instructions, proceed to Chapter 14, "Before Installing Content Server on Solaris or Linux."

Chapter 11

Installing Apache on Solaris or Linux

This chapter describes how to install and configure Apache HTTP Server. As previously mentioned, you can install Apache on the same machine that will host WebLogic and Content Server or you can install and use it on a separate host.

This chapter contains the following sections:

Step I. Install Apache

1. Apache HTTP Server can be pre-installed on Solaris 8, Solaris 9, Linux RedHat, and Linux SuSE systems. Determine whether Apache is installed on the environment(s) on which you plan to run it.
2. Do one of the following:
   - If Apache is already installed, continue with "Step II. Document Your Apache Parameters," on page 86.
   - If Apache is not already installed, you can do one of the following:

- Install it from your source medium.
- Download it from the Internet.
- Build it from source; that is, select the modules and compile the Apache executable yourself. If you want to build it from source, refer to the information that the Apache Foundation makes available at `http://www.apache.org/` and follow their instructions.

Step II. Document Your Apache Parameters

We strongly recommend that you document the details of your Apache installation in Table 4, "Web Server Parameters," on page 30. The following information will help you complete this table:

Table 17: Apache Parameters

Parameter	What it Holds
Web Server Version (*WebVersion*)	The version of Apache that the host is running. Note that you must use a version that Content Server supports.
Web Host Name (*WebHost*)	The name by which the Apache host machine is known on the network.
Web Host IP Address (*WebIP*)	The numeric Internet Protocol address assigned to the Apache host machine.
Web Server Port (*WebPort*)	The port number assigned for Apache communications. By default, it has the value 80.
Apache Root Directory (*ApacheRoot*)	The top-level directory in which Apache is installed. Immediate subdirectories of *ApacheRoot* include `bin` and `conf`.

Step III. Verify that Apache Contains the Correct Module

Note

This section applies only to Apache version 1.3x.

Apache is modular software, built from a set of modules. WebLogic Server requires that the `mod_so.c` module be present on the machine that is hosting the Apache web server. Please verify that your Apache server contains this module by using the command `httpd` with the `-l` option and search for `mod_so` in the output.

For example:

```
$ ApacheRoot/bin/httpd -l | grep 'mod_so'
mod_so.c
```

Examine the output and do one of the following:

- If the output from the preceding command contains `mod_so.c`, then your version of Apache contains the correct module. Proceed to "Step IV. Verify that Apache Runs Properly," on page 87.
- If the output from the preceding command does not contain `mod_so.c`, you must rebuild and reinstall Apache. For guidelines, see "Step I. Install Apache," on page 86.

Step IV. Verify that Apache Runs Properly

In this step, you will start Apache and verify that it is running properly. For verification instructions, see the Apache web site (given in "Step I. Install Apache," on page 86).

Next Step

Configure Apache to run with WebLogic and Content Server. For instructions, proceed to Chapter 12, "Configuring Apache for WebLogic and Content Server."

Chapter 12

Configuring Apache for WebLogic and Content Server

You configure Apache for WebLogic by installing the Apache plugin that WebLogic provides, and then editing the Apache configuration file so that the plugin module is loaded when Apache is started.

You configure Apache for Content Server by creating the Content Server document root and then identifying the location of that document root in the Apache configuration file. This step is how you enable Apache to find the Content Server files it needs after you have installed Content Server.

This chapter contains the following sections:

Step I. Install the Apache HTTP Server Plugin from WebLogic

The Apache plugin is a shared library that BEA provides so that WebLogic will support Apache. To install it, you obtain it from a WebLogic directory and copy it to the appropriate Apache directory.

If you installed Apache and WebLogic on different hosts, you copy the file from the WebLogic directory on the WebLogic host to the appropriate Apache directory on the Apache host. If you installed Apache on more than one host, you copy the file to the appropriate directory on each host.

Complete the following steps:

1. Do one of the following:
   - If you are using Apache version 2.x, locate the `mod_wl_20.so` file:
   - If you are using Apache version 1.3.x, locate the `mod_wl.so` file:

   For Solaris, the files are located in the *`wl_HOME`*`/server/lib/solaris` directory.

   For Linux, the files are located in the *`wl_HOME`*`/server/lib/linux/i686` directory.

   See Table 6, "WebLogic Installation Parameters," on page 31 for the value of *`wl_HOME`*.
2. Copy the appropriate file to the appropriate directory. Do one of the following:
   - If you are using Apache version 2.x, copy the `mod_wl_20.so` file to: *`ApacheRoot`*`/modules`
   - If you are using Apache version 1.3.x, copy the `mod_wl.so` file to: *`ApacheRoot`*`/libexec`

   You recorded the value of *`ApacheRoot`* in Table 4, "Web Server Parameters," on page 30.

Note that the plugin isn't completely "installed" until you enter the appropriate `AddModule` and `LoadModule` statements in the `httpd.conf` file, which you will do after you create the Content Server document root.

Step II. Create the Content Server Document Root (optional)

You configure Apache for Content Server by creating a Content Server documentation root and then identifying it to Apache through alias statements in the `httpd.conf` file. This configuration is optional, as the document root is not critical to the operation of Content Server.

The Content Server installation program creates the Content Server documentation root. However, at this stage in your installation, the directory does not yet exist because you have not yet run the Content Server installation program. In this step, you manually create this directory and then specify its location in the `httpd.conf` file.

Note the following:

- If you installed WebLogic and Apache on the same server, the top level of the Content Server documentation root is also the Content Server installation directory. Be sure that you specify this directory during the Content Server installation.
- If you installed Apache and WebLogic on separate machines, there is an additional step to take after the Content Server installation. After you install Content Server on the application server host, you must copy the files from the Content Server documentation root on that machine to the documentation root on the web server machine.

You create the Content Server documentation root on the machine(s) that host Apache. Complete the following steps:

1. Create the top-level Content Server directory. If you installed Apache and WebLogic on the same server, this directory is also the Content Server installation directory. For example:

   ```
   $ mkdir /local/ContentServer
   ```

   If you installed Apache and WebLogic on the same host, record the directory in the *csRoot* row of Table 12, "Content Server Configuration," on page 34.

2. Under the *csRoot* directory, create a subdirectory named `futuretense_cs`. For example:

   ```
   $ mkdir /local/ContentServer/futuretense_cs
   ```

   Note

   Although you can name the *csRoot* anything you want, you must name its subdirectory `futuretense_cs`.

   Record the directory in the *csDocRoot* row of Table 12, "Content Server Configuration," on page 34.

3. Under the `futuretense_cs` subdirectory, create a subdirectory named `Xcelerate`. It must be spelled exactly, with an initial capital letter "X." For example:

   ```
   $ mkdir /local/ContentServer/futuretense_cs/Xcelerate
   ```

Step III. Edit the Apache Configuration File

After you have installed WebLogic's Apache plugin and have created the Content Server document root, edit the Apache configuration file so that Apache has the information it needs to load the plugin and to find the Content Server document root. You must edit the `httpd.conf` file for each web server in your system.

Complete the following steps:

1. As the **root user**, open the `httpd.conf` file in a text editor such as vi or emacs. It is located at one of the following one of the following pathnames:

   ApacheRoot`/conf/httpd.conf`

   or

   `/etc/Apache/httpd.conf`

You recorded the value of *ApacheRoot* in Table 4, "Web Server Parameters," on page 30.

2. Scroll down to the `Dynamic Shared Object` section. Under the LoadModule example, do one of the following:
   - If you are using Apache version 1.3.x, add the following directive:

     ```
     LoadModule weblogic_module libexec/mod_wl.so
     ```
   - If you are using Apache version 2.x, add the following directive:

     ```
     LoadModule weblogic_module modules/mod_wl_20.so
     ```
3. If you are using Apache version 1.3.x, scroll down to the last `AddModule` directive, and add the following directive:

   ```
   AddModule mod_weblogic.c
   ```
4. For both Apache version 1.3.x and 2.x, scroll down to the last `<IfModule>` directive, and add the following directive under it:

   ```
   <IfModule mod_weblogic.c>
     WebLogicHost wlHost
     WebLogicPort wlManagedPort
     HungServerRecoverSecs 7200
   </IfModule>
   ```

   You recorded the value of *wlHost* in Table 6, "WebLogic Installation Parameters," on page 31 and the value of *wlManagedPort* in Table 8, "WebLogic Managed Server Parameters," on page 32.
5. For both Apache version 1.3.x and 2.x, scroll down to the last `<Location>` directive and add the following directive:

   ```
   <Location /servlet>
     SetHandler weblogic-handler
   </Location>
   ```

Note

In the `WlForwardPath` property, `/servlet` corresponds to *WebRoot* in the installer screens. `/servlet` is normally the application server context; however, if you are using the portal interface, you must specify the name of the portal web module in order for forwarding to function correctly.

Step IV. Configure Apache for Content Server

Note

The steps in this section are optional for development systems. They are recommended for production and live systems.

1. Search for the `Alias` section in this file. After the `Alias /icons/` statement, identify the `futuretense_cs` and the `Xcelerate` directories with two new Alias statements. Use the absolute pathname of the Content Server document root directory `futuretense_cs` and to the `Xcelerate` subdirectory.

   For example, if your Content Server document root directory is `/local/ContentServer/futuretense_cs`, you would insert the following directives into the `Alias` section:

   ```
   Alias /futuretense_cs "/local/ContentServer/futuretense_cs"
   <Directory "/local/ContentServer/futuretense_cs"
   Options Indexes MultiViews
   AllowOverride None
   Order allow,deny
   Allow from all
   </Directory>

   Alias /Xcelerate "/local/ContentServer/Xcelerate"
   <Directory "/local/ContentServer/futuretense_cs/Xcelerate"
   Options Indexes MultiViews
   AllowOverride None
   Order allow,deny
   Allow from all
   </Directory>
   ```

2. Save and close the `httpd.conf` file.

Step V. Restart and Verify Apache

After you finish modifying the `httpd.conf` file, restart Apache so the configuration changes are implemented and then verify that it is running properly. Complete the following steps:

1. In a UNIX or Linux shell, change directories as follows:

   ```
   $ cd ApacheRoot/bin
   ```

   The Apache start and restart scripts are at *ApacheRoot*`/bin/apachect1`

2. Enter the following command:

   ```
   $ apachectl restart
   ```

3. In your browser, go to the following URL:

   `http://`*`WebHost:WebPort`*

You recorded the values of *WebHost* and *WebPort* in Table 4, "Web Server Parameters," on page 30.

4. If your browser displays the following question, then you have properly configured Apache to work with WebLogic:

   "Seeing this instead of the website you expected?"

   If you do not see the preceding message, refer to BEA's documentation for help.

Step VI. Start the WebLogic Managed Server and Verify the Plugin Configuration

You started the WebLogic Admin server at the end of Chapter 6, "Installing BEA WebLogic Server." Now start the WebLogic Managed Server and check that WebLogic's Apache plugin is routing requests to the WebLogic managed server (which will become the Content Server managed server after you install Content Server).

Complete the following steps:

1. Open the `startManagedWebLogic.sh` script using vi or another text editor. It is located here:

   `$ beaRoot/user_projects/csDomain/startManagedWebLogic.sh`

   You recorded the value for *beaRoot* and *csDomain* (which may be `csdomain`) in Table 6, "WebLogic Installation Parameters," on page 31.

2. Scroll down the file, and just after the set *WL_HOME* statement, insert the following lines:

   ```
   set ADMIN_URL=http://wlhost:wlAdminPort
   set SERVER_NAME=wlManagedSerName
   ```

   You recorded the values for *wlhost*, *wlManagedSerName* and *wlAdminPort* in the tables in the section named "WebLogic Parameters," on page 31.

3. Save the file.

4. Invoke the `startManagedWebLogic.sh` script.

   The WebLogic Managed Server displays a variety of messages in a console window. The Managed Server is successfully running when this final message appears:

   ```
   <Server started in RUNNING mode.>
   ```

5. Using a browser, go to the following URL:

   `http://WebHost:WebPort/servlet`

   You recorded the values of *WebHost* and *WebPort* in Table 4, "Web Server Parameters," on page 30.

   If the configuration of WebLogic's Apache plugin is correct, you should see a **404 Page Not Found** error page **returned by WebLogic.** If you see another error message —"The Page cannot be displayed," "Cannot connect to server," an Apache timeout message, and so on—the plugin was not configured correctly.

Next Step

Prepare to install Content Server. Do one of the following:

- For Windows installations: Ensure that requirements for installing on Windows are satisfied. For instructions, proceed to Chapter 13, “Before Installing Content Server on Windows.”
- For Solaris installations: Ensure that requirements for installing on Solaris are satisfied. For instructions, proceed to Chapter 14, “Before Installing Content Server on Solaris or Linux.”

Part 5

Before Installing Content Server

This part explains how to prepare for the installation of Content Server. It contains the following chapters:

- Chapter 13, “Before Installing Content Server on Windows”
- Chapter 14, “Before Installing Content Server on Solaris or Linux”

Chapter 13

Before Installing Content Server on Windows

This chapter explains what you need to do prior to installing Content Server on Windows. (If you are installing on Solaris, go to Chapter 14, "Before Installing Content Server on Solaris or Linux" instead.)

This chapter contains the following sections:

Step I. Ensure that Prerequisite Components Have Been Installed and Configured

Before installing Content Server on Windows, you must have already installed and configured the components listed in this section. Make sure that you are using the versions listed at the following URL:

```
http://e-docs.fatwire.com/CS
```

Locate the CS version of interest and click the **Supported Platforms Document** link.

The components are:

- A version of Windows (and all necessary service packs) that Content Server supports.
- A version of Oracle or SQL Server 2000 that Content Server supports. Refer to Chapter 4, "Installing the DBMS" for instructions. Confirm that the tablespace is empty.
- A version of IIS that Content Server supports. Refer to Chapter 9, "Installing IIS on Windows" for instructions.

> **Note**
>
> IIS is optional for systems running exclusively on WebLogic.

- A version of WebLogic that Content Server supports on all the hosts where you plan to install Content Server. Refer to "WebLogic Server," on page 49 for instructions.
- A JDBC driver that WebLogic and your DBMS support.

Step II. Ensure Environment Requirements are Met

Before installing Content Server, you must ensure that the `PATH` environment variable includes the path to a supported version of JDK. Both WebLogic versions 8.1 provide a supported version of JDK, so the easiest way to fulfill this requirement is to include the path to the JDK provided by WebLogic.

For example, the WebLogic-provided JDK in version 8.1 is located here:

`WL_HOME``\jdk141_05\bin`

You recorded the value of *`WL_HOME`* in Table 6, "WebLogic Installation Parameters," on page 31.

To set the `PATH` variable, do the following:

1. Select Start > Control Panel > System.
2. In the **System Properties** dialog box, select the **Environment** tab.
3. Examine the value assigned to the `PATH` variable. If there is no path setting for a version of JDK, prepend the value set for this variable with:

   `WL_HOME``\jdk141_05\bin;`
4. Restart the Windows 2000 server.

Step III. Back Up Your web.xml File

Caution

The Content Server installation program will overwrite the `web.xml` file used by the Content Server web application. If you have customized your Content Server `web.xml` file, make a copy of it *before* you install or upgrade Content Server so that your customizations are not lost.

Step IV. Clusters Only: Create the Shared File System

The cluster needs a shared file system to store common system files and for synchronizing cache activities (resultset, disk, and memory).

Note the following:

- The shared file system should reside either on the database host or another, separate host. In other words, it should not reside on any of the application servers in the cluster or on any of the web servers.
- The Content Server user account (`csdbuser`) on every server in the cluster should have the same name and password.
- The Content Server user account on every server in the cluster must have read, write, and delete access to this shared file system.
- Create a subdirectory in the share to use as the synchronization folder. For example, name it `sync`.

Record the following values in Table 10, "WebLogic Cluster Parameters," on page 33:

- The name of the share
- The name of the `sync` folder in the share

Step V. Prepare to Extract the Installation Program

Before extracting the Content Server installation program, do the following:

1. Verify that the database is running.
2. Start the web server.
3. Start the admin server and the managed server on this host.

Step VI. Extract the Installation Program

1. Create a temporary directory.
2. Run the self-extracting file `cs.exe` from the CD to extract the installation files to a temporary directory that you created.

3. Open a DOS prompt.
4. Change to the directory you specified in step 1 on page 101. For example, if you extracted the files into `c:\temp`, issue the following command:

   ```
   c:\> cd c:\temp\Burns
   ```

5. Type the following to invoke the installation batch file (`CombinedInstall.bat`):

   ```
   c:\temp\Burns> CombinedInstall
   ```

Next Step

Your next step depends on whether you are installing Content Server as a web site application or a portal:

- If you plan to create a non-portal installation, install Content Server on the WebLogic application server. For instructions, see Chapter 16, "Installing CS on the WebLogic Application Server (Non Portal)."
- If you plan to create a portal installation, complete the pre-installation steps in Chapter 15, "Before Installing the CS Portal on a Managed Production Server."

Chapter 14

Before Installing Content Server on Solaris or Linux

This chapter explains what you need to do prior to installing Content Server on Solaris or Linux. If you are installing on Windows, see Chapter 13, "Before Installing Content Server on Windows" instead.

This chapter contains the following sections:

Step I. Ensure that Prerequisite Components Have Been Installed and Configured

Before installing Content Server on Solaris or Linux, check that you have already installed and configured the components listed below. Make sure you are using the versions listed in the **Supported Platform List (SPD)**, accessible from the following URL: `http://e-docs.fatwire.com/CS` (click the link to the Content Server version of interest, then click the **Supported Platform List (SPD)** link).

The components are:

- A version of Solaris (and all necessary patches) or Linux that Content Server supports.
- A version of the DBMS that Content Server supports. For instructions, refer to "Guidelines for Installing Oracle," on page 40. Confirm that the tablespace is empty.
- Optional, but recommended: A web server that WebLogic supports. For instructions, refer to "Installing Apache on Solaris or Linux," on page 85.
- A version of WebLogic that Content Server supports. Make sure that WebLogic is installed on all the machines where you plan to install Content Server. For installation and configuration instructions, refer to "WebLogic Server," on page 49.
- A JDBC driver that WebLogic and the DBMS support. For instructions, refer to Chapter 5, "Configuring the DBMS for Content Server" and "Creating a Domain on a WebLogic Server," on page 193.

Step II. Ensure that Environment Requirements are Met

Before installing Content Server, you must ensure that your UNIX environment is set up properly. Specifically, you must:

A. Verify HOME Directory Permissions

B. Set the PATH

A. Verify HOME Directory Permissions

Follow these steps to ensure that the `HOME` directory has the correct permissions:

1. Log in as the Solaris or Linux user that you used to install WebLogic. Retrieve this information from Table 5, "Who Installed WebLogic?," on page 31.
2. If necessary, change to the `HOME` directory.

   ```
   $ cd
   ```

3. Check the permissions.

   ```
   $ ls -ald .
   ```

   The output from the ls command should show the following permissions:

   ```
   drwxr-xr-x
   ```

4. If the permissions are incorrect, run the following command:

   ```
   $ chmod 755 .
   ```

B. Set the PATH

The very first directory in the PATH environment variable must contain the path to either the JDK that WebLogic provides or to another JDK version that is 1.3.x or higher.

The value for the WebLogic-provided JDK is as follows:

- For WebLogic 8.1: *WL_HOME*/bea/jdk1.4.1_03/bin

For example, suppose you installed WebLogic 8.1 in a directory called local/weblogic8. In this case, you insert the following value at the very beginning of the PATH variable:

```
export PATH=/local/weblogic8/bea/jdk1.4.1_03/bin:$PATH
```

You can edit the PATH variable on the shell command line or in a shell startup file.

Step III. Back Up Your web.xml File

Caution

The Content Server installation program will overwrite the web.xml file used by the Content Server web application. If you have customized your Content Server web.xml file, make a copy of it *before* you install Content Server so that your customizations are not lost.

Step IV. Clusters Only: Create the Shared File System

The cluster needs a shared file system to store common system files and for synchronizing cache activities (resultset, disk, and memory).

Note the following:

- The shared file system should reside either on the database host or another, separate host. In other words, it should not reside on any of the application servers in the cluster or on any of the web servers.
- The Content Server user account (csdbuser) on every server in the cluster should have the same name and password.
- The Content Server user account on every server in the cluster must have read, write, and delete access to this shared file system.
- Create a subdirectory in the share to use as the synchronization folder. For example, name it sync.

Record the following values in Table 10, "WebLogic Cluster Parameters," on page 33:

- The name of the share
- The name of the sync folder in the share

Step V. Prepare to Extract the Installation Program

Before extracting the Content Server installation program, do the following:

1. Log in as the Solaris or Linux user that you created. Retrieve this information from Table 5, "Who Installed WebLogic?," on page 31.
2. Start the database and listener as the same user who installed Oracle, if they are not already running. Retrieve this information from Table 2, "DBMS Accounts," on page 29.
3. Start the web server.
4. Start the admin server and the managed server on this host. If this is a cluster installation, start the managed server on this host and the admin server on the admin server host.

Step VI. Extract the Installation Program

To extract the Content Server installation program, do the following:

1. Create a temporary directory into which you will untar the `cs.tar` file:

   ```
   $ mkdir $HOME/temp_cs
   ```

2. Change to this temporary directory:

   ```
   $ cd $HOME/temp_cs
   ```

3. Untar the `cs.tar` file; for example:

   ```
   $ tar -xvf cs.tar
   ```

   Note

   The GNU `tar` utility does not handle long pathnames in the same way as the Solaris `tar` utility. Do not use the GNU tar utility to unbundle the tar file; you must use the Solaris `tar` utility.

4. The tar program creates a `ContentServer` subdirectory of the temporary directory. Change to that subdirectory by typing:

   ```
   $ cd ContentServer
   ```

5. Invoke the `csinstall` program by typing the following command:

   ```
   $ sh CombinedInstall.sh
   ```

   Note for Linux Installations

   If the Content Server installer does not function correctly—it does not appear, it becomes unresponsive, or something similar—set the following environmental variable in the WebLogic start script and then restart the application server:

   ```
   LD_ASSUME_KERNEL=2.4.3; export LD_ASSUME_KERNEL
   ```

Next Step

Your next step depends on whether you are installing Content Server as a web site application or a portal:

- If you wish to create a non-portal installation, complete the steps in Chapter 16, "Installing CS on the WebLogic Application Server (Non Portal)."
- If you plan to create a portal installation, complete the pre-installation steps in Chapter 15, "Before Installing the CS Portal on a Managed Production Server."

Chapter 15

Before Installing the CS Portal on a Managed Production Server

This chapter shows you how to prepare a managed production server for an installation of the Content Server portal. It contains the following sections:

Step I. Pre-Deployment

In this step, you will create a workshop portal application project on the content management domain. You will also build an EAR file which you will then copy to the production environment.

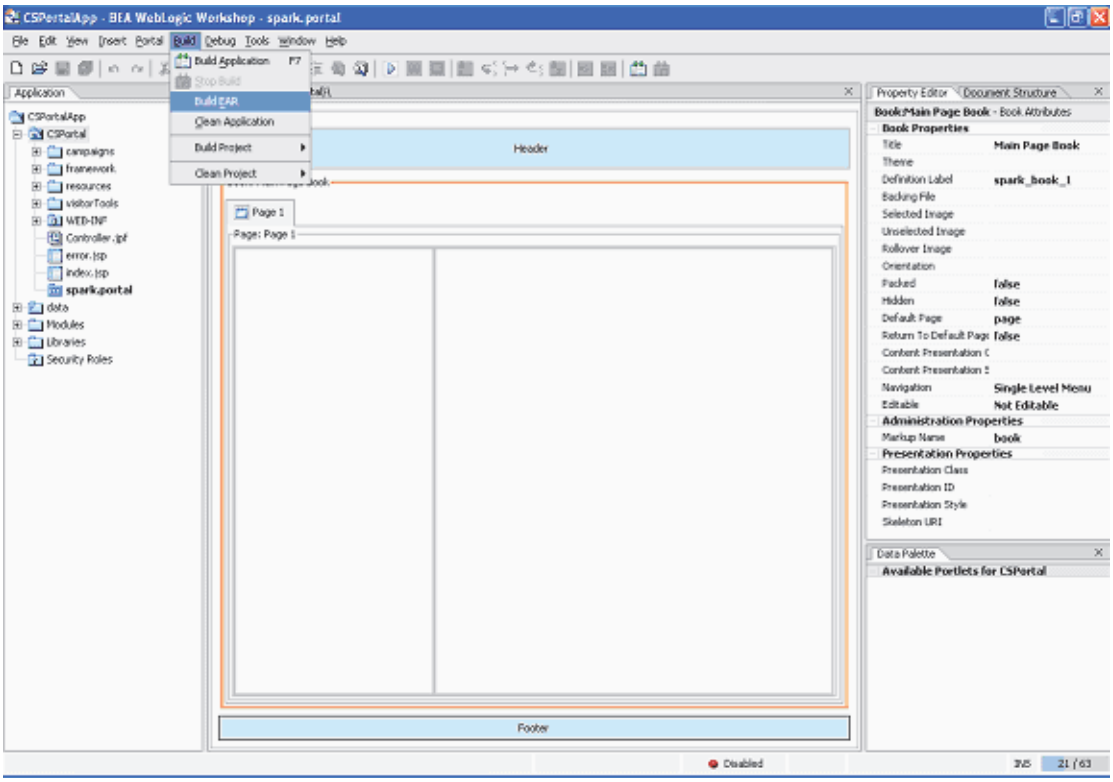
Note

In this step, it is assumed that you have already created the content management and production domains. If you need instructions for doing so, proceed to Appendix A, "Creating a Domain on a WebLogic Server."

1. On the content management domain, create a workshop portal application project. For instructions, see "Step III. Set Up a Portal Installation and Create a Web Application," on page 62.
2. Build an EAR file using the build menu:

   For example, if the name of the application is `CSPortalApp` and the EAR file is `CSPortalApp.ear`, the following hold:

   - The application name is: `CSPortalApp`
   - The web app contained within the application is: `CSPortal`
   - The URL for the web app contained within the application is `/CSPortal`

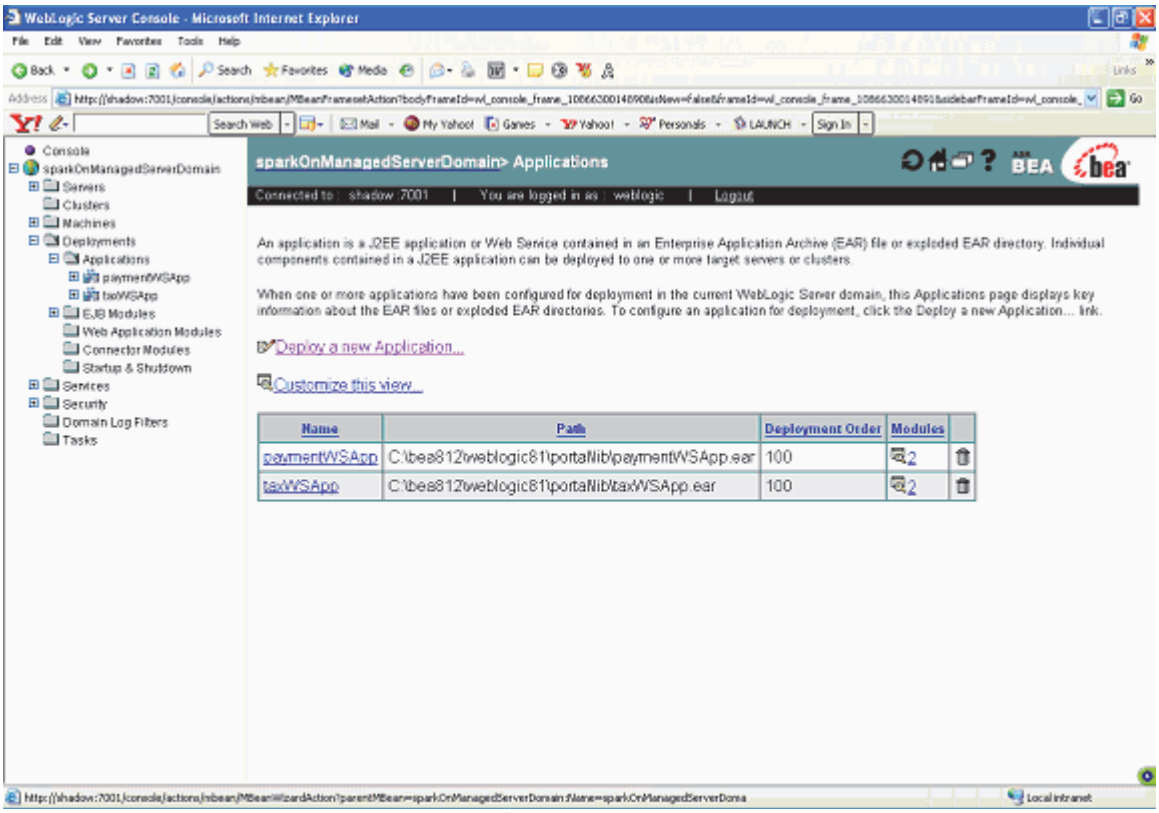


Step II. Deployment

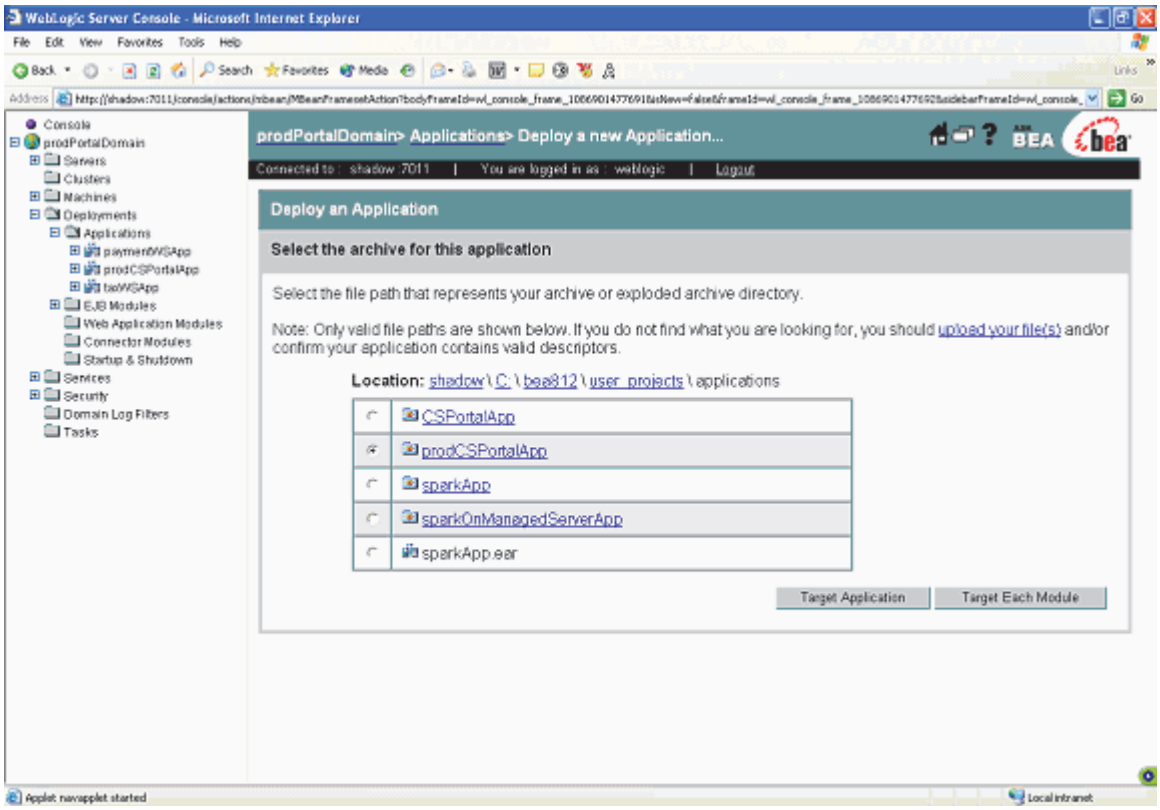
In this step, you will deploy the EAR in an exploded format on the production machine.

1. Copy the EAR file to the production machine.
2. Unzip the EAR to a folder on the production machine to the following directory: *WL_HOME*\user_projects\applications

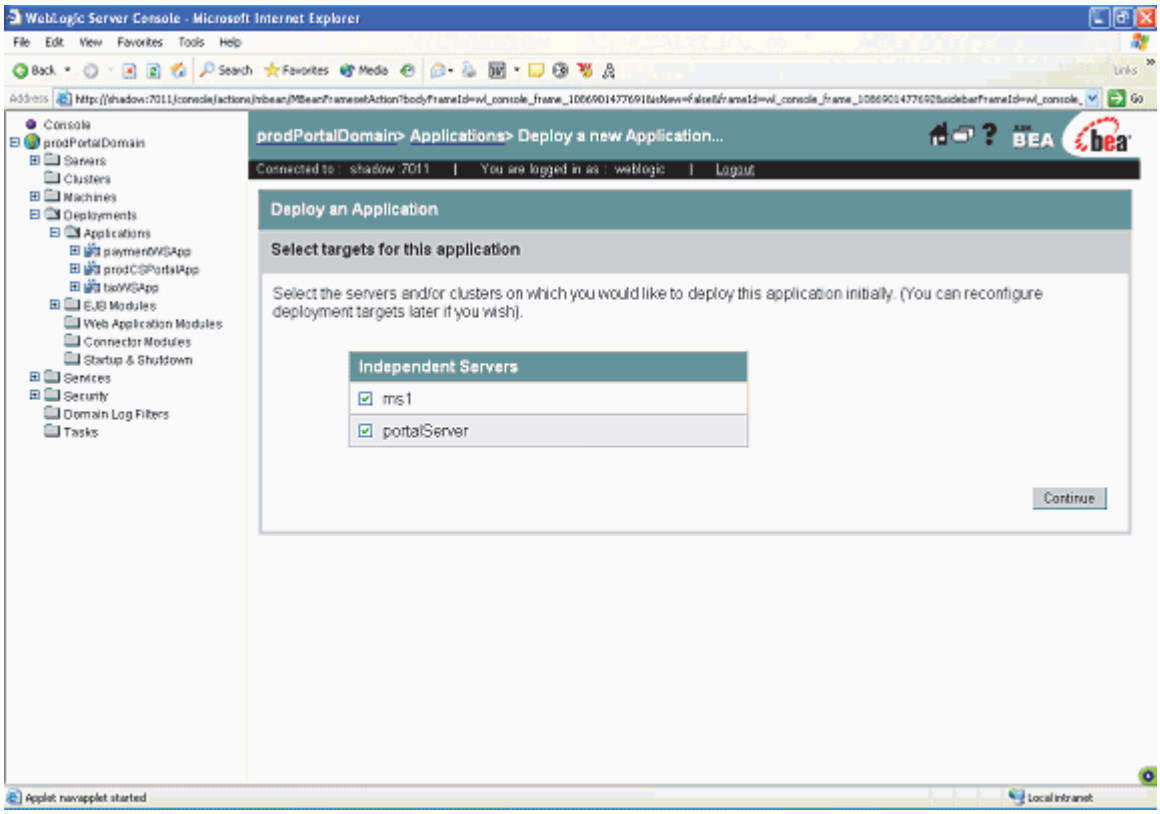
   (To unzip the file, issue the following command: `jar -xvf EARFileName`)
3. Start both the admin server and managed server from the production domain.
4. Log on to the WebLogic `console http://localhost:7003/console`.
5. Deploy the exploded application to both the admin and managed servers:
   a. Start both the admin server and managed server if they are not started. In this example, assume the admin server is portalServer, and the managed server is ms1.
   b. Go to the WebLogic console. On the left frame, expand **Deployment** and click **Applications**. Click **Deploy a new Application.**



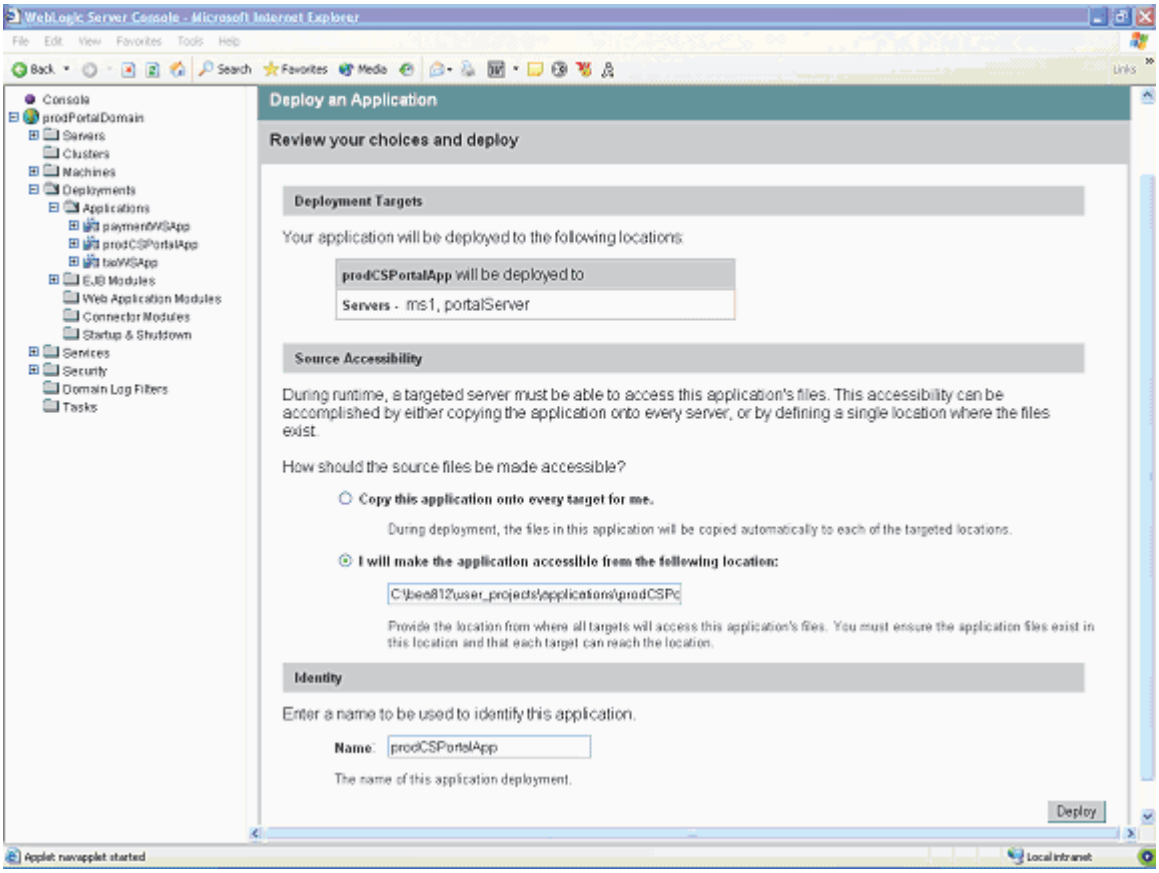
c. On the screen **Deploy an Application**, select the exploded EAR folder. Click **Target Application**.



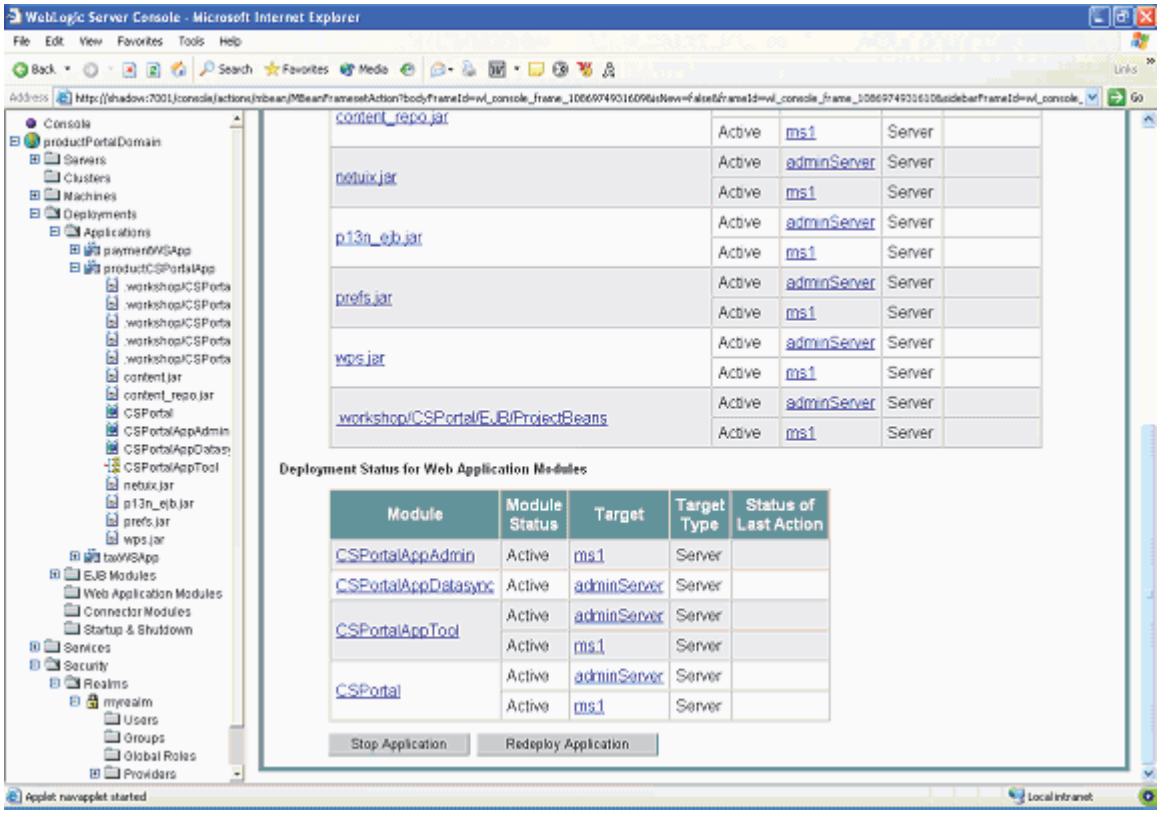
d. Select the managed server, and click **Continue**.



e. Select **I will make the application accessible from the following location**, and provide an application name. Click **Deploy**.



f. Wait until all the modules are successfully deployed on the managed server(s). It will take a few minutes.



6. Click **Security** on the left frame of the console, then go to the **Embedded LDAP** tab, and change the **Credential** and **Confirm Credential** fields (these fields will be used later by the installer).

7. Click **Apply**.

8. Either gracefully or force shut down both the managed server(s).

Step III. Post-Deployment

In this step you will create the portal. For an example of how to create a portal, see "Step II. Create a WebLogic Domain," on page 62 (in Chapter 8, "Creating and Configuring a New WebLogic Portal Server Domain").

Next Step

Install Content Server on the portal server and configure the portlets. For instructions, go to Chapter 17, "Installing Content Server on WebLogic Portal Server."

Part 6

Installing Content Server

This part shows you how to proceed through the installation of Content Server. It contains the following chapters:

- Chapter 16, “Installing CS on the WebLogic Application Server (Non Portal)”
- Chapter 17, “Installing Content Server on WebLogic Portal Server”

Chapter 16

Installing CS on the WebLogic Application Server (Non Portal)

This chapter provides instructions on installing Content Server on the WebLogic Application Server.

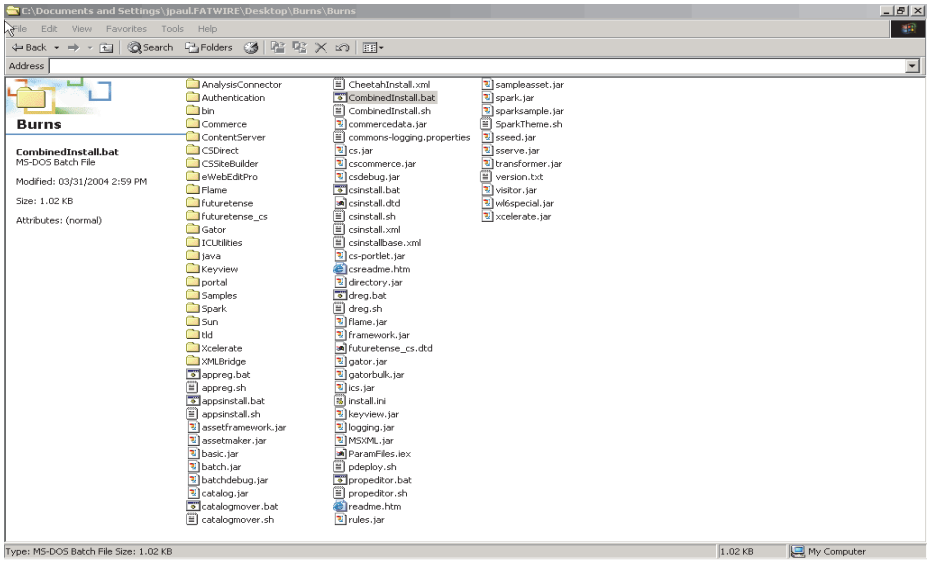
This chapter contains the following sections:

Step I. Check Your Current Setup

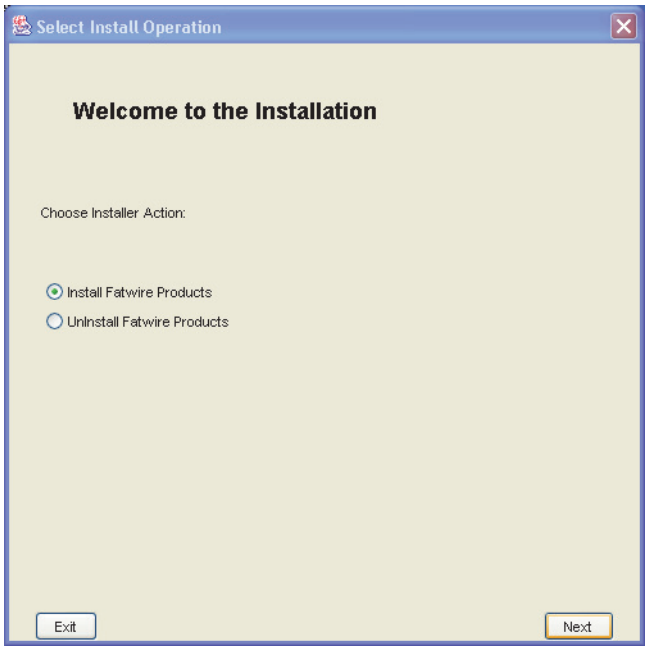
1. Before starting the installation procedures in this chapter, ensure that the steps in Part 5, "Before Installing Content Server" have been completed for your configuration. That is:
   - Content Server's supporting software has been installed and configured.
   - The Content Server installation kit has been unzipped into a temporary directory.
   - The database has been created.
   - A connection pool has been created.
2. If you plan to install over a secure web server, you must first register your SSL certificate with the Certificate Authority in order for the Content Server installation to succeed.

Step II. Run the Installer

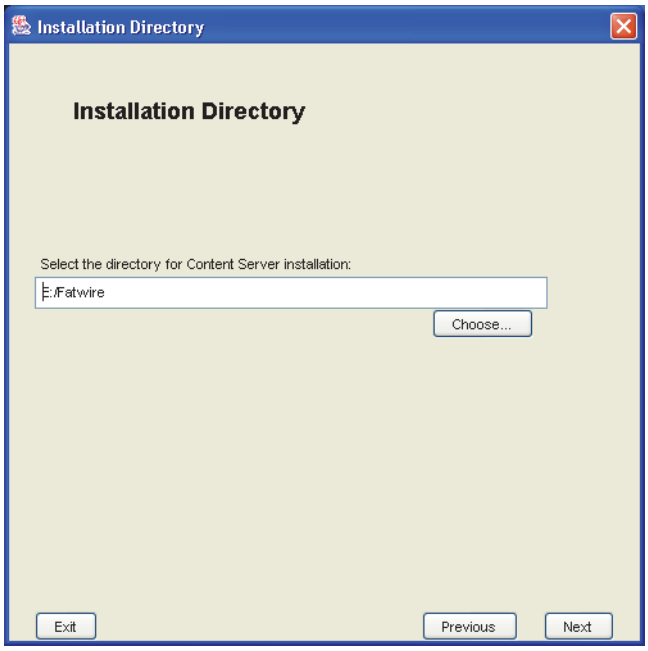
1. Launch `CombinedInstall.bat` (or `CombinedInstall.sh` on Solaris) to start the Content Server installer.



2. Leave the installer action as is — **Install Fatwire Products**. Click **Next**.

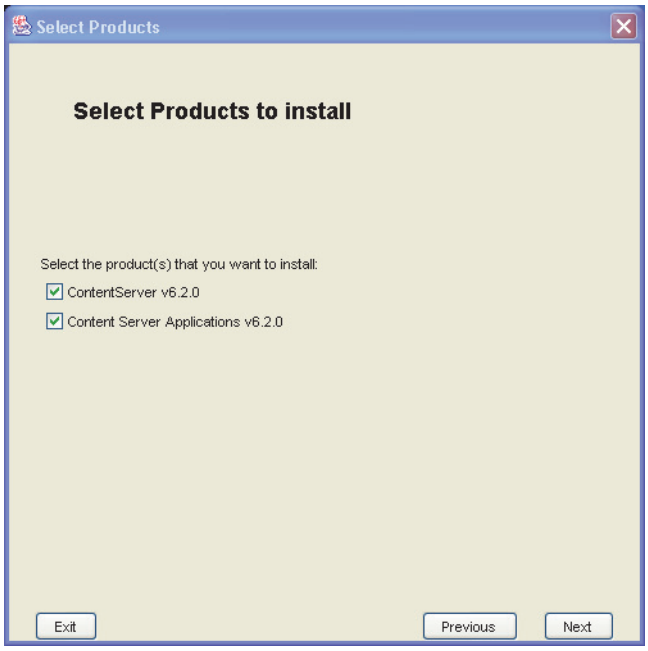


3. Set the path to the Content Server installation directory:
   a. In the **Installation Directory** window, you must supply the full path to where Content Server will be installed. Consider the following:
      - You must install Content Server on the same machine where the WebLogic application server is installed.
      - Be sure to enter the appropriate pathname for your installation. The default pathname is a placeholder only.
      - You must enter a full pathname, not a relative pathname (if the directory you specify does not exist, the installation program creates the directory).
      - For a clustered installation, this path must be the same on each machine in the cluster.



   b. Click **Next**.

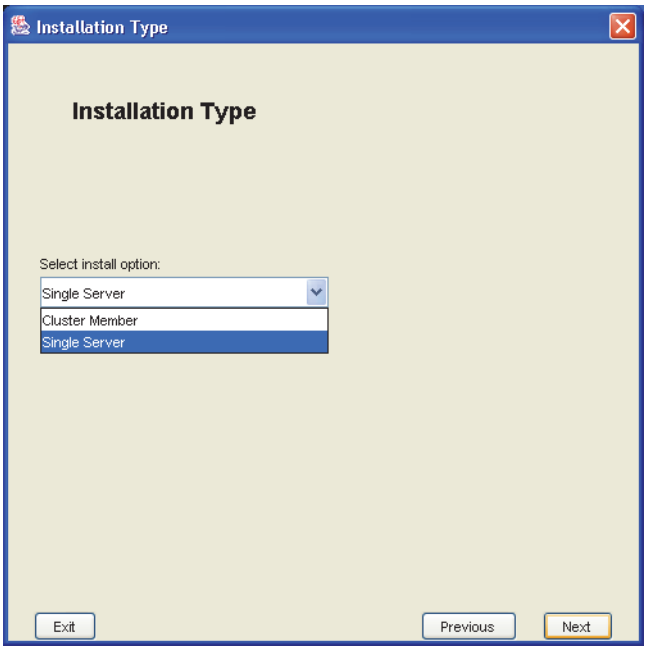
4. Select the products to install:
   a. The “Select Products” window displays the products that can be installed:
      - Select the **ContentServer V6.3** checkbox, if you want to install just Content Server.
      - Select the **Content Server Applications v6.3** checkbox if you want to install applications, as well.



   b. Click **Next**.

5. Select the installation type:
   a. In the "Installation Type" window, choose one of the following installation types from the drop-down list:

Installation Type	Select This Option For ...
Single Server	A new single server for the primary member of a cluster installation.
Cluster Member	A new installation of a member of an existing cluster.



   b. Record your choice in the *csType* row of Table 12, "Content Server Configuration," on page 34.
   c. Click **Next**.

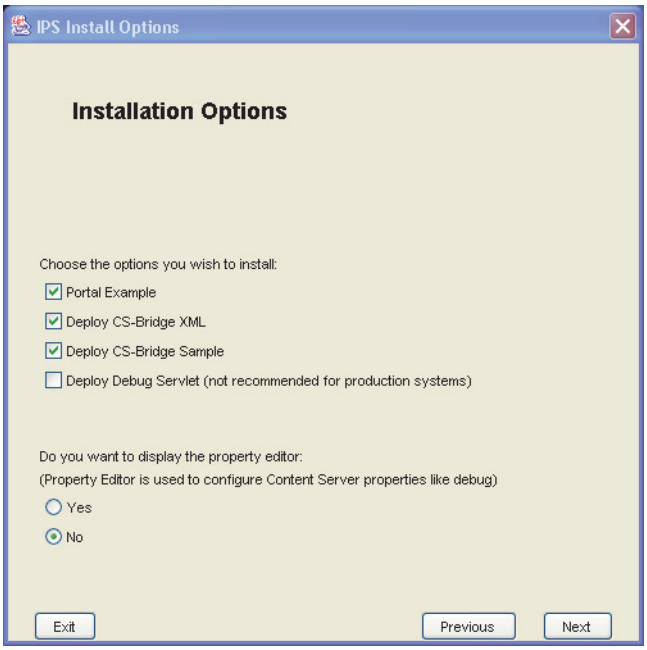
6. Select an installation option:

   a. In the "Installation Options" window, select from the following options:

Option	Explanation
Portal Example	A sample web portal site that illustrates content delivery techniques for page components, page caching, and image serving. The sample site is useful for verifying your installation and configuration.
Deploy Content Server XML Bridge	You use CS-Bridge XML to receive, deliver, process, route, and transform XML documents to and from other enterprise applications over the web. See the *Content Server Developer's Guide* for an overview of this application.
Deploy Content Server XML Bridge Sample	Some sample code useful in helping you understand CS-Bridge XML.
Deploy Debug Servlet	A servlet that will help you debug XML code. This is a useful servlet to install on a development system, but is not recommended on a management or delivery system.

   b. Under **Display Properties**, select **Yes**. You want the Property Editor to launch during the installation because it is very likely that you will need to modify Content Server property values.

   c. Record your installation choices in Table 12, "Content Server Configuration," on page 34.

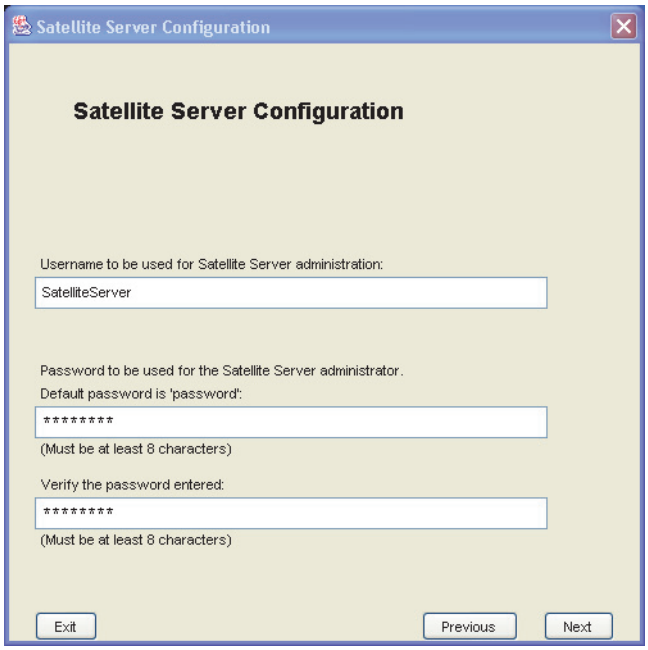


   d. Click **Next**.

7. Supply login information for the Content Server administration account:
   a. In the "Content Server Configuration" window, supply the following information:
      - Username—The default user name is **ContentServer**. You can accept this default or change it.
      - Password—Enter the password and confirm it. Restrictions on the length of the password depend on the system you are using to manage users.

   b. Record your entries in the *csAdminName* and *csAdminPass* rows of Table 12, "Content Server Configuration," on page 34.
   c. Click **Next**.

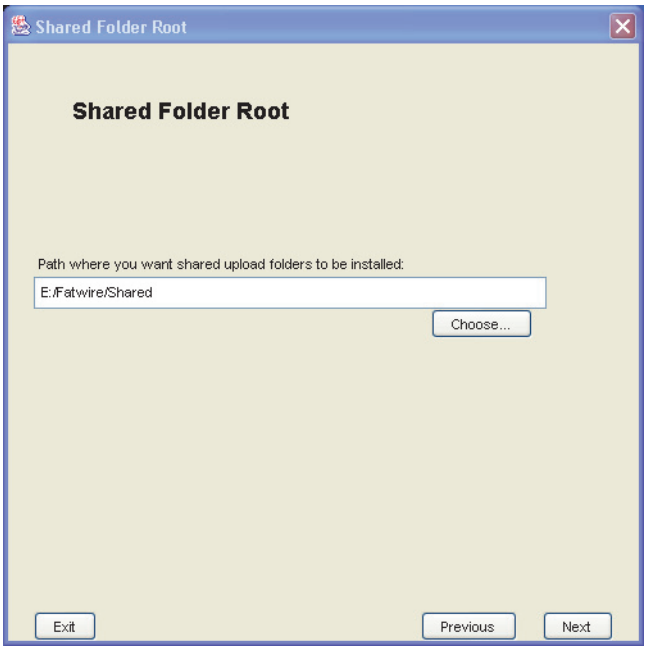
8. Supply login information for the Satellite Server administration account:
   a. In the "Satellite Server Configuration" window, supply the following information:
      - Username—The default user name is `SatelliteServer`. You can accept this default or change it.
      - Password—Enter the password and reconfirm it. The restrictions to the length of the password depend on the system you are using to manage users.



   b. Record your entries in the *`SatName`* and *`SatPass`* rows of Table 12, "Content Server Configuration," on page 34.
   c. Click **Next**.

9. Select the shared folder root:
   a. Enter the full pathname of the shared file system that was created for this cluster. If you are installing on Windows 2000, specify the complete directory name, including the drive letter.

> **Note**
>
> If the directories you specify do not exist, the installation program creates them.

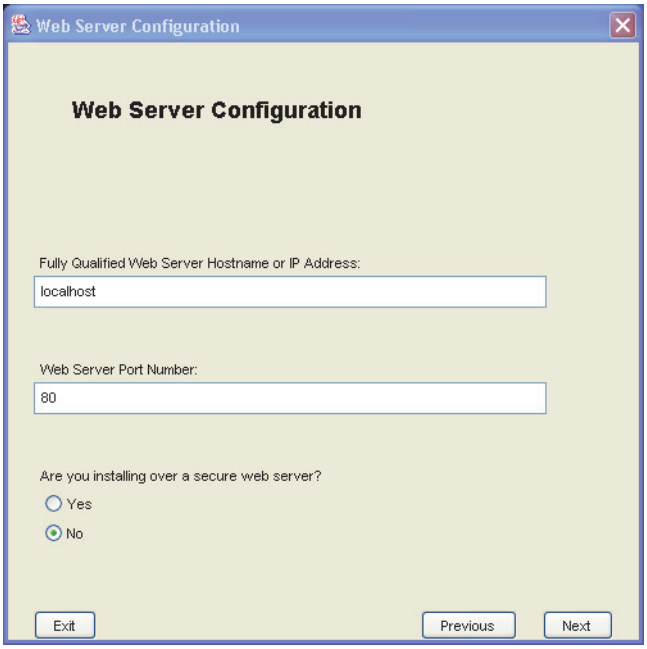


   b. Record the information in the *csShared* row of Table 12, "Content Server Configuration," on page 34.
   c. Click **Next**.

10. Web server configuration:

> **Reminder**
>
> If you plan to have WebLogic serve Content Server servlets over a nonsecure port, you must register your SSL certificate before starting this step. Otherwise, when you answer **Yes** to the last question in this step, the Content Server installation will fail.

a. In the "Web Server Configuration" window, supply the information described below:



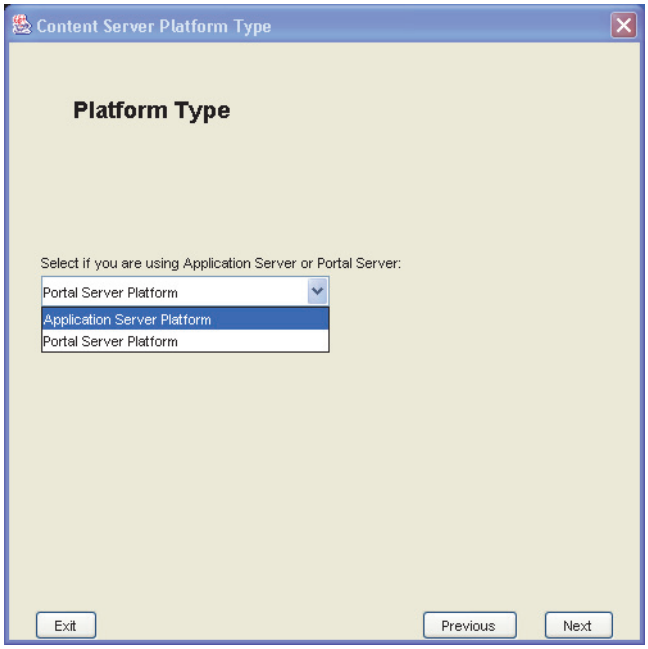
Field Name	Your Response
Fully Qualified Web Server Hostname or IP Address	Enter the value that you recorded in the *Web Host Name* row of Table 4, "Web Server Parameters," on page 30.
Web Server Port Number	Determine the answer to the question "Are you installing over a secure web server?" and do one of the following: • If the answer is **Yes**, specify the https port number. • If the answer is **No**, specify the http port number. You recorded the port number in the *Web Server Port* row of Table 4, "Web Server Parameters," on page 30.

Field Name	Your Response
Are you installing over a secure web server?	Do one of the following: • If you want WebLogic to serve Content Server servlets over a secure port, answer **Yes**. • If you want WebLogic to serve Content Server servlets over a nonsecure port, answer **No**.

b. Click **Next**.

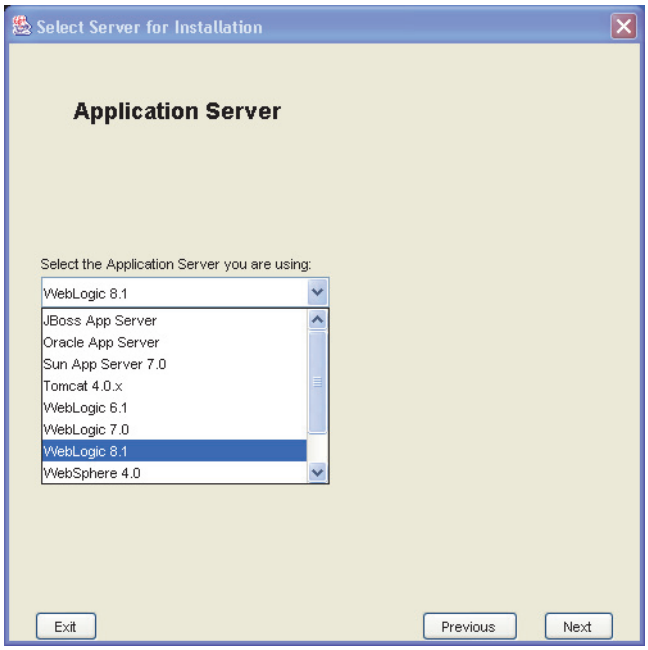
11. Select the platform type:

Select **Application Server Platform** from the drop-down list, then click **Next**.



12. Select the application server:

In the "Application Server" window, select **WebLogic 8.1 Application** server from the drop-down list, then click **Next**.



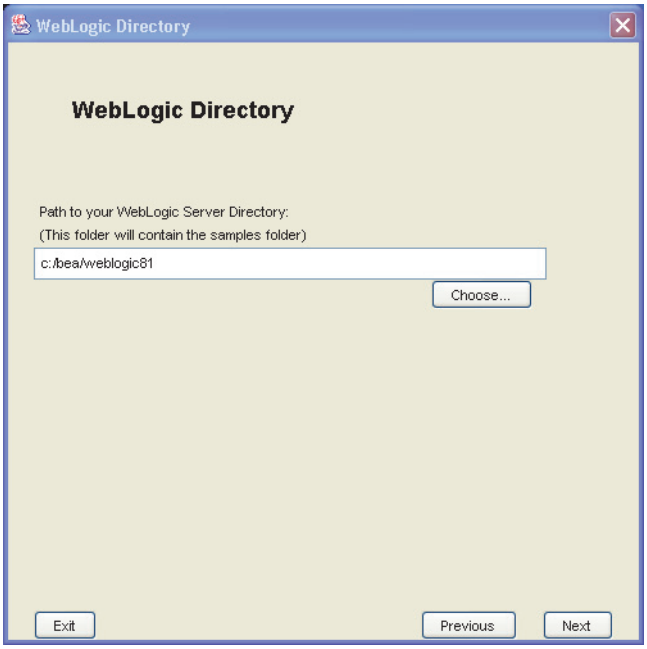
13. Set the path to the WebLogic directory:

    a. Enter the absolute path name to the directory where you installed WebLogic; that is:

    WL_HOME (for example, `c:\bea\weblogic81`)

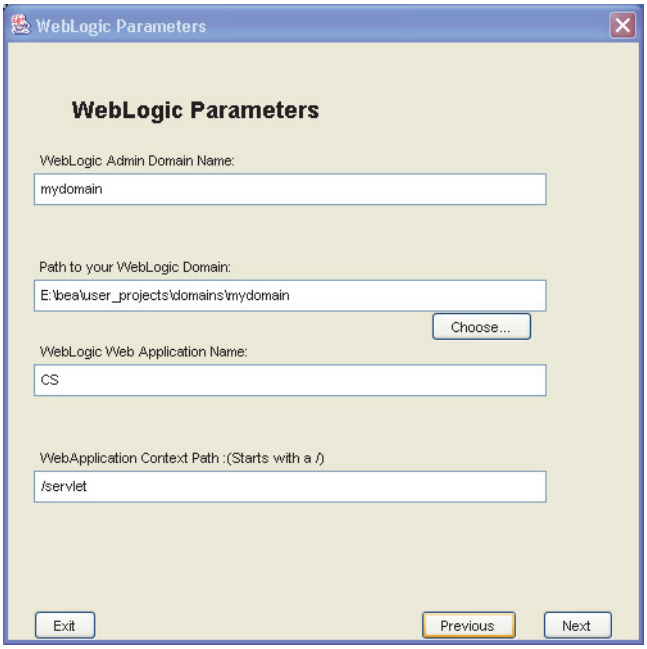
    Retrieve the information from Table 6, "WebLogic Installation Parameters," on page 31. Note that the directory that you specify will be under the *beaRoot* directory and will, itself, contain `samples` as a subdirectory.

> **Note**
>
> For a clustered installation, the WebLogic home directory must have the same name and path on each member of the cluster.



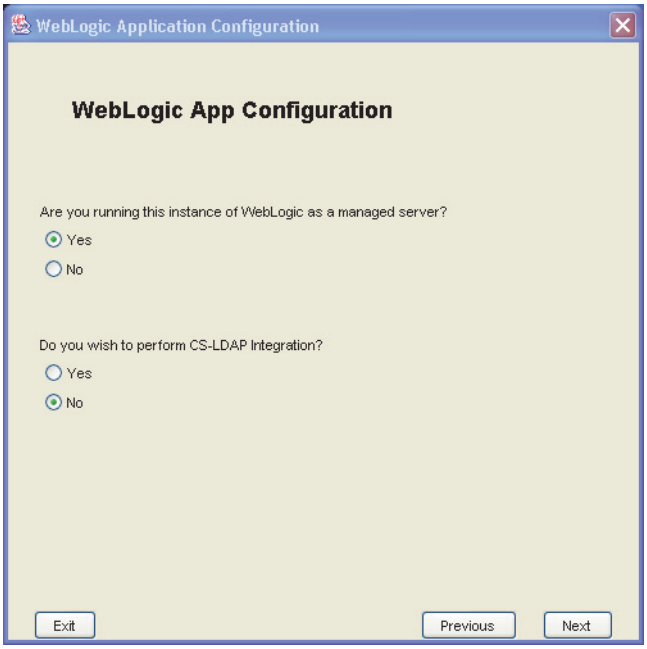
    b. Click **Next**.

14. Set WebLogic parameters:
    a. Enter the following values:
        - **WebLogic Admin Domain Name:** The name of the domain that you created while you installed the application server. The default domain name is `csDomain`. Retrieve this information from Table 6, "WebLogic Installation Parameters," on page 31.
        - **Path to your WebLogic Domain:** The location of the domain. Retrieve this information from Table 6, "WebLogic Installation Parameters," on page 31.
        - **WebLogic Web Application Name:** Enter a name for the Content Server application. For example, **ContentServer**. If this is a clustered installation, be sure to use the exact same web application name for each member of the cluster.
        - **WebApplication Context Path**: Enter a name for the context root for the web application.
    b. Record your entries in Table 6, "WebLogic Installation Parameters," on page 31.



    c. Click **Next**.

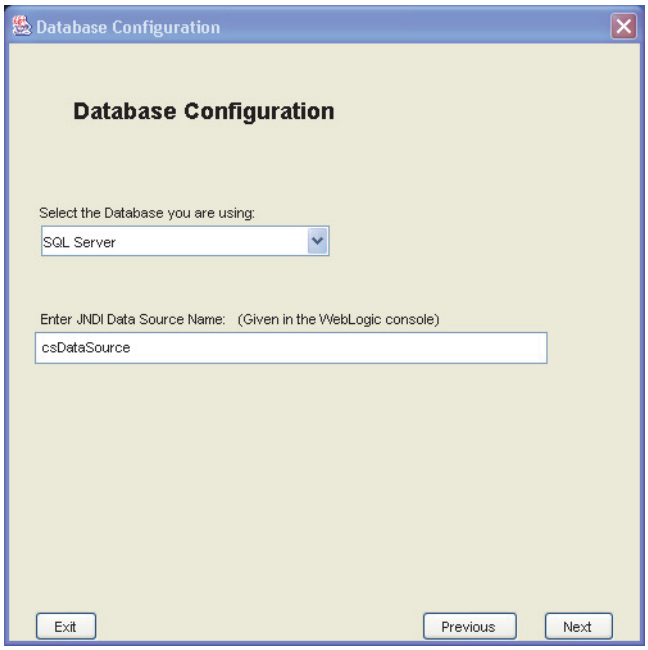
15. WebLogic configuration:
    a. Specify that you are running WebLogic as a managed server by selecting **Yes**.
    b. Specify that you wish to perform CS-LDAP integration during the installation by selecting **Yes**.



    c. Click **Next**.

16. Database configuration:
    a. Fill in the following fields:
        - **Select the Database you are using:** Select the appropriate database and JDBC driver type from the drop-down list.
        - **Enter JNDI Data Source Name:** Enter the data source name that you specified when you created the domain.

          Note that the name is case sensitive; it must match the name that you entered in the **JNDI Name** field in the **Create a new JDBC Data Source** form. (You recorded this name in Table 9, "WebLogic Content Server Parameters," on page 32.) If the name is in question, you can view it from the WebLogic console, as shown in Appendix B, "Testing the Connection Pool."



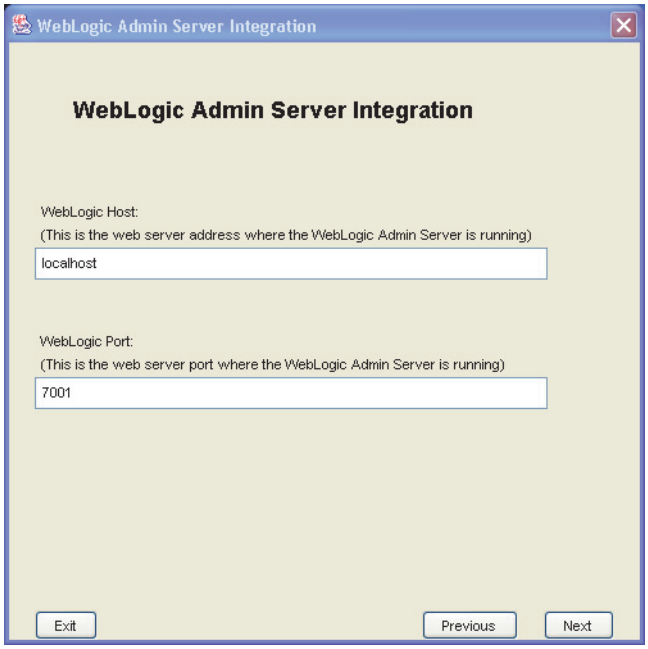
    b. Click **Next**.

17. Set parameters for WebLogic admin server:

> **Note**
>
> The "WebLogic Admin Server Integration" screen is displayed only if you selected **managed server** in step 15. If you did not select **managed server**, go to step 18 on page 138.

a. Provide the following information:

- **WebLogic Host –** Enter the name of the host that is running the WebLogic Admin Server (**not** the managed server) for this system. Note that if you are installing on a secondary cluster member, the Admin Server is most likely not the localhost that you are installing on. Retrieve this information from the `wlAdminHost` row of Table 7, "WebLogic Admin Server Parameters," on page 31.
- **WebLogic Port –** Enter the port number on which the WebLogic Admin Server is listening. Typically it is port 7001. Retrieve this information from the *wlAdminPort* row of Table 7, "WebLogic Admin Server Parameters," on page 31.



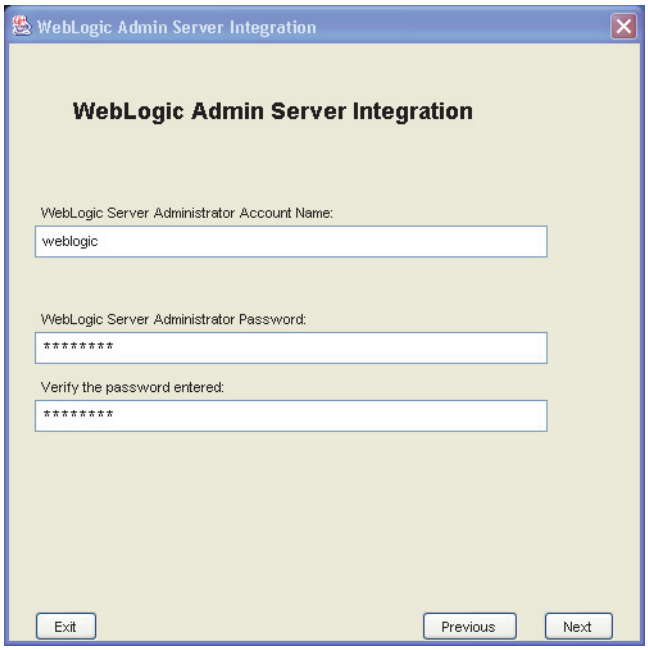
b. Click **Next**.

c. Provide the following information:

- **WebLogic Server Administrator Account Name:** Enter the user name of the WebLogic administrator. Retrieve this information from Table 7, "WebLogic Admin Server Parameters," on page 31.

> **Note**
>
> For a clustered installation, the WebLogic Server administrator user name and password must be the same for each cluster member.

- **WebLogic Server Administrator Password:** Enter the password for the admin user.
- **Verify Password:** Retype the password.



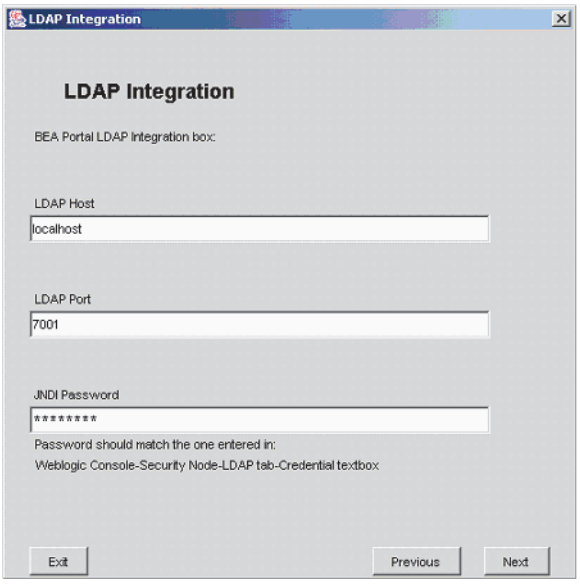
d. Click **Next**.

18. Specify LDAP integration parameters:

> **Note**
>
> The "LDAP Integration" screen is displayed only if you elected to perform LDAP integration. If you did not select LDAP integration, go to step 19 on page 139.

a. Provide values for the following fields:

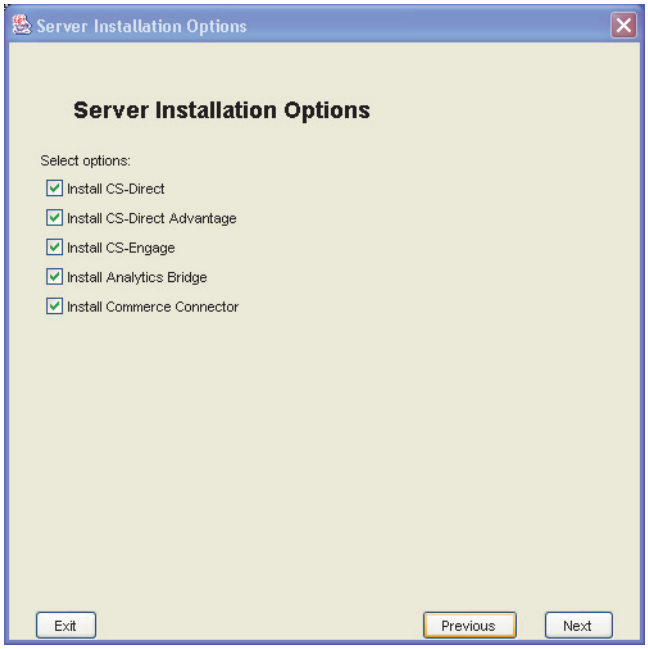
- LDAP Host: Enter the host name of the LDAP server you will be using. Retrieve this information from Table 14, "Content Server LDAP Parameters," on page 35.
- **LDAP Port:** Enter the port for the LDAP server.
- **JNDI Password:** Enter the WebLogic Console Security password. Retrieve this information from Table 14, "Content Server LDAP Parameters," on page 35.



b. Click **Next**.

19. Select server installation options:

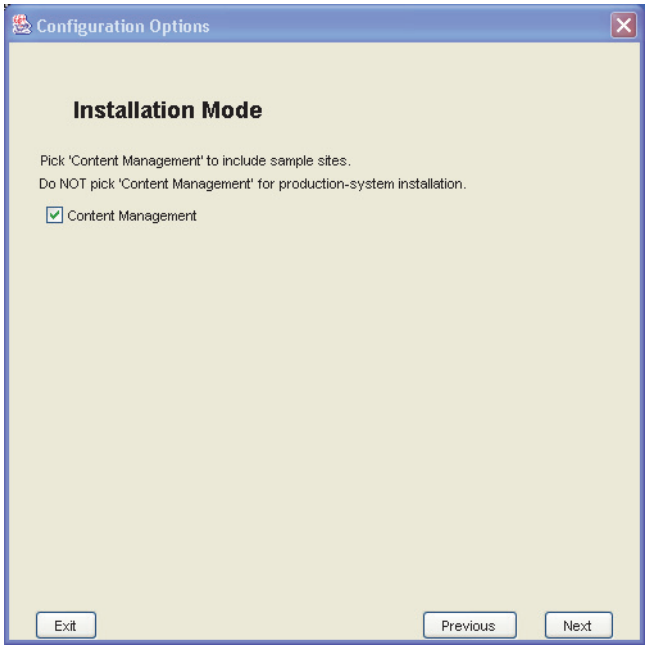
Select the applications that you want to install on top of Content Server, then click **Next**.



20. Select the installation mode in order to bypass or accept the option of installing sample content and sample sites on the environment you are setting up.

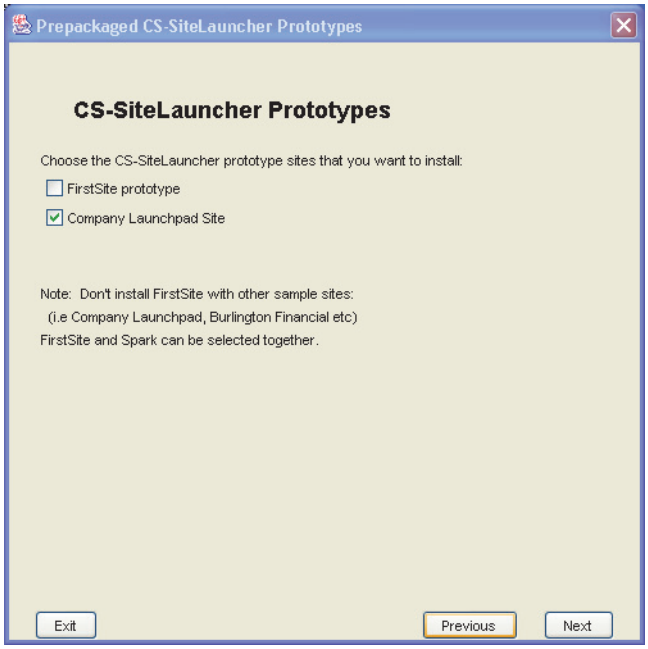
Do one of the following:

- Select **Content Management** if you are setting up a development or content management environment, **and** you want to install sample content and sample sites on the environment. Click **Next**, and continue with step 21.
- Deselect **Content Management** if one of the following holds:
  - You do not want to install sample content and sample sites.
  - You are setting up a production environment. (Sample content that might have been installed on the content management environment will be mirrored to the publishing environment during dynamic publishing.)



21. Set the CS-SiteLauncher prototypes:

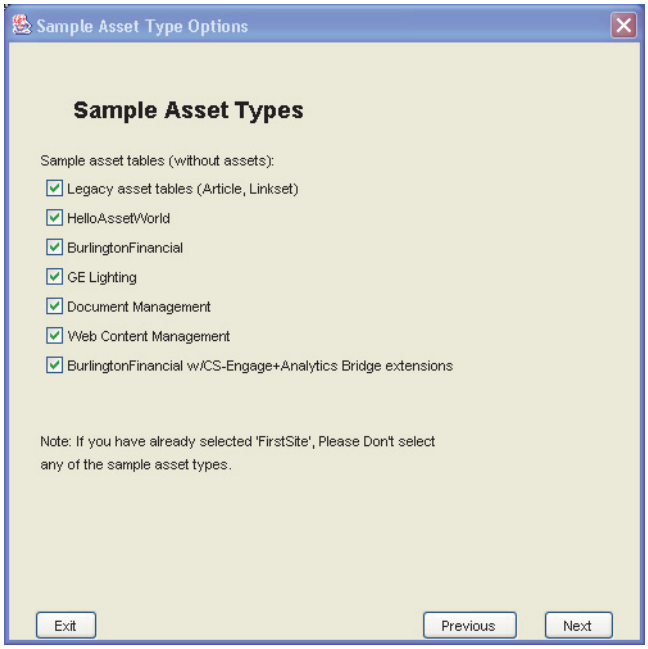
Select the checkbox of each sample site that you want to install, then click **Next**.



22. Install sample asset types:

Select the sample asset types that you want to install, then click **Next**.

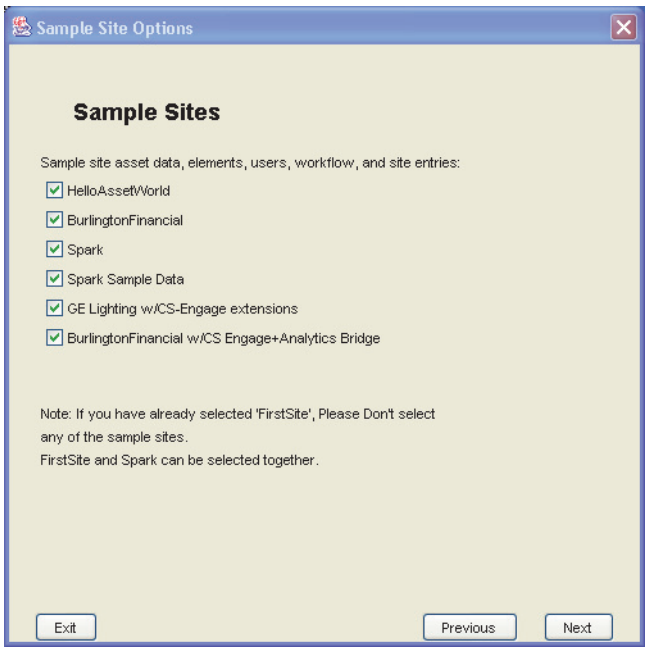
For information about sample asset types, see the *Content Server Administrator's Guide*.



23. Install sample sites:

Select the sample sites that you want to install, then click **Next**.

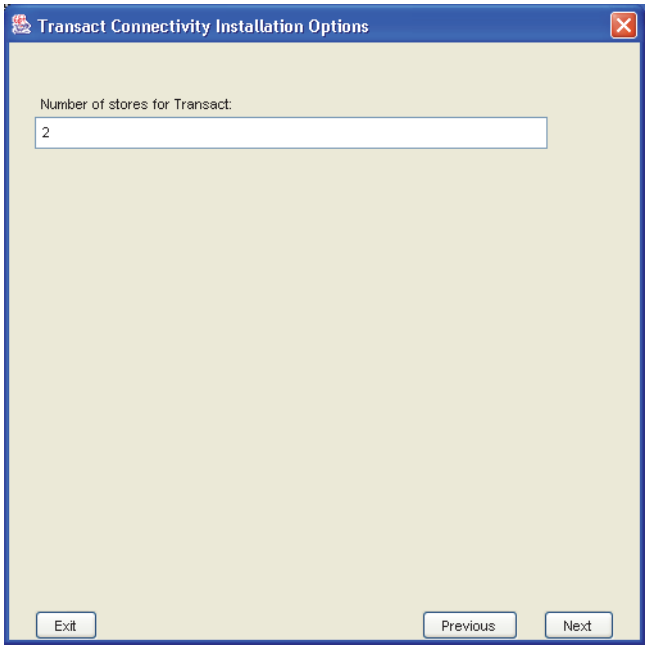
For information about sample sites, see the *Content Server Administrator's Guide*.



24. Set transact connectivity installation options:

Select the number of stores you wish Transact to have, then click **Next**.

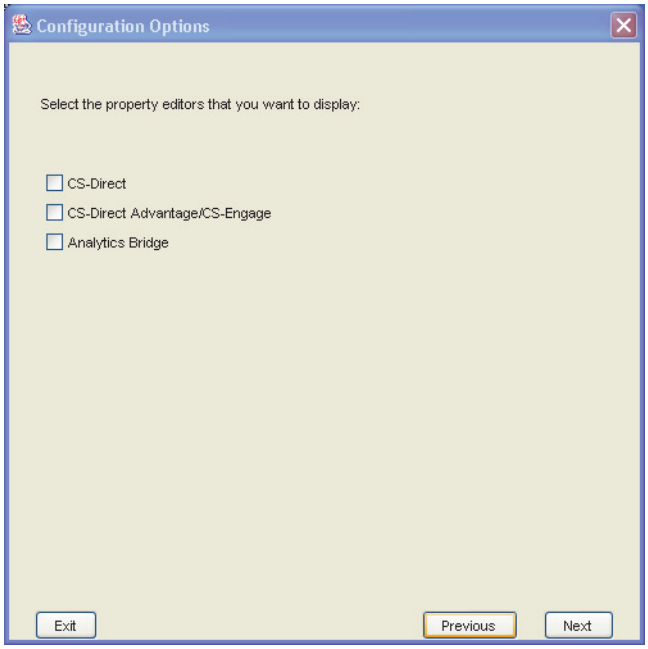
> **Note**
>
> The following screen is displayed only if you previously elected to install Commerce Connector.



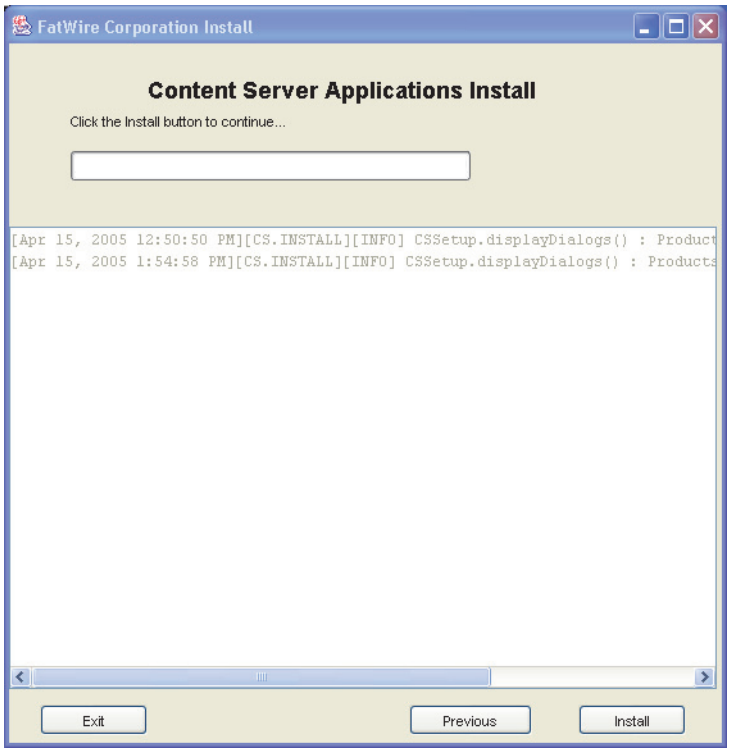
25. Select the content applications whose properties you want to edit during the installation, then click **Next**.

Note

You can always view and modify those property files by using the Property Editor after the installation has been completed.



26. Start the installation of Content Server and the content applications you elected to install by clicking the **Install** button at the bottom of the screen.



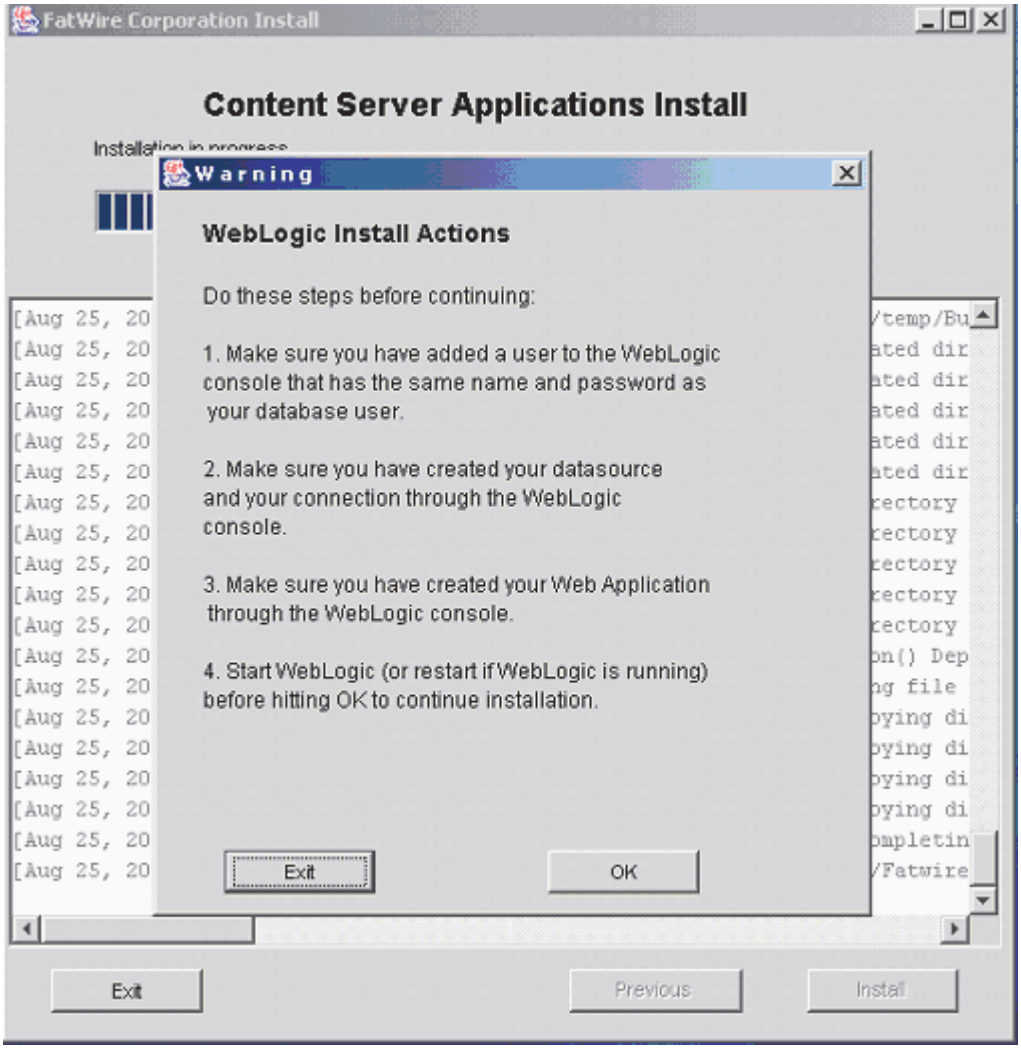
27. Go to "Step III. Complete the Installation," on page 146 to complete the installation.

Step III. Complete the Installation

1. When the “WebLogic Install Actions” is displayed, complete all the steps it instructs you to complete.

Caution

Do not click **OK**. Instead, complete the verification by continuing with the next step in this section.

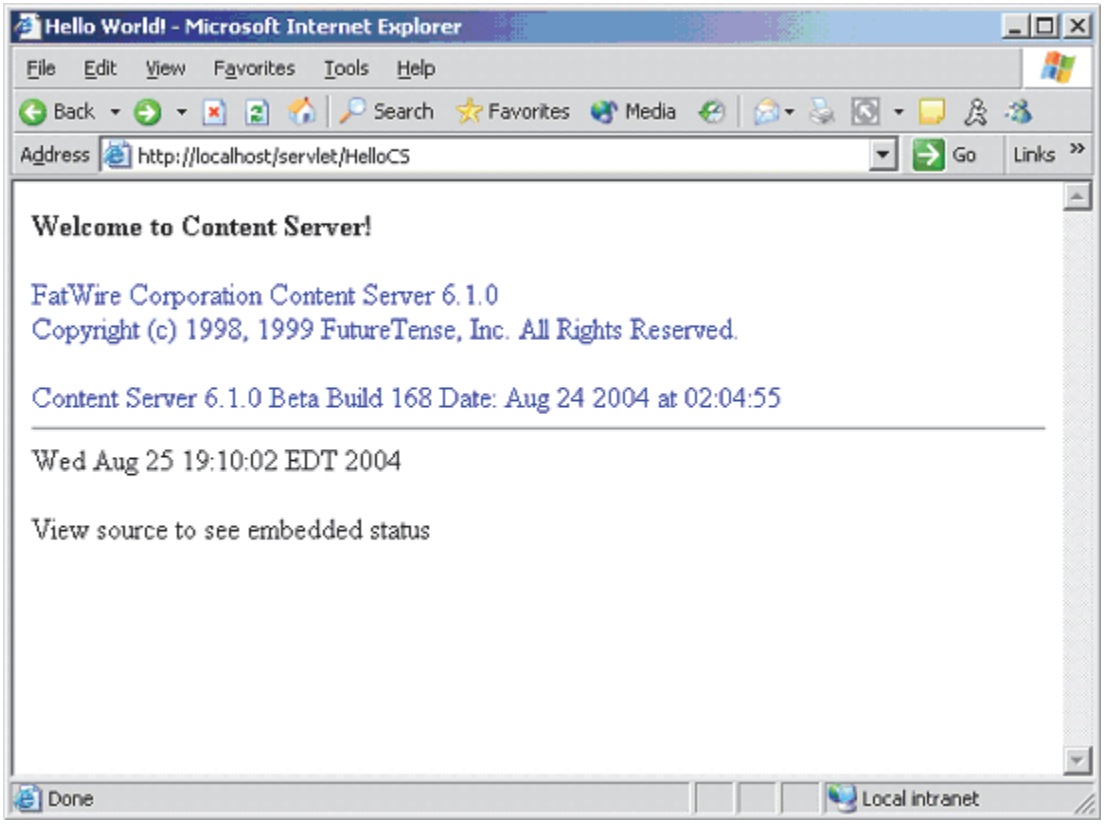


2. Start the application server.

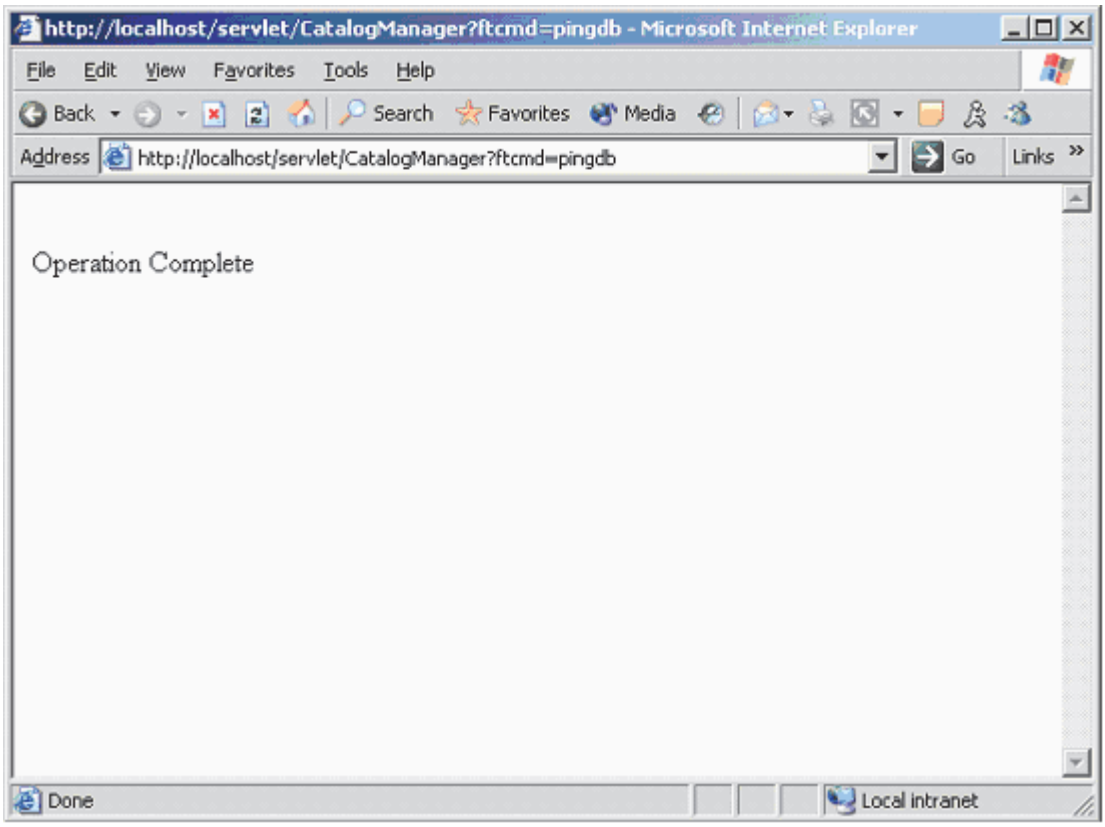
> **Note**
>
> If you are using a web server, be sure to allow sufficient time—at least 90 seconds—for the application server to start before you continue with the next step (starting the web server). If you proceed too quickly, you might encounter a "Could not bind to socket" condition.

3. **After the application server has started**, start the web server if you are using a web server.
4. Verify the WebLogic installation actions to make sure that data source has been created and Content Server is properly deployed:
   a. Verify the servlet by accessing the url in the screen below:

      `http://localhost/servlet/HelloCS`

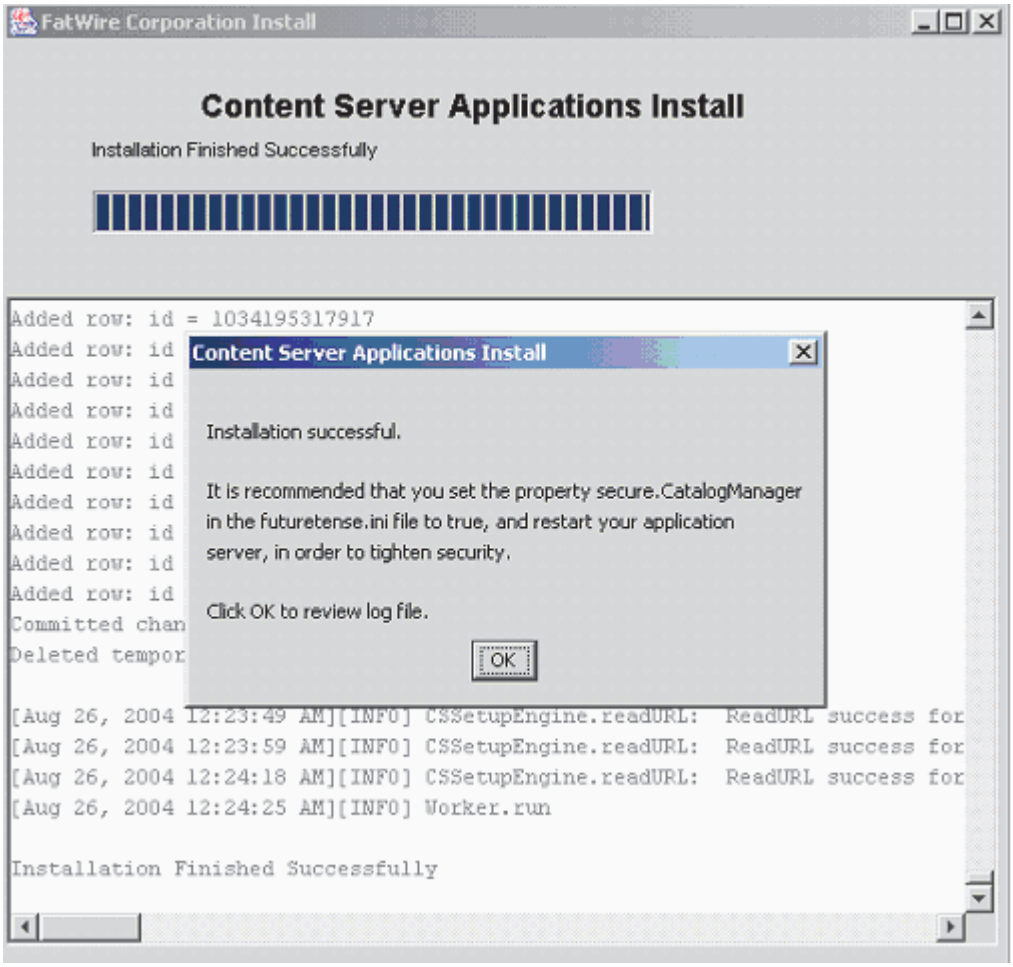


b. Verify the database connectivity by accessing the url in the screen below:
`http://localhost/servlet/CatalogManager?ftcmd=pingdb`



5. In the "Install Options" window, click **OK** for the installation to continue.

6. When the installation is complete, a message box indicates the outcome. Follow the instructions in the message, then click **OK**.



7. Finally, in the "Installation Window" itself, click **Exit** to finish the installation.

Next Step

Now that Content Server is installed, you can install, configure, and test a supported search engine and/or a supported user authentication plugin. You can also set up Content Server for publishing in a production environment and enable it for business-specific content management operations.

For information about setting up publishing, see the *Content Server Administrator's Guide*. For information about developing Content Server for its business application, see also the *Content Server Developer's Guide*.

Chapter 17

Installing Content Server on WebLogic Portal Server

This chapter shows you how to install Content Server on the currently supported WebLogic Portal Server software. The installation procedure is automated by the Content Server installer.

You will complete the following basic steps:

- Step I. Check Your Current Setup
- Step II. Run the Installer
- Step III. Configure Content Server Portlets
- Next Step

Step I. Check Your Current Setup

Before starting the installation procedures in this chapter, ensure that all steps in Part 5, "Before Installing Content Server have been completed. That is:

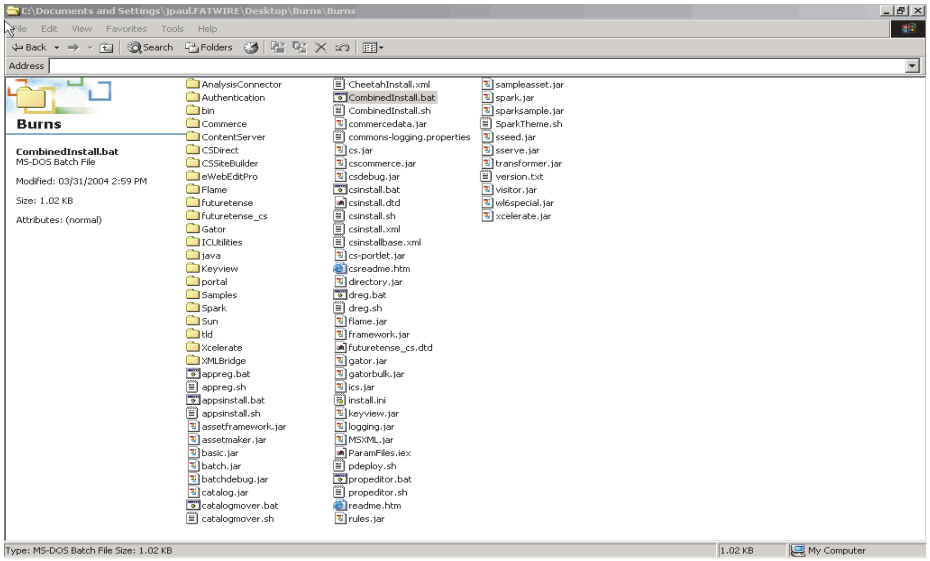
- Content Server's supporting software has been installed and configured.
- The Content Server installation kit has been unzipped into a temporary directory.
- The database has been created.
- A connection pool has been created.

Step II. Run the Installer

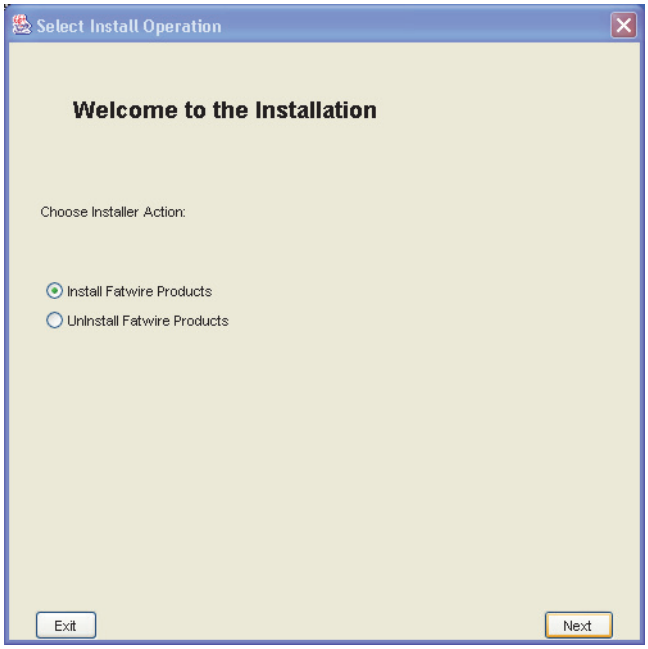
Note

You must run the installer as `root` on Unix and `administrator` on Windows.

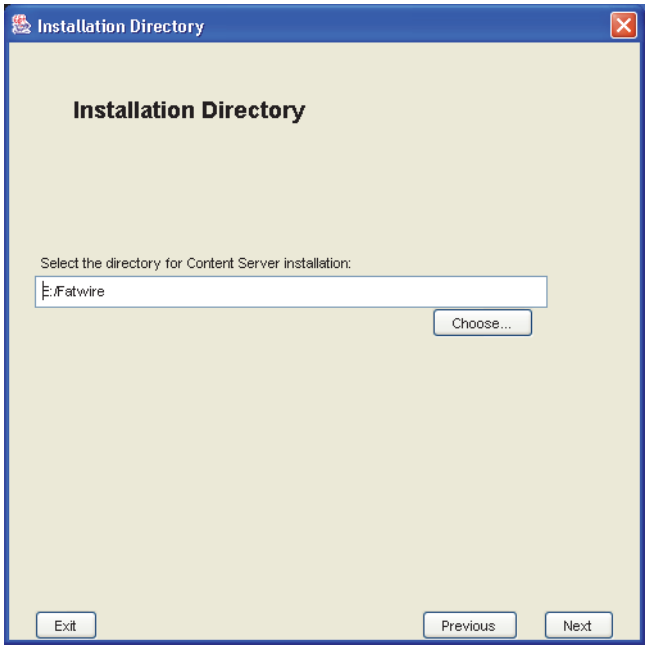
1. Launch `CombinedInstall.bat` (`or CombinedInstall.sh` on Unix) to start the Content Server installer.



2. Leave the installer action as is — **Install Fatwire products**. Click **Next**.

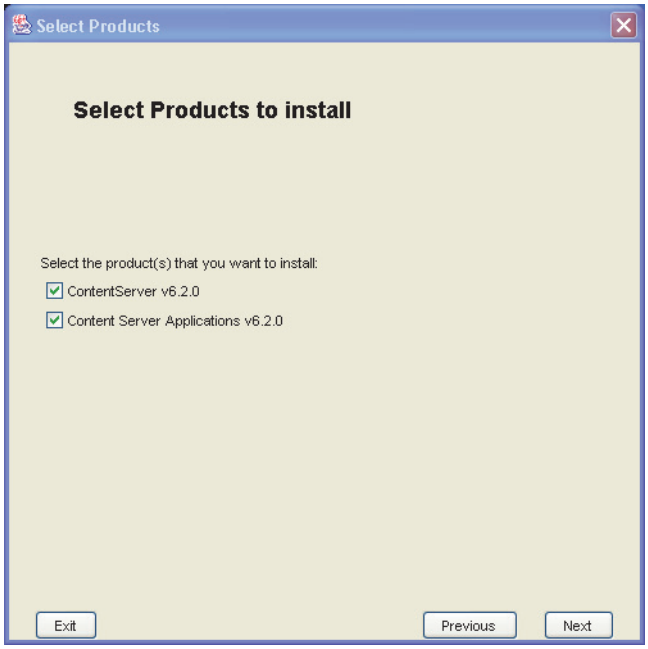


3. Set the path to the Content Server installation directory:
   a. In the **Installation Directory** window, supply the full path to where Content Server will be installed. Consider the following:
      - You must install Content Server on the same machine where the WebLogic Application Server is installed.
      - The default pathname is a placeholder only. Be sure to enter the appropriate pathname for your installation.
      - You must enter a full pathname, not a relative pathname. The installation program creates the specified directory if it does not already exist.
      - For a clustered installation, this path must be the same on each machine in the cluster.

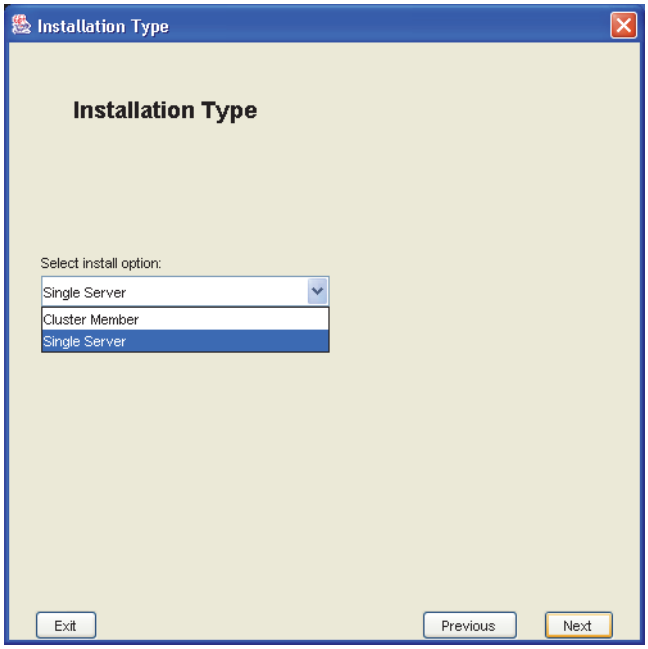


   b. Click **Next**.

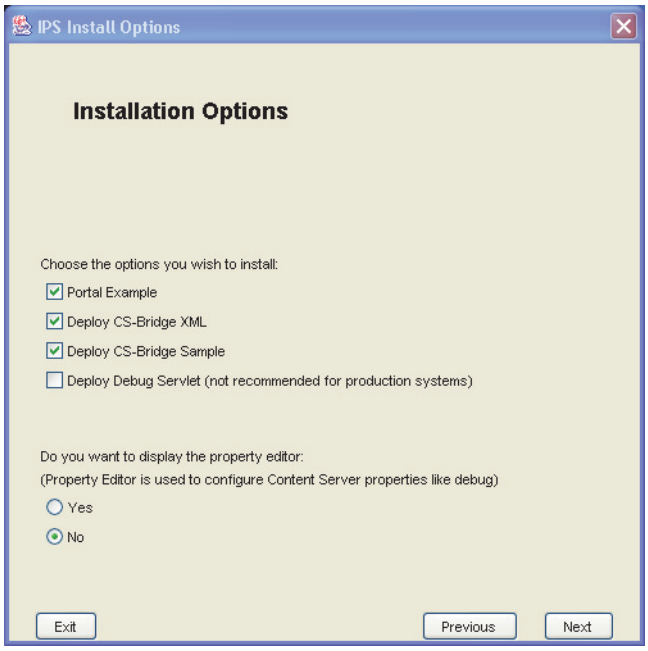
4. Select the products you want to install, then click **Next**.



5. Select the desired installation type, then click **Next**.

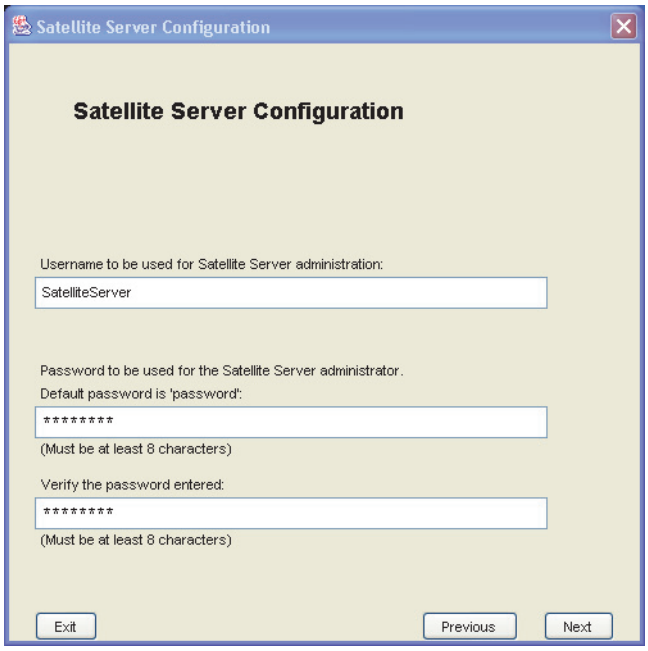


6. Select the options you wish to have installed. Select **Yes** for the Property Editor if you need to make changes to various properties during the installation.

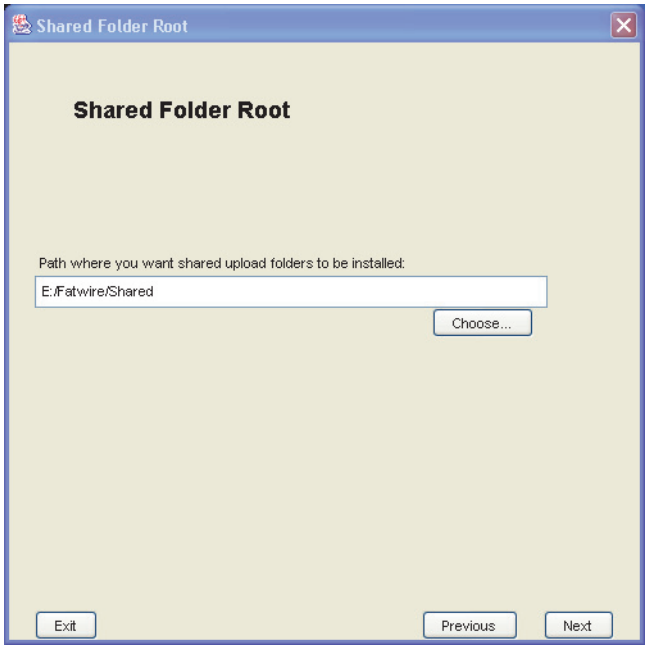


7. Enter the username and password of the Content Server user, then click **Next**.

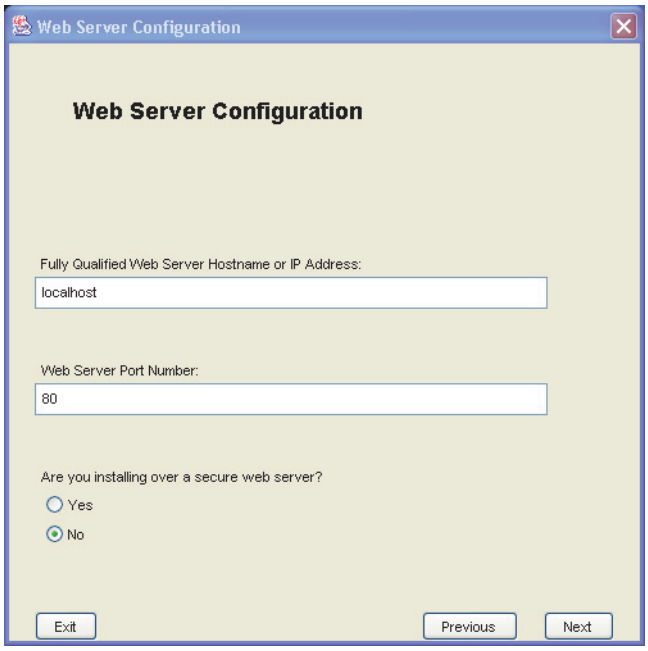
8. Enter the username and password for the Satellite user, then click **Next**.



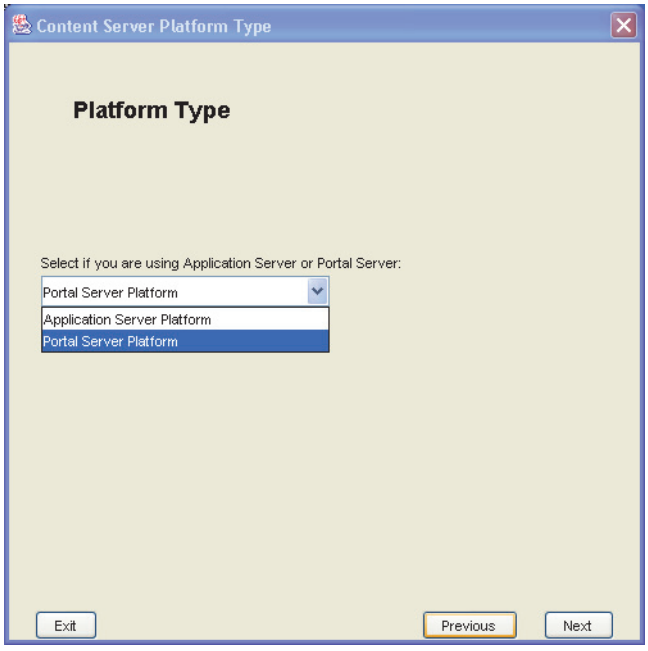
9. Select the folder where you want Content Server to upload files, then click **Next**.



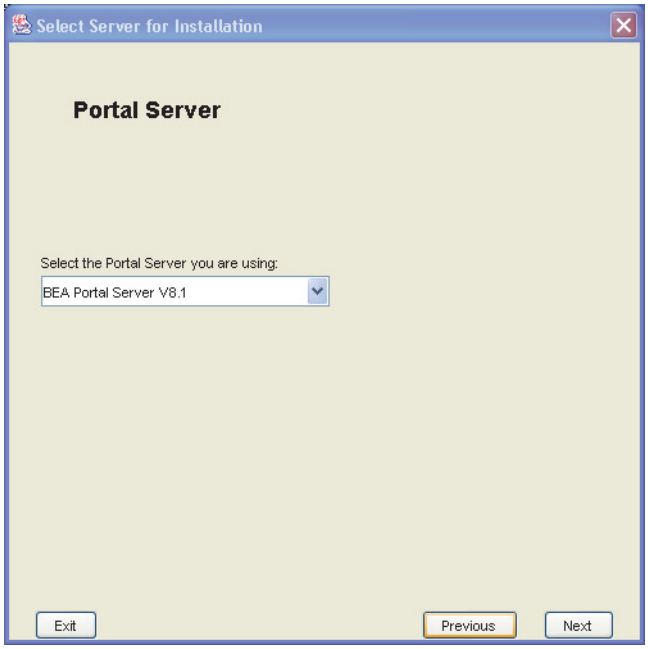
10. Specify the name and port of your Web server machine, then click **Next**. If you are not using WebServer, then use your WebLogic hostname and port number instead.



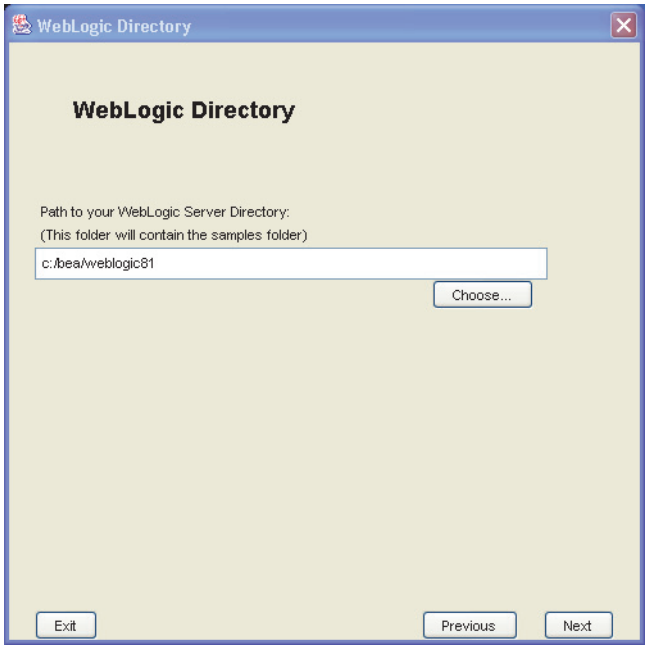
11. Select the desired platform type, then click **Next**.



12. Specify the portal server type by choosing **BEA Portal Server 8.1**, then click **Next**.



13. Specify the WebLogic Server Directory path, then click **Next**.



14. Specify the WebLogic parameters by entering the following information:

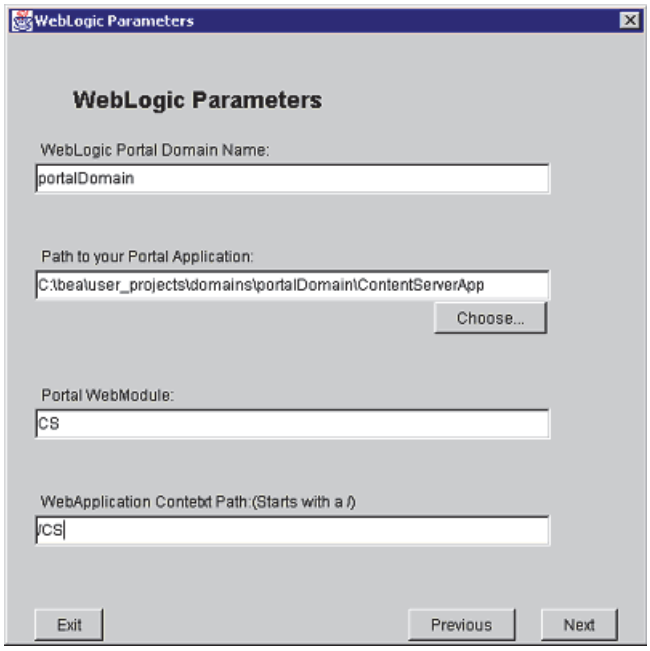
WebLogic Server Domain Name: **portalDomain**

Path to your Portal Application: For example, **`C:\bea\user_projects\domains\portalDomain\ContentServerApp.`** Note that your path might differ from the one in our example.

Portal WebModule: **CS**

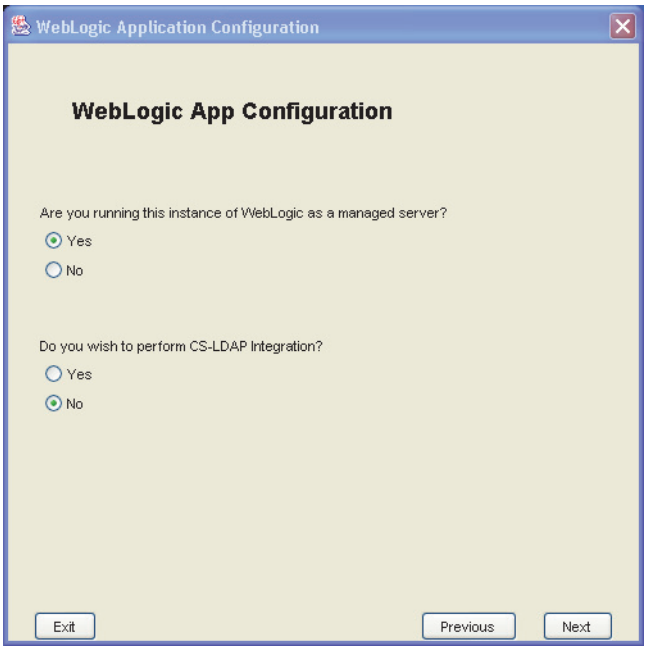
Web Application URI: **/CS**

Web Application Context Path: **/servlet**



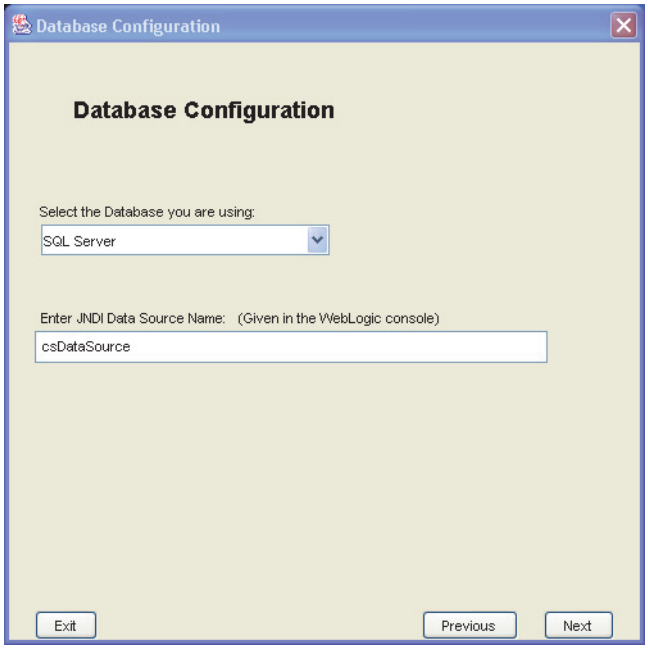
15. Click **Next**.

16. Specify the WebLogic configuration:
    a. Specify whether Content Server will be running as a managed server.
    b. CS-LDAP integration: If you are installing on a development or content management environment, select **Yes**. If you are deploying Content Server in production mode, you do not need to perform LDAP integration.

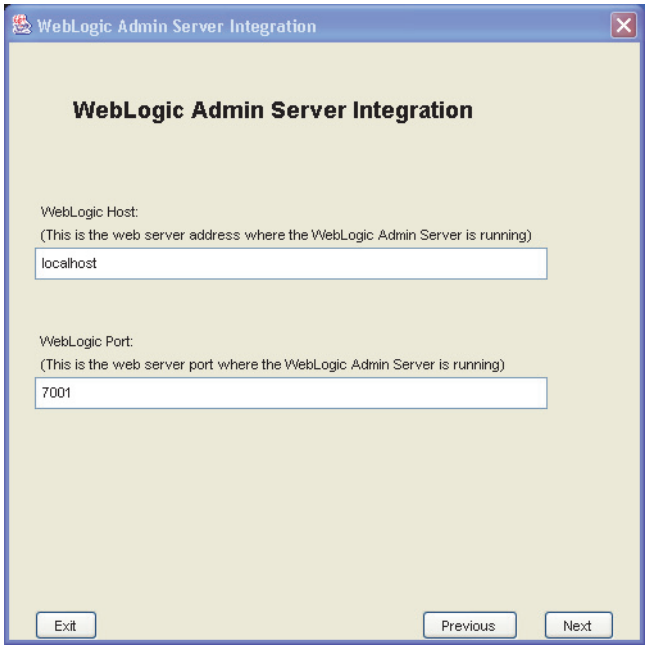


    c. Click **Next**.

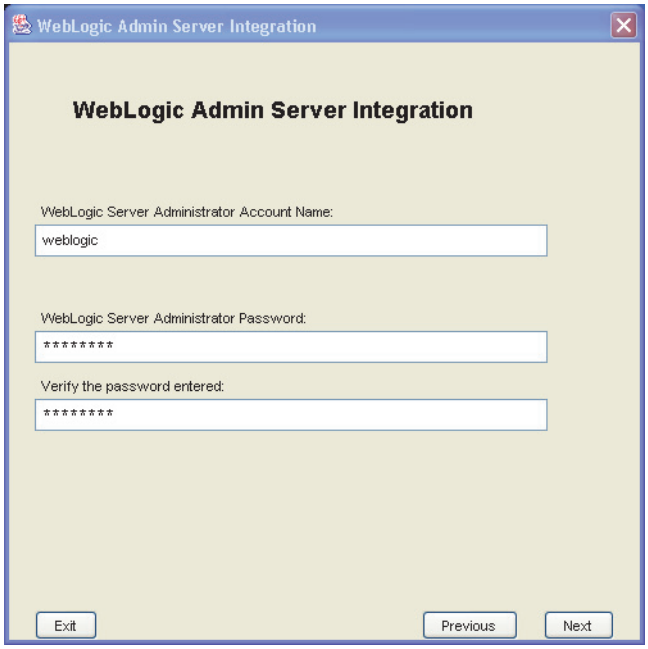
17. Select the database you are running (**Oracle** or **SQL Server**) and enter the JNDI Data Source Name, for example **csDataSource**. Click **Next**.



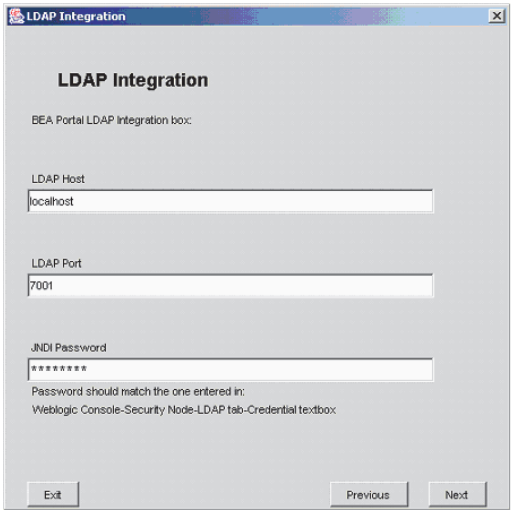
18. (Optional): Specify the hostname and port of your WebLogic machine for Admin integration. **This screen will appear only if you are installing on a managed server**.



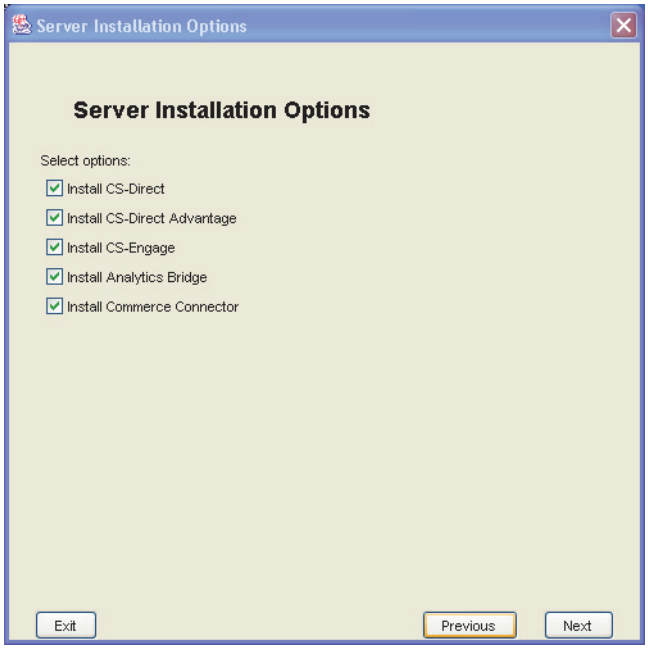
19. (Optional): Specify the administrator account name and password of your WebLogic machine for Admin integration. **This screen will appear only if you are installing on a managed server.**



20. Enter the LDAP hostname, port, and password, then click **Next**.



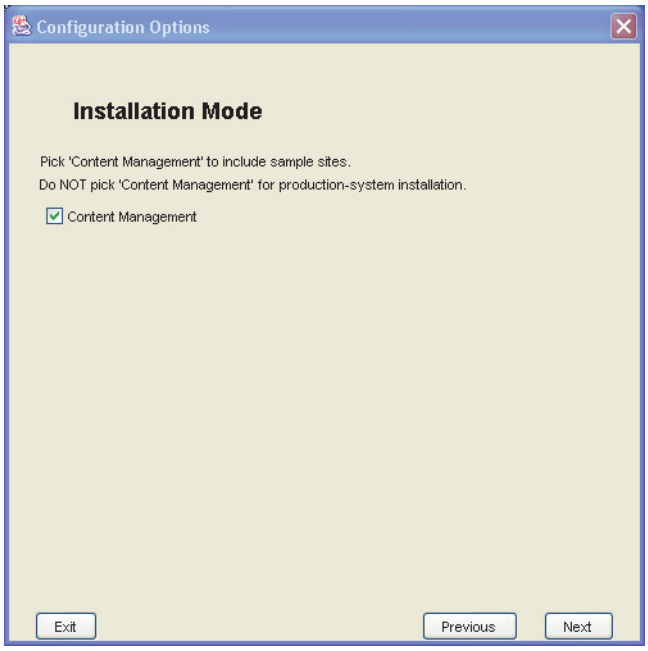
21. Select the products that you purchased and want to install, then click **Next**.



22. Set the installation mode, which enables you to install sample content and sample sites on the environment you are setting up.

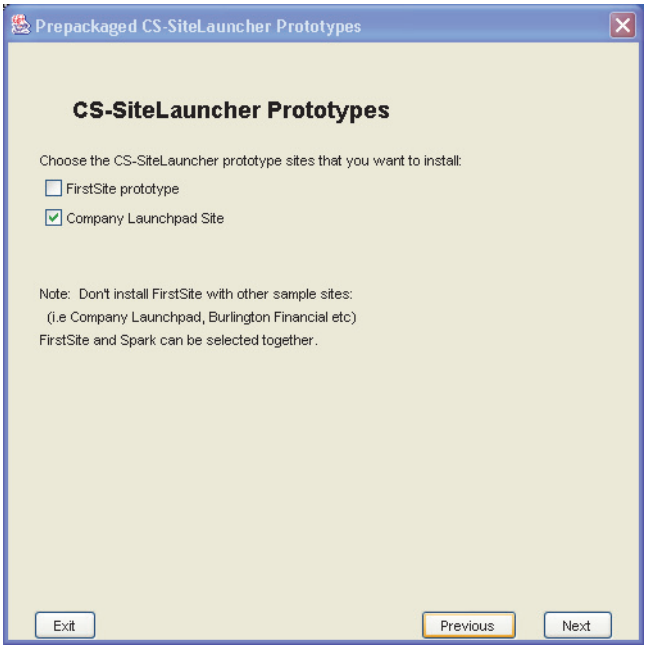
    Do one of the following:

    - If you are setting up a development or content management environment and you want to install sample content and sample sites on the environment, select **Content Management** as your installation mode, then click **Next**.
    - If one of the following holds, make sure that **Content Management** is deselected and go to step 24 on page 167:
        - You do not want to install sample content and sample sites on the environment.
        - You are setting up a production environment to deliver the sample content and sample sites that you installed on the development and/or content management environments. The content and sites will be mirrored to the production environment during dynamic publishing.

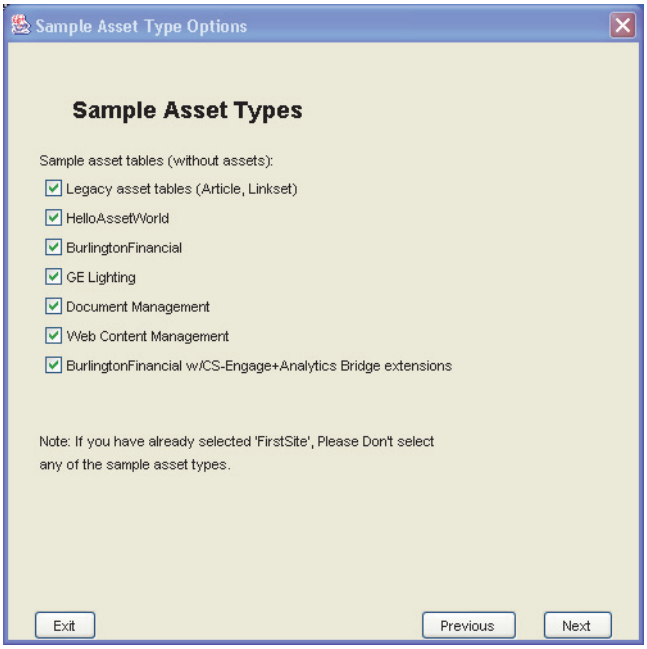


23. If you selected **Content Management** in the previous step, continue with the current step. Otherwise, go to step 24 on page 167.

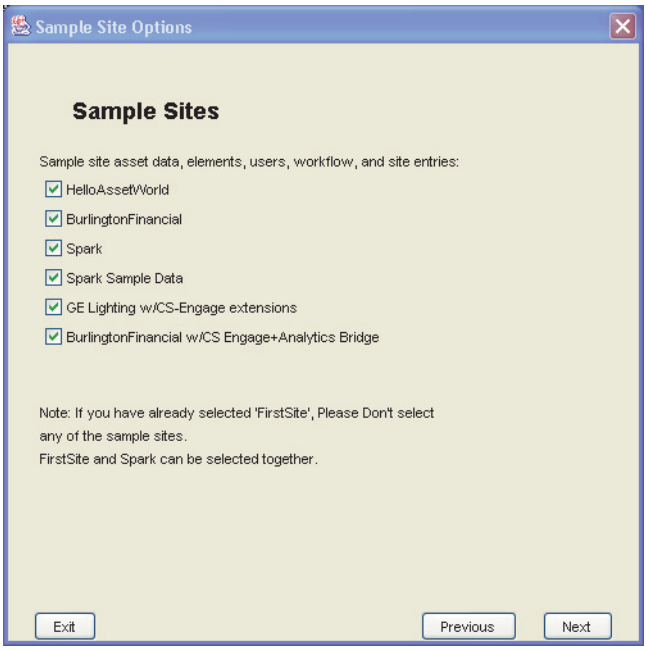
a. Select the checkbox of each CS-Site launcher prototypes site you want to install, then click **Next**.



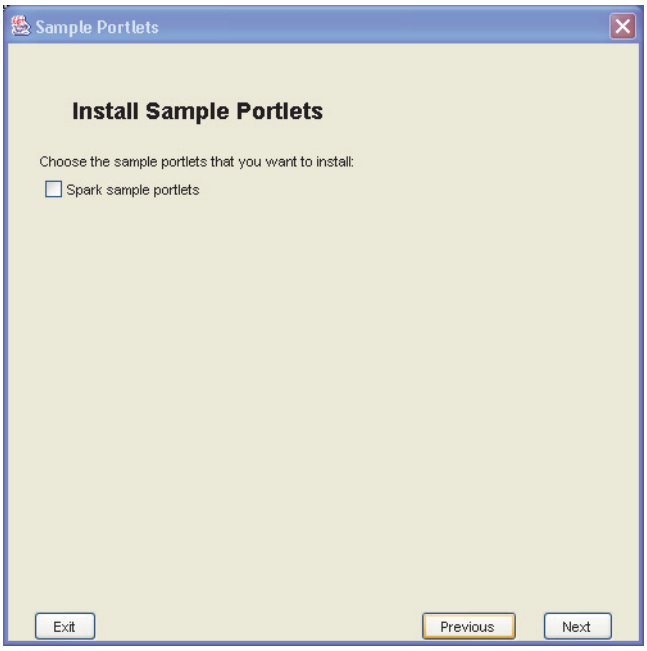
b. Select the sample asset types you want to install, then click **Next**.



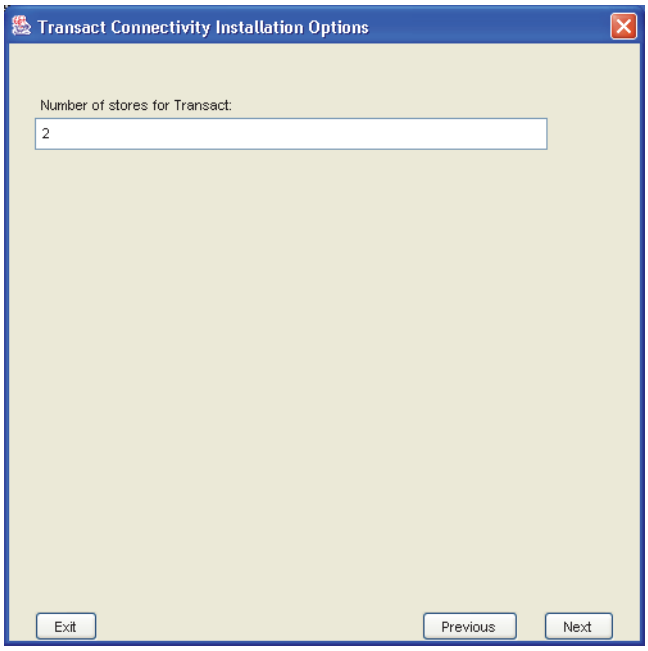
c. Select the sample sites you want to install, then click **Next**.



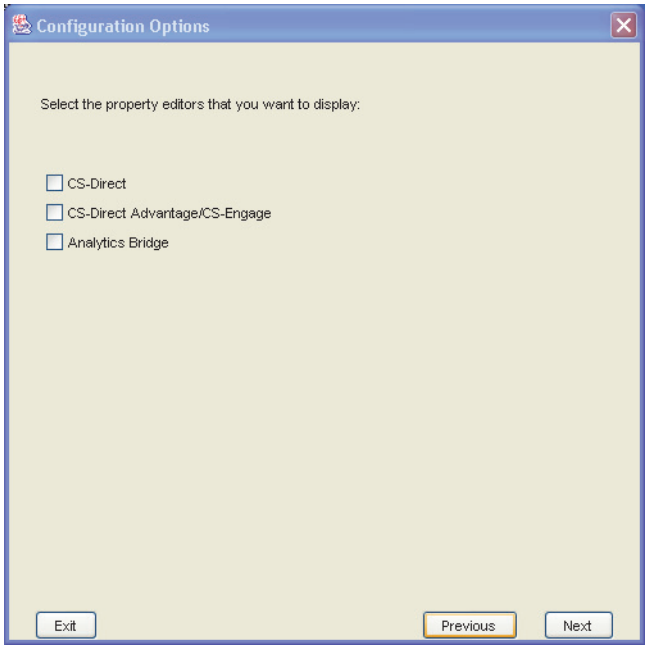
d. Select the sample portlets you want to install, then click **Next**.



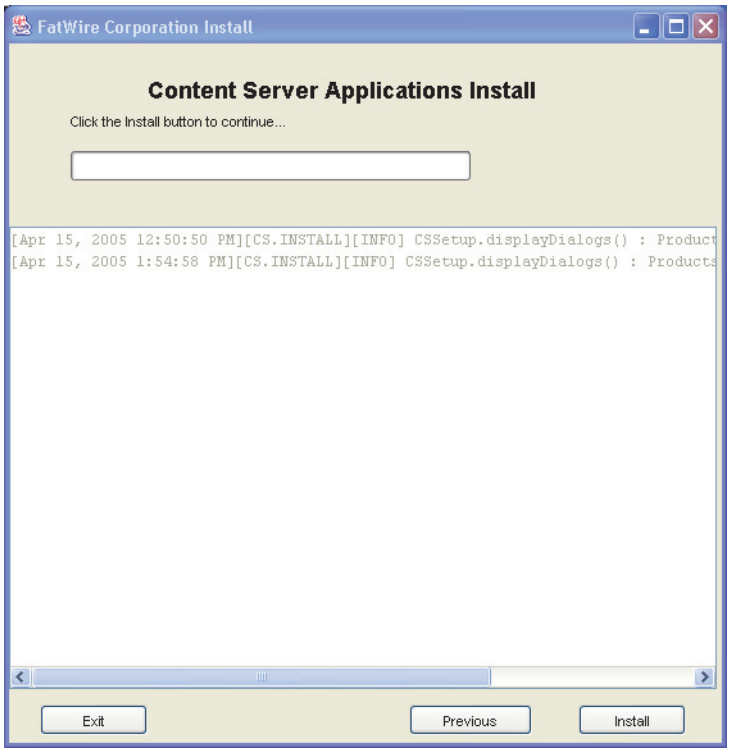
24. Select the number of stores you wish to have for Transact, then click **Next**.



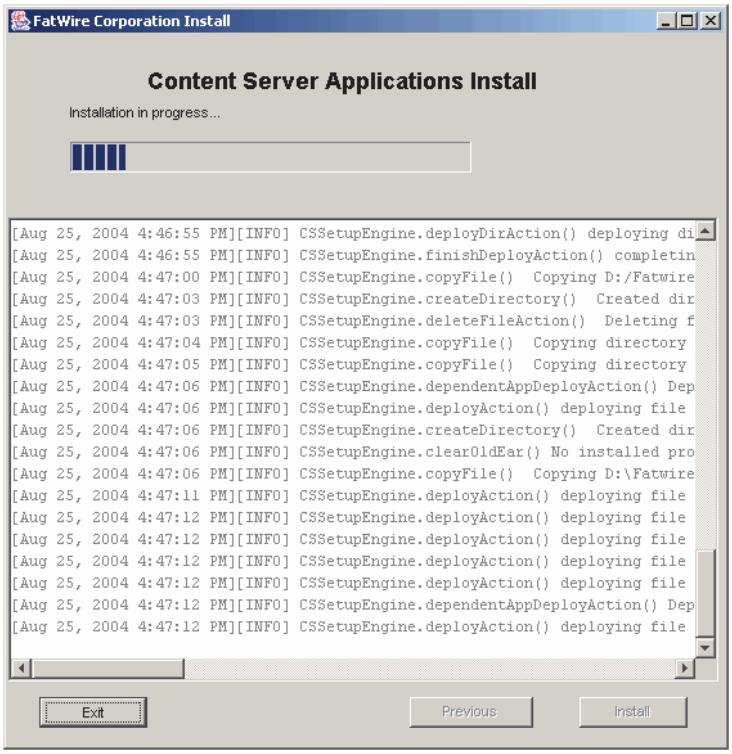
25. Select the products for which you want the property editor to open during installation, then click **Next**.



26. Click **Install** to start installing Content Server and its applications.



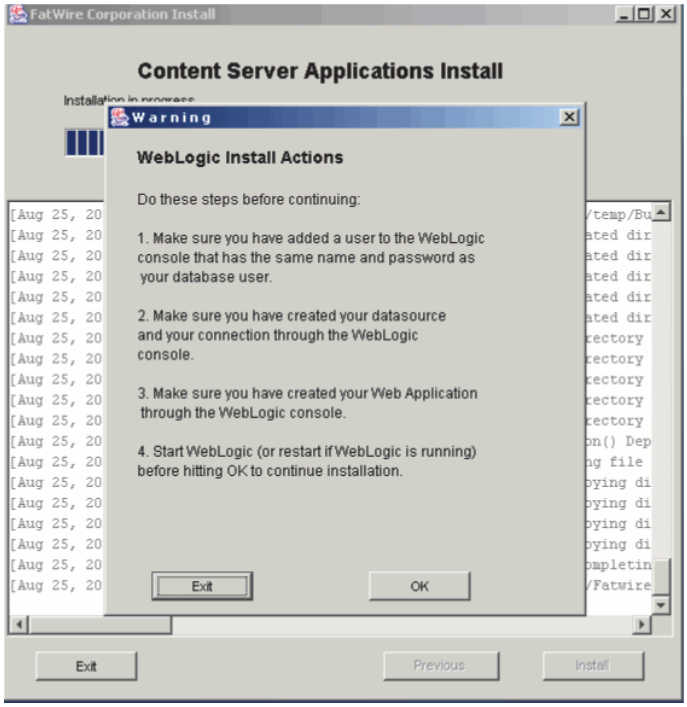
The installer starts copying all the necessary files. Progress is displayed on the screen.



27. When the installation program has finished copying files, the following dialog box is displayed. **Do not click OK.** Instead, do the following:

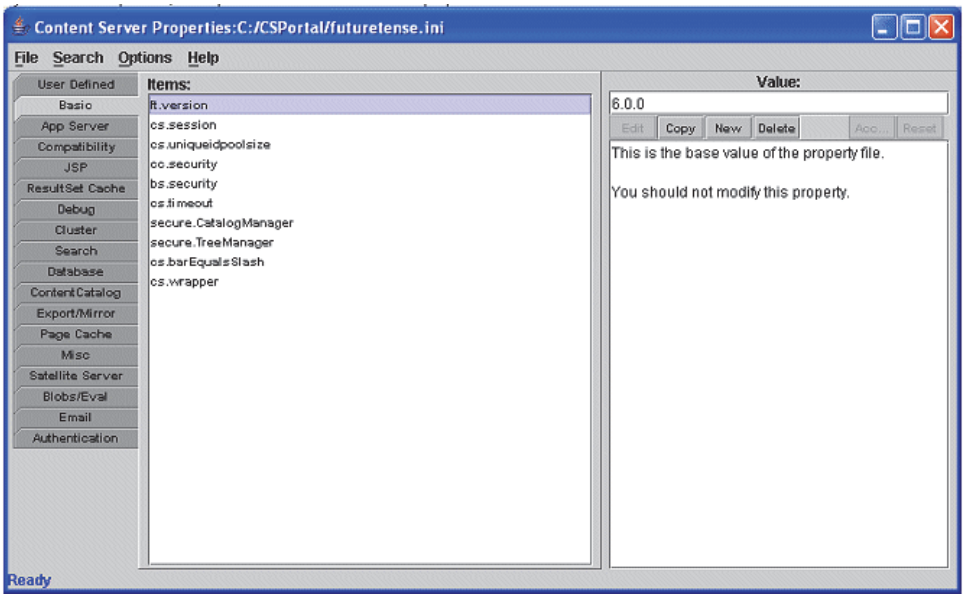
    a. If you are using SQL Server, go to step 28 on page 170 to set internationalization parameters.

    b. If you are not using SQL Server, go to step 30.

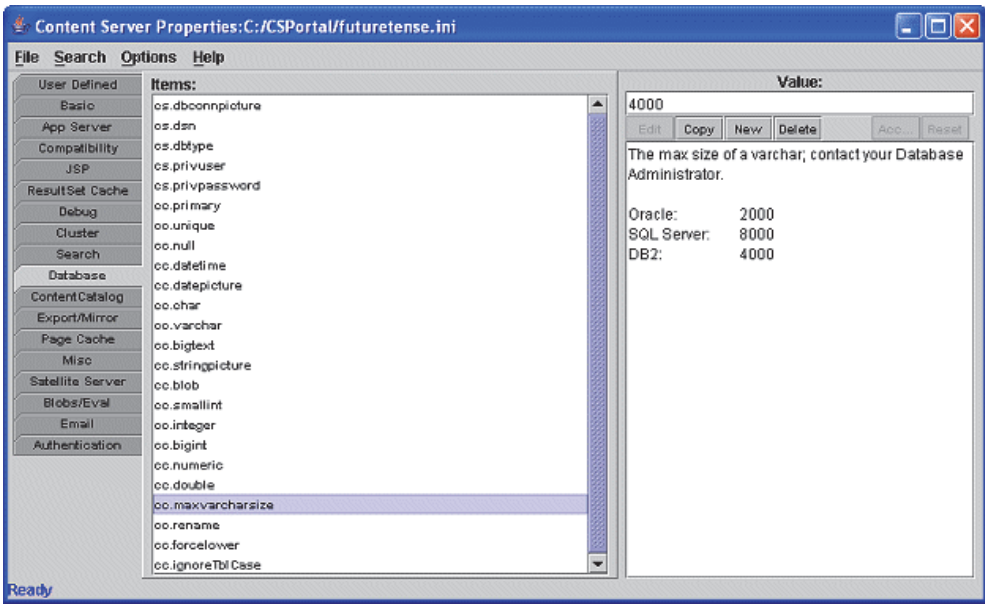


28. For internationalization of SQL server only (otherwise, go to step 29 on page 172):

a. Go to the directory where you installed Content Server and open the `futuretense.ini` file in the Property Editor.



b. Select the **Database** tab and change the values of the properties as shown in the note below:



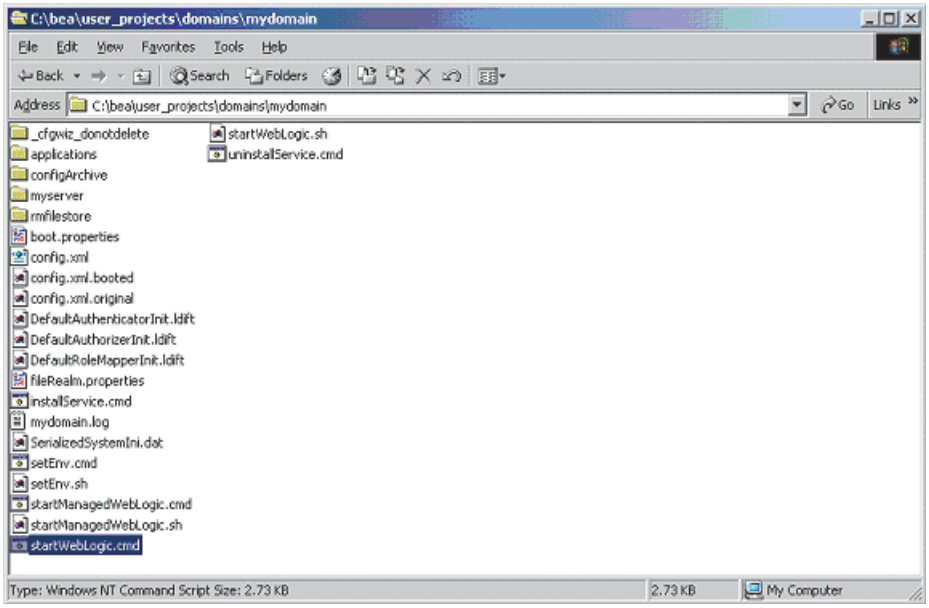
Note

If you are using SQLServer2000 on Windows2000 **and** UTF-8 for page encoding, you must set the following properties in `futuretense.ini` (**Database** tab) through the Property Editor, while installing Content Server:

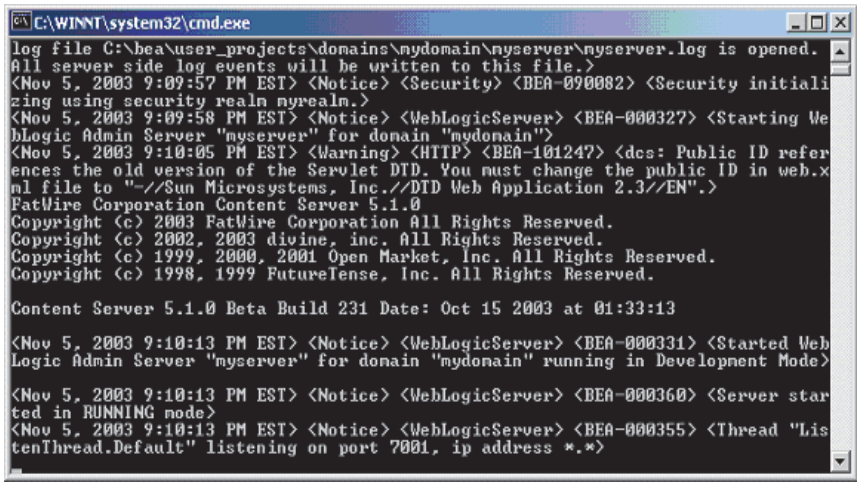
Property	Old Value	New Value
`cc.char`	`CHAR`	`NCHAR`
`cc.varchar`	`VARCHAR`	`NVARCHAR`
`cc.maxvarcharsize`	`8000`	`4000`
`cc.bigtext`	`TEXT`	`NTEXT`
`cc.stringpicture`	`'$string'`	`N'$string'`

Changing the values of these properties is a requirement for supporting foreign languages. This is the only time when you can change these values. See Appendix C, "More About Properties" for more information about properties.

29. Run the **`startWebLogic.cmd`** script to start the portal server.

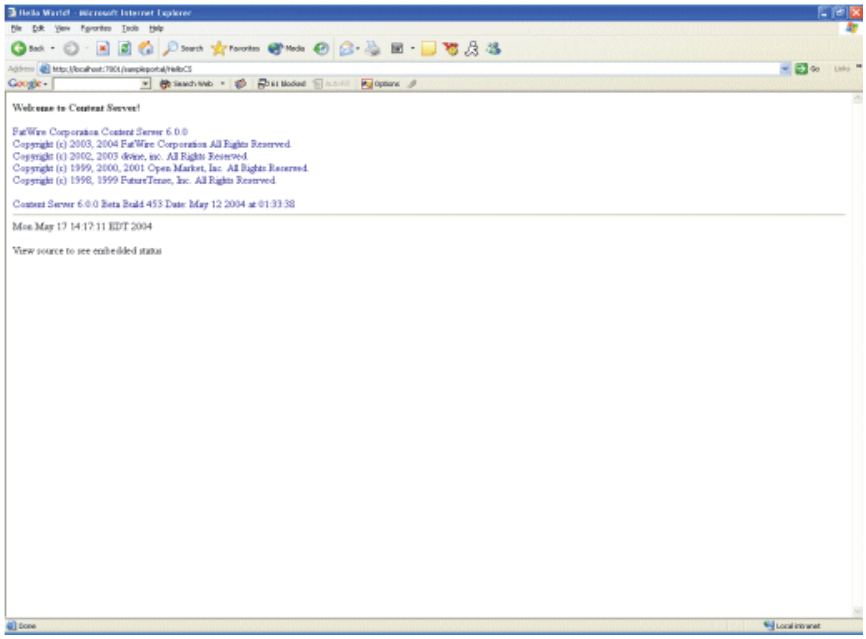


30. Wait for the portal server startup to complete. This takes a few minutes.



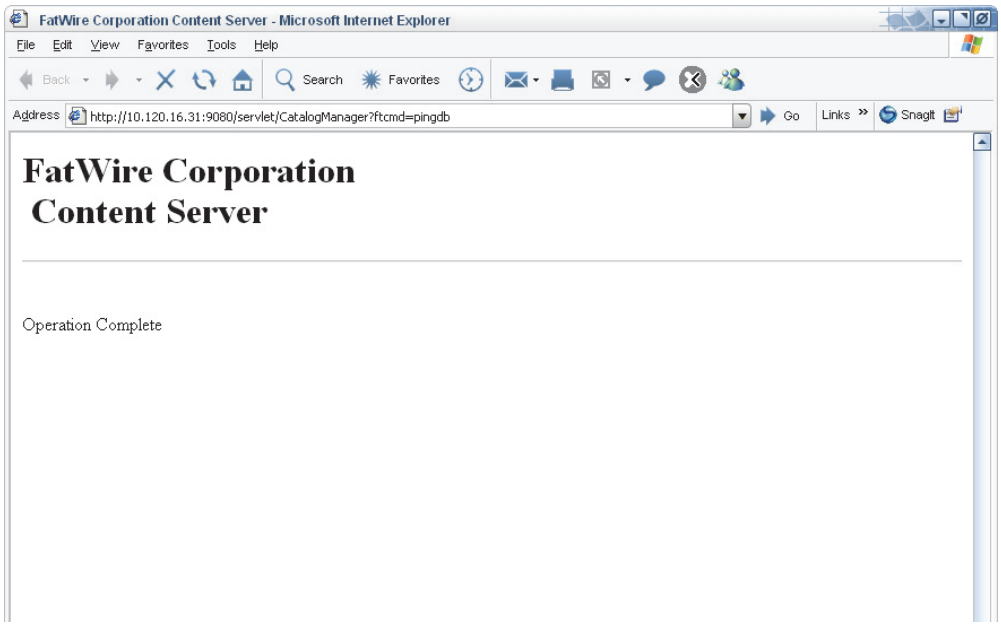
31. Check that the following URL works:
`http://localhost:7001/CS/HelloCS`

If you do not see the following screen, then you might have to re-deploy your application from the WebLogic console. If you cannot view this page, restart your installation.

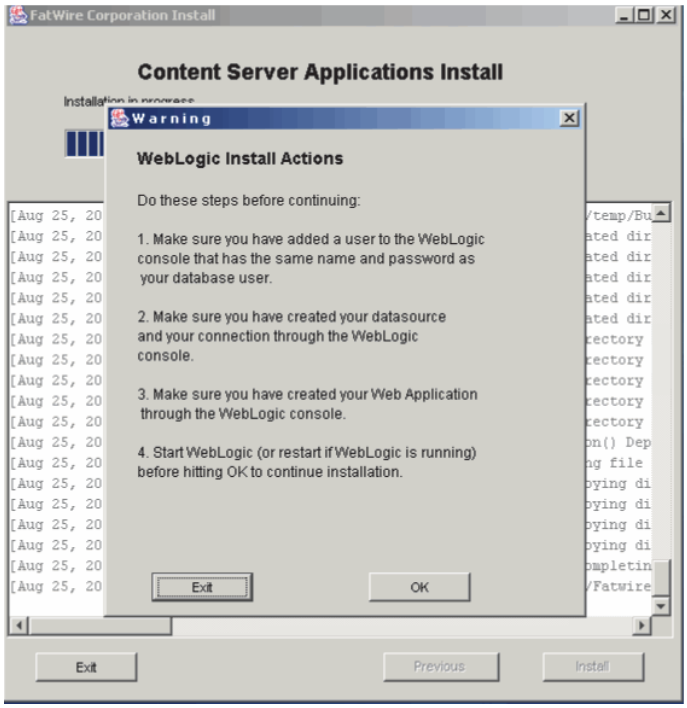


a. Check if the following URL works:
`http://localhost:7001/CS/CatalogManager?ftcmd=pingdb`

The URL should return "`Operation Complete`" in the browser.



32. Click **OK**.


FatWire Corporation Install
Content Server Applications Install
Warning
WebLogic Install Actions
Do these steps before continuing:
1. Make sure you have added a user to the WebLogic console that has the same name and password as your database user.
2. Make sure you have created your datasource and your connection through the WebLogic console.
3. Make sure you have created your Web Application through the WebLogic console.
4. Start WebLogic (or restart if WebLogic is running) before hitting OK to continue installation.
Exit
OK
Exit
Previous
Install

Step III. Configure Content Server Portlets

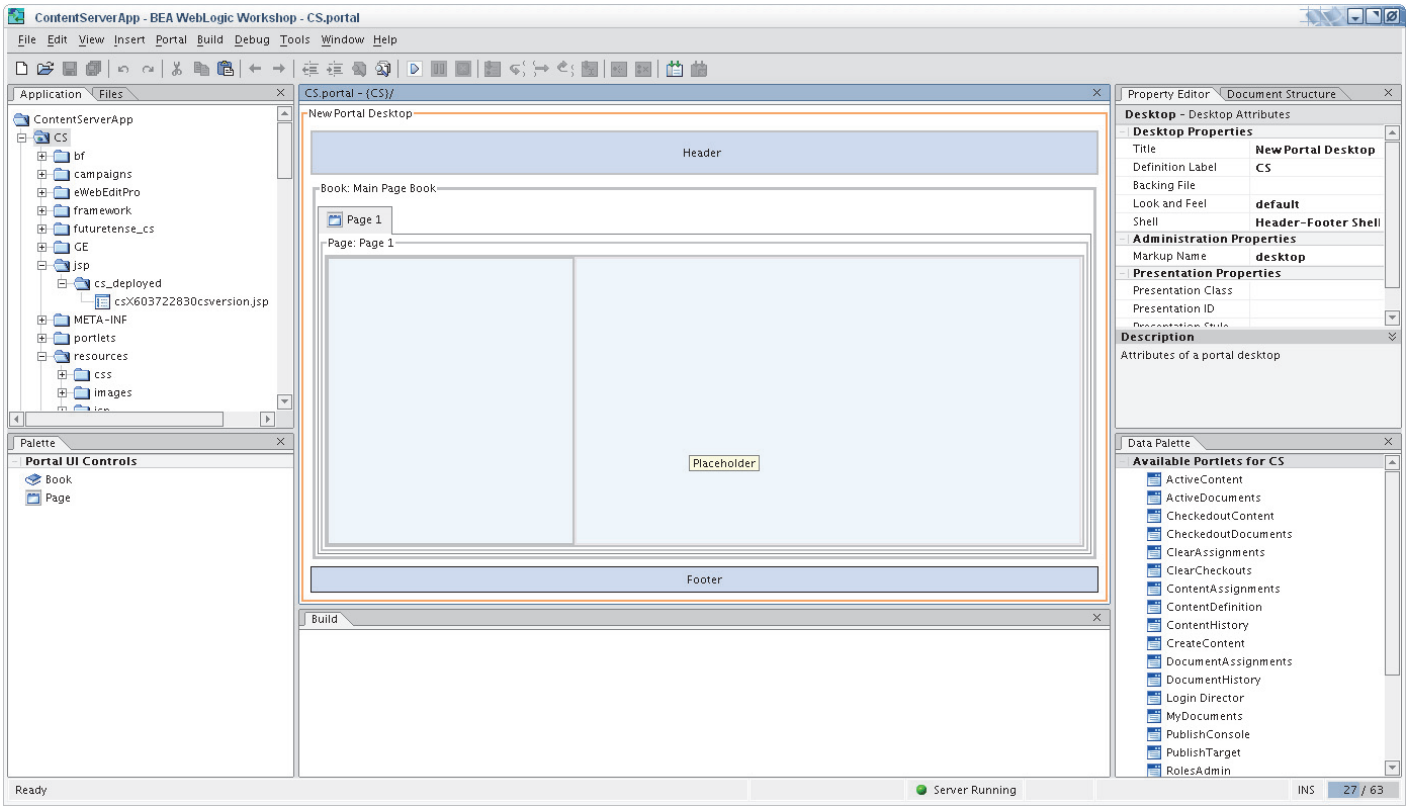
1. One of the portlets that you will configure is the login portlet. Because this portlet is not provided with Content Server, you must create your own. To do so, you can use the sample "Login Director" portlet from BEA. To use the BEA login portlet, you need to copy several files from the BEA sample directory into the Portal Application directory. Do the following:
   a. Copy the `file <bea install>/weblogic81/samples/portal/portalApp/sampleportal/portlets/login/director.jsp` to `<your portal app>/CS/portlets/login`
   b. Copy the file `<bea install>/weblogic81/samples/portal/portalApp/sampleportal/portlets/login/director.portlet` to `<your portal app>/CS/`
   c. Copy the directory `<bea install>/weblogic81/samples/portal/portalApp/sampleportal/WEB-INF/src/examples` to `/CS/WEB-INF/src/`
   d. Edit the file `<your portal app>/CS/WEB-INF/src/examples/login/DirectorBacking.java` by commenting out the following lines:

```
12:import com.bea.myee.portal.YahooLoginFilter;
89:url.addParameter(YahooLoginFilter.LOGIN_REQUEST_PARAM,
   "true");
99:desktopURL.addParameter(YahooLoginFilter.LOGIN_REQUEST_
   PARAM, "true");
124:url.addParameter(YahooLoginFilter.LOGOUT_REQUEST_PARAM,
   "true");
132:defURL += "?" + YahooLoginFilter.LOGOUT_REQUEST_PARAM +
   "=true";
```

   e. Save the modified file and restart WebLogic.
2. Issue one of the following commands:

   `<bea installation dir>/weblogic/workshop/Workshop.sh`
   or
   `Workshop.exe`
3. Open the WebLogic workshop.

4. Open the application that you created in "Step III. Set Up a Portal Installation and Create a Web Application," on page 62.

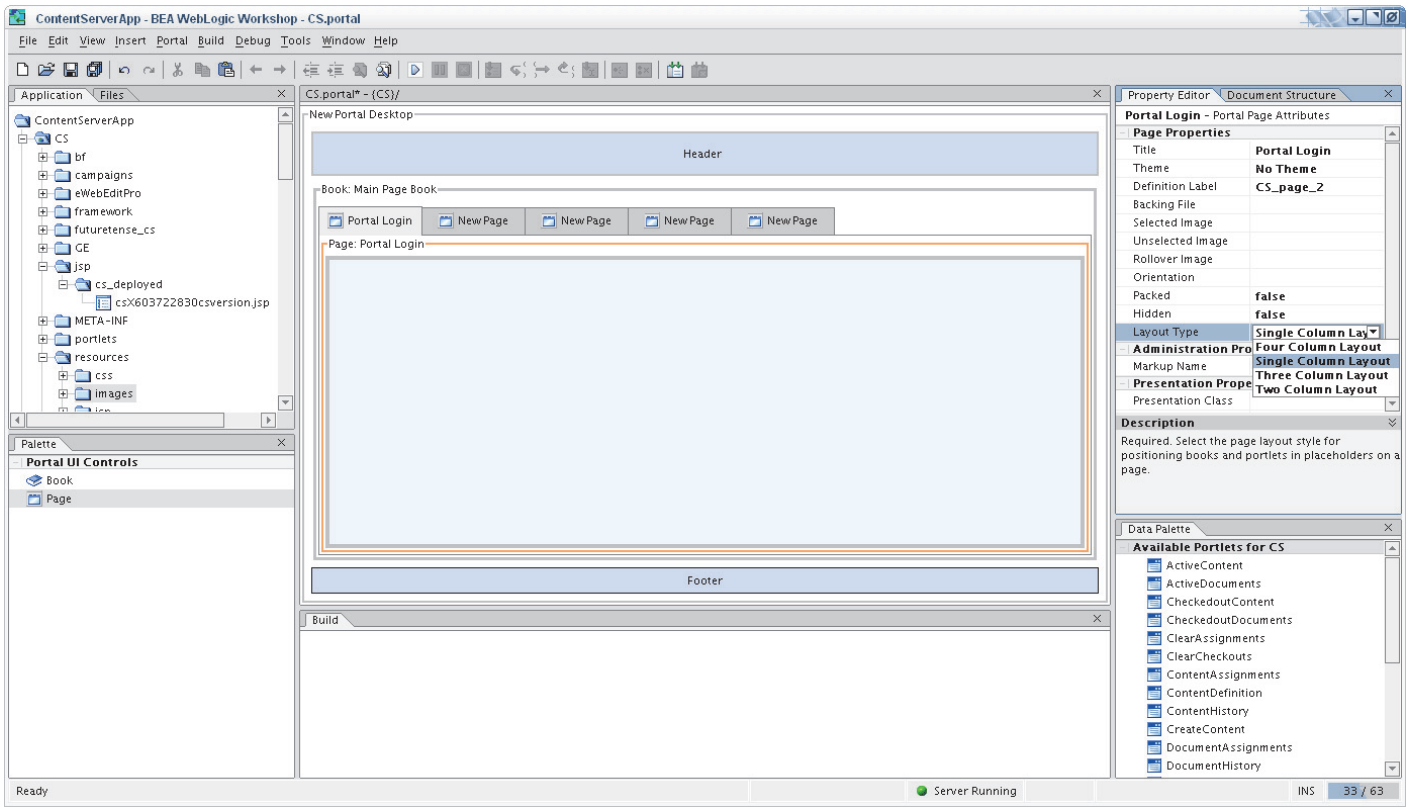


5. Drag and drop **Page** from the lower left-hand panel to the center panel's "Header" panel to create a new page. Repeat this step as many times as necessary to create the pages you need for the environment. The pages are as follows (you will name them in the next step):

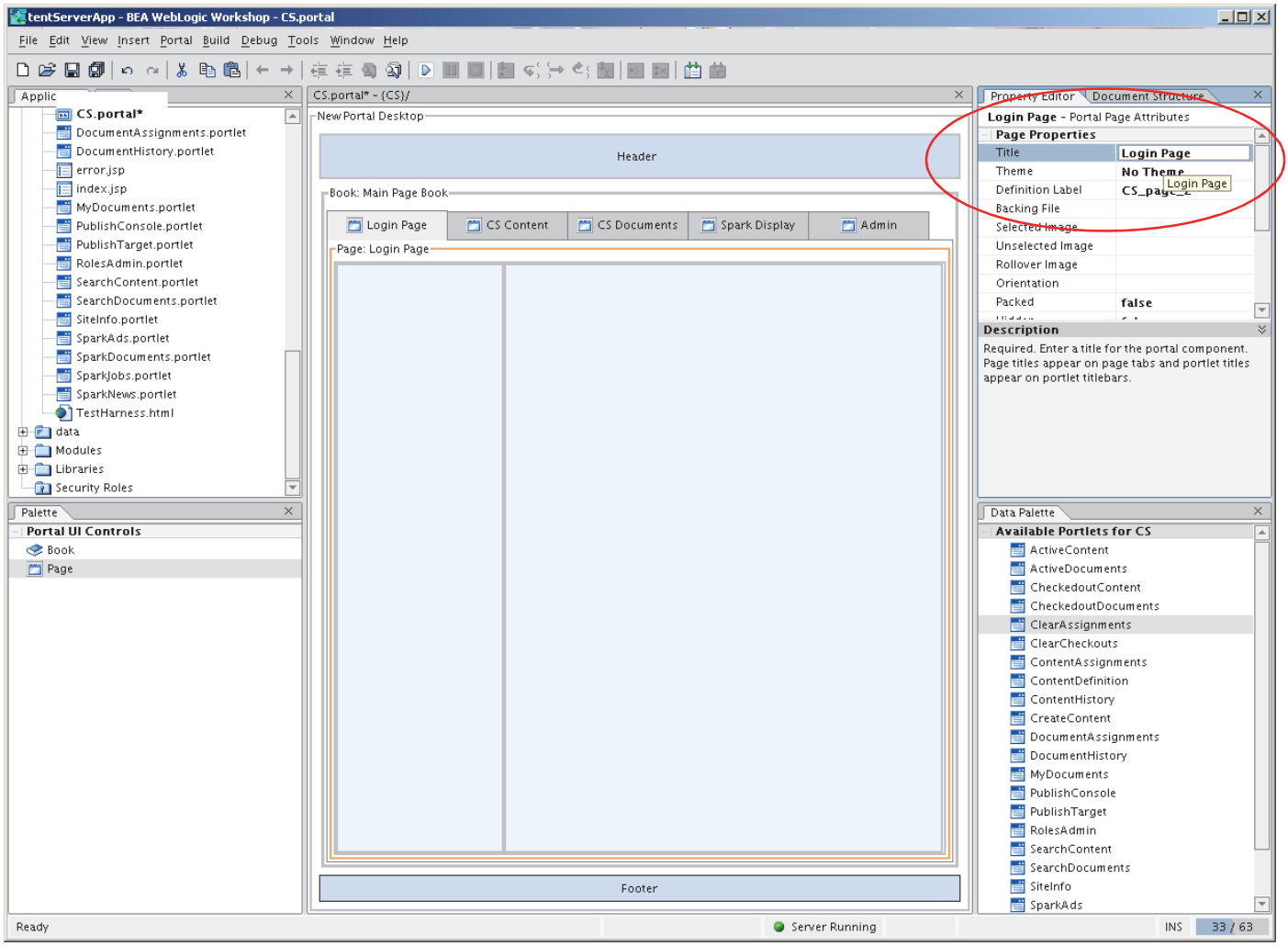
   - **Portal Login**
     For all environments. This page is for logging users in to the portal.
   - **CS Content**
     For development and content management environments. This page is used to display portlets for managing structured content, and therefore should not be created on a production environment.
   - **CS Documents**
     For development and content management environments. This page is used to display portlets for managing document-based content, and therefore should not be created on a production environment.
   - **Spark Display** (optional)
     For production environments. Create this page if you installed the Spark sample site and its content on the development or content management environments, and you wish to display that content to portal visitors.
   - **Admin** (conditional)
     For development and content management environments.

- If Content Server users will be authoring on the Spark sample site, they can be managed from either the standard Content Server interface or the administrative portlets. If you wish to use the administrative portlets, create an "Admin" page.
- **If users will be authoring on custom sites, the users must be managed from the standard Content Server interface. There is no need to create an "Admin" page.**

When you have completed this step, your interface will look similar to the following:

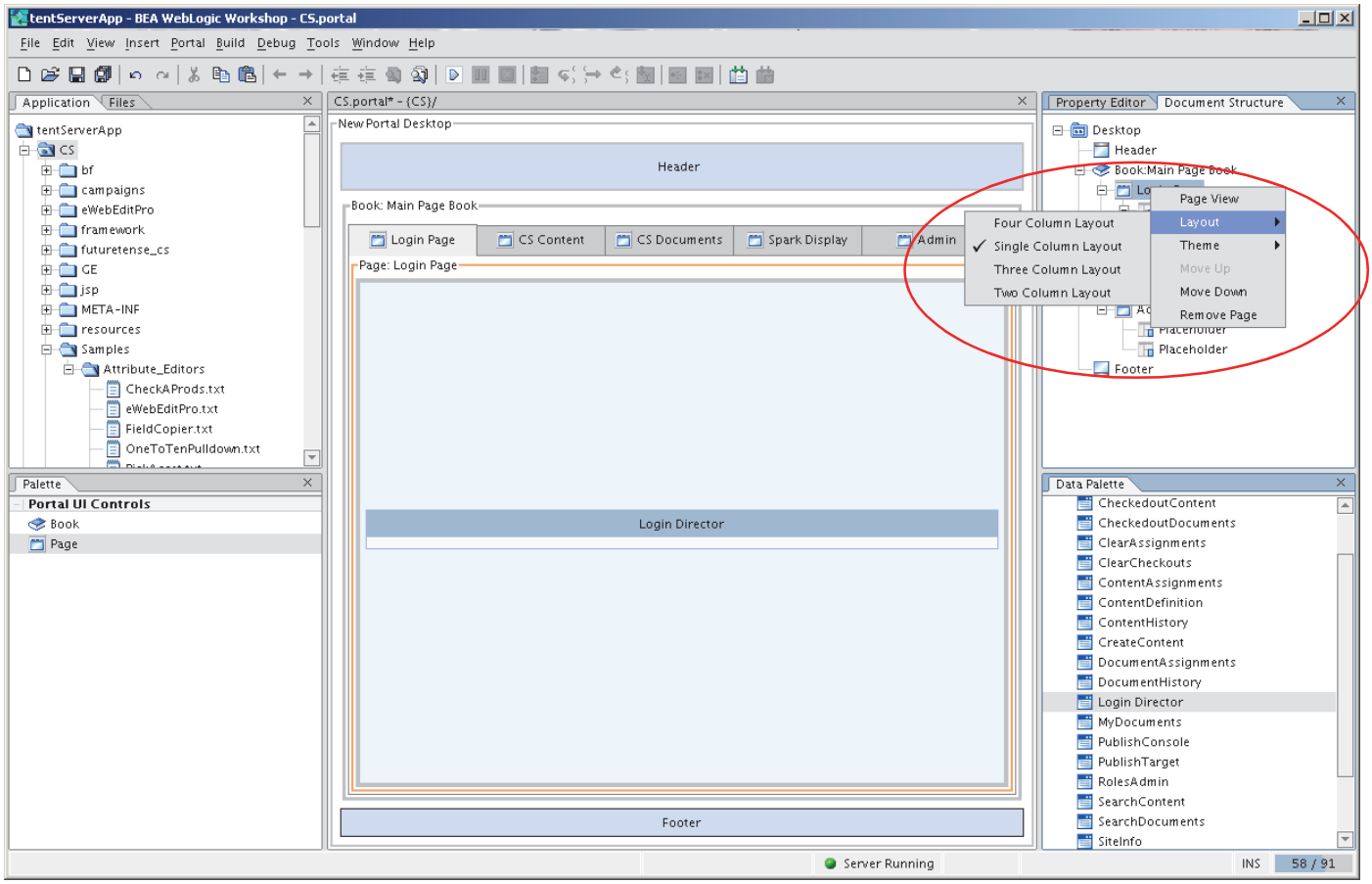


6. Name each page by selecting its tab and entering the new page name in the upper right-hand panel. You can enter either the names shown in step 5 on page 176 or names of your own choice.



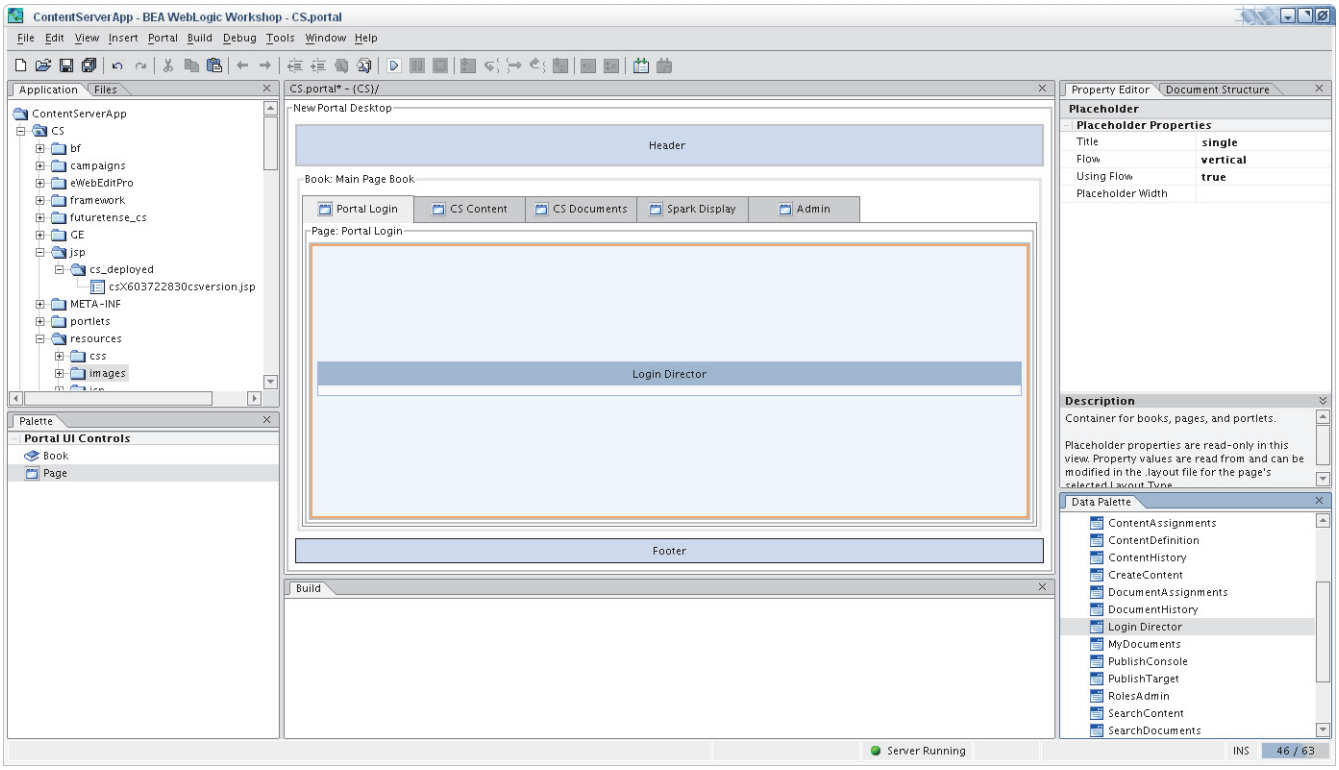
7. If you want to change the number of columns that are displayed on a page (the default is two columns), you can do so on a page-by-page basis:
   a. In the top right-hand panel, select **Document Structure**.
   b. Navigate to the page you wish to change, and right-click on the name of the page.

      In the popup-menu, select the layout style that you want.



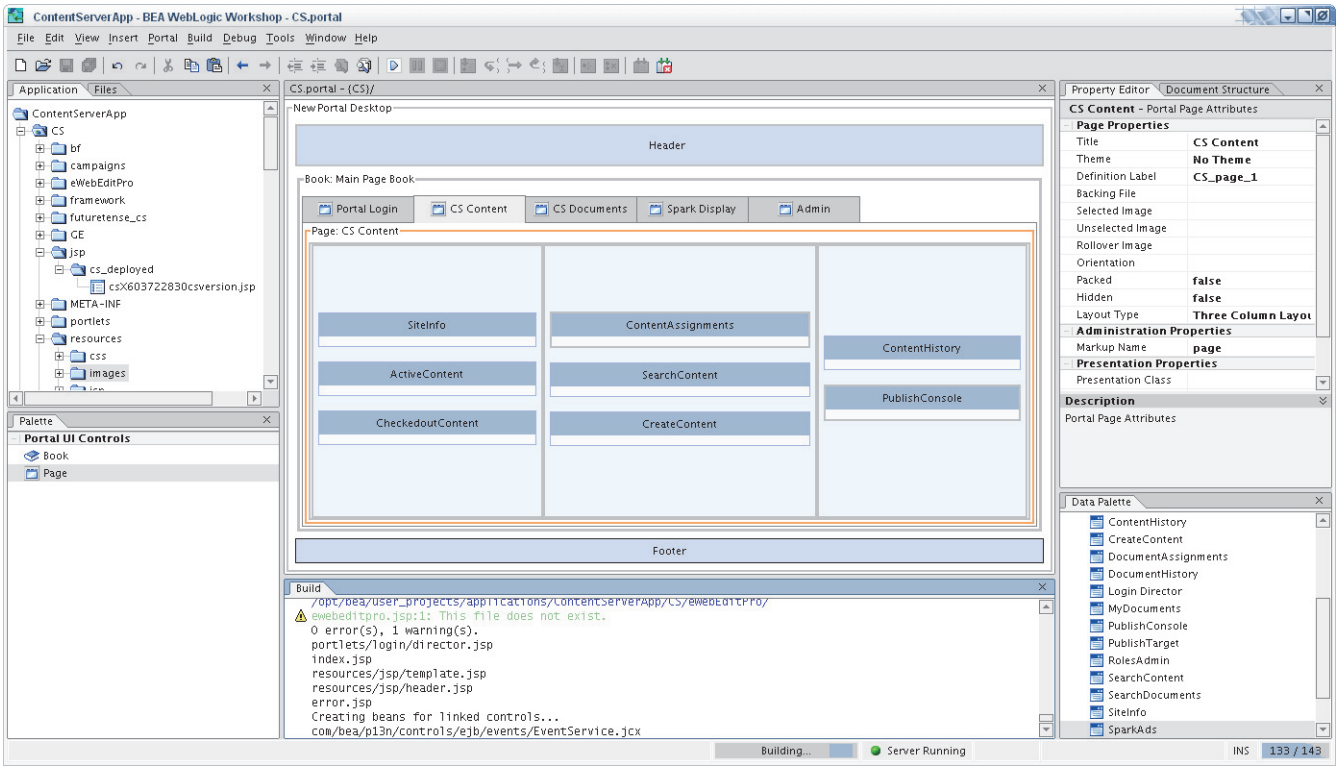
8. Drag and drop portlets from the lower right-hand window to the pages, as shown in the steps below:

   a. For the “Portal Login” page, drag and drop the following portlet onto the page: Login Director.



   b. For the “CS Content” page, drag and drop the following portlets onto the page:
      - SiteInfo
      - ActiveContent
      - CheckedOutContent
      - ContentAssignments
      - SearchContent
      - CreateContent
      - ContentHistory

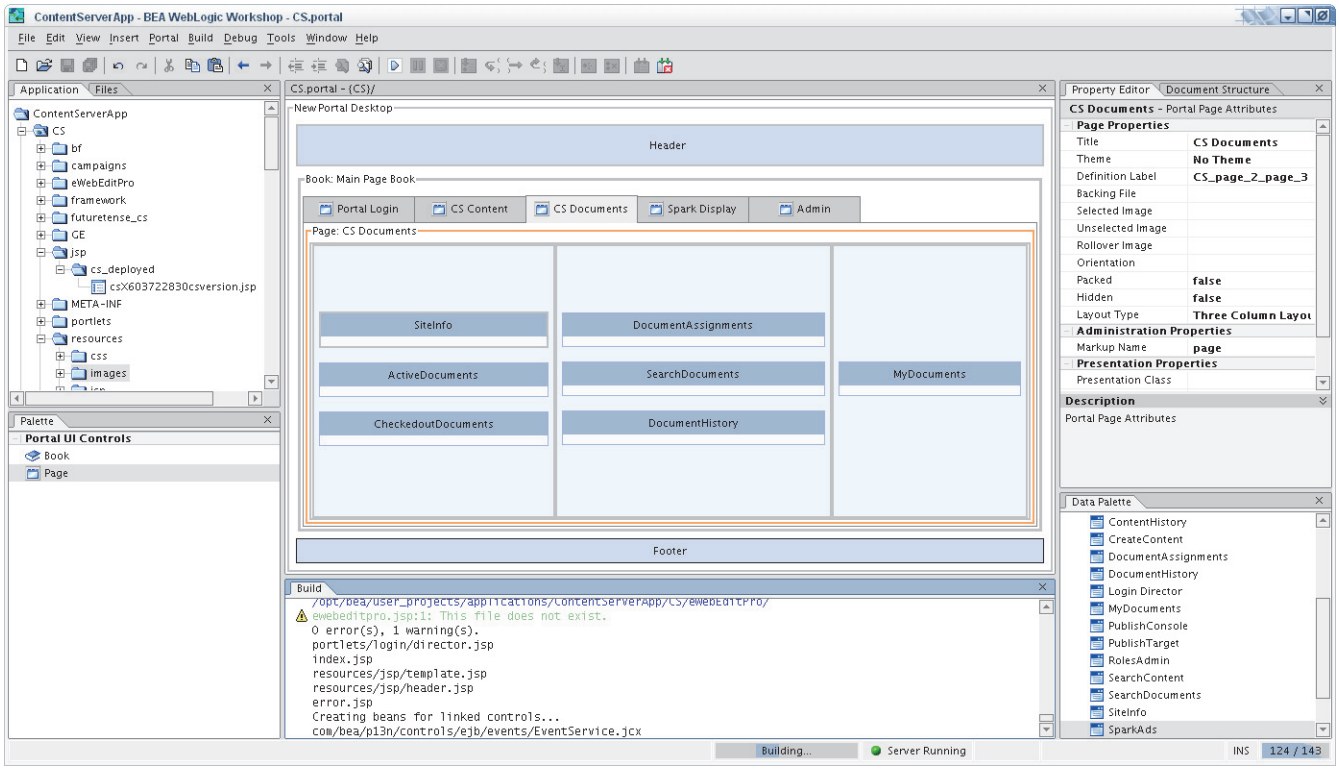
- PublishConsole



c. For the “CS Documents” page, drag and drop the following portlets onto the page:

- SiteInfo
- ActiveDocuments
- CheckedOutDocuments
- DocumentAssignments
- SearchDocuments
- DocumentHistory

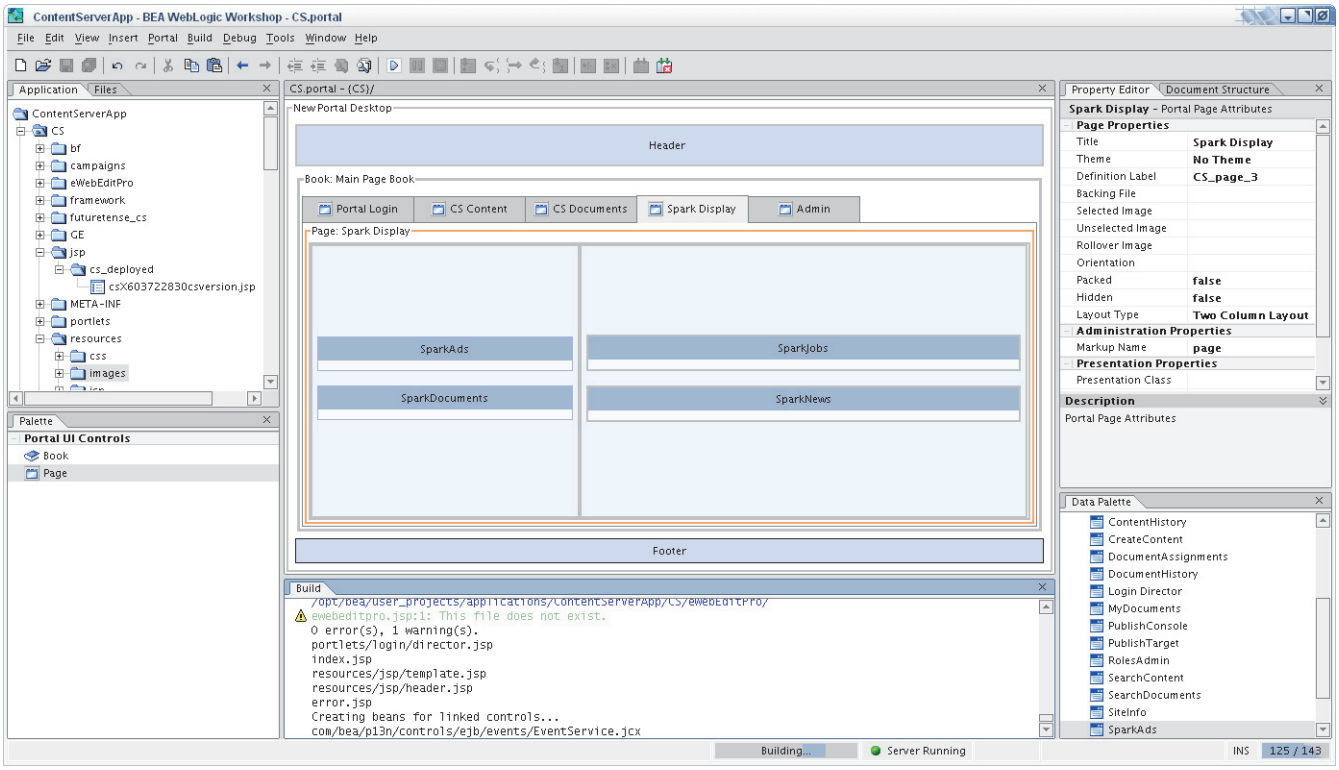
- MyDocuments



d. If you created a “Spark Display” page, drag and drop the following portlets onto the page:

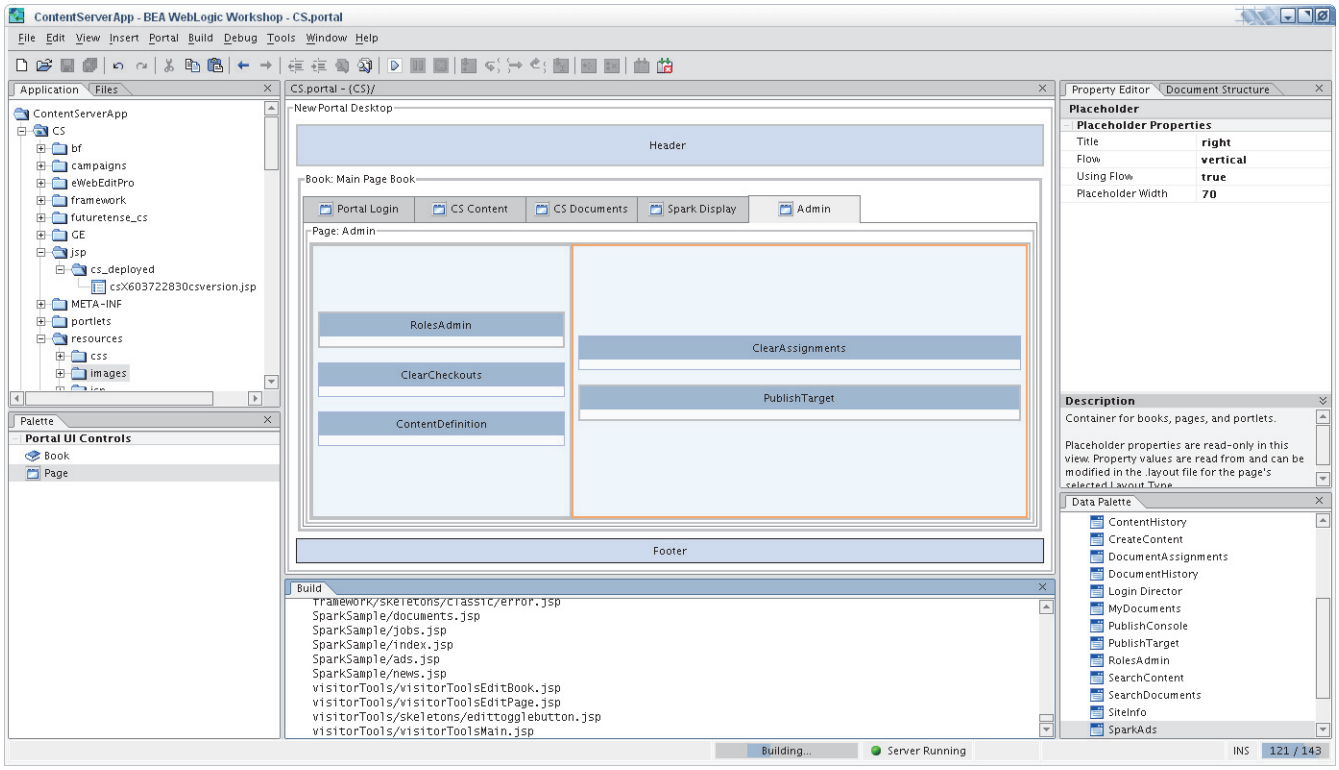
- SiteInfo
- SparkAd
- SparkDocuments
- SparkJobs

- SparkNews



e. If you created an "Admin" page for managing users on the Spark sample site, drag and drop the following portlets onto the page:

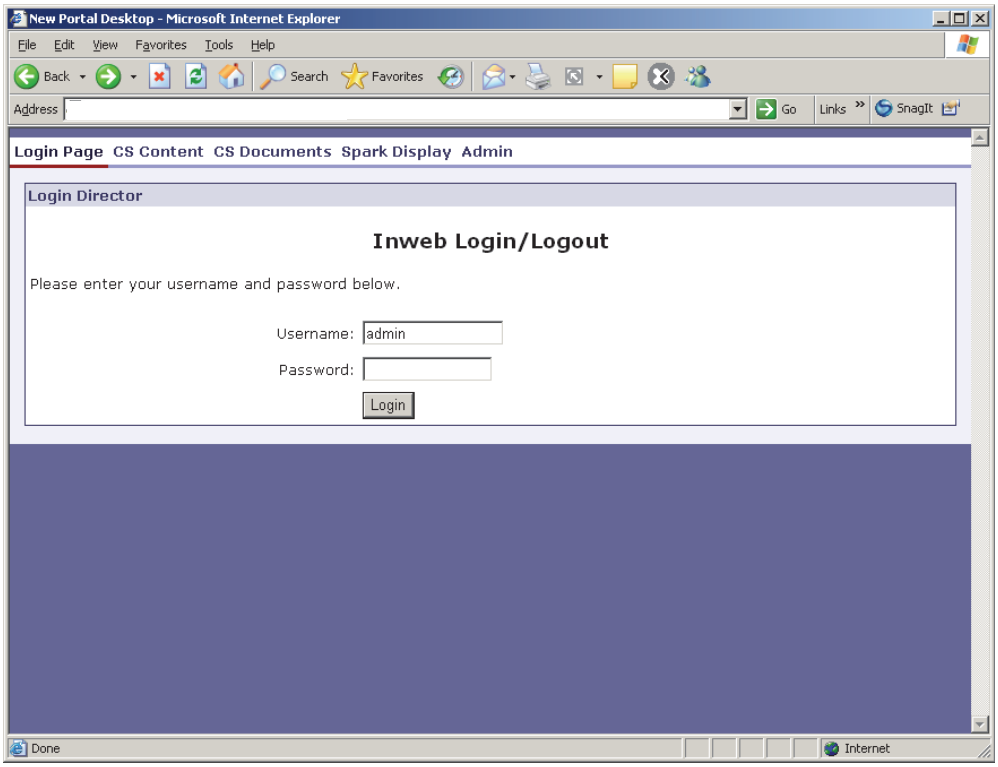
- RolesAdmin
- ClearCheckouts
- ContentDefinition
- ClearAssignments
- PublishTarget



9. Save the changes.
10. Restart WebLogic and complete the steps below to verify the installation.

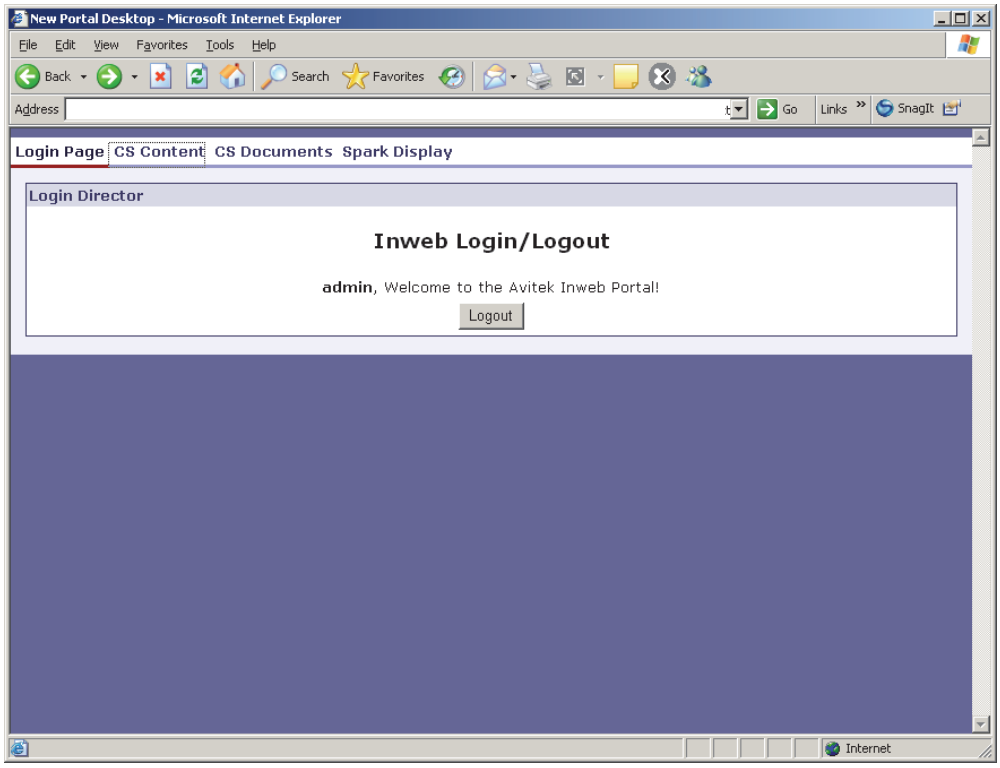
11. Verify the installation:

a. Go to `http://<your host>:<port>/<Application name>/<Application name>.portal`



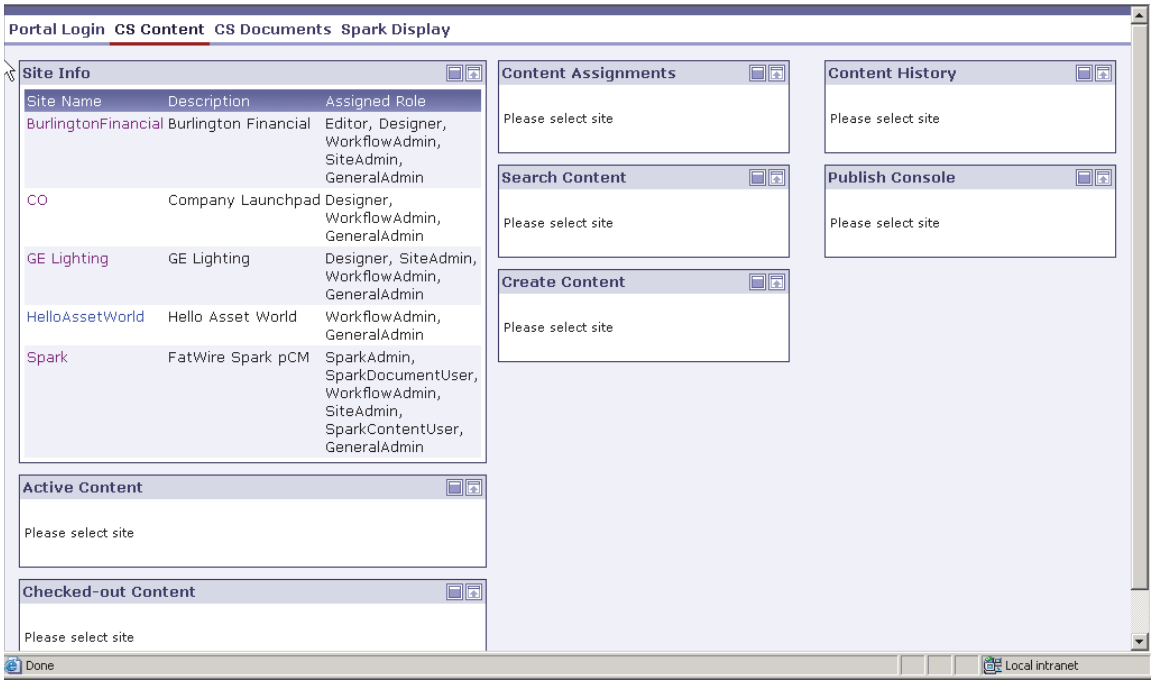
b. Log in with the username **fwadmin** and the password **xceladmin**.

The screen should look similar to the following:



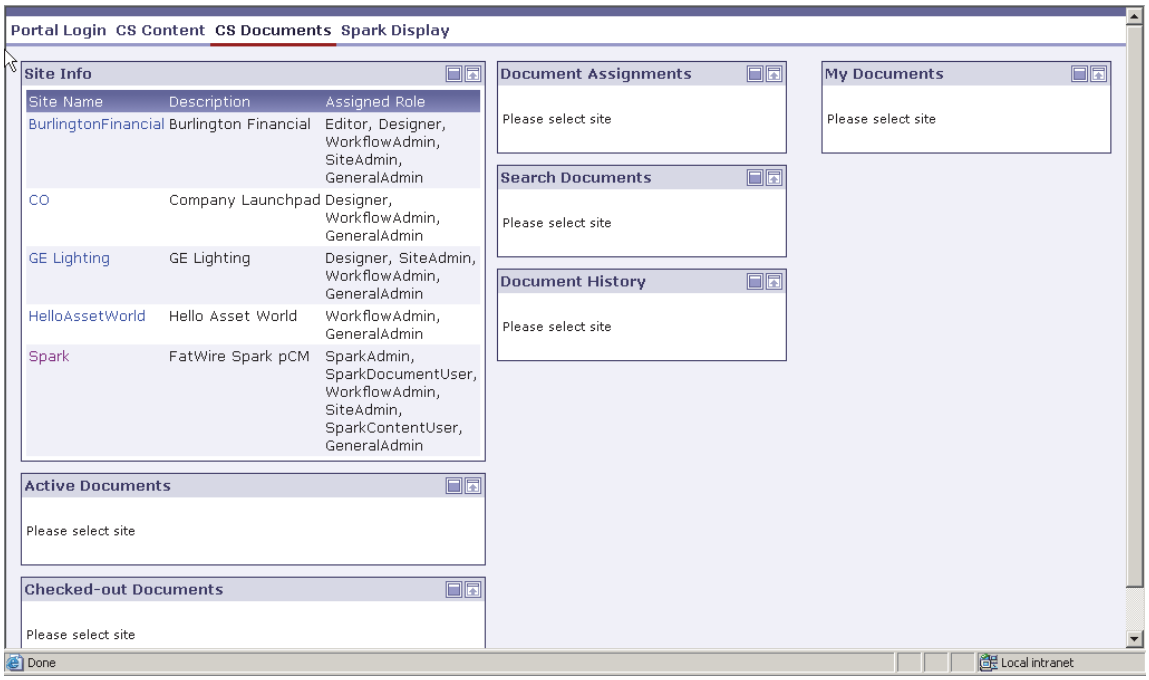
c. Click the **CS Content** link.

The screen should look similar to the following. The items displayed in the left-hand panel depend on which options you selected during the installation.



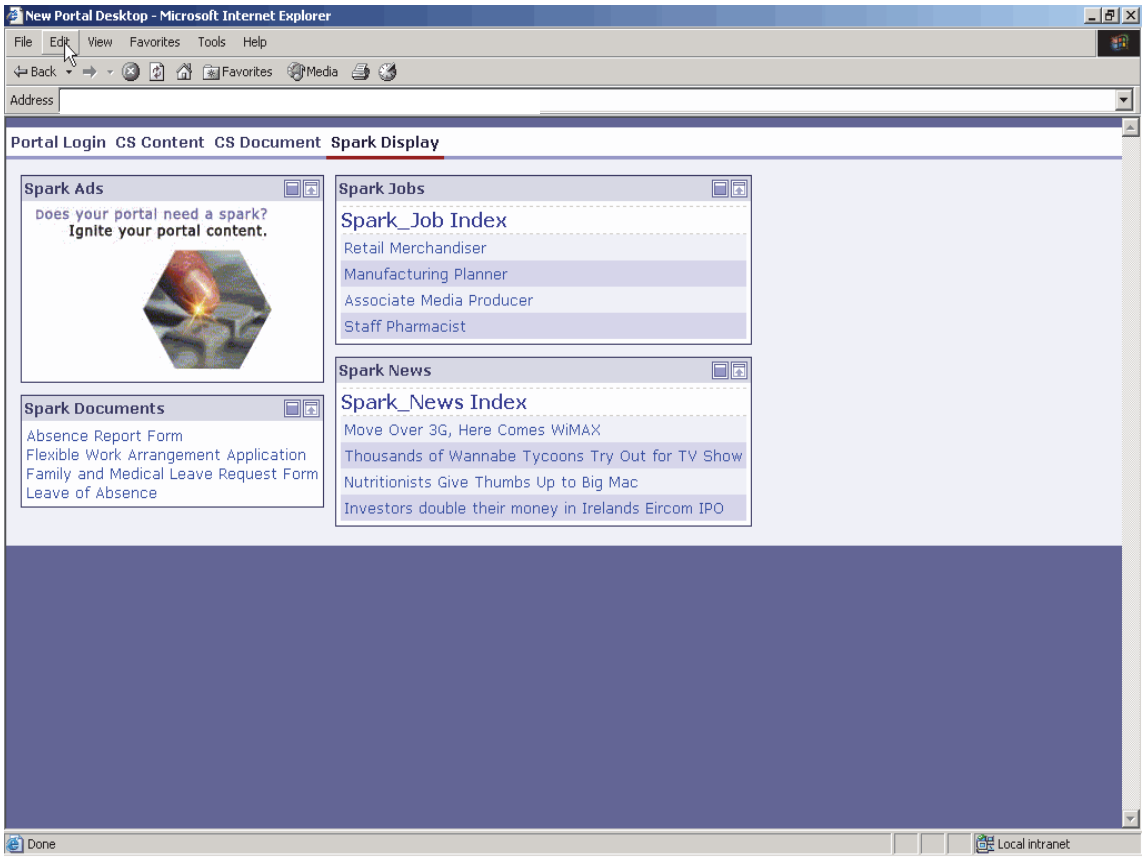
d. Click the **CS Documents** link.

The screen should look similar to the following. The items displayed in the left-hand panel depend on which options you selected during the installation.



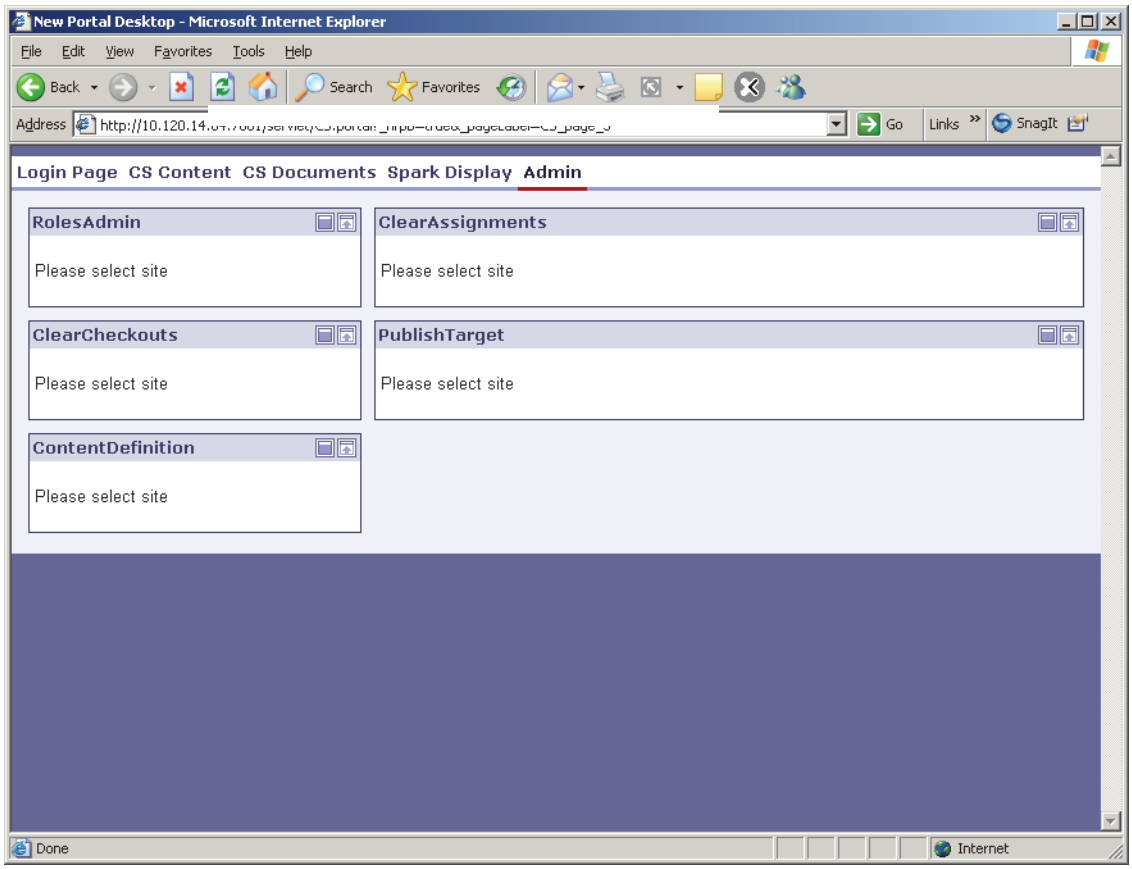
e. If you created a "Spark Display" page, click the **Spark Display** link.

The screen should look similar to the following:



f. If you created an "Admin" page, click the **Admin** link.

The screen should look similar to the following:



If your installation passed the verification step, you have a working installation.

Next Step

Now that Content Server is installed, you can install, configure, and test a supported search engine. If you chose not to install LDAP during the installation procedure, you can now install LDAP (or a different supported user authentication plugin). You can also set up Content Server for publishing in a production environment and enable it for business-specific content management operations.

For information about publishing, see the *Content Server Administrator's Guide*. For information about developing Content Server for its business application, see also the *Content Server Developer's Guide*.

Appendixes

This part contains the following appendixes:

- Appendix A, “Creating a Domain on a WebLogic Server”
- Appendix B, “Testing the Connection Pool”
- Appendix C, “More About Properties”

Appendix A

Creating a Domain on a WebLogic Server

This appendix shows you how to create a domain on a WebLogic server. The steps cover managed and unmanaged domains for both portal and non-portal installations.

This appendix contains the following sections:

Create a Domain

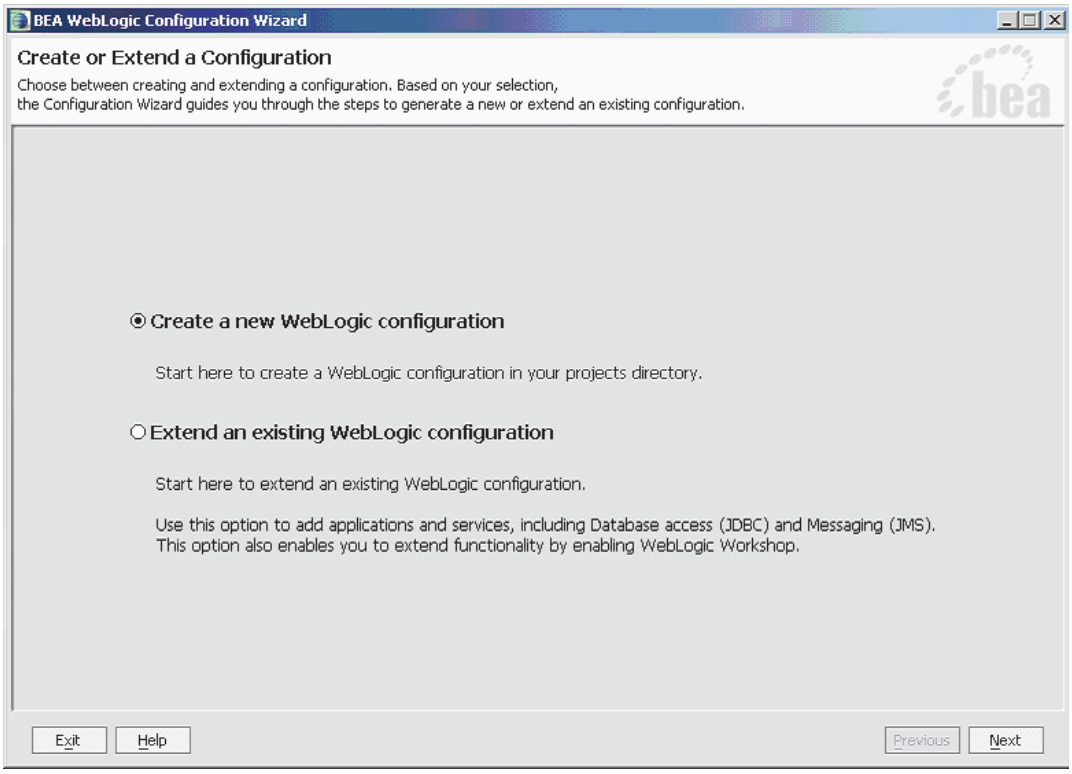
Note

As a minimum requirement, you must create both a content management domain and a production domain.

The steps below show you how to create both a managed domain and an unmanaged domain.

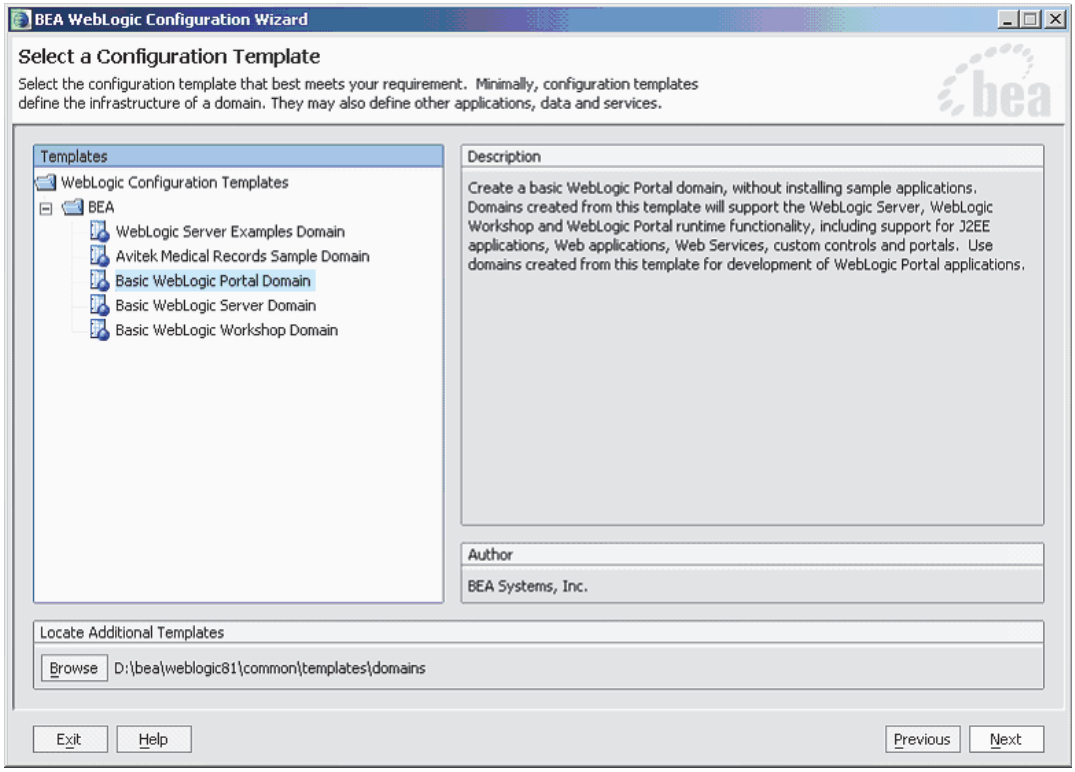
1. If you plan to use Oracle drivers, configure WebLogic for the drivers by following instructions in one of the following sections, depending on your configuration:
   - "Identifying the Type 2 JDBC Driver," on page 58
   - "Identifying the Type 4 JDBC Driver," on page 59

   Follow the steps exactly as shown, but use the `config.sh` or `config.cmd` file in place of `startWeblogic.cmd` (or `.sh`) and do not run any other file in the procedure. If you do not execute this step, the configuration wizard will fail.
2. Start the Configuration Wizard (or `config.sh` if you are running Unix; the file is located in *`WL_HOME`*`/common/bin`).
3. Select **Create a new WebLogic Configuration,** then click **Next**.

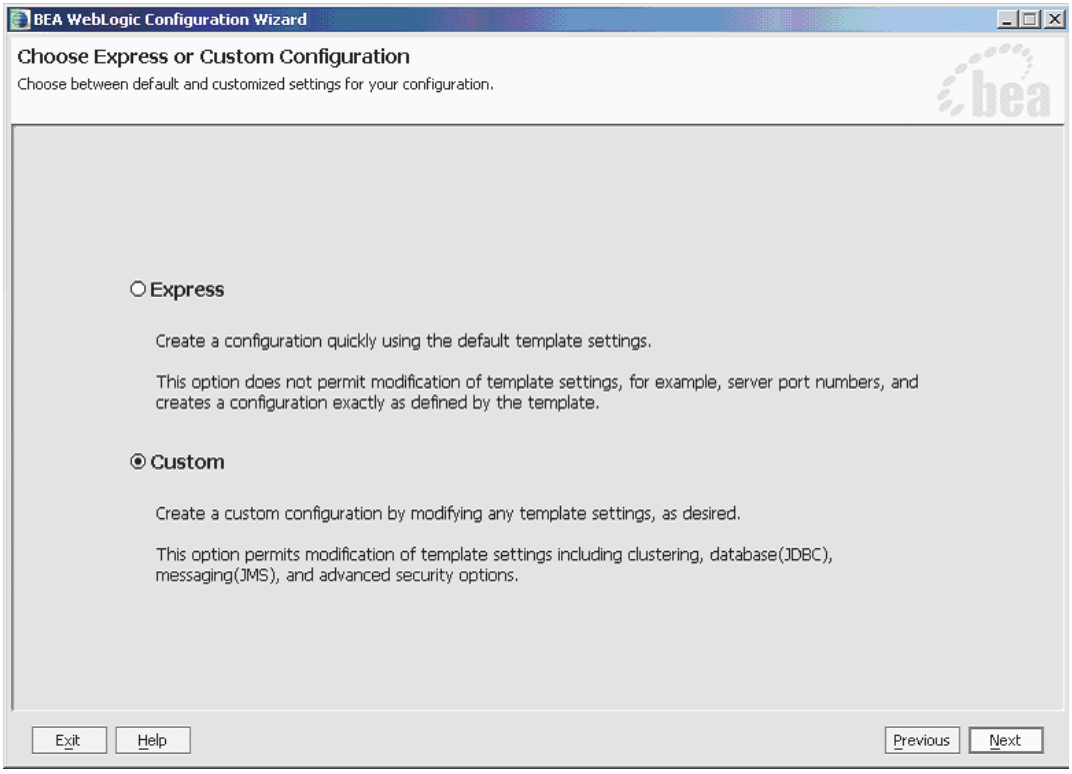


4. Do one of the following:
   a. If you plan to create a non-portal installation, select **Basic WebLogic Server Domain**.

b. If you plan to create a portal installation, select **Basic WebLogic Portal Domain** as the configuration template, then click **Next**.



5. Choose **Custom,** then click **Next**.



6. Configure the Administration Server:

   a. Enter the following information into the fields named below:

   Server Name: *csAdmin*

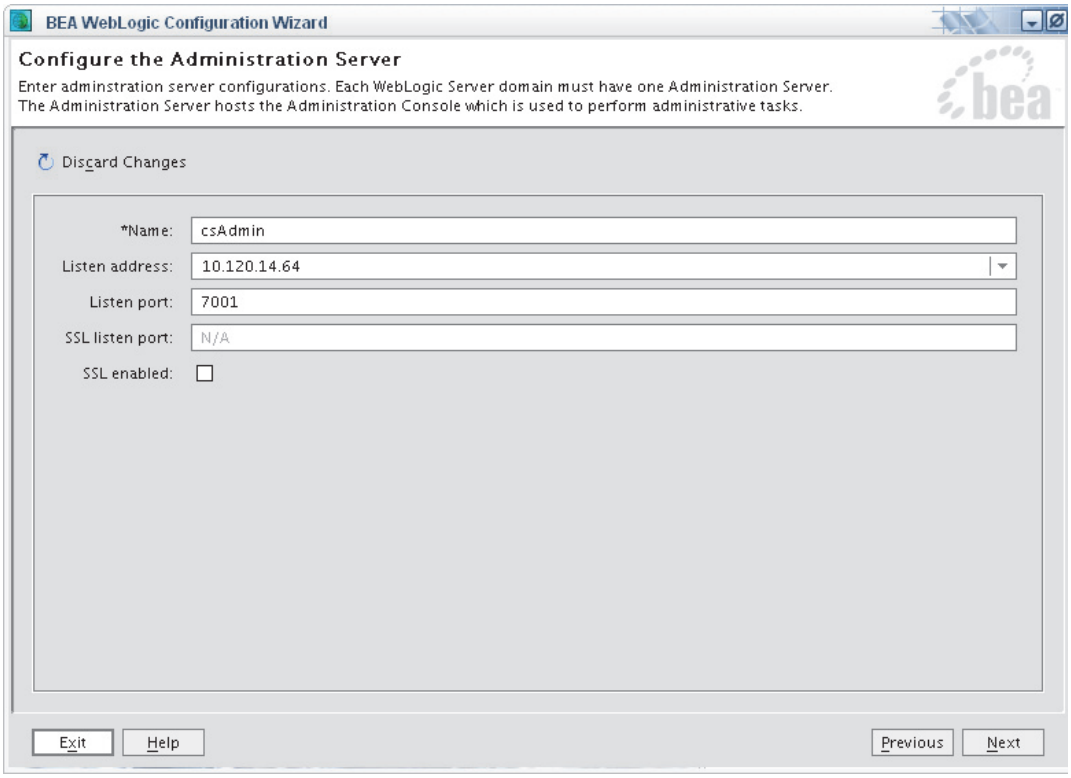
   Listen address: <Server's IP address>

   Listen port: `7001`

   SSL listen port: `7002`

   b. Select **the SSL enabled** box (optional).

c. Enter the above information into Table 7, "WebLogic Admin Server Parameters," on page 31.

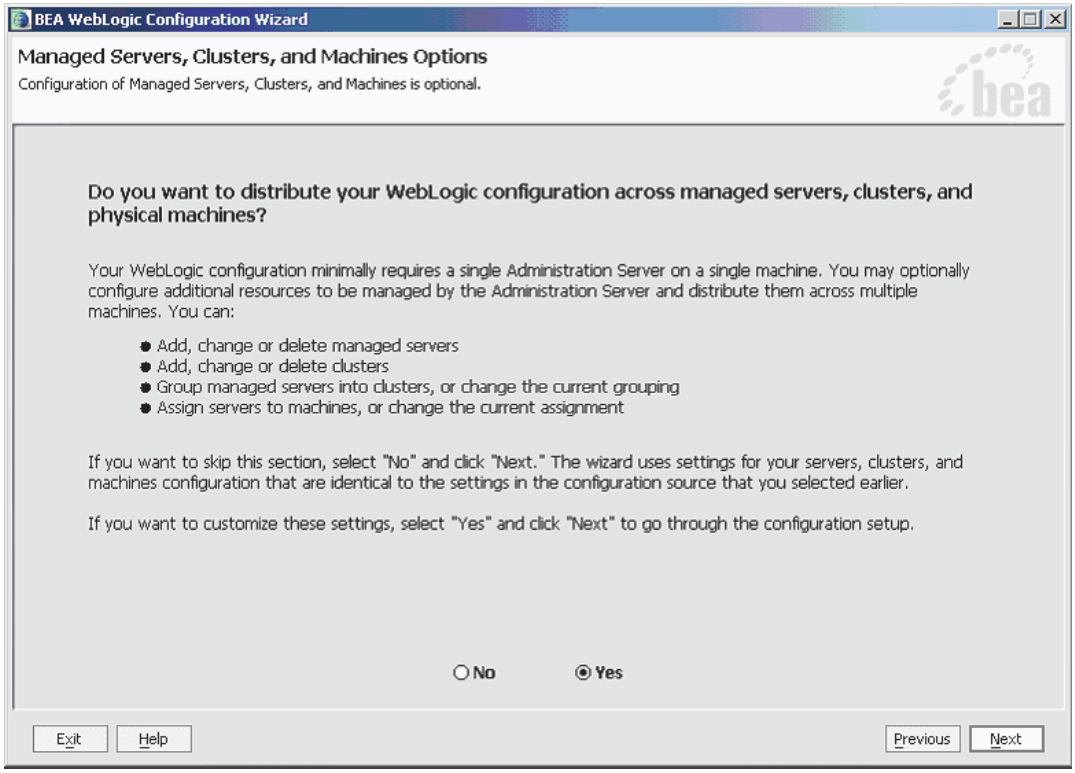


d. Click **Next**.

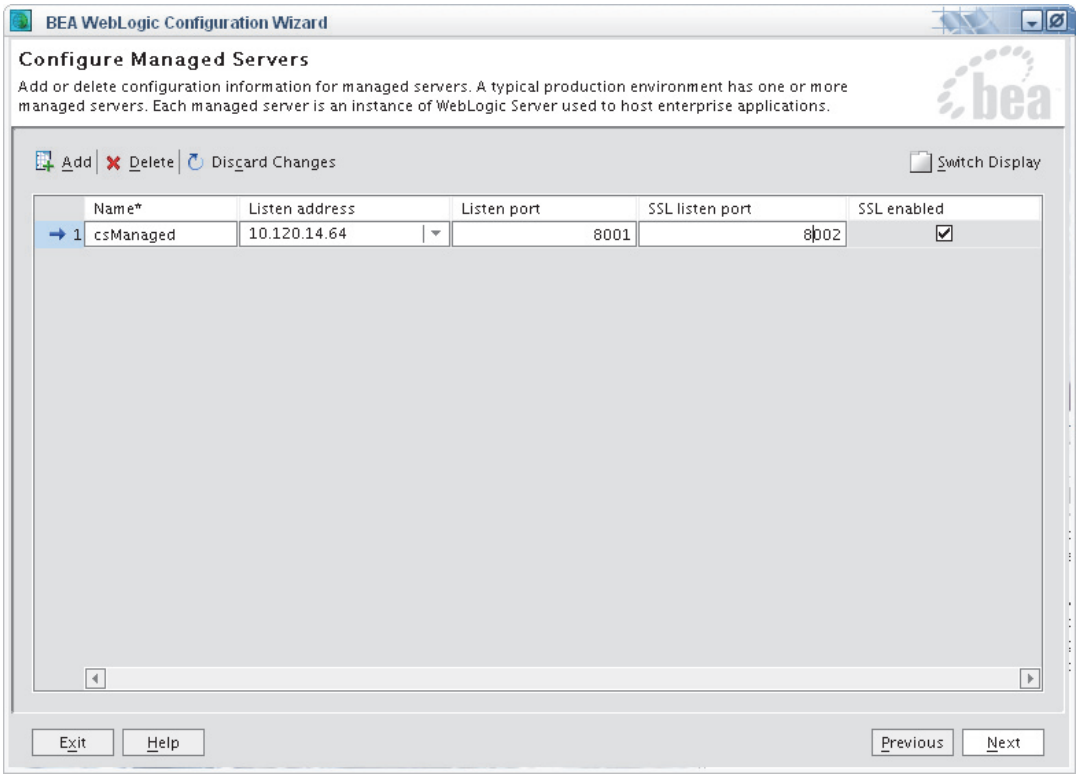
7. Do one of the following:

a. If you are creating a managed domain, select **Yes** on the "Managed Servers, Clusters and Machines Options" window, then click **Next**.

b. If you are creating an unmanaged domain, select **No**, click **Next**, and go to step 12 on page 203.



8. Add a managed server (named “csManaged” in this example), and enter an unused port number (**8001** in this case, which must be different from the port number of the admin server). Click **Next**.



9. If you are not installing a WebLogic cluster, skip the “Configure Clusters” window by clicking **Next**, and go to step 10 on page 201.

   If you are installing a WebLogic cluster, continue as follows:

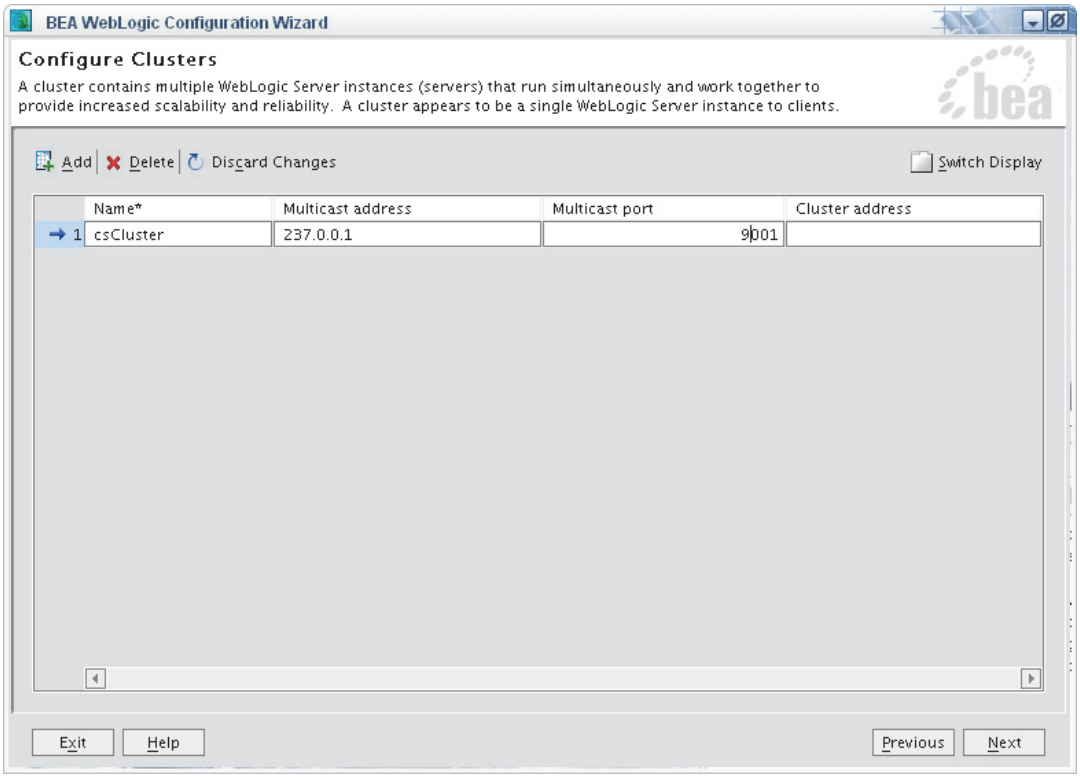
   a. Click **Add**, once for each server you wish to add to this cluster.

   b. For each server, enter the following information:

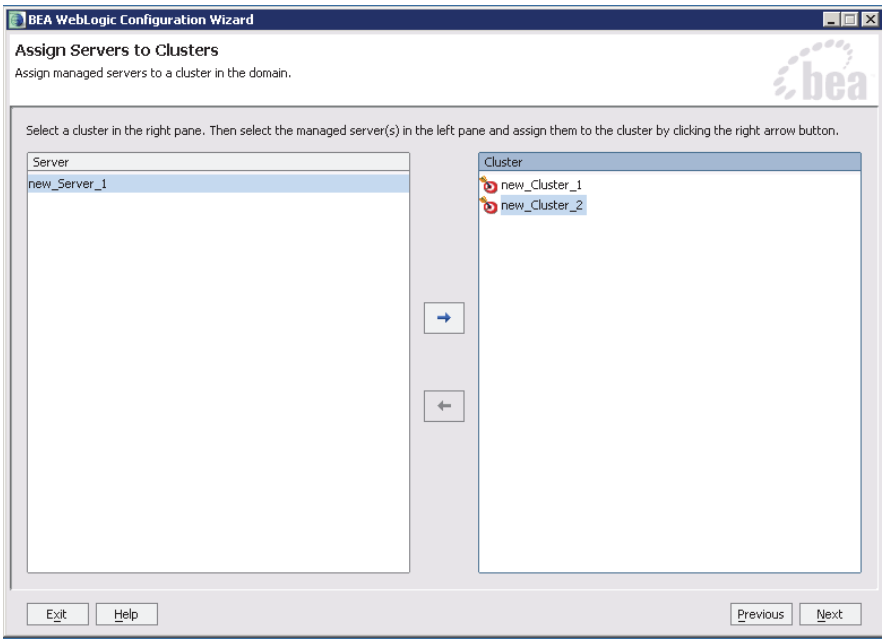
      Name:

      Multicast port:
      This must not be currently in use and must be different from the Domain Manager. This is not the port on which the cluster members will listen, but on which they will communicate with each other.

Multicast address:
Enter a multicast address that is appropriate for your network.



c. Assign the server(s) to the cluster, and click **Next**.

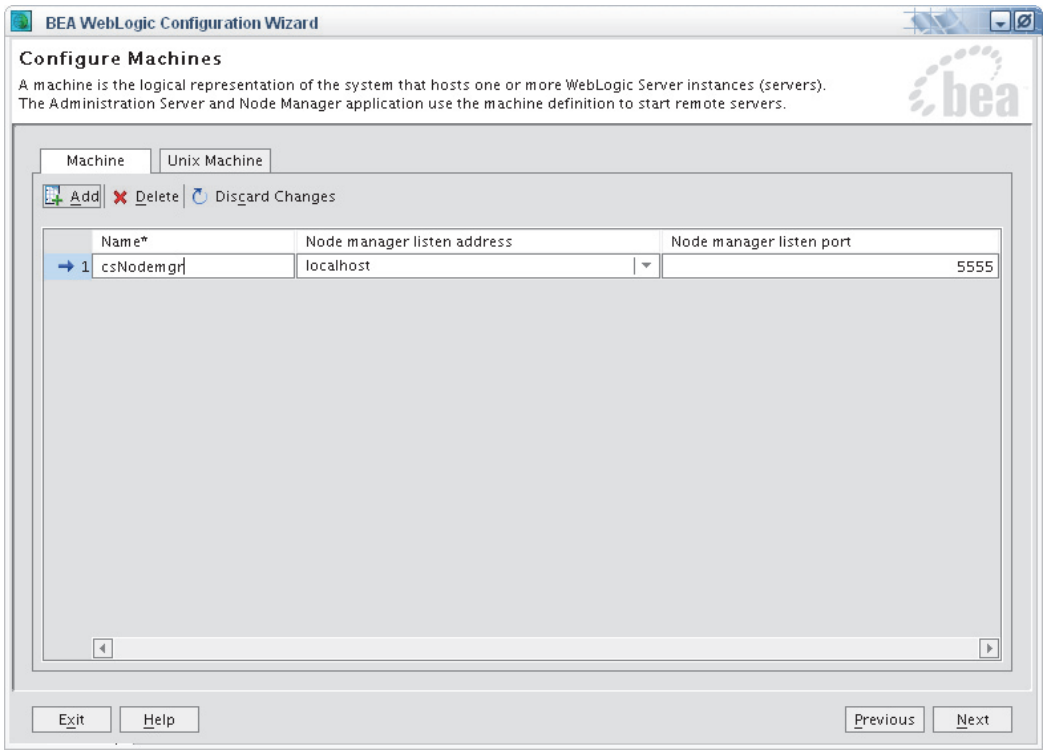


10. Create a node manager by entering the following information:
(The node manager will be used to handle interactions between the management server instance and any managed servers.)

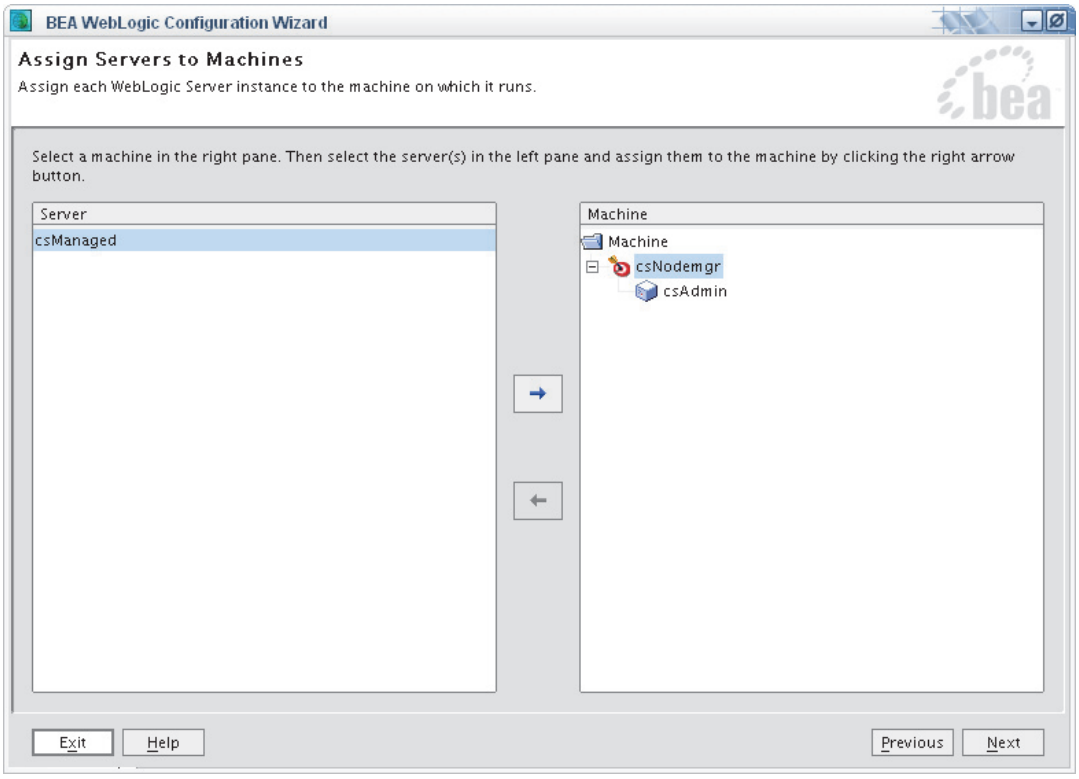
IP Address: <Server's IP Address> this must be accessible by all servers that will be managed by this instance

Name: <User's choice>

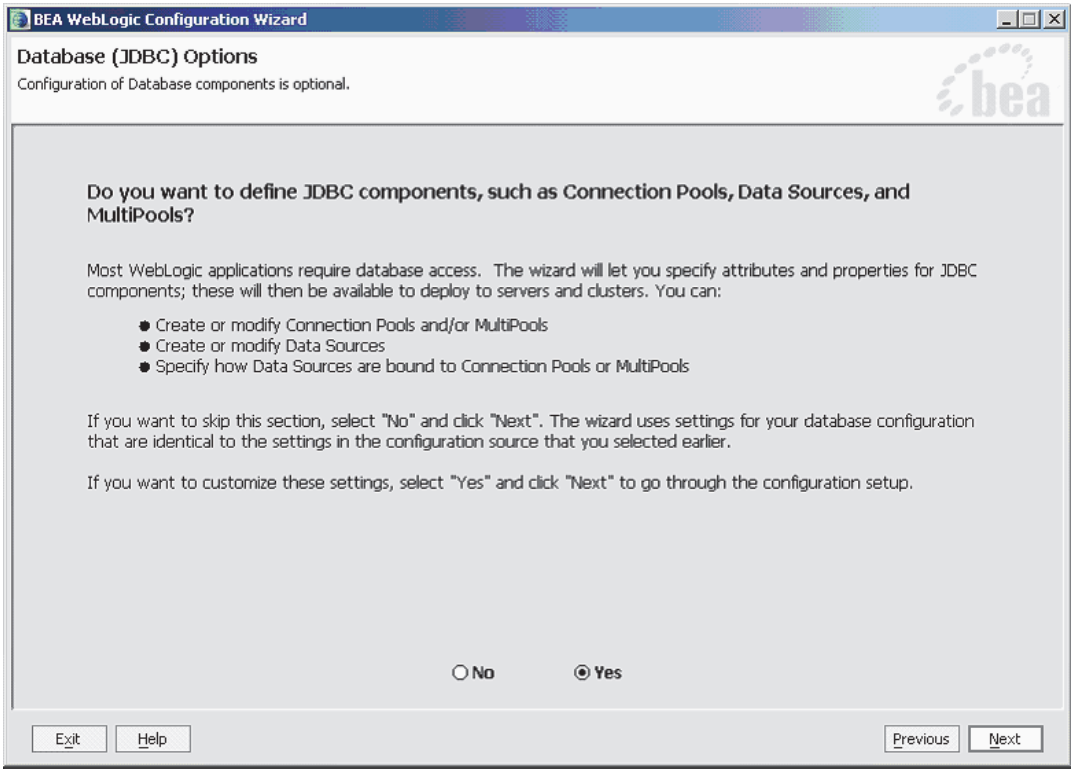
Port: <users choice> (the default is **5555**)



11. Assign all servers to the node manager.



12. In the "Database Options" window, select **Yes**, then click **Next** if you want to configure the Connection Pools and Data sources using this wizard.



13. In the "Configure JDBC Connection Pools" window:

a. Create a connection pool by picking one from the supported possibilities, depending on your DBMS setup:

- **MS SQL Server**

  Name: *csPool*

  Vendor: **MS SQL Server**

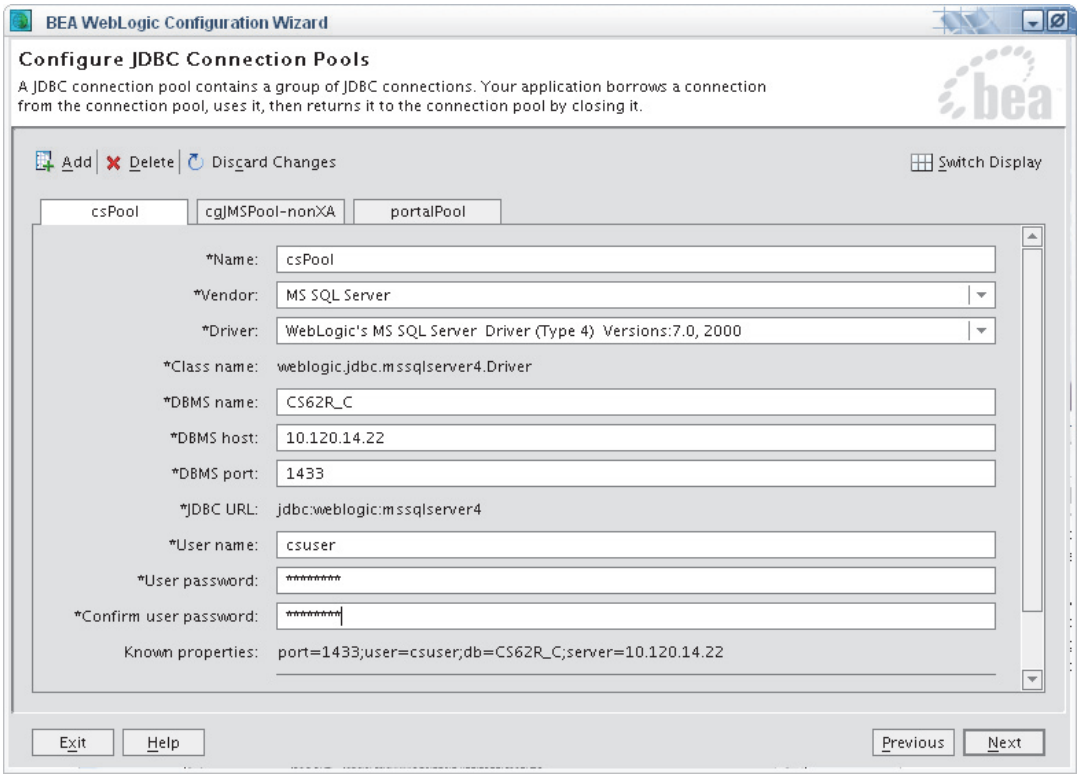
  Driver: WebLogic's MS SQL Server Driver (Type 4) Versions: *Supported Versions*

  DBMS name: *database name*

  DBMS Port: *1433*

  User name: *csdbusername*

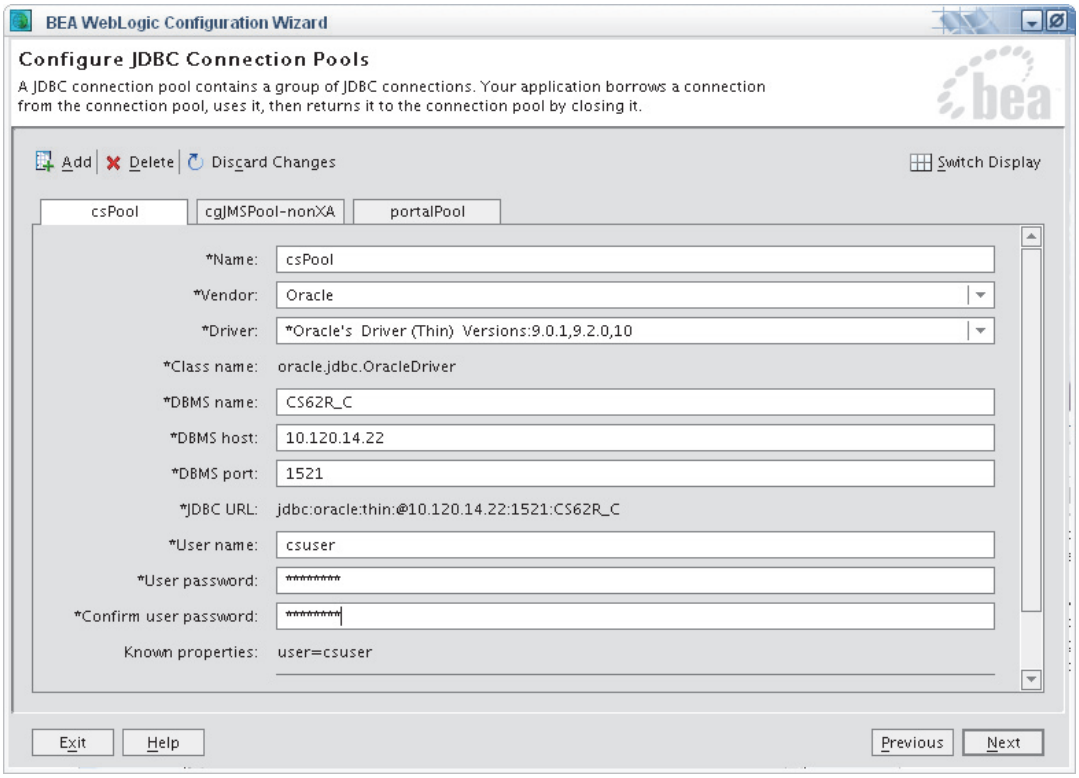
User Password: *csdbpassword*



- **Oracle w/ Type 4 driver (thin driver)**

  Name: *csPool*
  Vendor: Oracle
  Driver: Oracle's Driver (Thin) Versions: *Supported Versions*
  DBMS name: *database name*
  DBMS Port: 1521
  User name: *csdbusername*

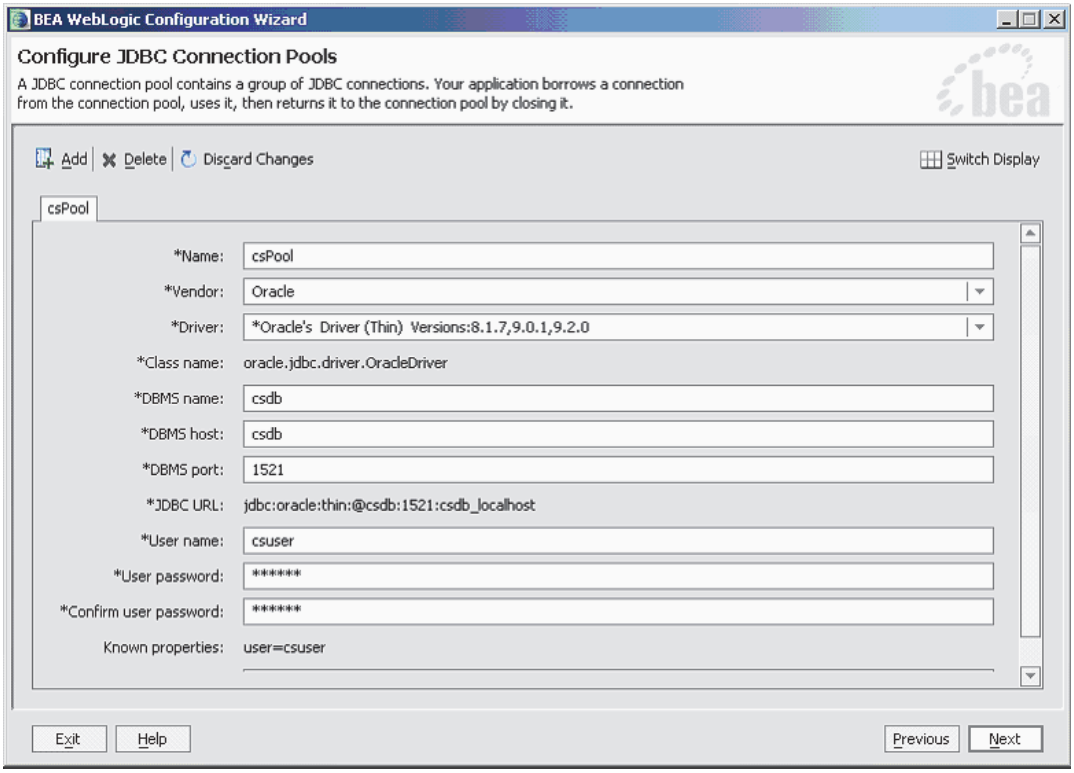
User Password: *csdbpassword*



- **Oracle w/ Type 2 driver (OCI driver)**

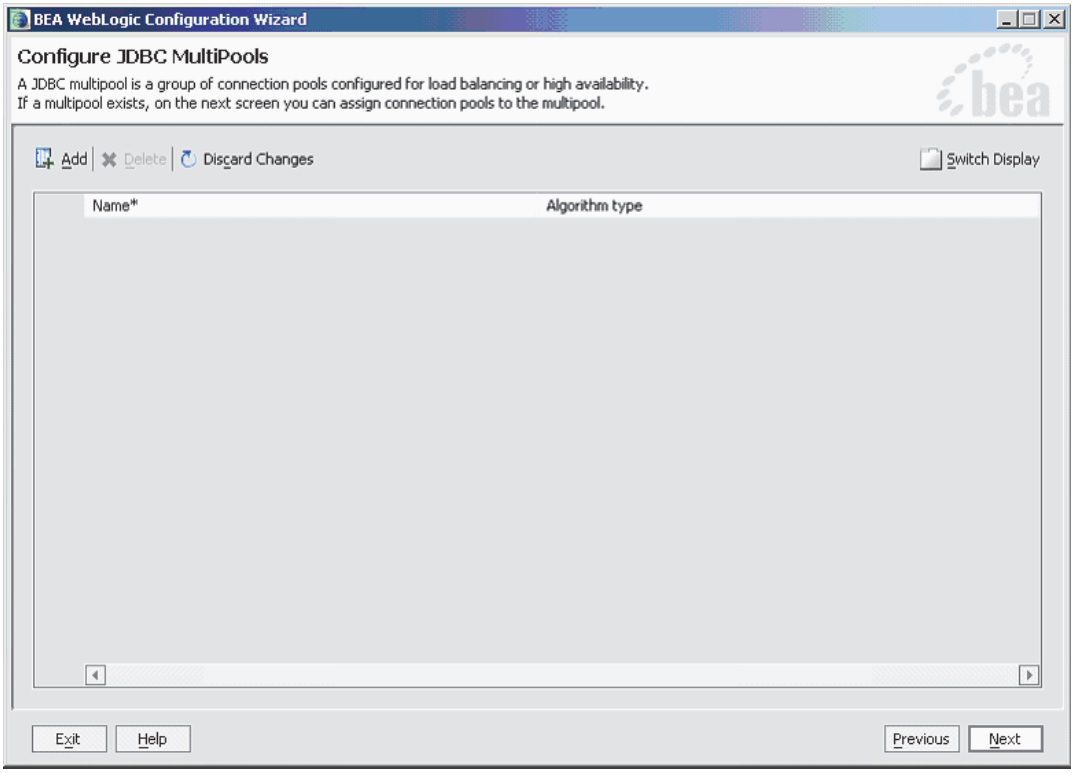
  Name: *csPool*
  Vendor: Oracle
  Driver: Oracle's Driver (OCI) Version: *Supported Versions*
  DBMS name: *database name*
  User name: *csdbusername*

User Password: *csdbpassword*



b. Click **Next**.

14. Configure JDBC MultiPools, then click **Next**.

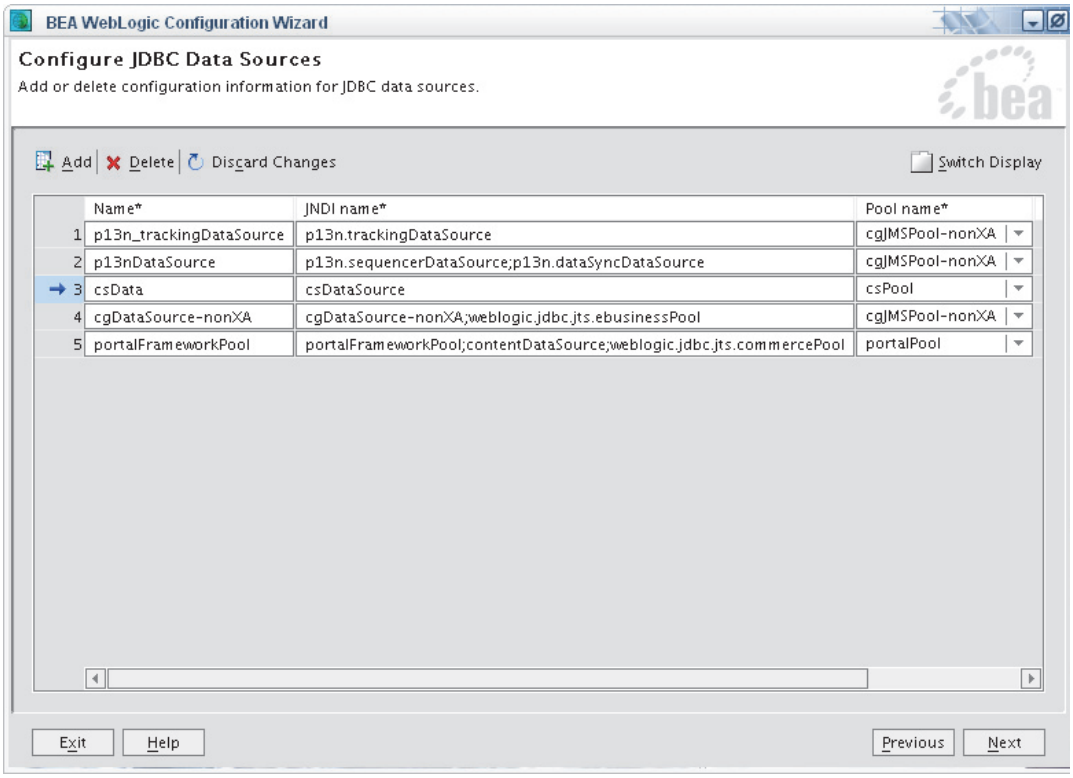


15. Configure JDBC Data Sources (there will already pre-existing data sources):

a. Click **Add** and fill in the following information in row 9.

Name: *csData*
JNDI Name: *csDataSource*
Pool name: *csPool*

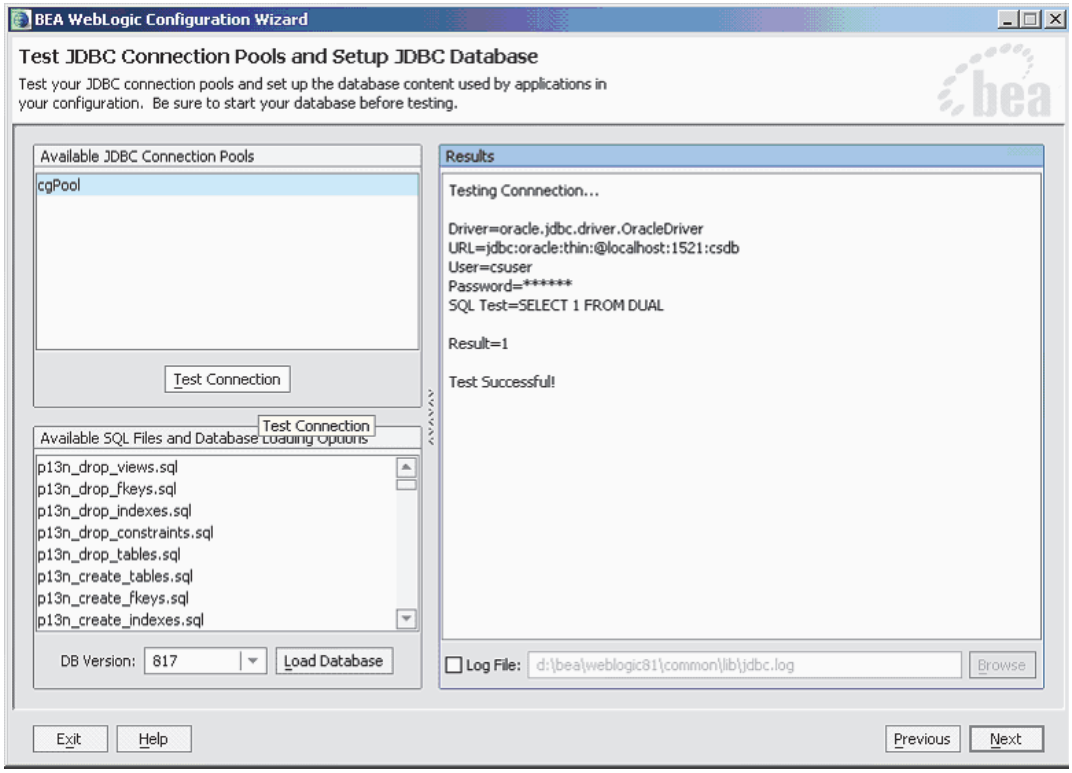
b. Record this information.



c. Click **Next**.

16. In the "Test JDBC Connection Pools" window, you are prompted to test the connection.

a. Click **Test Connection** and verify the connection pool you created enables you to successfully connect with the database. Make sure the system returns the "`Test Successful!`" message in the "Results" panel.

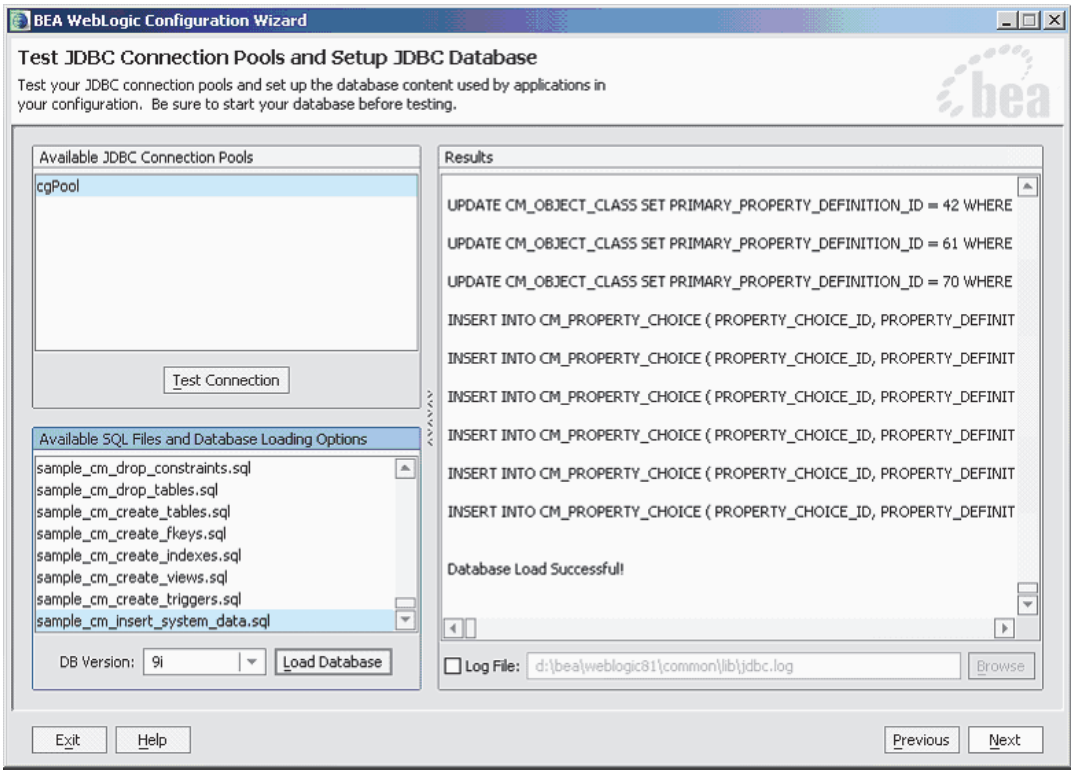


b. Click **Next**.

17. Set up the portal database.

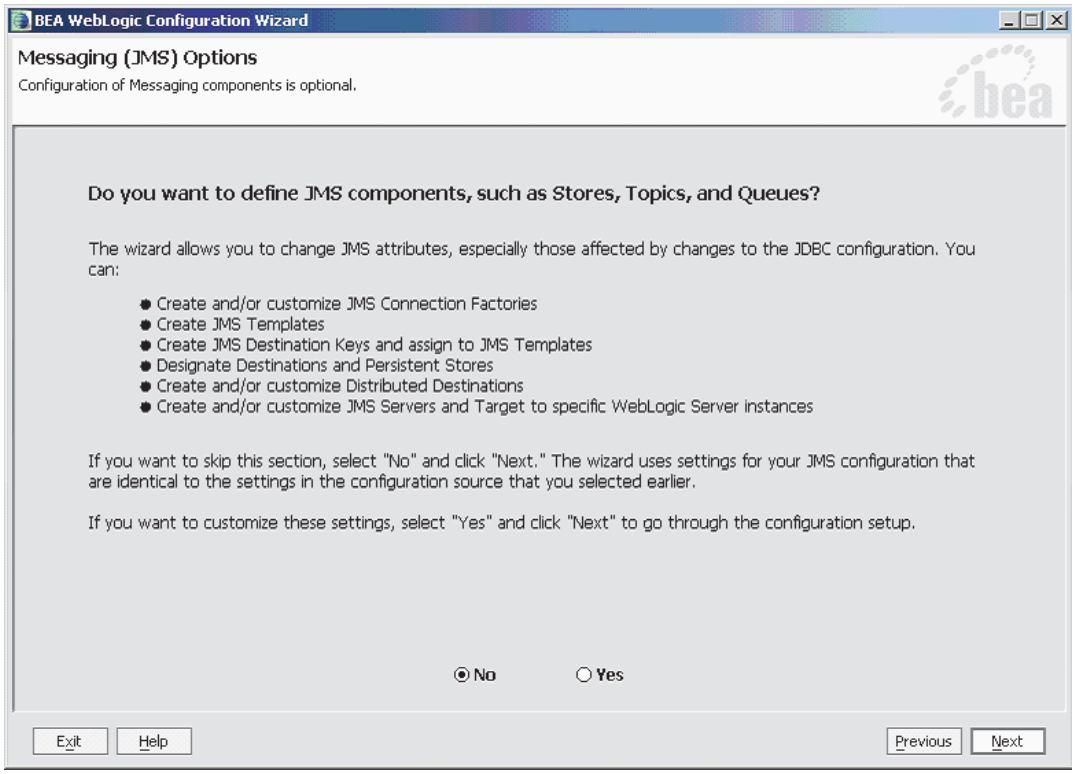
> **Note**
>
> If you are setting up a non-portal application, click **Next** and go to step 18 on page 211.

a. Select the appropriate database version, then click **Load Database** and verify that the system returns the `'Database Load Successful!'` message in the "Results" panel.

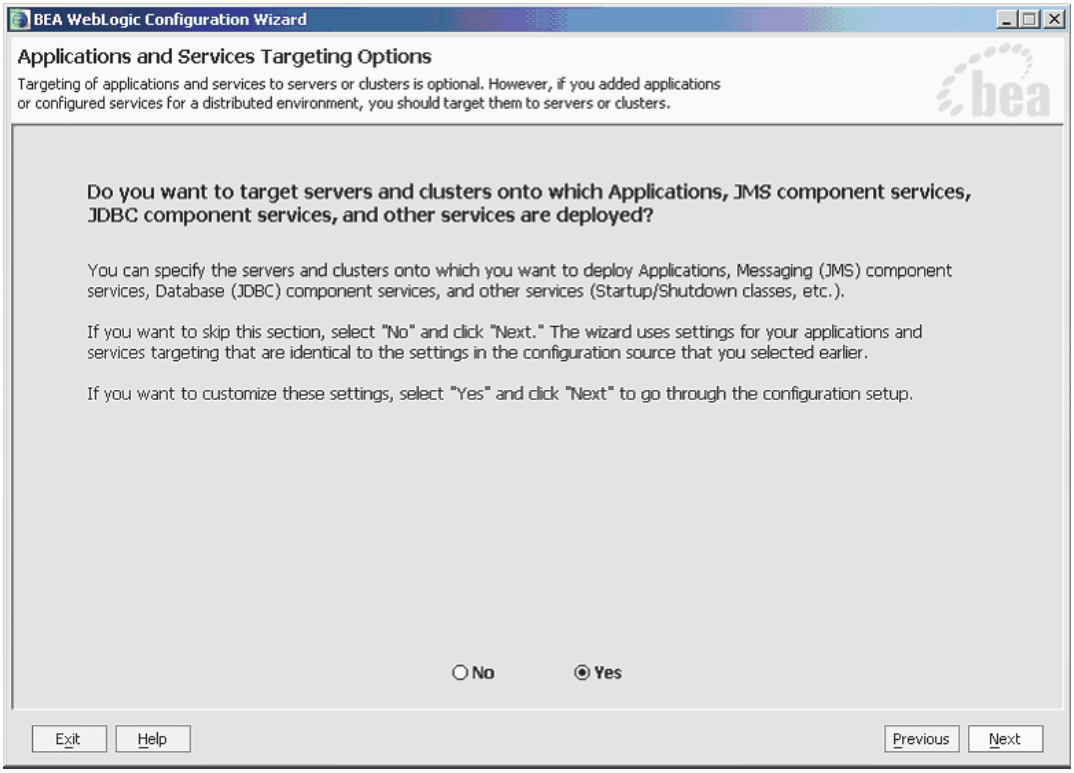


b. If database loading was successful, click **Next**.

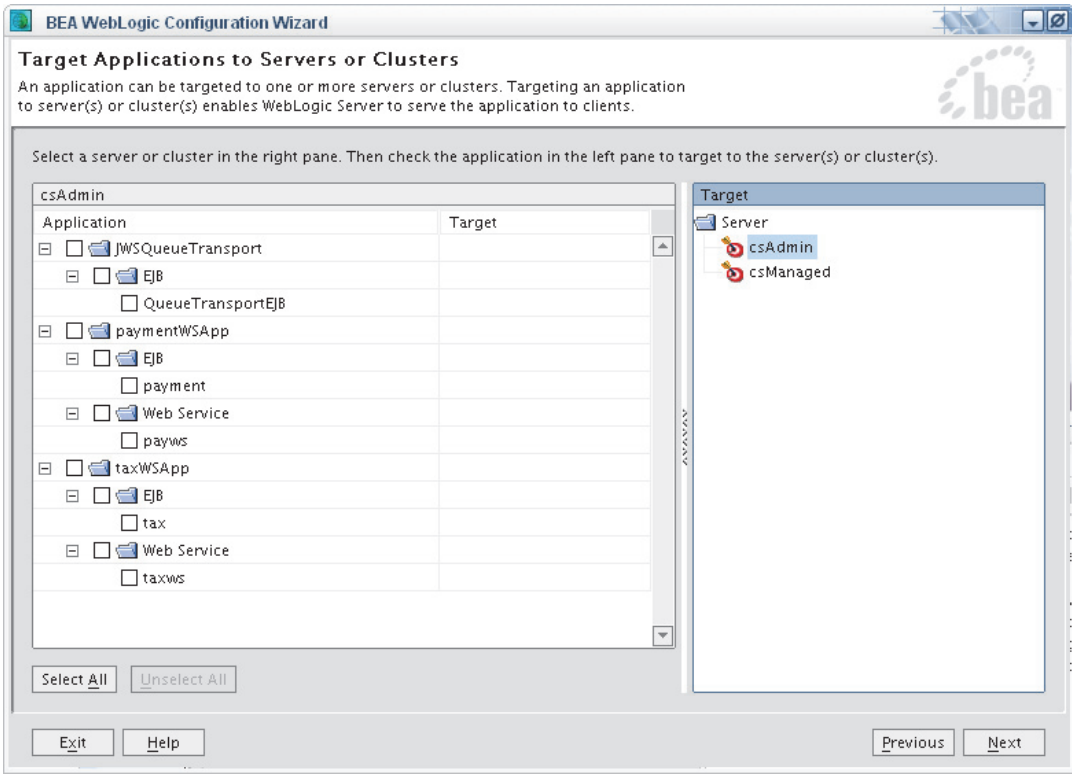
18. In the "Messaging (JMS) Options" window, select **No,** then click **Next**.



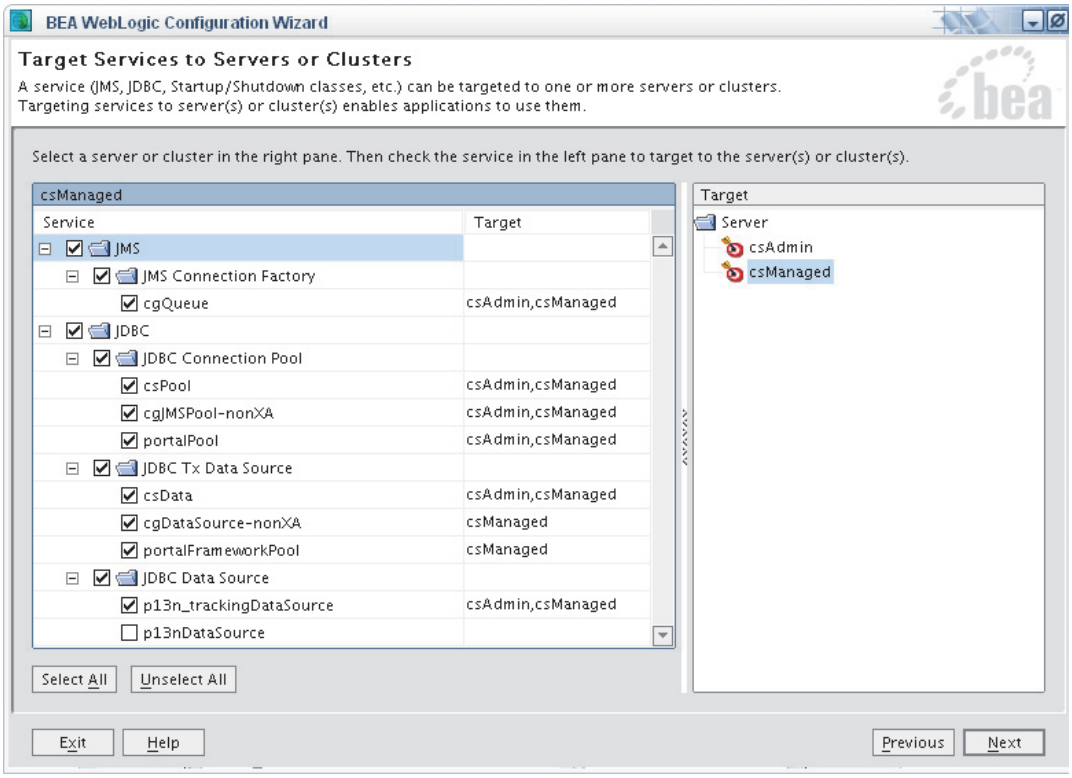
19. In the "Applications and Services Targeting Options" window, select **Yes** to target the connection pools to the admin server or the managed server.



20. Deselect all applications and select all services (JMS and JDBC) to **all targets** (both the admin and managed servers), and click **Next**.



21. In the left-hand panel, select all the services, then click **Next**.



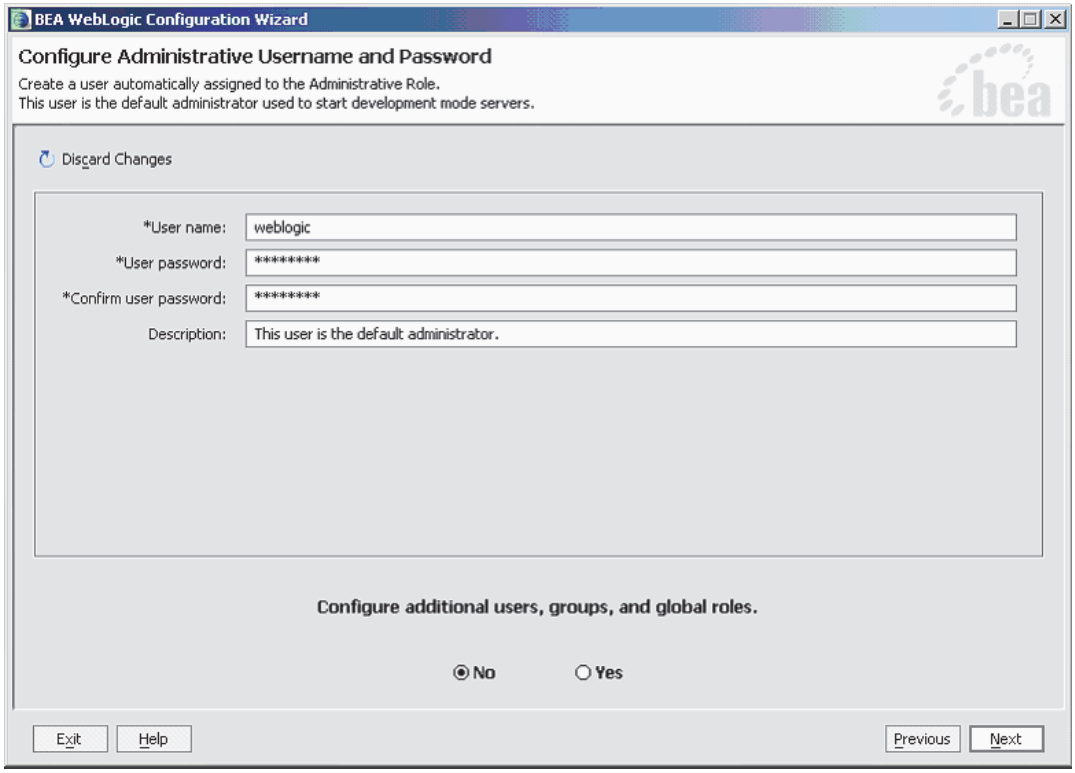
22. In the "Configure Administrative Username and Password" window:

a. Fill in the following information.

Username: *AdminUserName*
Password: *AdminUserPassword*

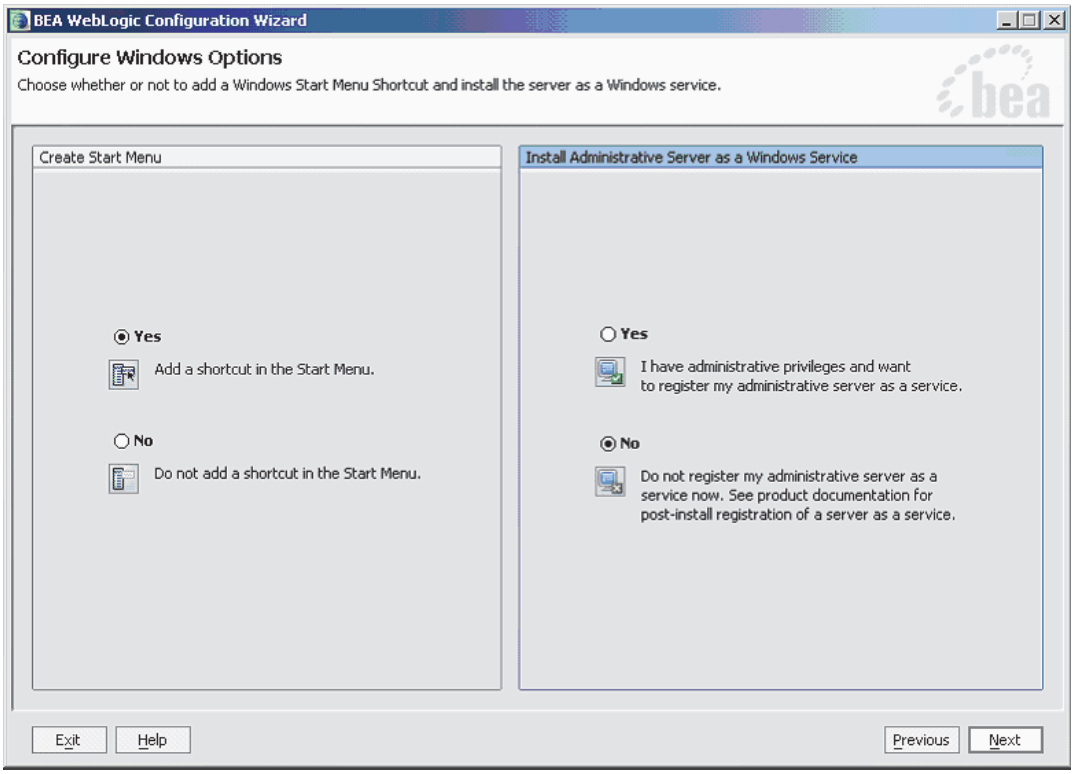
b. Select **No** for configuring additional users, groups.

> **Note**
>
> You can add users using the WebLogic console if required.

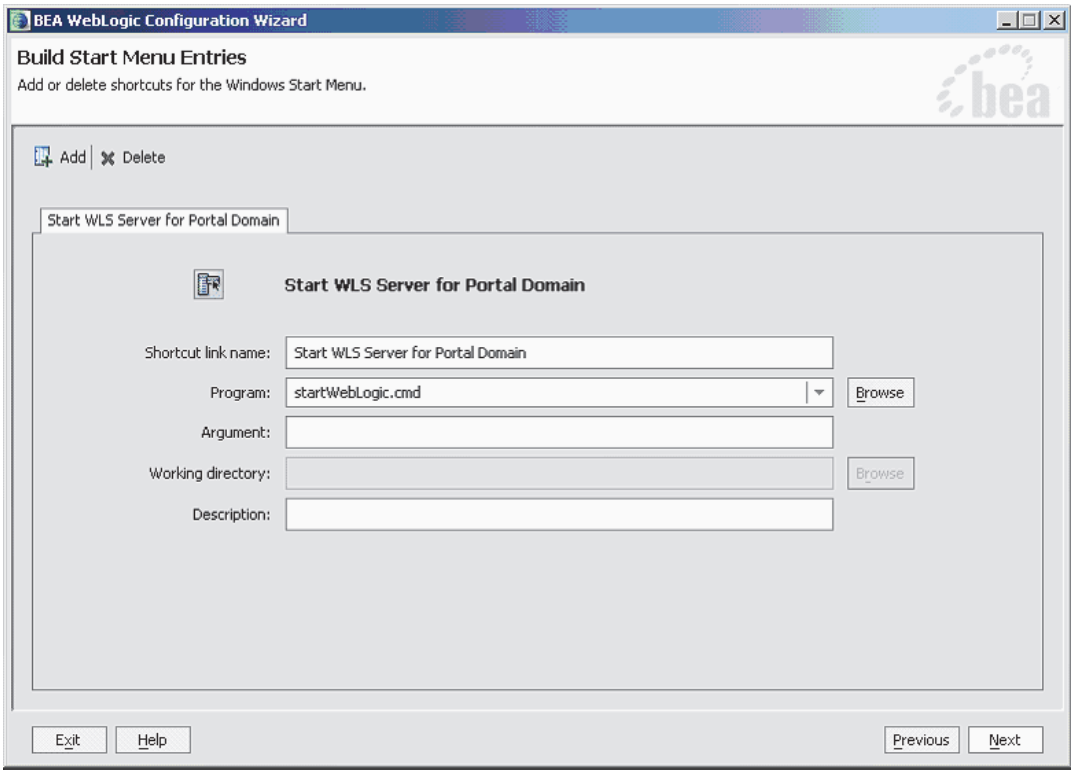

BEA WebLogic Configuration Wizard
Configure Administrative Username and Password
Create a user automatically assigned to the Administrative Role.
This user is the default administrator used to start development mode servers.
bea
Discard Changes
*User name:
weblogic
*User password:
****
*Confirm user password:
****
Description:
This user is the default administrator.
Configure additional users, groups, and global roles.
No
Yes
Exit
Help
Previous
Next

c. Click **Next**.

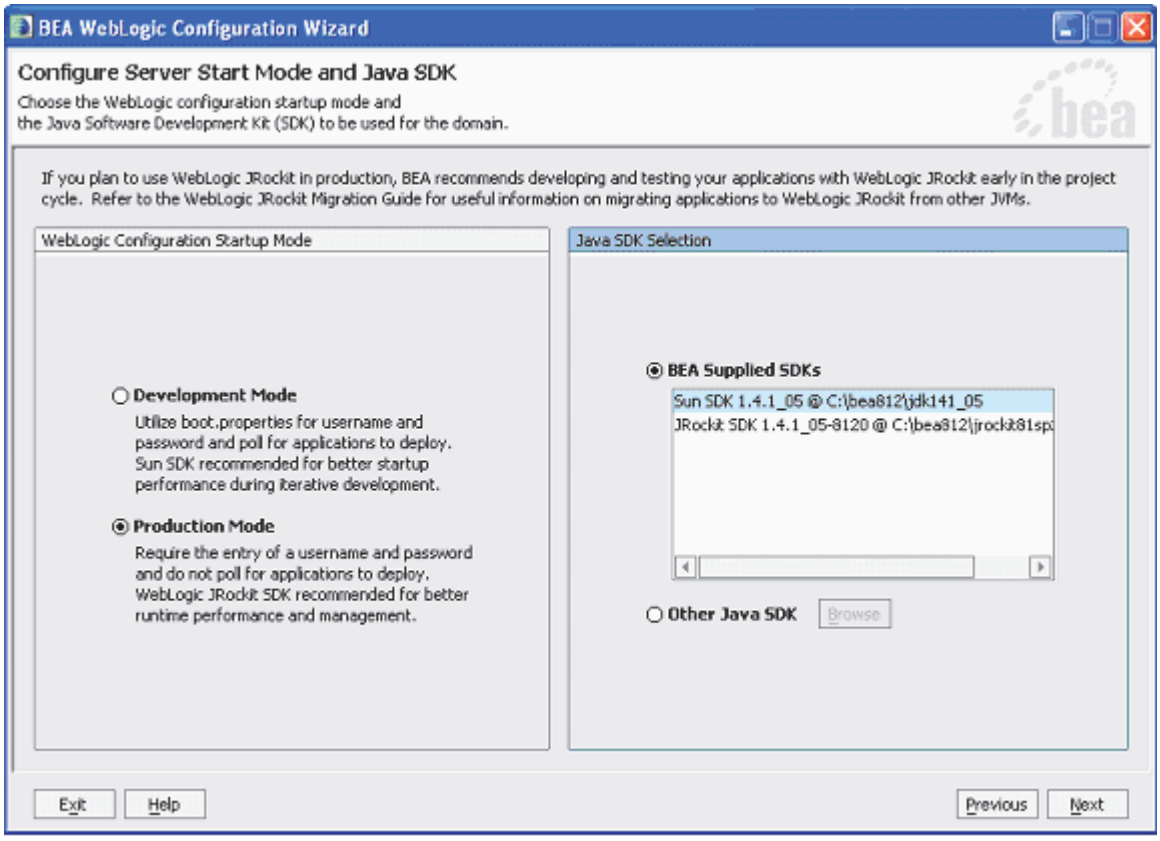
23. In the "Configure Windows Options" screen (appears in Windows only), create start menus and configure Windows services as necessary, then click **Next**.



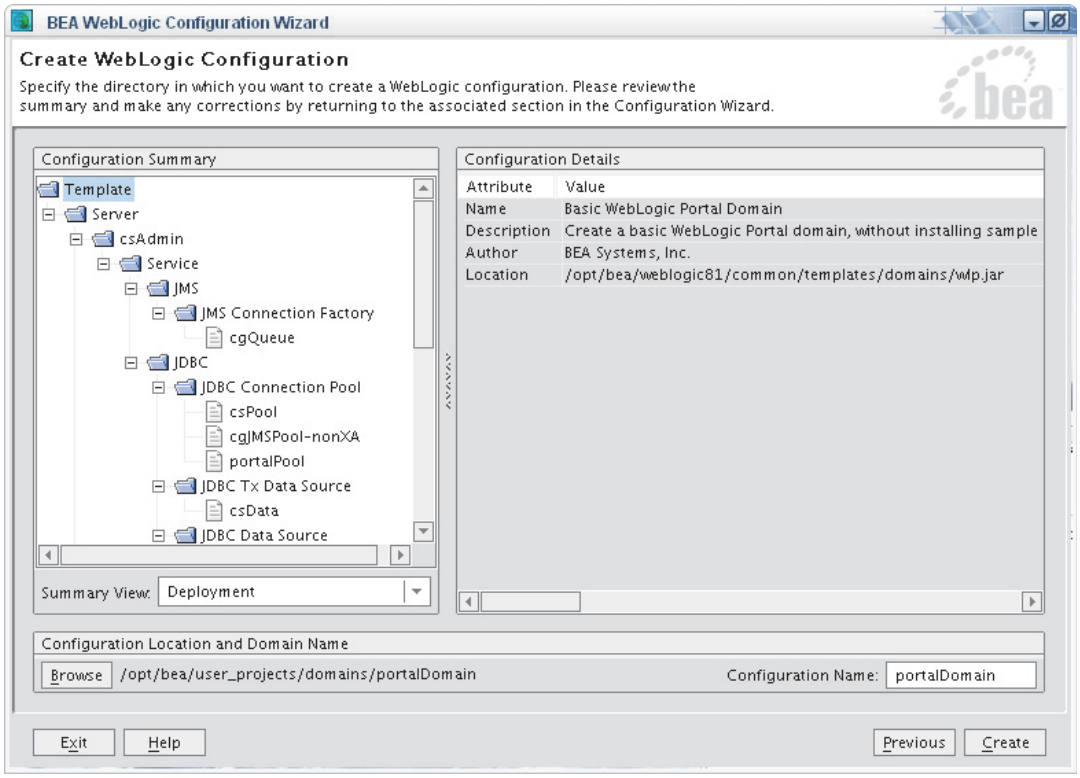
24. In the "Build Start Menu Entries" screen (appears in Windows only), accept the defaults and click **Next**.



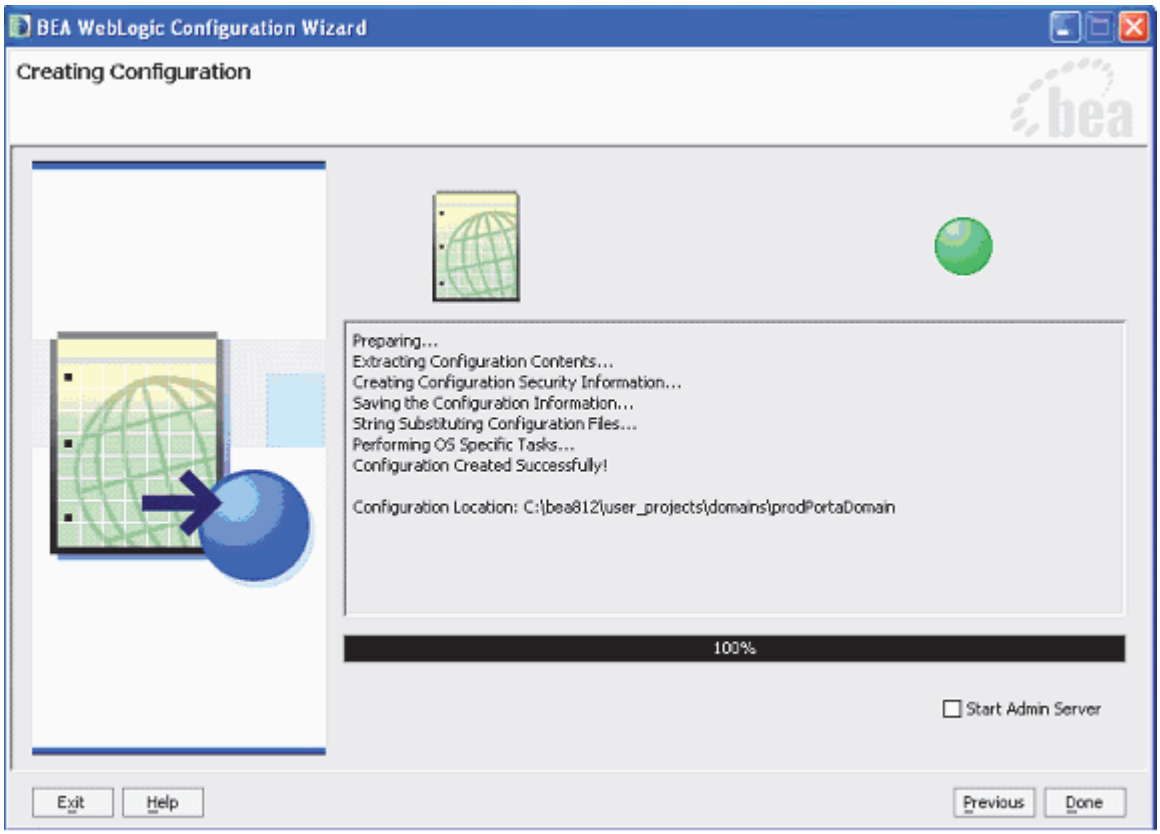
25. Select the mode that is appropriate for your installation and select **Sun SDK 1.4.1** (do **not** use JRockit SDK), then click **Next**.



26. Enter a domain name (in this example, **portalDomain**) and click **Create**.



27. In the "Creating Configuration" window, click **Done**.



Next Step

To continue the installation, do one of the following:

- For a non-portal Content Server installation, go to "Step II. Configure the Domain's Startup Parameters," on page 56.
- For a portal installation, go to "Step III. Set Up a Portal Installation and Create a Web Application," on page 62.

Appendix B

Testing the Connection Pool

This chapter provides information on how to configure the WebLogic Domain for Content Server. This information applies to both Windows and Solaris environments.

This chapter contains the following sections:

Test the Connection Pool

1. Log in to the WebLogic console:

   `http://localhost:7001/console/login/LoginForm.jsp`

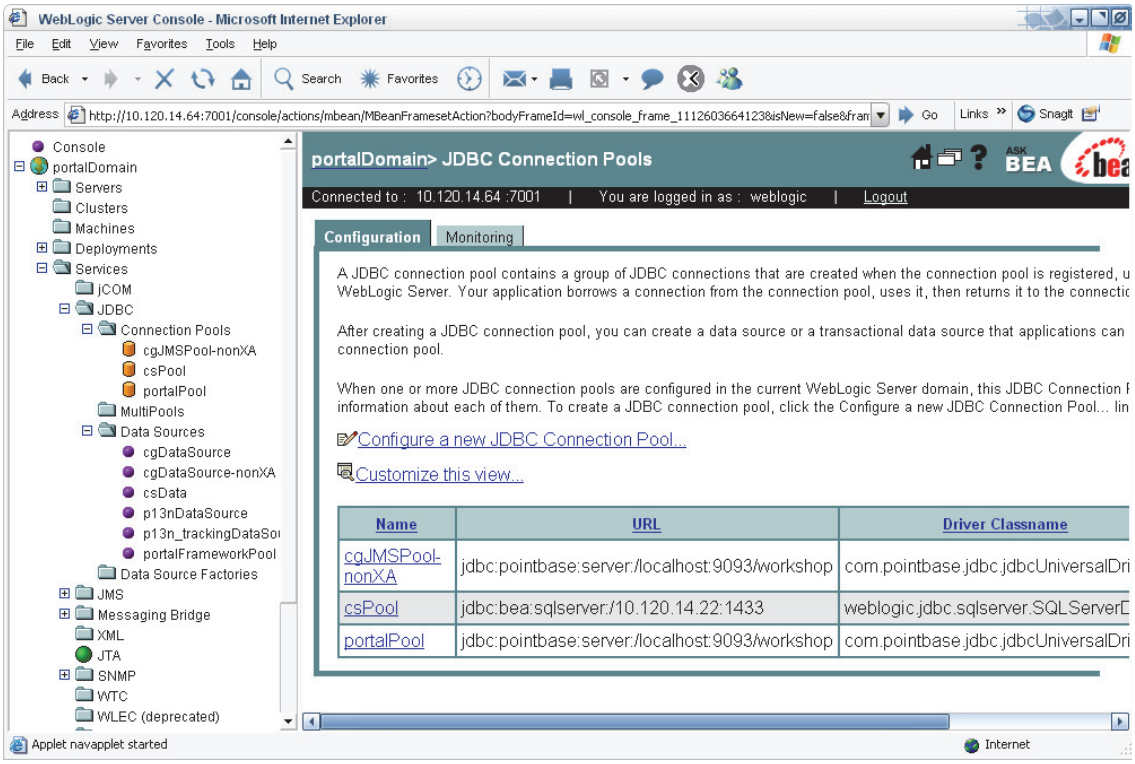
   For the user name, enter **weblogic**. For the password, enter **weblogic** and click **Sign In**.

2. Install Content Server with BEA WebLogic Server as follows:

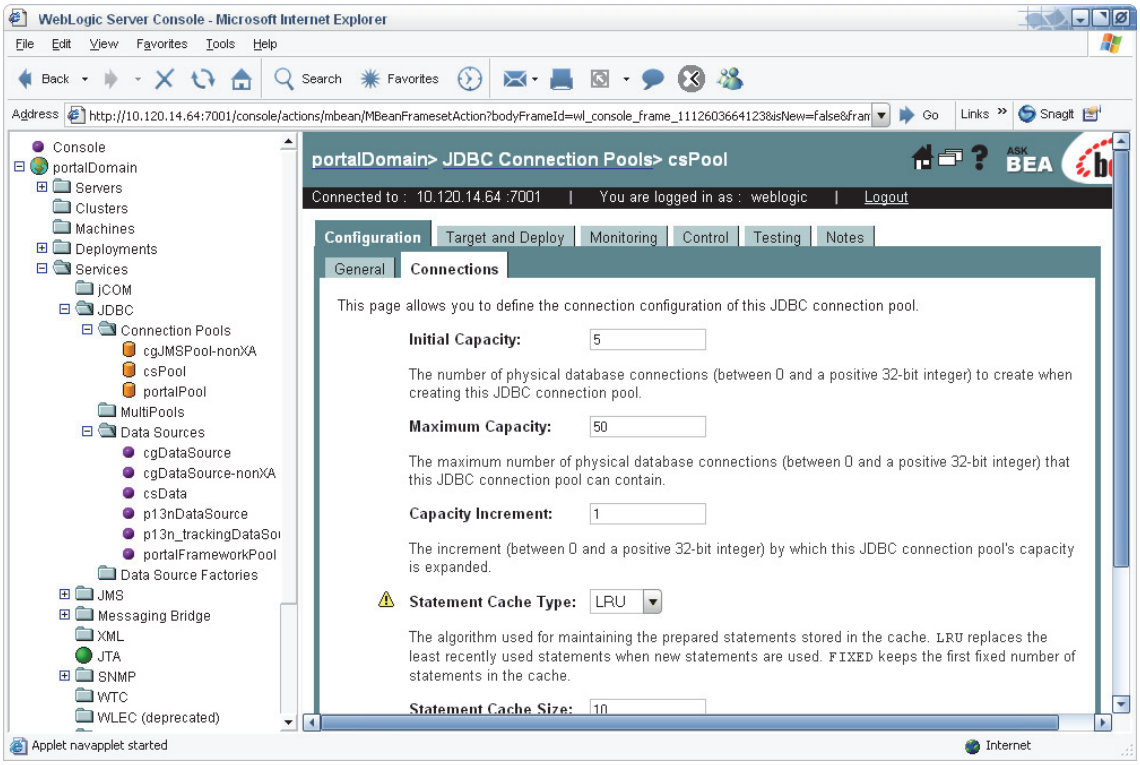
   a. Expand the left navigation tree by selecting **Portal > Services > JDBC > Connection Pools**.

   b. Click on **Configure a new JDBC Connection Pool**.

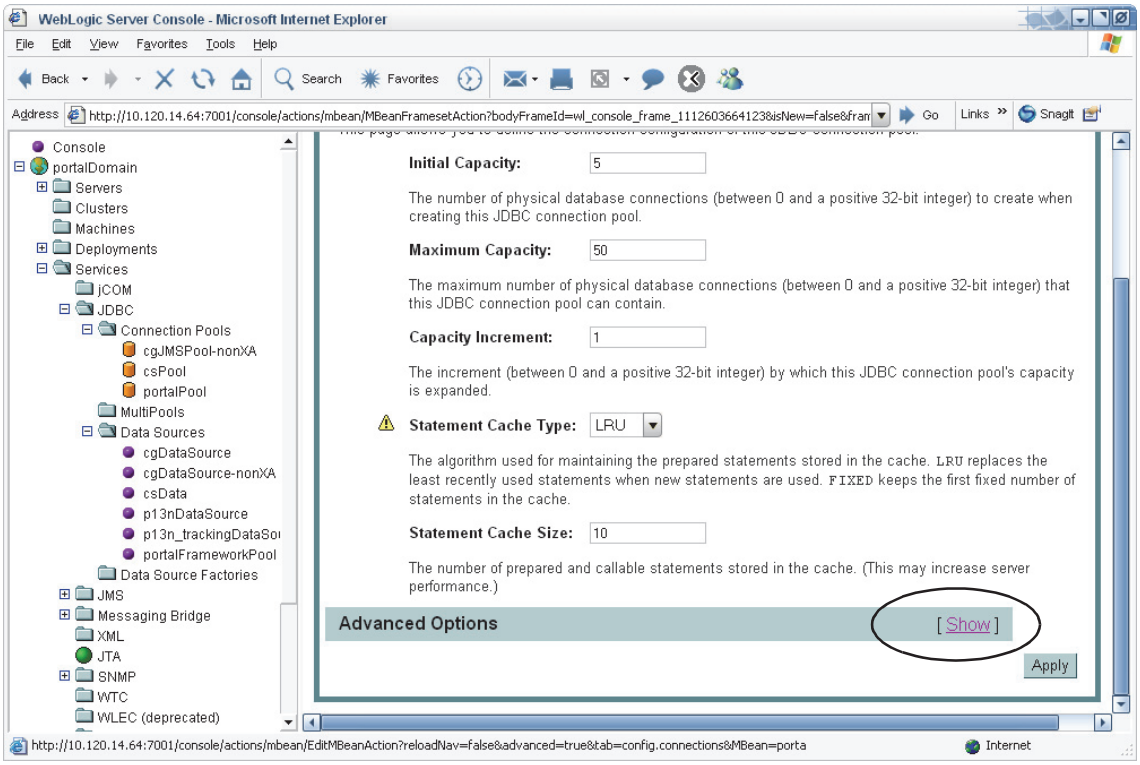
   c. Select the connection pool you created. (In this guide, **csPool** is the name of the connection pool.)



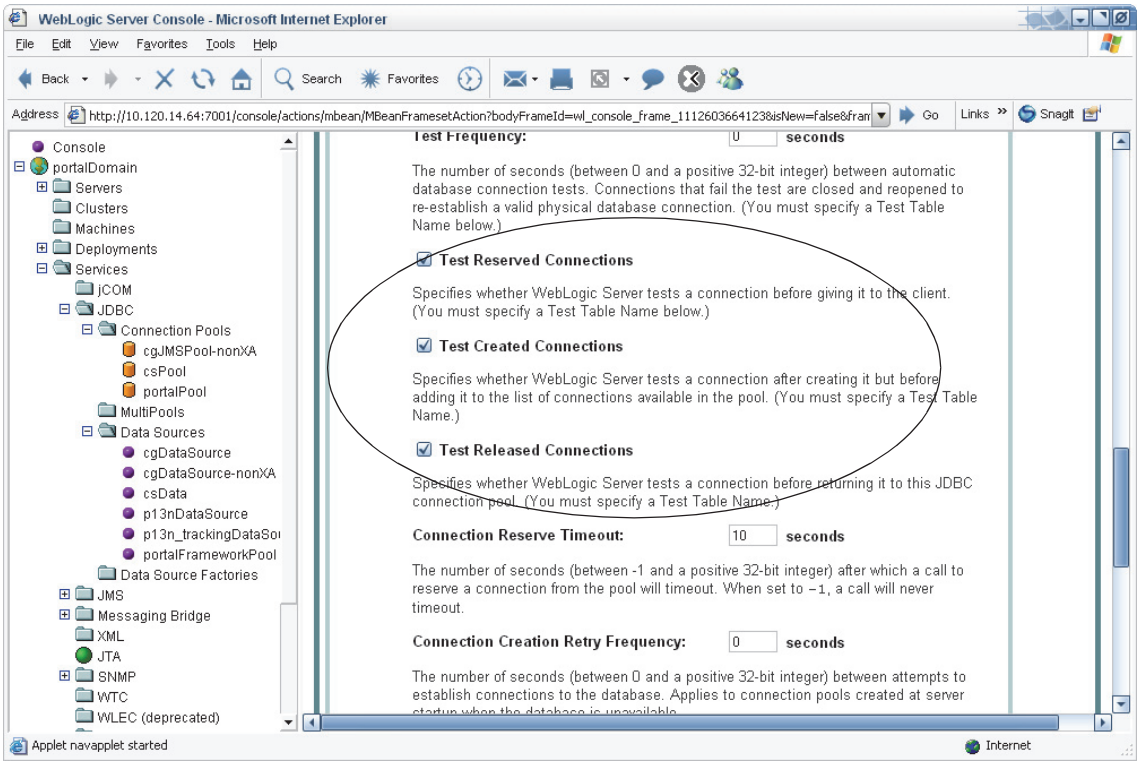
d. Select the **General** tab and then the **Connections** sub-tab.



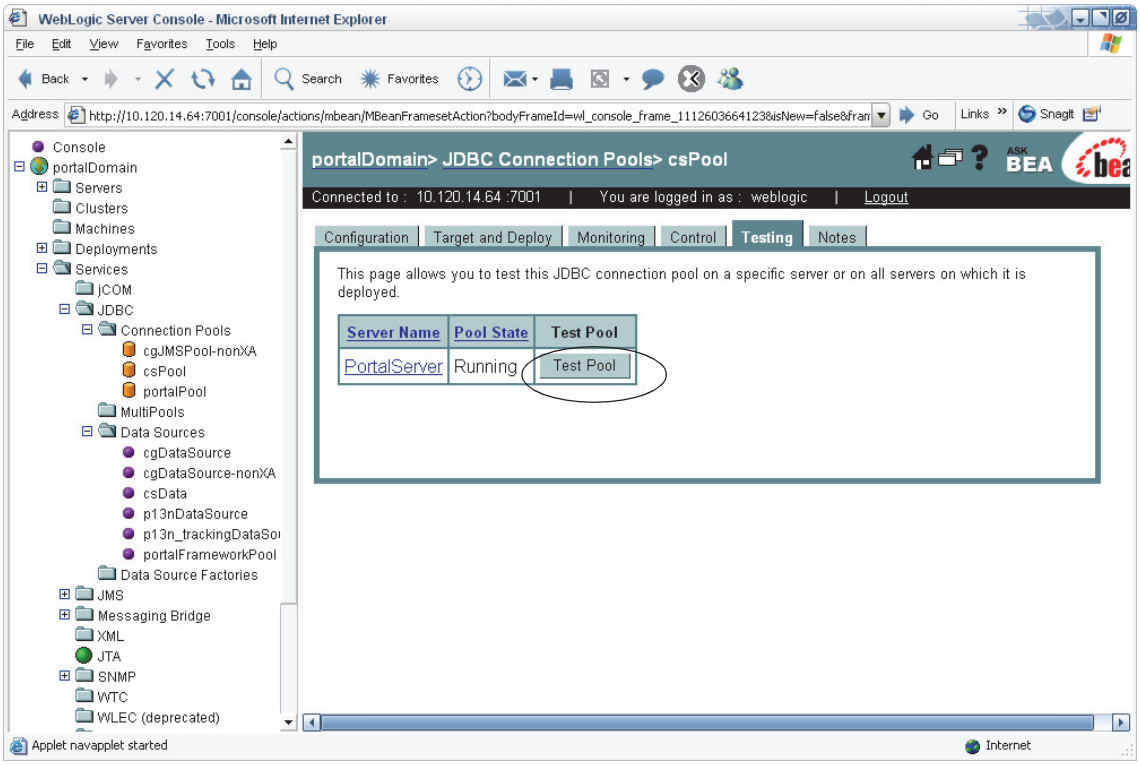
e. Scroll down to the bottom of the page and under "Advanced Option," select **Show**.



f. Scroll down to the following options: **Test Reserved Connections**, **Test Created Connections**, and **Test Released Connections**. Place a check mark next to each option, and click **Apply**, at the bottom of the page.



g. Click the **Testing** tab, then click the **Test Pool** button.



3. If the test was successful, the following message is displayed:

```
"Connection successful on: <your server name>"
```

If this test failed, review the WebLogic documentation on connection pools.

Appendix C

More About Properties

If you chose to invoke the Property Editor during the Content Server installation, the Property Editor opens automatically when necessary. You can then edit any property in any of the property files. After you modify the properties, select **Save** and exit from the Property Editor.

If you chose not to invoke the Property Editor and you need to set property values, you can start the Property Editor (`propeditor.bat`) manually and change the appropriate values in the appropriate property file after the installation is complete.

This appendix summarizes the properties that are most frequently set during installation. For a detailed description of each property, see the *Content Server Property Files Reference*.

This appendix contains the following sections:

Properties That Control Character Encoding

The `cs.contenttype` property defines the outgoing character encoding. Content Server Explorer depends on this setting to display data correctly. By default, this property is set as follows, which is the recommended setting:

```
text/html; charset=UTF-8
```

If you want a different character encoding, change this property. For example, if you want the outgoing encoding to be Shift JIS, set this property as follows:

```
text/html; charset=Shift_JIS
```

Properties That Control Debugging

You can optionally turn debugging on during the Content Server installation. Doing so might help you identify problems during the installation. However, turning on debugging might significantly increase the time it takes to install Content Server. So, turn on debugging only if you need to resolve some issue.

The following properties, located in the `commons-logging.properties` file control debugging:

Table C-1: Properties Controlling Debugging

Property	Explanation
`com.fatwire.logging.cs`	This property specifies the log severity for the generic Content Server logger. Messages written to this logger relate to the core Content Server functionality, or they have not been assigned a more appropriate logger. Possible values: `TRACE`, `DEBUG`, `INFO`, `WARN`, `ERROR` and `FATAL`. Default value: `INFO`
`com.fatwire.logging.cs.db`	This property specifies the log severity for database access messages. Messages written to this logger relate to database access, queries and statement execution. It can be very helpful to use this logger to debug database queries that are not behaving as expected. Possible values: `TRACE`, `DEBUG`, `INFO`, `WARN`, `ERROR` and `FATAL`. Default value: `INFO`
`logging.maxlogsize`	This property specifies the maximum size of the log file in bytes. Once the log file grows to the size specified, it will be either rolled or deleted. Set it to `-1` to allow the log to grow indefinitely. Default value: `10MB`

Table C-2: Properties Controlling SQL Server 2000

Property	Set it to This Value
cc.char	NCHAR
cc.varchar	NVARCHAR
cc.maxvarchar	4000
cc.bigtext	NTEXT

Properties That Control Documentation

The cs.documentation property specifies a URL from which users access Content Server documentation.

You can access the Content Server documentation from two different places:

- e-docs web site
- Content Server installation kit

Documentation on the Web Site

We maintain a web site that contains the latest CS documentation, located at the following URL:

http://e-docs.fatwire.com/CS

This web site is password-protected; you will need to obtain a password from FatWire Technical Support. For Technical Support contact information, see the following web site:

http://www.fatwire.com/Support/contact_info.html

We recommend that you check the e-docs site regularly to determine whether you have the current documentation. The e-docs site lets you easily download a package containing all the latest documentation to your local site.

Documentation in the Installation Kit

In the top-level directory of the installation kit, you'll find the following documentation files:

- DOC*xxx* (in both .tar and .zip formats), which holds all the manuals associated with this release.
- ReadMe.htm, which is an HTML file containing the release notes.

The installation program does **not** install the documentation on your system. To place this documentation on your system, you must unpack it yourself. To unpack the DOC*xxx*.zip file, just use Winzip or an equivalent unzip utility.

To unpack the DOC*xxx*.tar file, use the tar command with the -xvf keys. For example, assuming that you are installing Content Server from a CD, the following command would unpack the documentation to directory /local/CSEE_Docs_501:

```
$ tar -xvf DOC501.tar /local/CSEE_DOC_501
```

Documentation Access from the Content Server Interface

The main Content Server interface (installed with the content applications) displays a help button, a large question mark symbol. When a user clicks the help button, Content Server redirects the user's browser to the URL that is specified in the `cs.documentation` property. By default, the `cs.documentation` property specifies the URL of the Content Server documentation web site: `http://e-docs.fatwire.com/CS`

To get help from documentation stored locally, just change the value of the `cs.documentation` property to the local URL. In fact, you can change `cs.documentation` to any URL at which Content Server documentation is stored. However, be sure that you check the Content Server web site periodically so you can download any new or revised documents to your local site.

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