



## Clustered Environment Server Installation Guide

**Fifth Edition (December 2008)**

This edition applies to version 6, release 2 of IBM WebSphere Business Services Fabric and to all subsequent releases and modifications until otherwise indicated in new editions.

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# WebSphere Dynamic Process Edition installation for clustered environment

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## Introduction

WebSphere Dynamic Process Edition provides dynamic BPM capabilities to assemble and manage composite business applications.

The WebSphere Dynamic Process Edition installation guide for clustered environment provides the business context for the software that will be installed and configured. This software supports process optimization across heterogeneous, dynamic, transaction-rich environments, requiring enterprise-wide integration capabilities and SOA.

WebSphere Dynamic Process Edition provides dynamic BPM capabilities to assemble and manage composite business applications, which:

- Increases responsiveness to changing business needs through dynamic service selection and policy-driven composite applications
- Enables faster process change and easier maintenance through policy configuration instead of coding and redeployment
- Flexibly aggregates business functionality from disparate legacy, third-party, custom, and packaged systems to increase service reuse
- Extends and enhances existing IT capabilities without requiring time-consuming and costly IT system "rip and replace" projects
- Includes optional IBM Industry Content Packs that reduce time to market, simplify interoperability, and drive industry standards compliance

This installation information in this guide supports the typical set of server runtime products shipped together in WebSphere Dynamic Processes Edition.

This installation information documents the steps to install the products that make up WebSphere Dynamic Processes Edition and configure the clusters and the related resources.

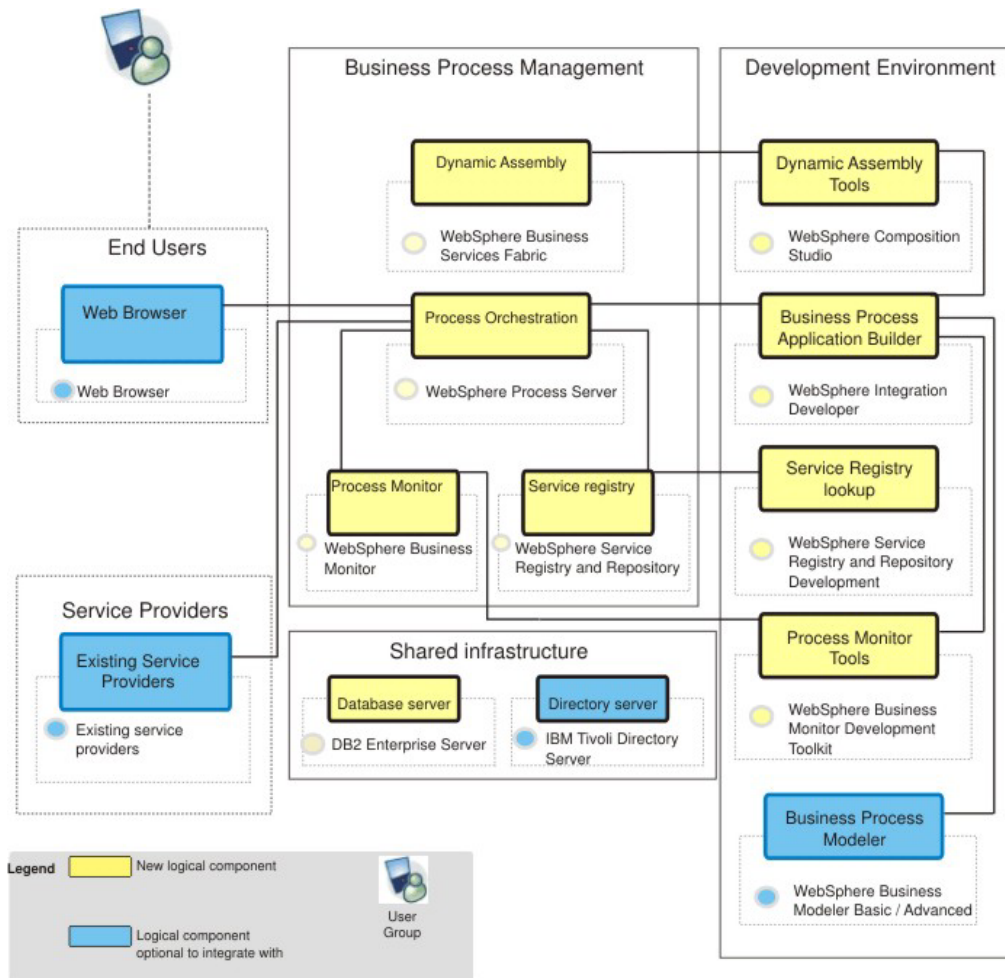
## WebSphere Dynamic Process Edition architecture for clustered environment

The WebSphere Dynamic Process Edition architecture diagram illustrates the logical functions that exist in the environment (and can be optionally integrated with) and the new logical functions that will be working once the clustered installation is complete.

The WebSphere Dynamic Process Edition architecture diagram helps create understanding of what function the clustered installation topology should focus on providing.

Review the following diagram to gain an understanding of major elements of the IT system that can be deployed for a clustered topology, and their connections. The diagram shows the products that are included with WebSphere Dynamic Process Edition and illustrates the role that each product plays and the relationship between products.

Use the diagram as a foundation or starting point for a conceptual understanding of a solution design system topology, and the product mapping information can be used in physical level of the system topology diagram.



## Planning your installation

Installing WebSphere Dynamic Process Edition requires the correct required software, as well as the correct prerequisite software.

Planning information includes a listing of the appropriate software with links to product resources, as well as a description of the system environment that will be installed and the system requirements. Planning information also lists the sequence in which you must install the products that are part of WebSphere Dynamic Process Edition.

## Software requirements

You must have the appropriate software versions available for installation.

The **Information resources** column of the table provides links to product information pages for the products that are part of WebSphere Dynamic Process Edition.

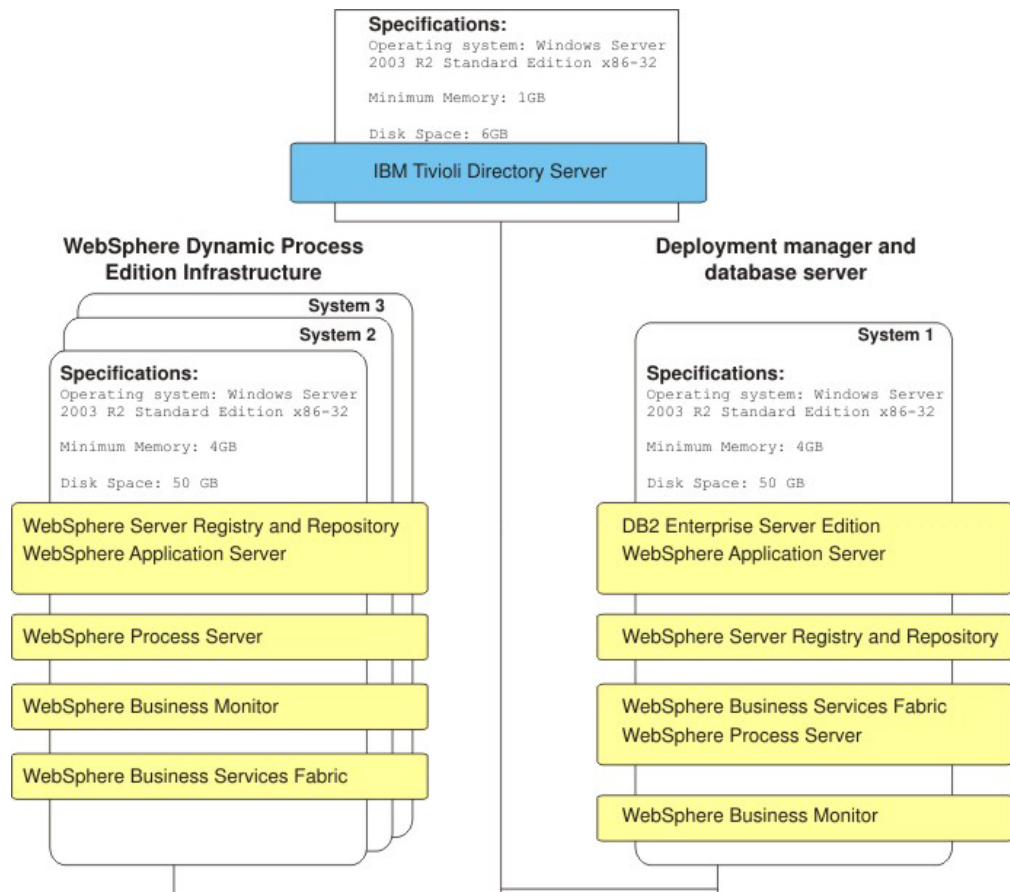
Table 1. WebSphere Dynamic Process Edition server runtime products and associated information resources

WebSphere Dynamic Process Edition Server runtime products	Information resources
WebSphere Service Registry and Repository Version 6.2.0.2	WebSphere Service Registry and Repository resources
WebSphere Business Services Fabric Version 6.2	WebSphere Business Services Fabric resources
WebSphere Process Server Version 6.2	WebSphere Process Server resources
WebSphere Application Server Version V6.1.0.21	WebSphere Application Server resources
DB2 Enterprise Server Edition V9.5	DB2 Product Information Center
WebSphere Business Monitor Version 6.2	WebSphere Business Monitor resources

## High-level physical topology in a clustered environment

The high-level physical topology is represented by a diagram that shows the systems (WebSphere Dynamic Process Edition infrastructure, deployment manager and database), operating system, space requirements and software needed for WebSphere Dynamic Process Edition.

It can help you confirm that this is a topology you are interested in and helps you with high-level planning of resource requirements such as a number of systems.



## Installation sequence and system specifications for a clustered environment

The clustered topology consists of three or more systems, each with required specifications.

The information explicitly states the install order that is the organizing principle of the installation documentation.

### WebSphere Dynamic Process Edition Server runtime system

The WebSphere Dynamic Process Edition server runtime hosts the runtime products and has the following specifications:

- Minimum memory needed: 4GB
- Disk space: 50GB
- Installed operating system: Windows Server 2003 Standard Edition, R2 Standard Edition x86-32

The server runtime products are installed and configured on three systems in the following order:

1. DB2 Enterprise Server Edition - Install on Deployment manager
2. WebSphere Process Server (WebSphere Application Server installs with WebSphere Process Server)
  - Install on Deployment Manager - System 1
  - Create a proxy server
  - Configure security
  - Install WebSphere Process Server on system 2
  - Install WebSphere Process Server on system 3
  - Configure WebSphere Process Server
    - Create the messaging cluster
    - Enable support for SCA on the messaging cluster
    - Create the support cluster
    - Enable Common Event Infrastructure on the support cluster
    - Create the application cluster
    - Configure Common Event Infrastructure runtime properties on the application cluster
    - Enable support for SCA on the application cluster
    - Configure Business Process Choreographer on the application cluster
    - Create support 2 cluster
    - Configure Business Process Choreographer Explorer on support 2 cluster
    - Configure Business Rules Manager on support 2 cluster
    - Configure Business Space Services on support 2 cluster
    - Restart all processes in the cell
3. WebSphere Service Registry and Repository
  - Install on Deployment Manager and multiple systems.  
This single installation procedure will result in WebSphere Service Registry and Repository residing on the Deployment Manager (system 1), as well as System 2 and System 3.
4. WebSphere Business Services Fabric



- Install WebSphere Business Services Fabric on Deployment Manager - System 1
  - Install WebSphere Business Services Fabric on system 2
  - Install WebSphere Business Services Fabric on system 3
  - Create WebSphere Business Services Fabric database
  - Configure WebSphere Business Services Fabric database
5. WebSphere Business Monitor
    - Install WebSphere Business Monitor on Deployment Manager - System 1
    - Create the WebSphere Business Monitor database
    - Install WebSphere Business Monitor on system 2
    - Install WebSphere Business Monitor on system 3

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## Installing your software

You install the software using the installation wizard in graphical interface mode.

You can obtain the software product files in two ways, from the disks in the product package or by downloading installation images from the Passport Advantage® site, if you are licensed to do so.

This section includes instructions on installing the server runtime products for WebSphere Dynamic Process Edition in a clustered environment.

This section also includes steps for creating the necessary profiles for the clustered environment.

Install the products in the following sequence:

1. DB2 Enterprise Server Edition Version 9.5
2. WebSphere Process Server 6.2  
WebSphere Application Server is installed with WebSphere Process Server 6.2.
3. WebSphere Service Registry and Repository
4. WebSphere Business Services Fabric
5. WebSphere Business Monitor

### DB2 Enterprise Server Edition Version 9.5

DB2 Enterprise 9 is the ideal data server for the most demanding workloads.

DB2 Enterprise 9:

- Easily scales to handle high volume transaction processing
- Reduces storage needs by up to 80% using industry unique automatic deep compression capabilities
- Manages performance for mixed workloads according to your priorities
- Reduces risk of unauthorized access with an innovative label based security model
- Maximizes data availability by reducing planned and unplanned downtime

DB2 Enterprise 9 needs to be installed since it is a prerequisite for WebSphere Service Registry and Repository, WebSphere Process Server, WebSphere Business Services Fabric, and WebSphere Business Monitor.

## Installing DB2 Enterprise Server Edition 9.5 Fix Pack 2a

You install the software using the installation wizard. You can obtain the DB2 Enterprise Server Edition 9.5 product files in two ways, from the disks in the product package or by downloading installation images from the Passport Advantage® site, if you are licensed to do so.

You have obtained the product files.

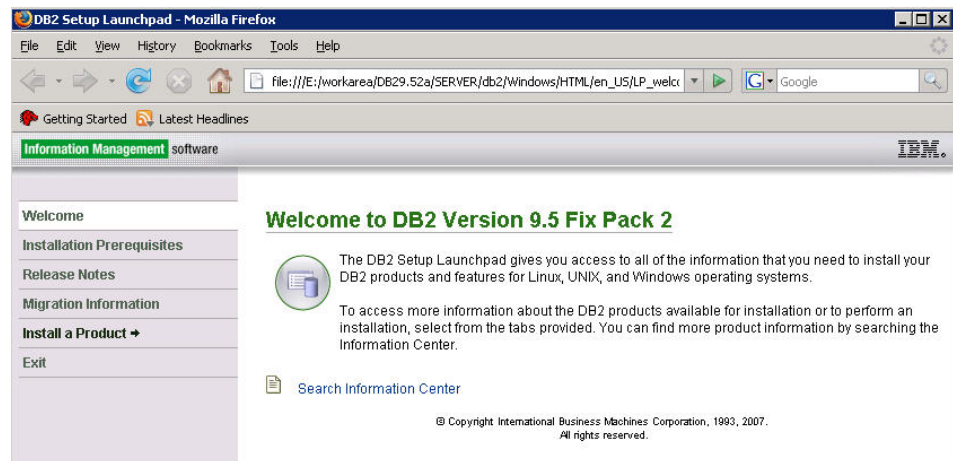
These installation instructions assume DB2 Enterprise Server Edition resides on a different system than the Deployment Manager.

This task describes the procedure of installing DB2 Enterprise Server Edition remotely.

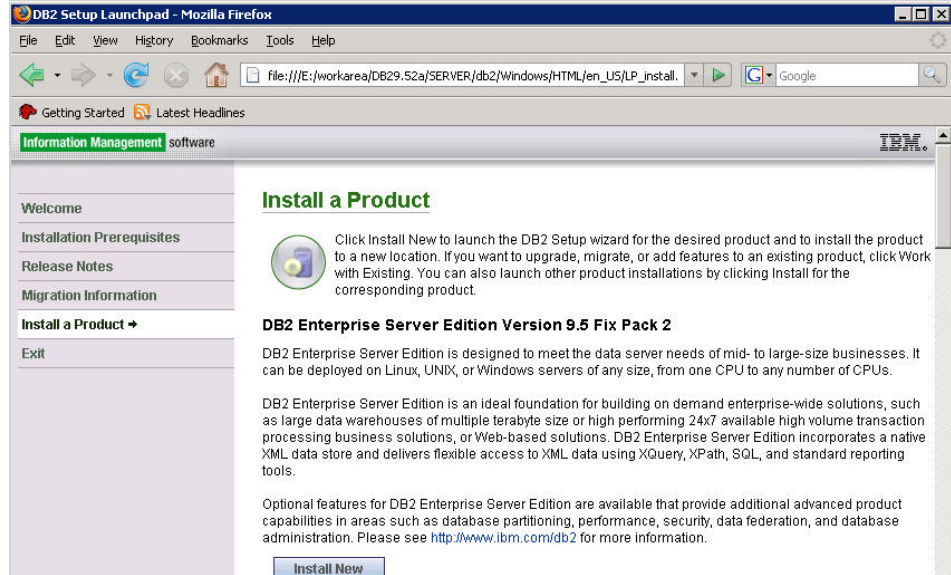
The screen captures are included to make it easier to follow the step instructions.

The step instructions are included to provide the specific task you need to perform and any information needed to perform the task (such as directory locations, parameters to enter, etc.)

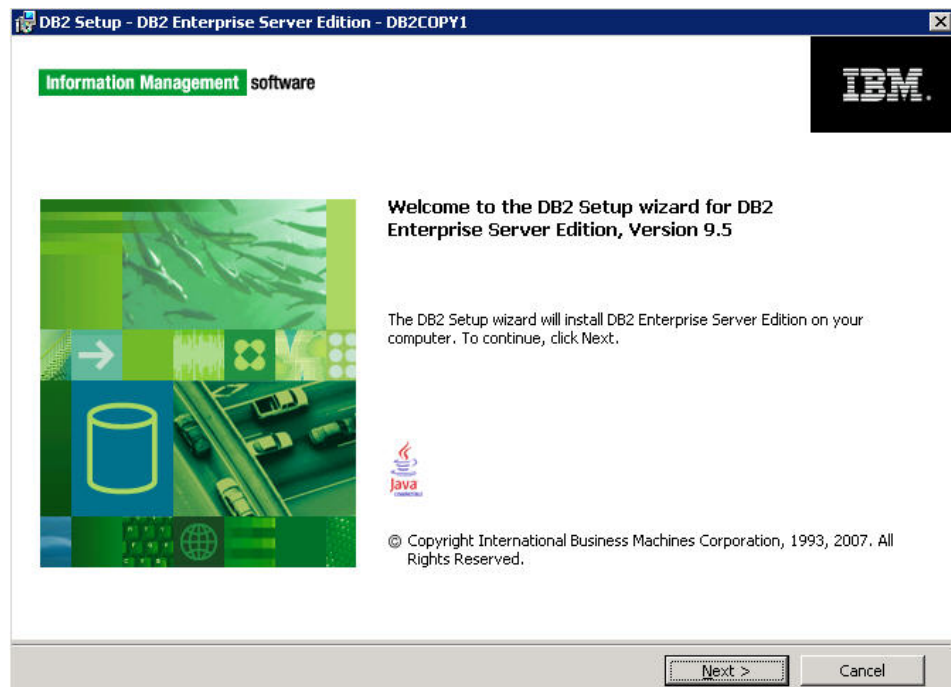
1. Launch setup.exe.
2. From the Welcome to DB2 Version 9.5 Fix Pack 2a page, click **Install a Product**.



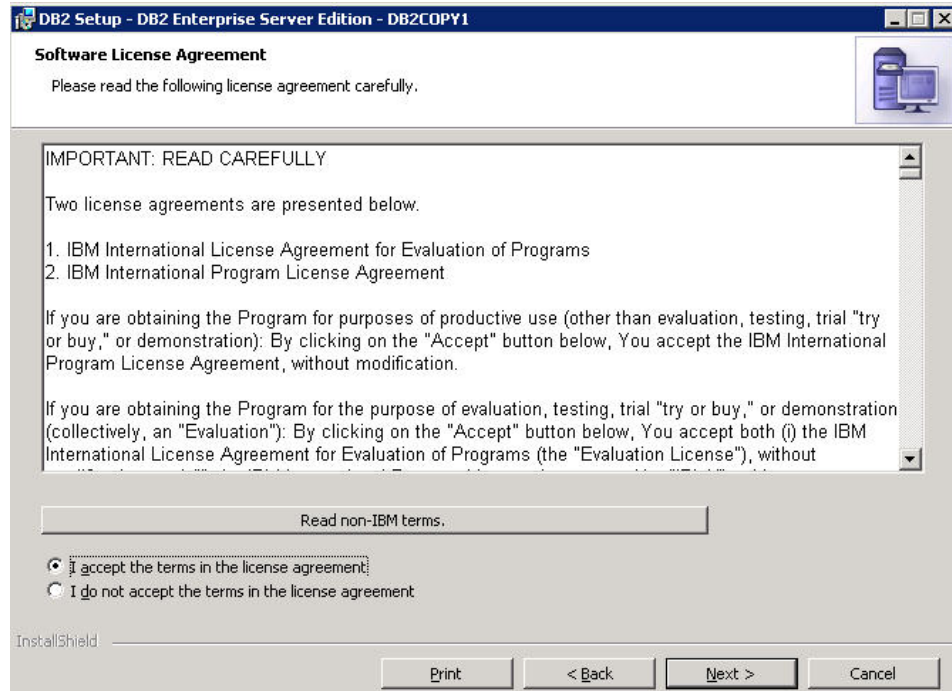
3. From the Install a Product page, click **Install New**.



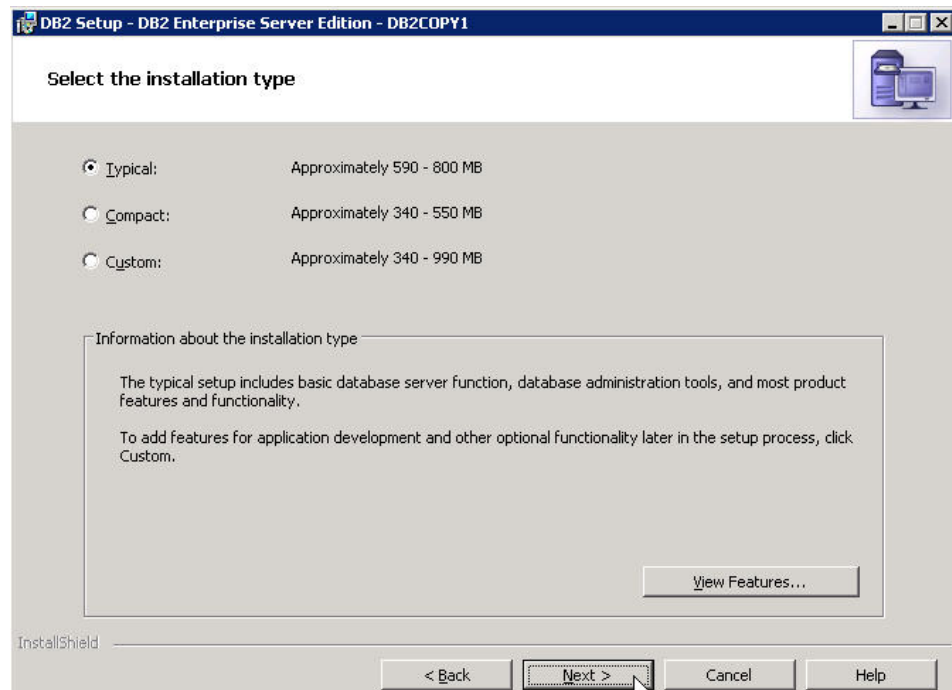
4. From the DB2 Enterprise Server Edition, Version 9.5 welcome page, click Next.



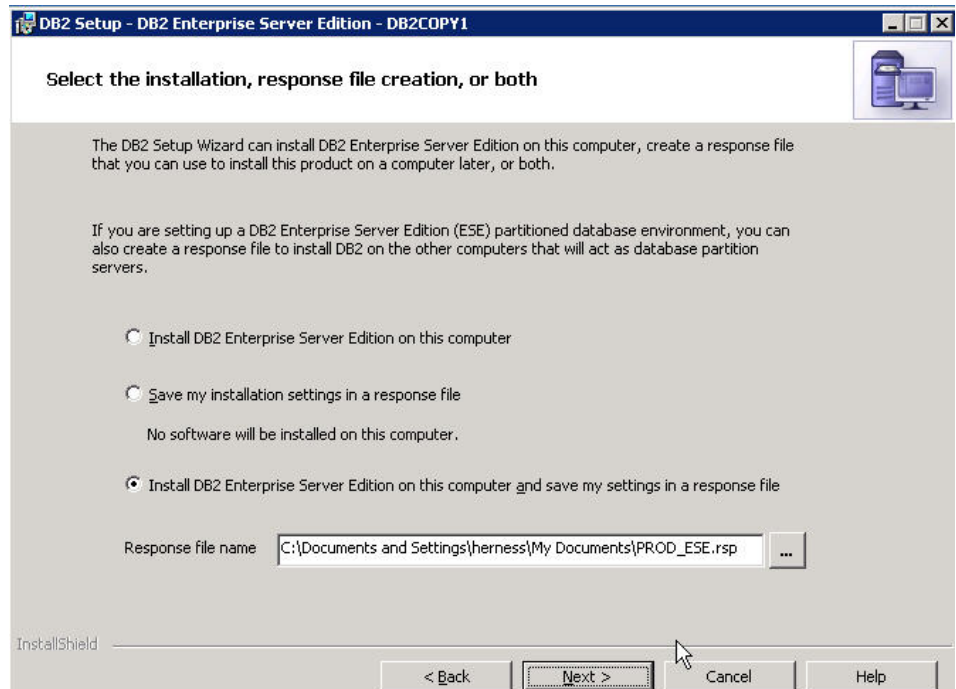
5. From the Software License Agreement page, accept the license agreement and click Next.



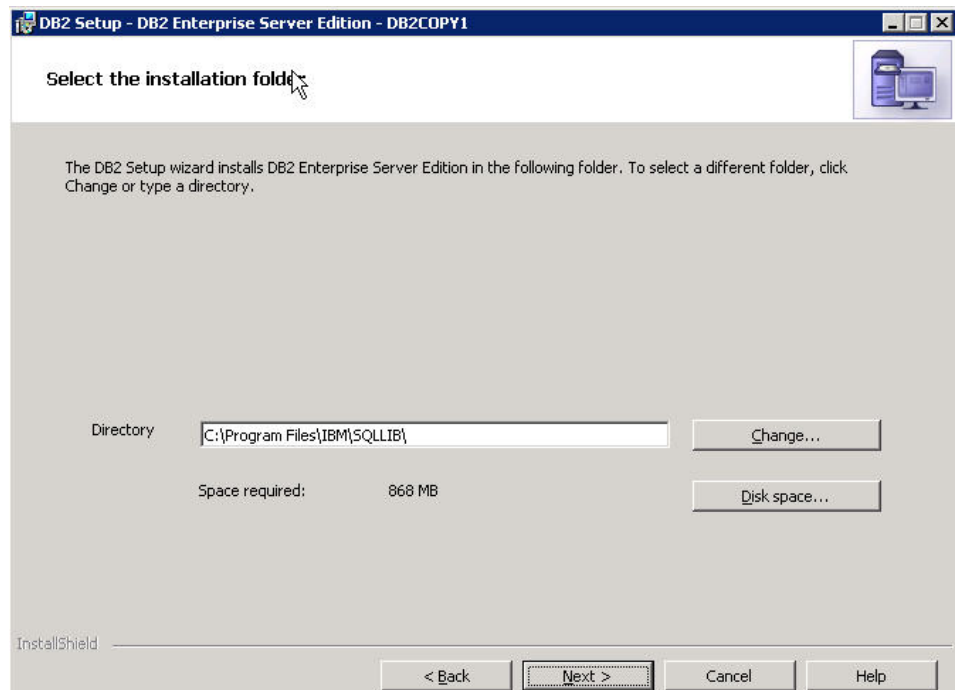
6. From the Select the installation type page, select **Typical**.



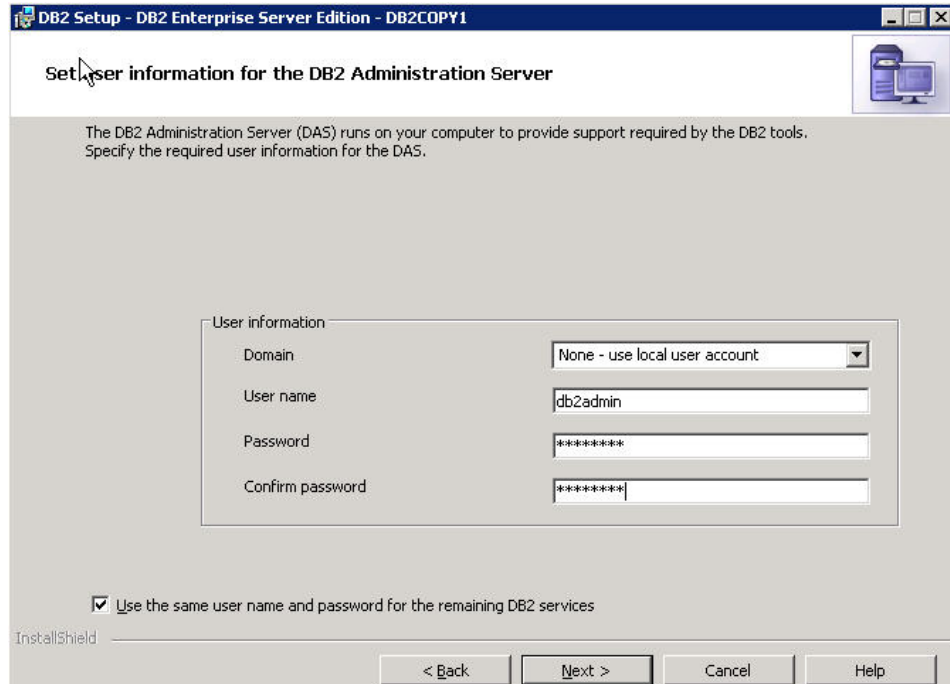
7. From the Select the installation, response file creation, or both page, select **Install DB2 Enterprise Server Edition on this computer and save my settings in a response file** and click Next.



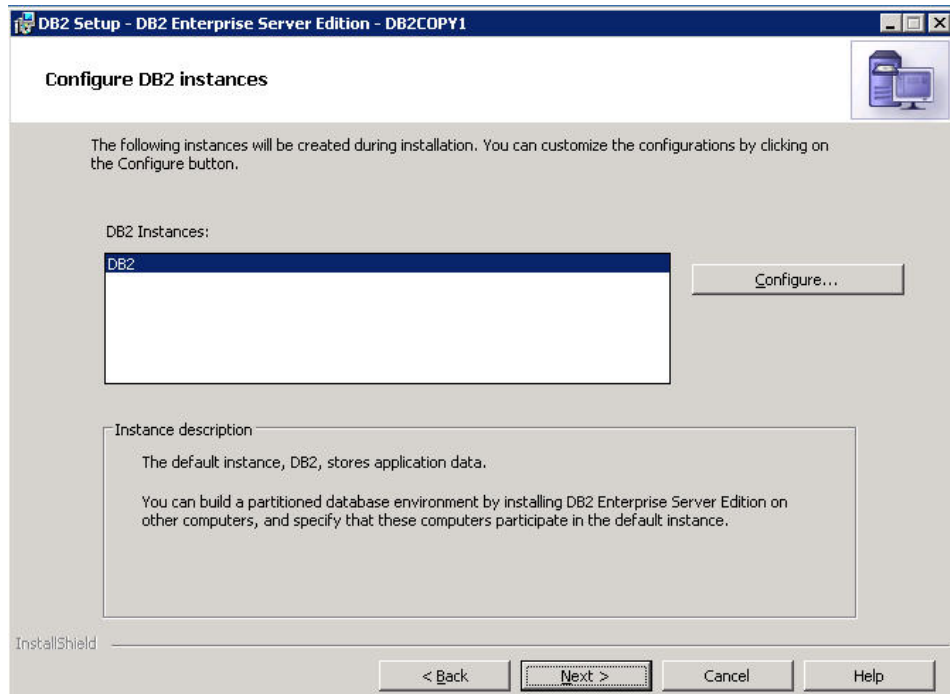
8. From the Select the installation folder page, select the directory and click Next.



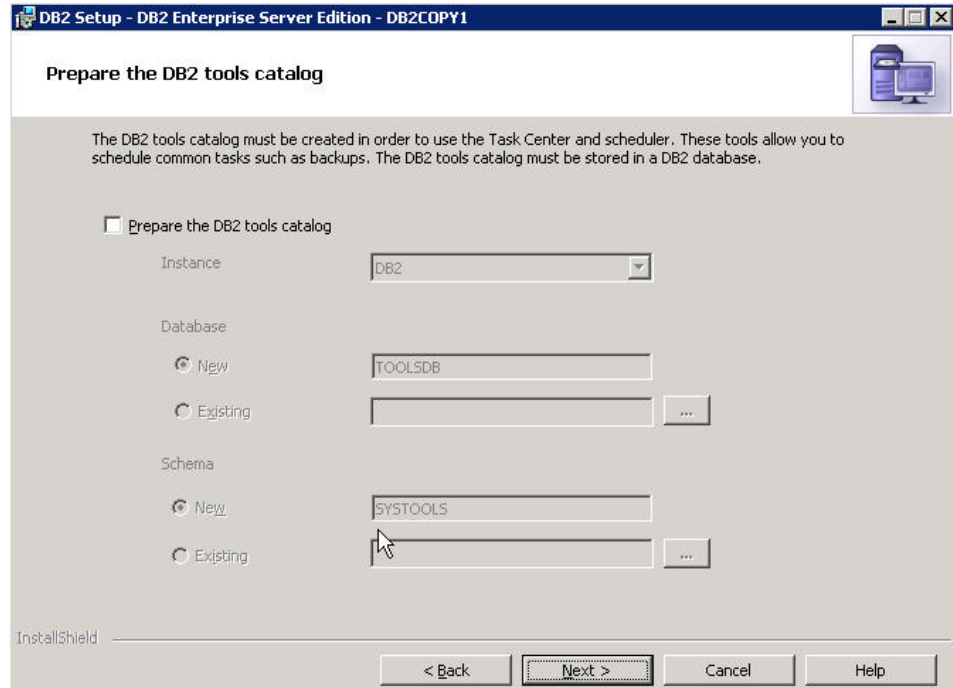
9. From the Set user information for the DB2 Administration Server page, enter a value for **User name** and **Password** and click **Next**.



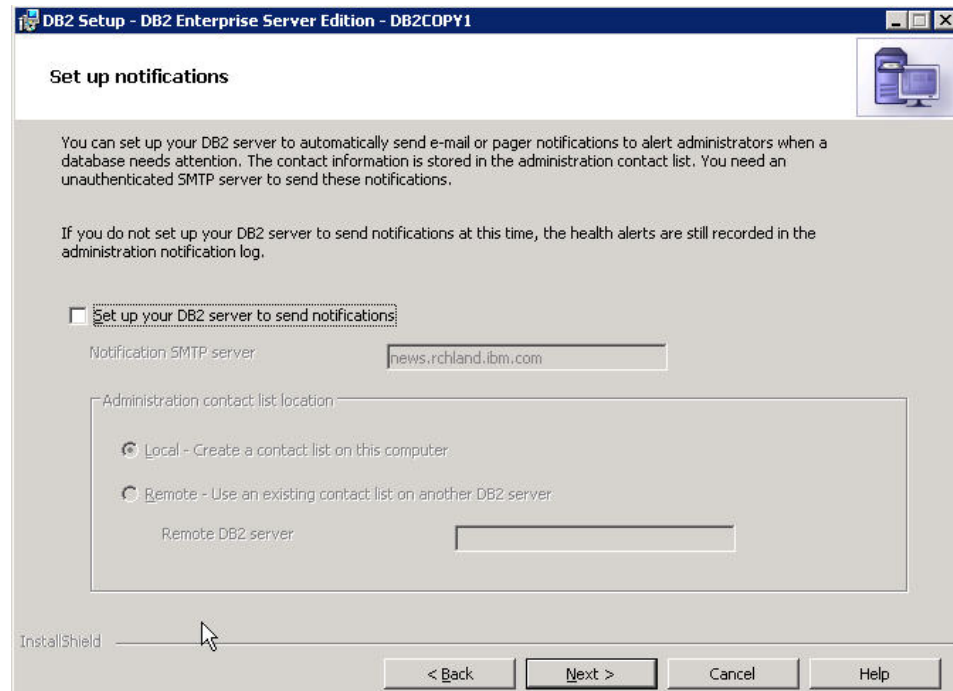
10. From the Configure DB2 instances page, select DB2 and click Next.



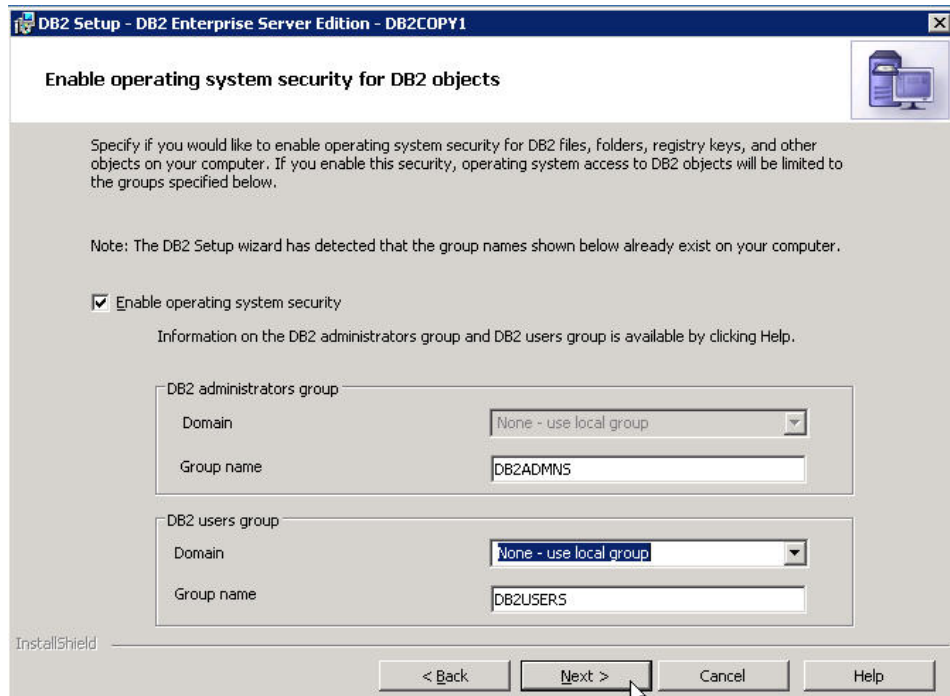
11. From the Prepare the DB2 tools catalog page select Next.



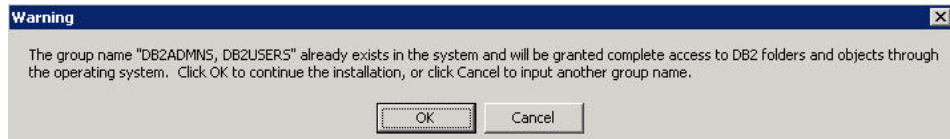
12. From the Set up notifications page, deselect the checkbox **Set up your DB2 server to send notifications** and click **Next**.



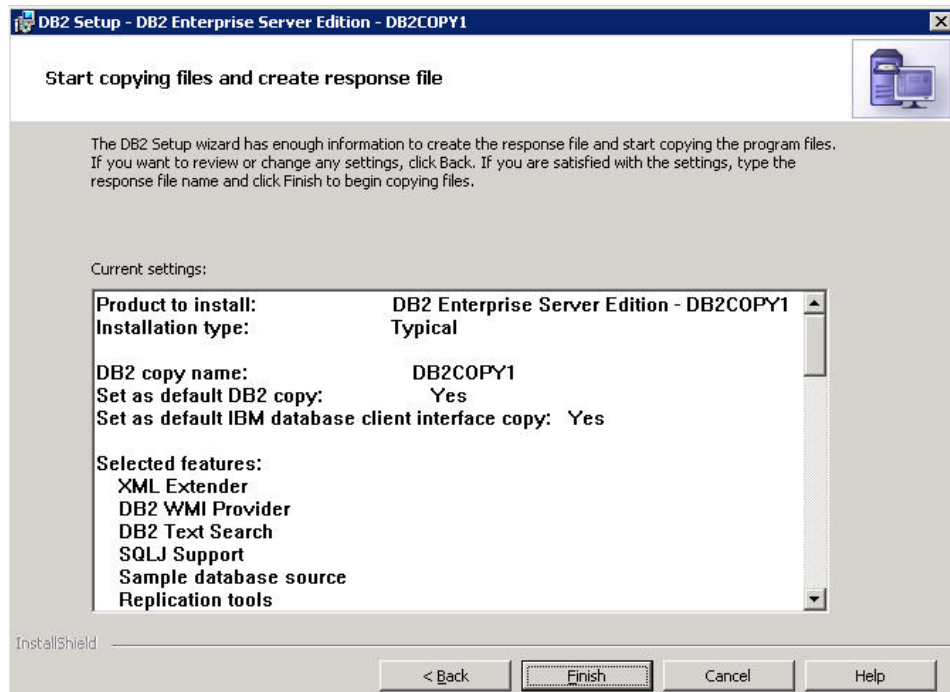
13. From the Enable operating system security for DB2 objects page, click **Next**.



14. From the Warning that displays, click **OK**.  
The warning displays because the group name(s) already exist.

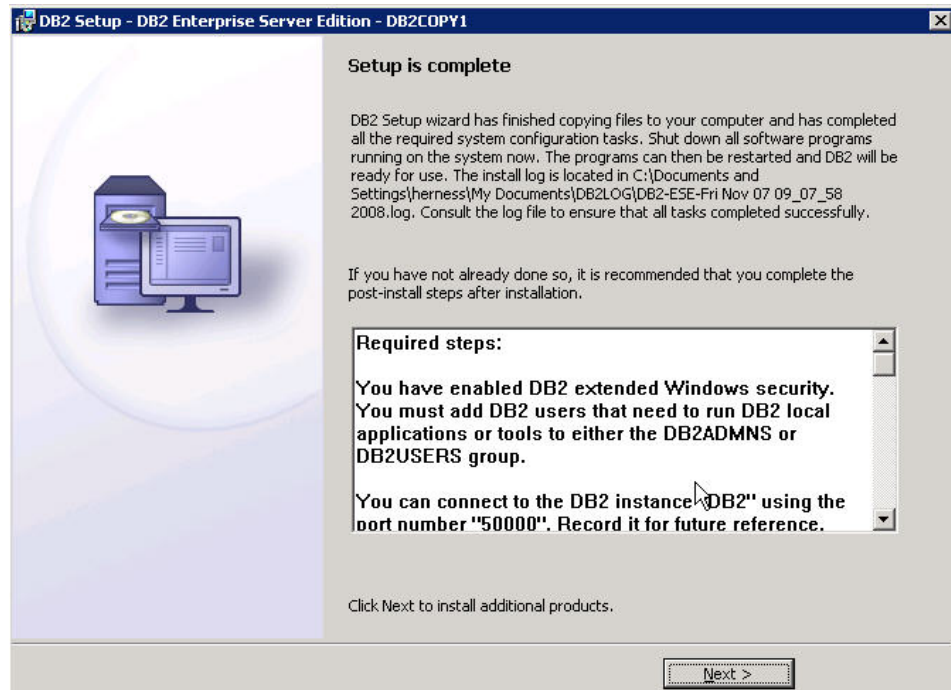


15. From the Start copying files and create response file page, click **Finish**.

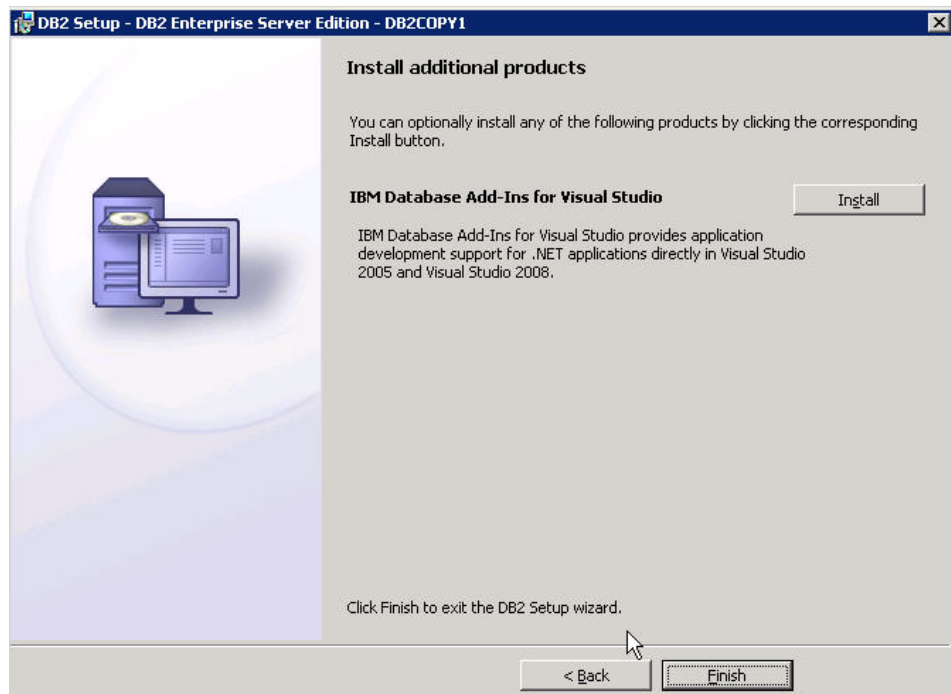




16. From the Setup is complete page, click **Next**.



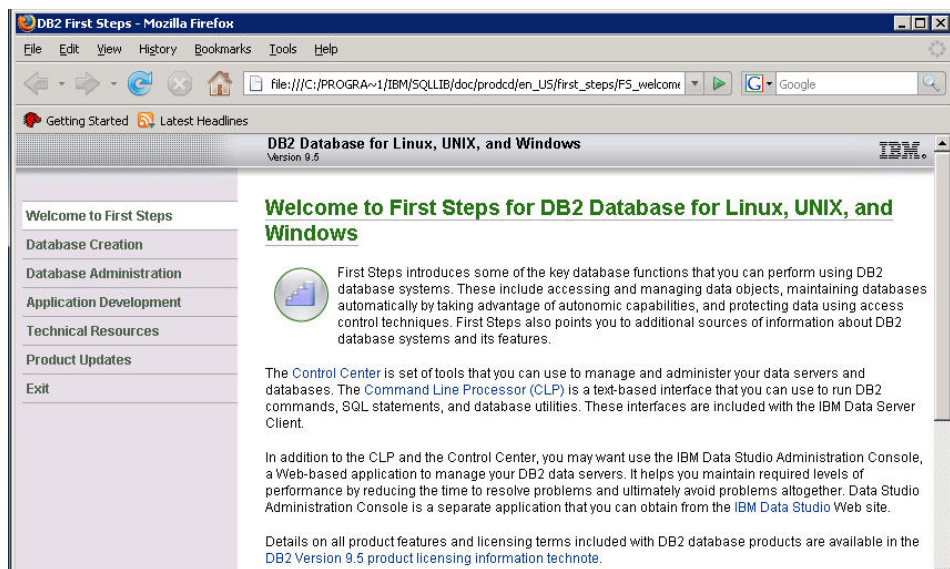
17. From the Install additional products page, click **Finish**.



18. From the DB2 First Steps prompt page, select **Do not create profile**.



19. From the First steps welcome page, click Exit.



20. Open a DB2 Command prompt.



21. Run the command db2stop/db2start.

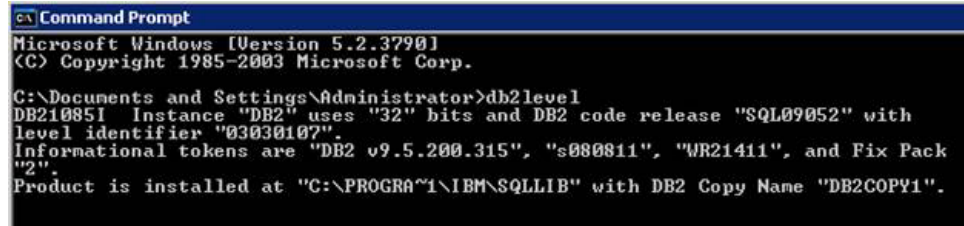


## Verifying the installation of DB2 Enterprise Server Edition 9.5

Verify the installation by checking settings and behavior to ensure the software is running.

Verification step instructions provides quick understanding of what to check to make sure the software has installed properly.

1. Make sure that DB2 9.5.2a is installed by typing **db2level** in a Windows command prompt:



```
Microsoft Windows [Version 5.2.3790]
(C) Copyright 1985-2003 Microsoft Corp.

C:\Documents and Settings\Administrator>db2level
DB21085I  Instance "DB2" uses "32" bits and DB2 code release "SQL09052" with
level identifier "03030107".
Informational tokens are "DB2 v9.5.200.315", "s080811", "WR21411", and Fix Pack
"2".
Product is installed at "C:\PROGRAM~1\IBM\SQLLIB" with DB2 Copy Name "DB2COPY1".
```

2. From the Start menu, open the DB2 control center.

## WebSphere Process Server 6.2

WebSphere Process Server is required prerequisite software for WebSphere Business Services Fabric.

WebSphere Process Server is a high-performance business engine to help form processes that meet your business goals.

Built on open standards, it deploys and executes processes that orchestrate services (people, information, systems, and trading partners) within your service-oriented architecture (SOA) or non-SOA infrastructure.

WebSphere Process Server:

- Extends the value of core applications and databases by centralizing business processes and sharing them across the enterprise, enabling businesses to maximize resources and increase ROI
- Helps cut costs by enabling flexible business processes with reusable assets, reducing the need to hard-code changes across multiple applications when making changes to existing processes or creating new ones
- Ensures compliance with regulations and internal requirements by that business operations run precisely as documented
- Ensures process integrity to accommodate transaction intensive processes, while providing the scalability, reliability and flexibility needed for future business needs Strong support for human workflow and enables rapid process changes, providing business agility and enabling you to leverage resources efficiently.

### Installing WebSphere Process Server and creating a profile on system 1

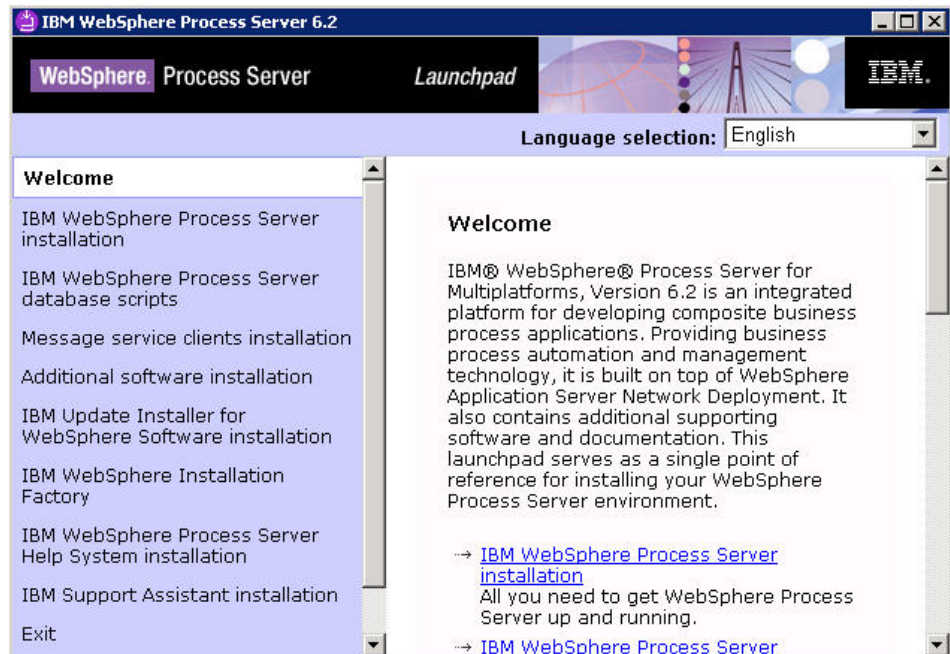
You install the software using the installation wizard. You can obtain the WebSphere Process Server 6.2 product files in two ways, from the disks in the product package or by downloading installation images from the Passport Advantage® site, if you are licensed to do so.

Use this procedure to install WebSphere Process Server on system 1 and create a deployment manager (Dmgr01) profile.

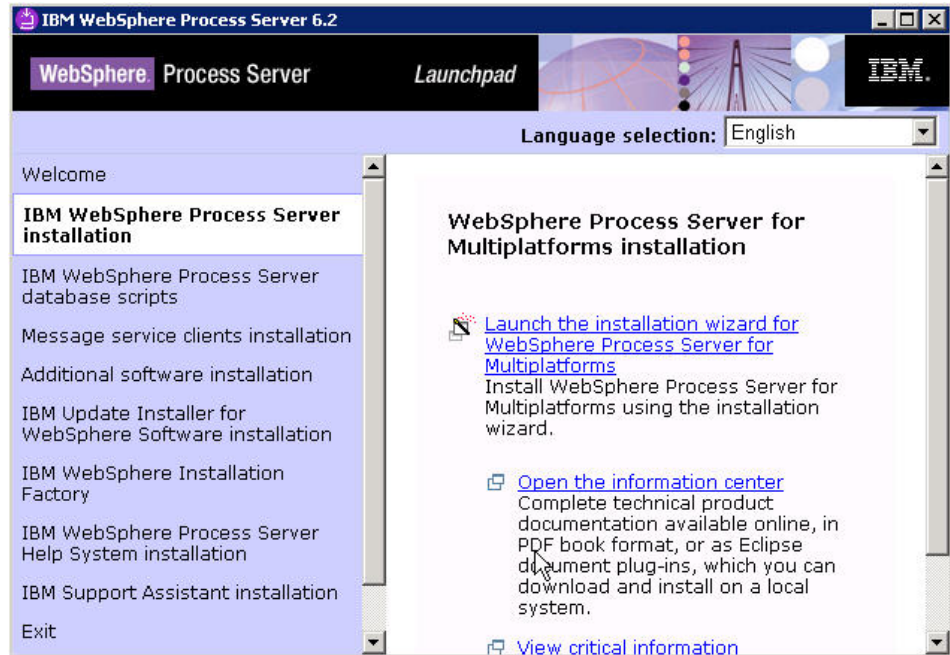
The screen captures are included to make it easier to follow the step instructions.

The step instructions are included to provide the specific task you need to perform and any information needed to perform the task (such as directory locations, parameters to enter, etc.)

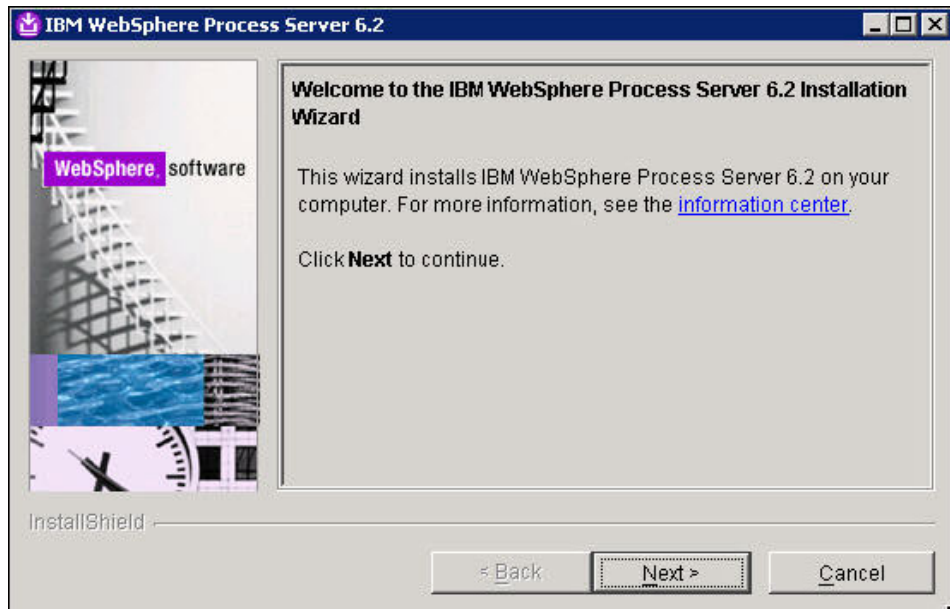
1. From the WebSphere Process Server install driver directory, run the launchpad.exe.
2. From the WebSphere Process Server Launchpad page, select **IBM WebSphere Process Server installation**



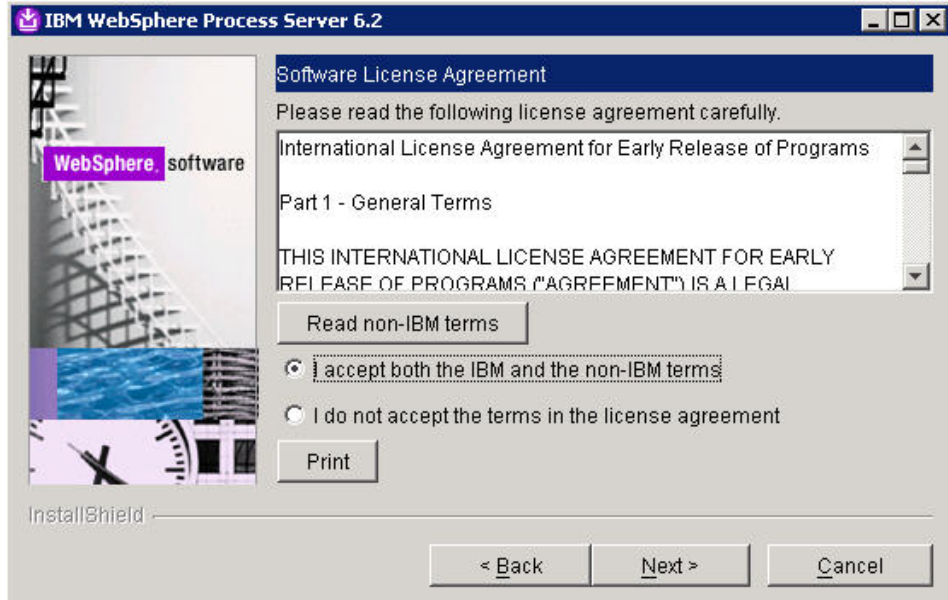
3. From the WebSphere Process Server for Multiplatforms installation page, select **Launch the Installation wizard for WebSphere Process Server for Multiplatforms**.



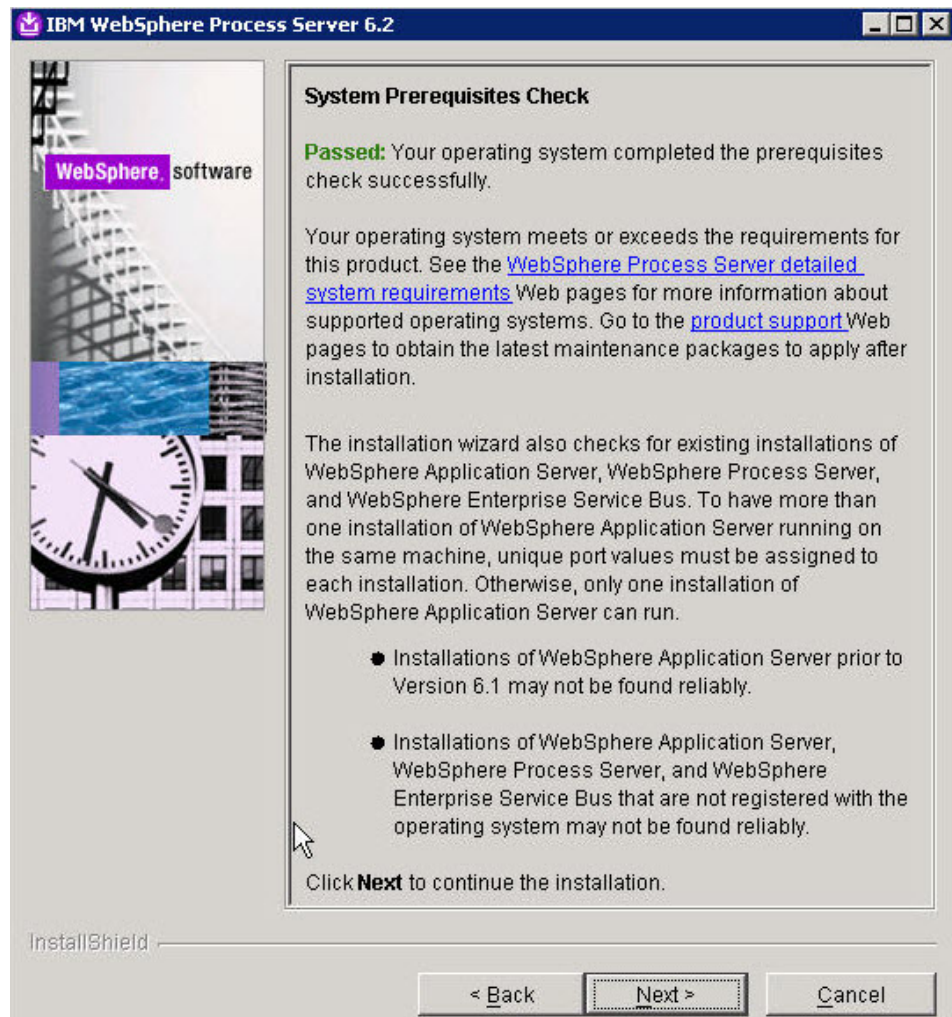
4. From the Welcome to the WebSphere Process Server Installation wizard page, click Next.



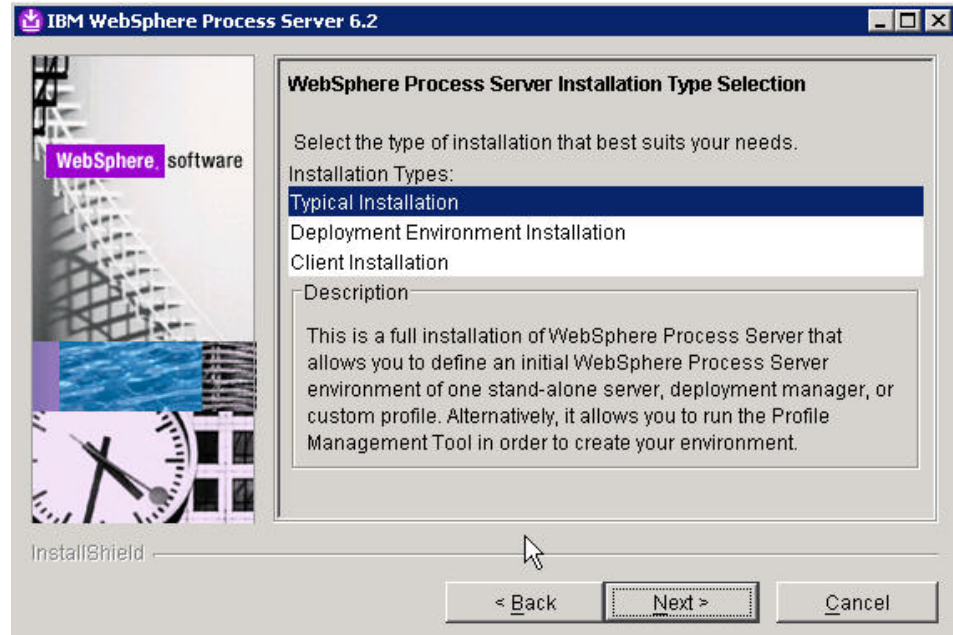
5. From the Software license agreement page, accept the terms and click Next.



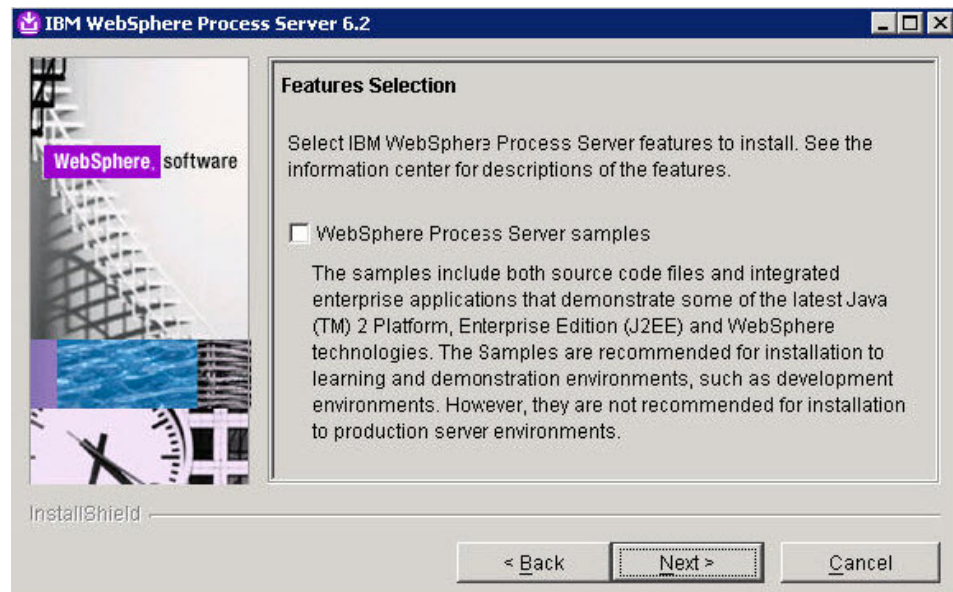
6. From the System Prerequisites check page, click **Next**.



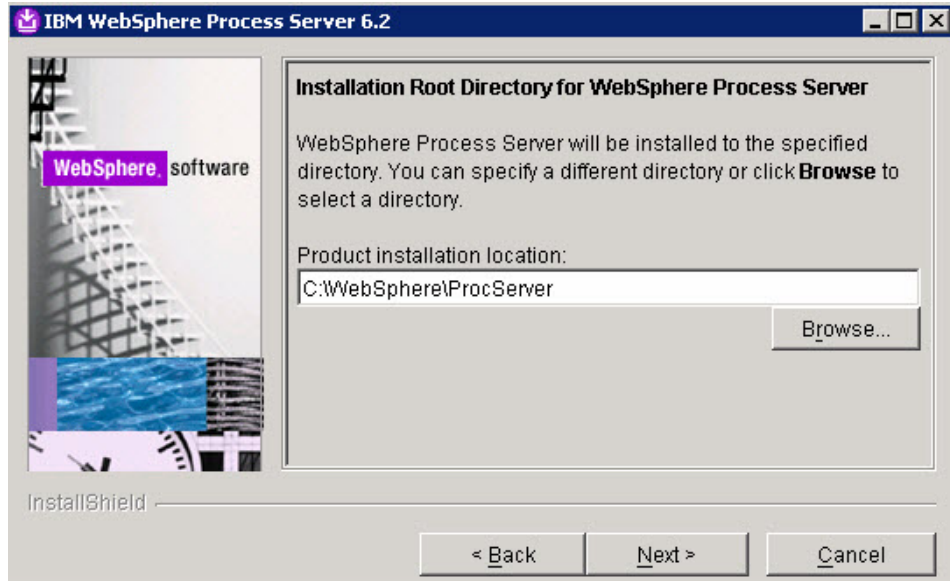
- From the WebSphere Process Server Installation Type Selection page, select **Typical installation** and click **Next**.



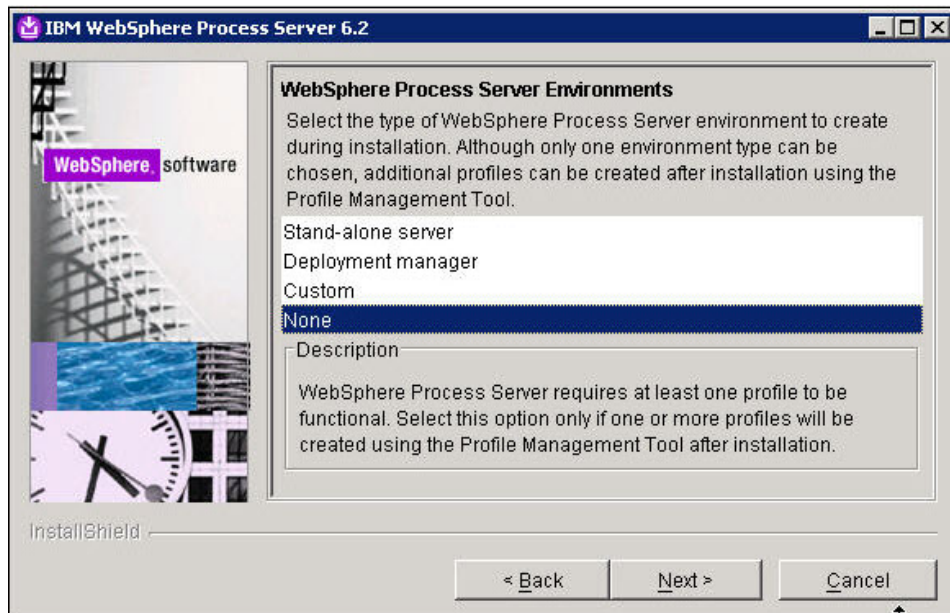
- From the Features Selection page, click **Next**.



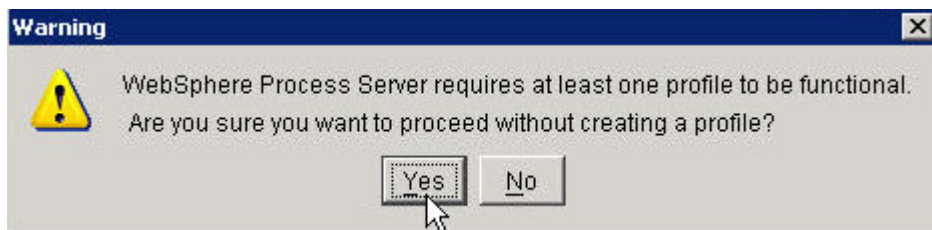
- From the Installation Root Directory for WebSphere Process Server page, accept the default directory into which WebSphere Process Server will be installed, or browse to a directory of your choice and then click **Next**.



10. From the WebSphere Process Server Environments page, select **None** and click **Next**.

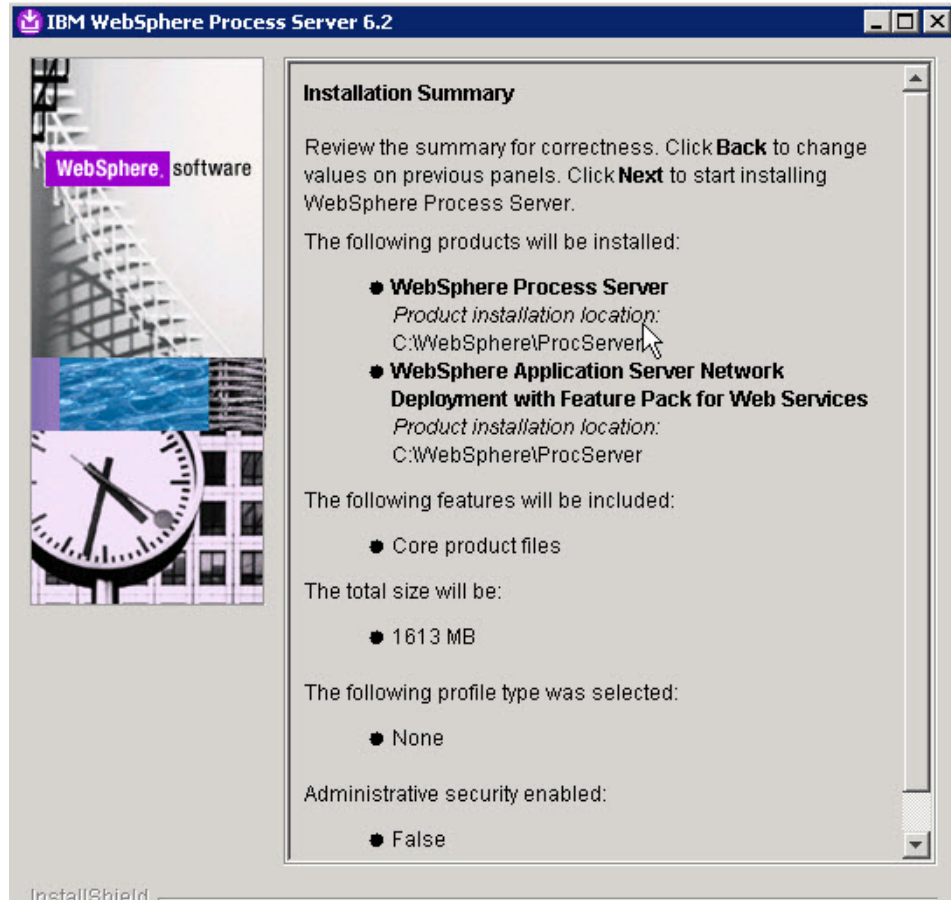


11. From Warning dialog, select **Yes**.

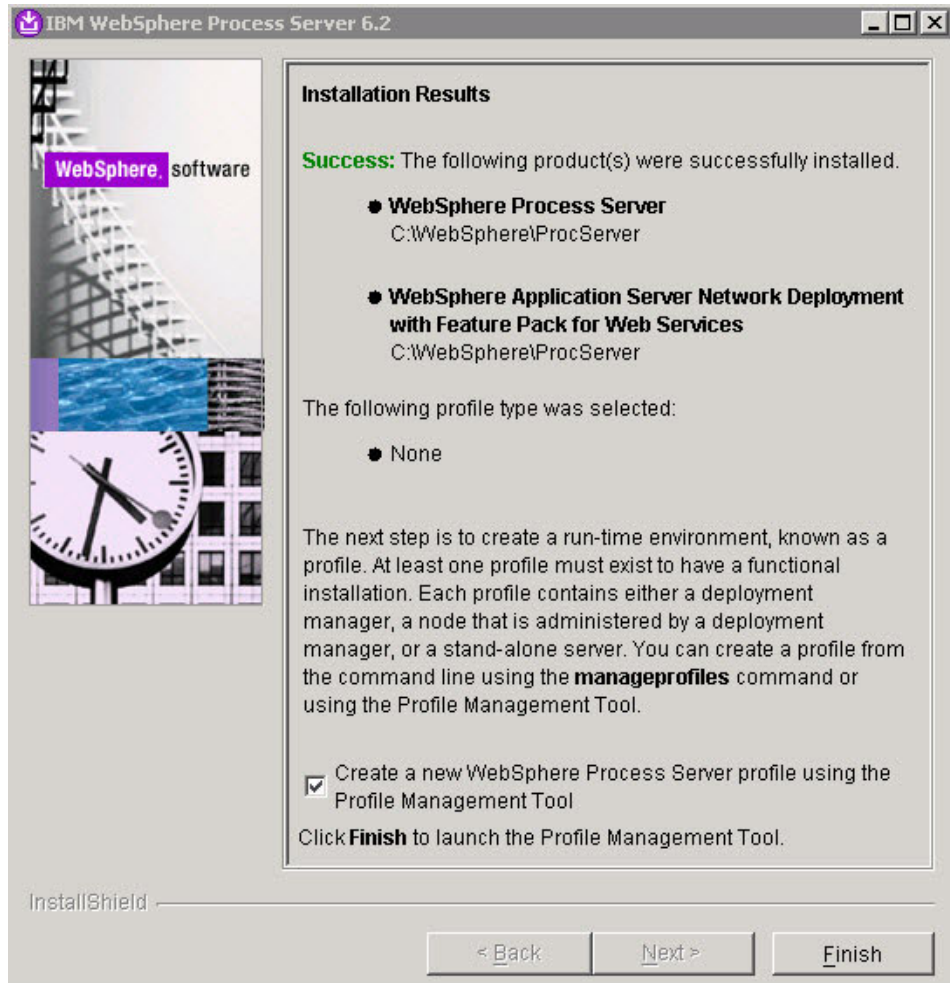


12. From the Installation Summary page review the information on what products will be installed and click **Next**.

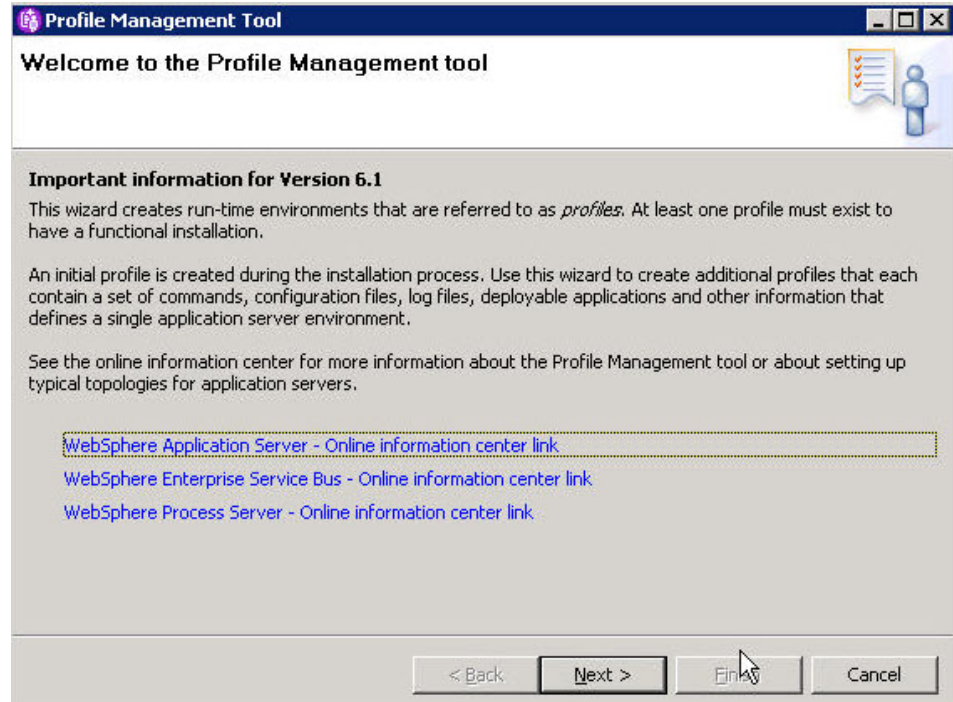




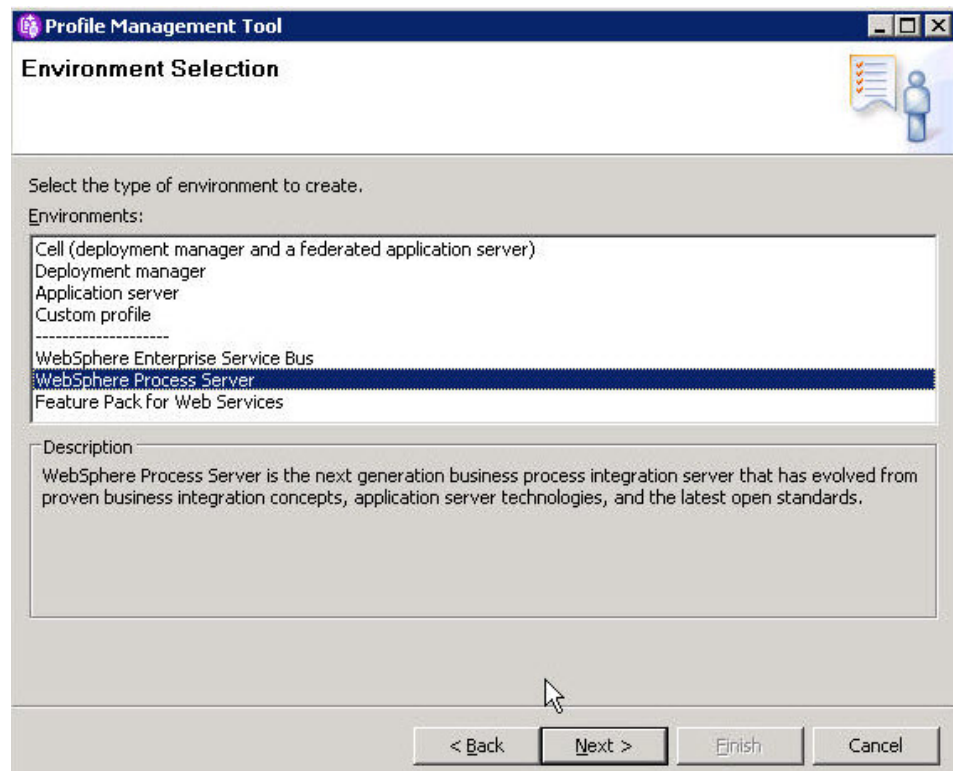
13. From the Installation Results page, make sure the option for **Creating a new WebSphere Process Server profile using the Profile Management Tool** is checked and click **Finish**.



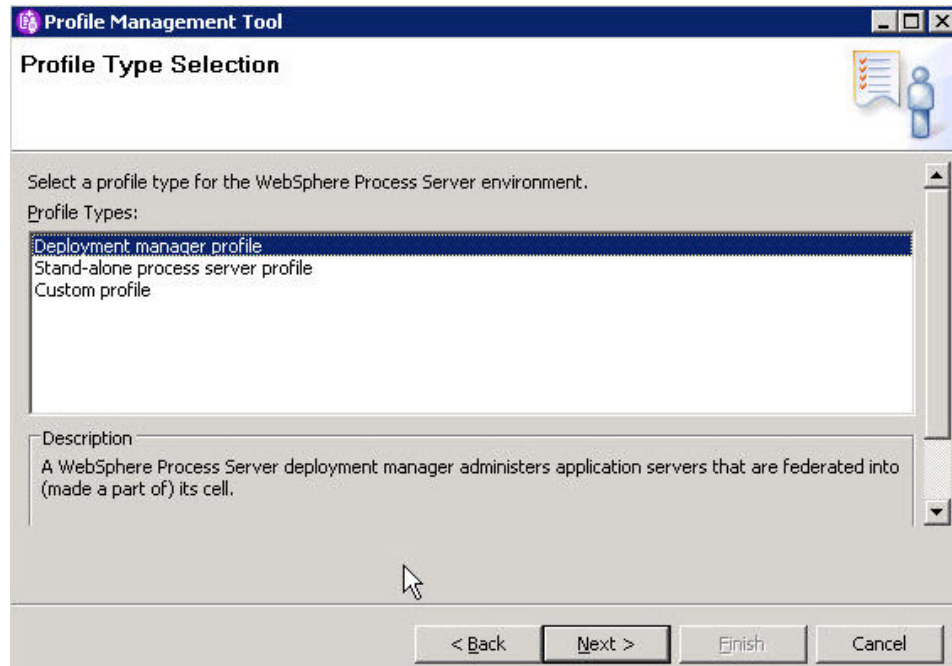
14. From the Profile Management Welcome page, read the information on Profiles and select **Next**.



15. From the Environment Selection page, select **WebSphere Process Server** as your environment and click **Next**.



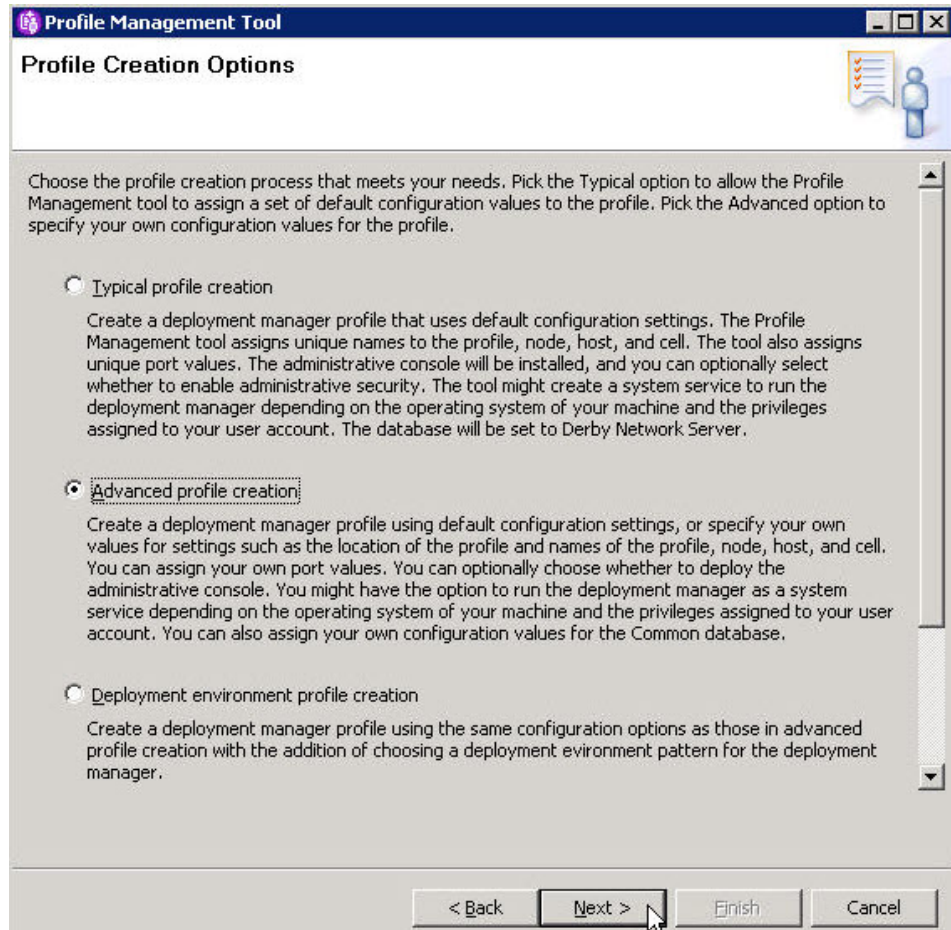
16. From the Profile Type Selection page, select **Deployment manager profile** and click **Next**.



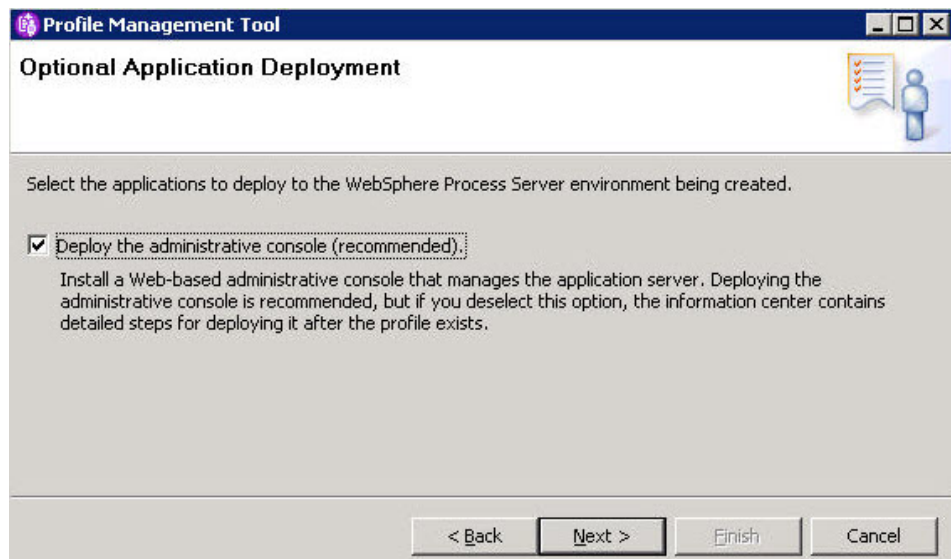
The deployment manager provides a single administrative interface to a logical group of servers on one or more machines. This logical group of servers is known as a cell. Each deployment manager has a cell, into which a custom profile can be federated to create a managed node.

The deployment manager is defined by a deployment manager profile.

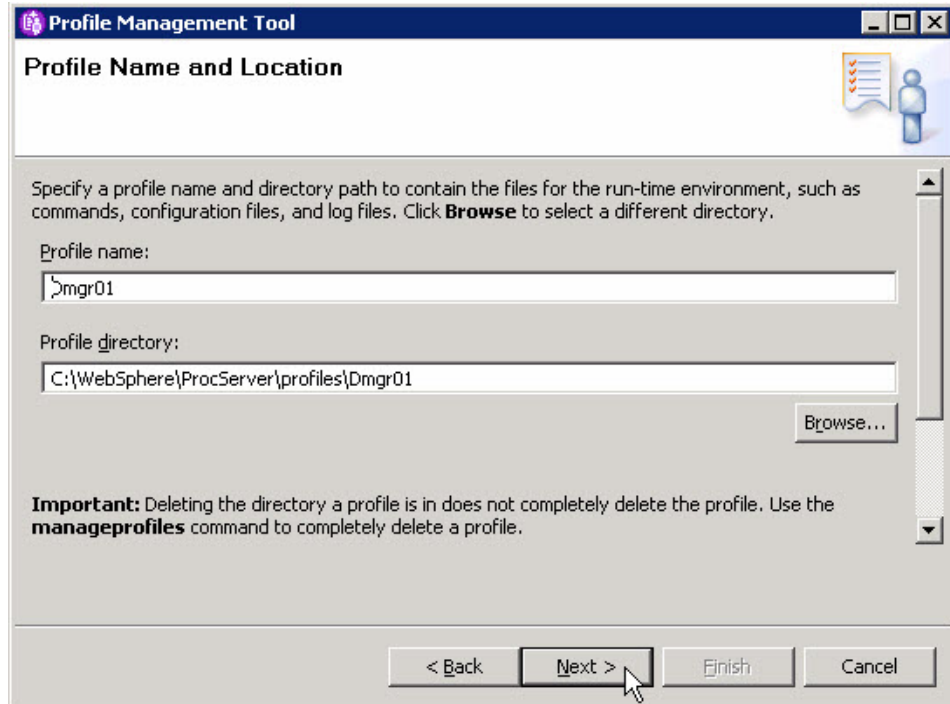
17. From the Profile Creation Options page, select the option for **Advanced profile creation** and click **Next**.



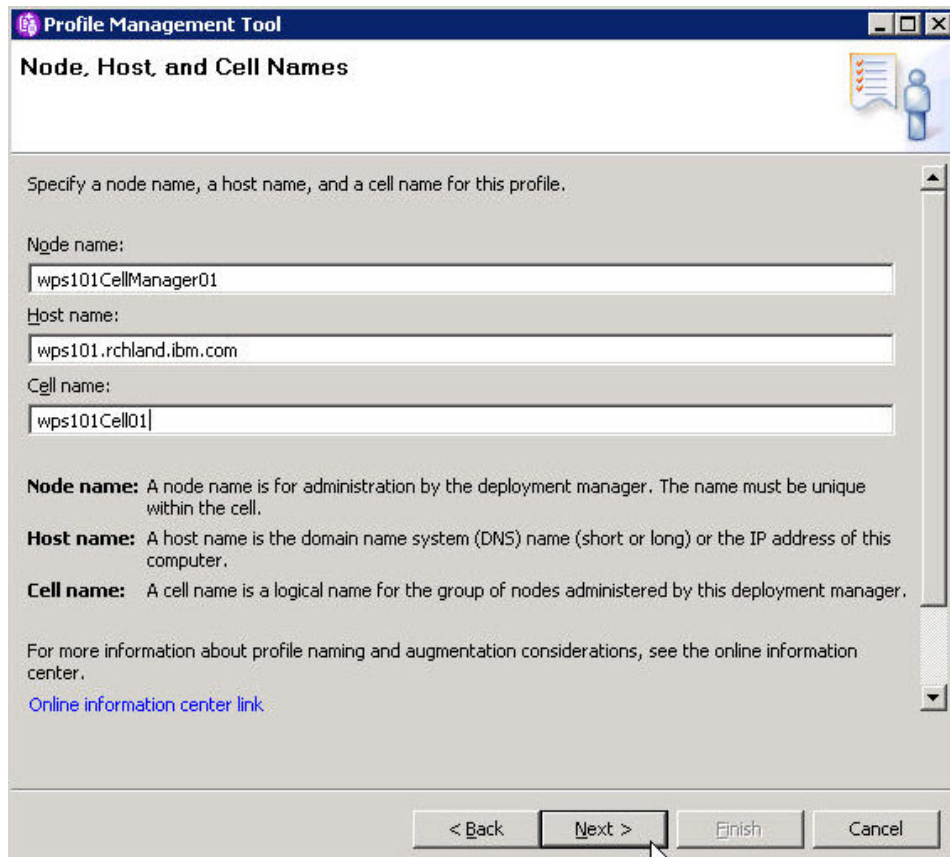
- From the Optional Application Deployment page, check the check box for **Deploy the administrative console** and click **Next**.



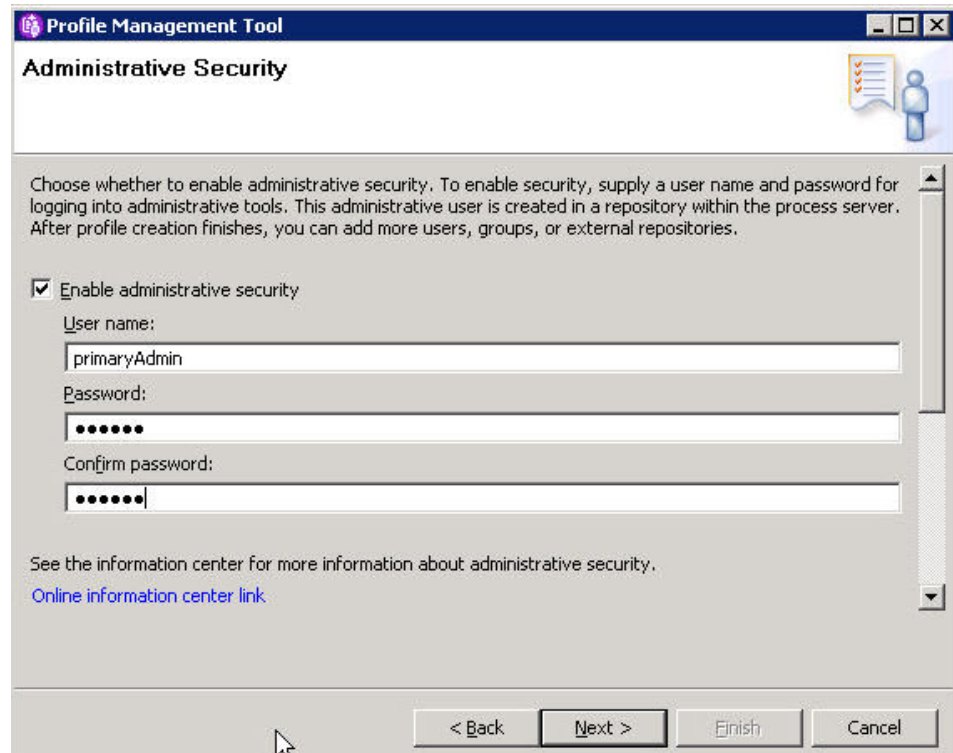
- From the Profile Name and Location page, enter a name in the Profile name field, choose the directory into which you will install the profile and click **Next**.



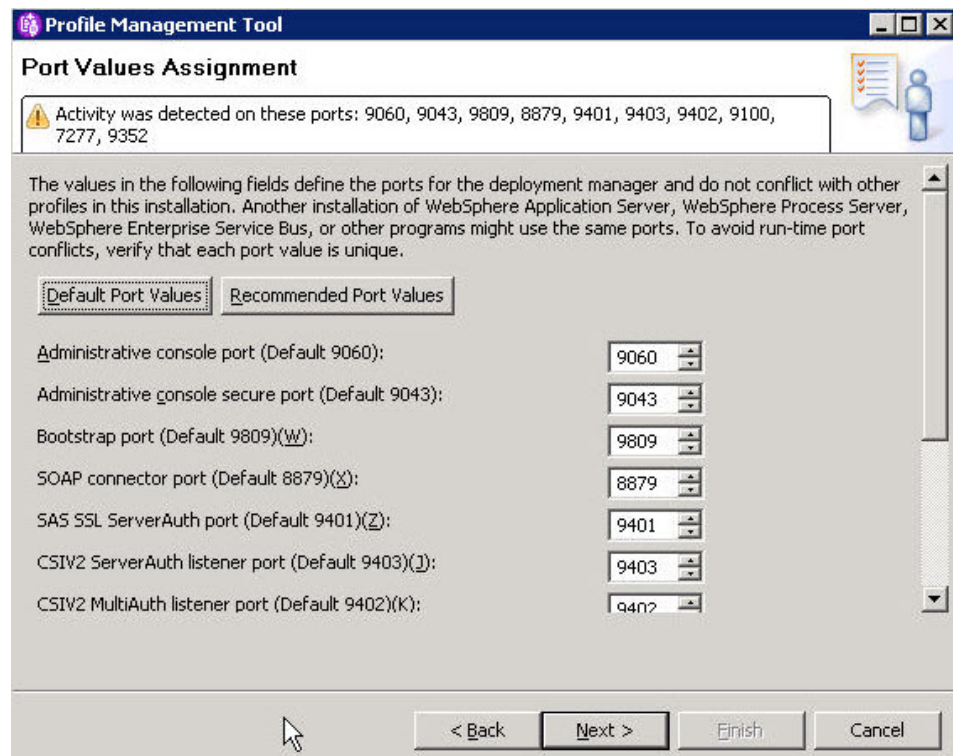
20. From the Node, Host and Cell Names page, enter name values for Node, Host and Cells and click Next.



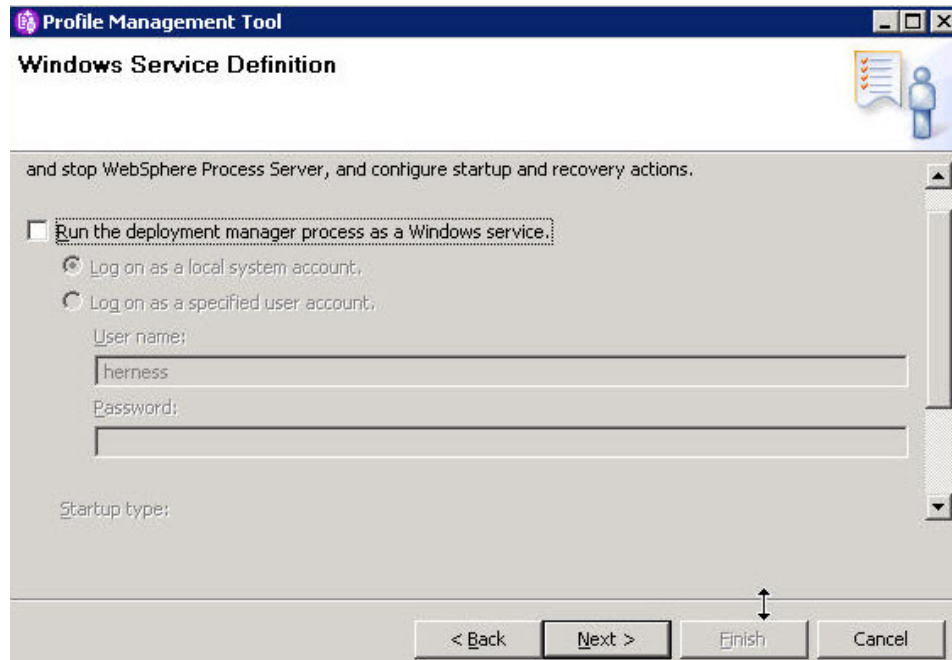
21. From the Administrative Security page, select **Enable administrative security**, enter a User name and Password and click Next.



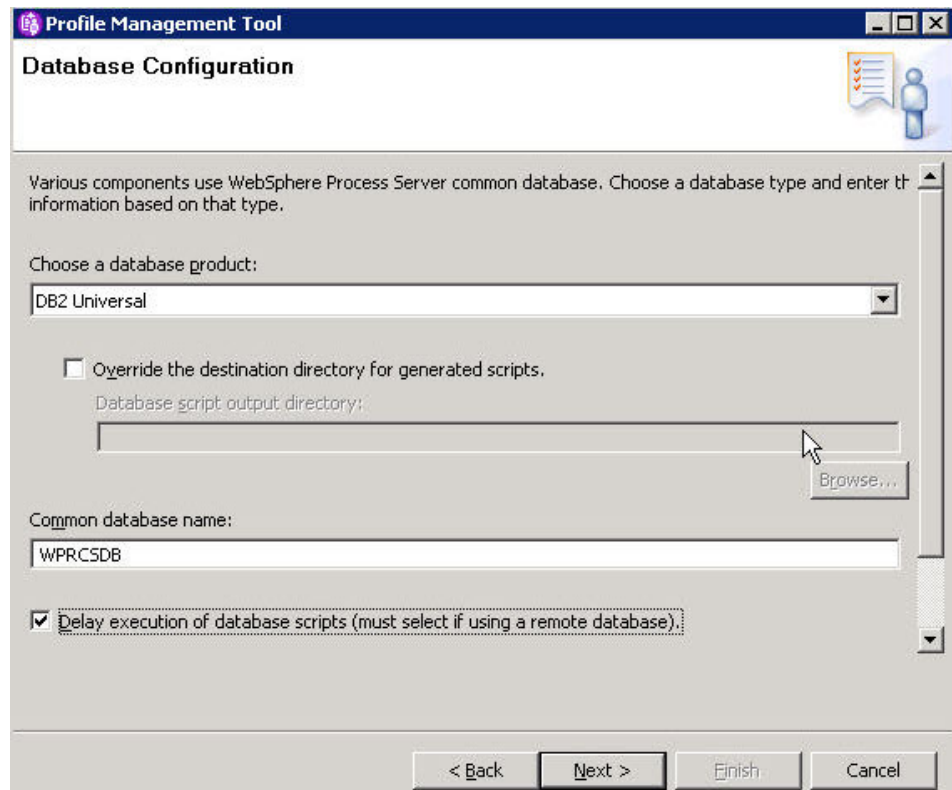
22. From the Port Values Assignment page, click **Next**.



23. From the Windows Service Definition page, deselect the **Run the application server process as a Windows service** checkbox and click **Next**.

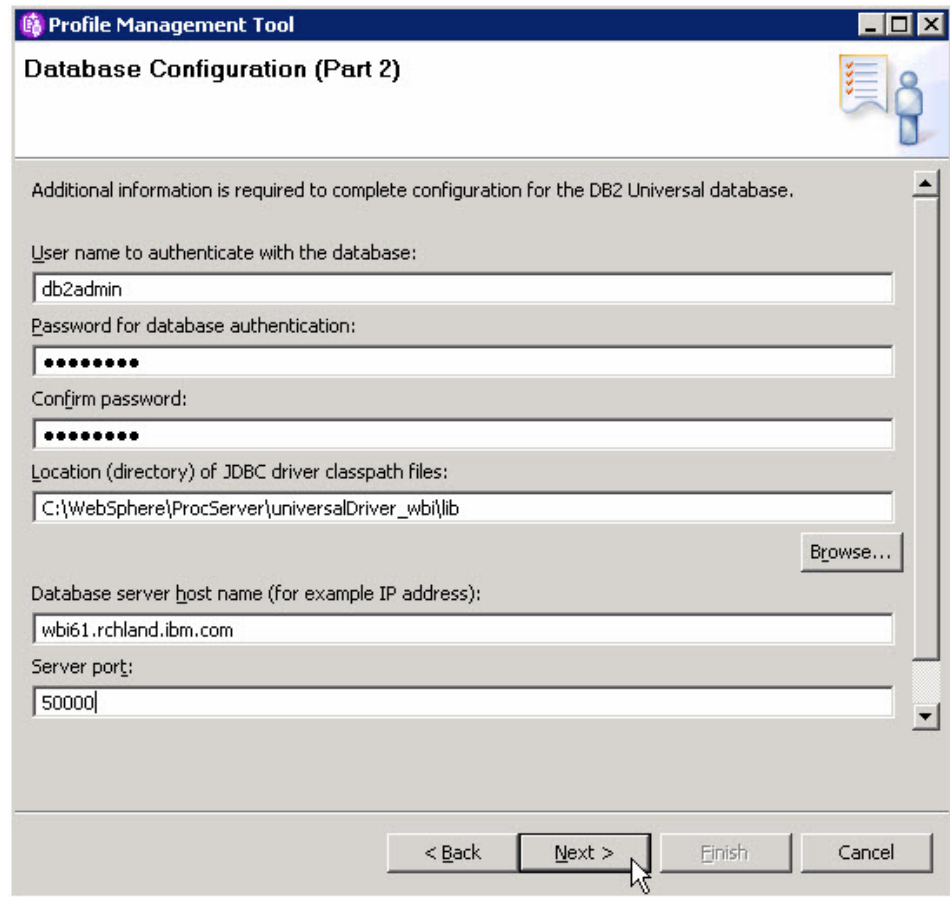


24. From the Database Configuration page, make your database configuration selections.
- Select **DB2 Universal** as the database product, enter **WPRCSDB** as the common database name and select **Delay execution of database scripts (must select if using a remote database)**. Click Next.

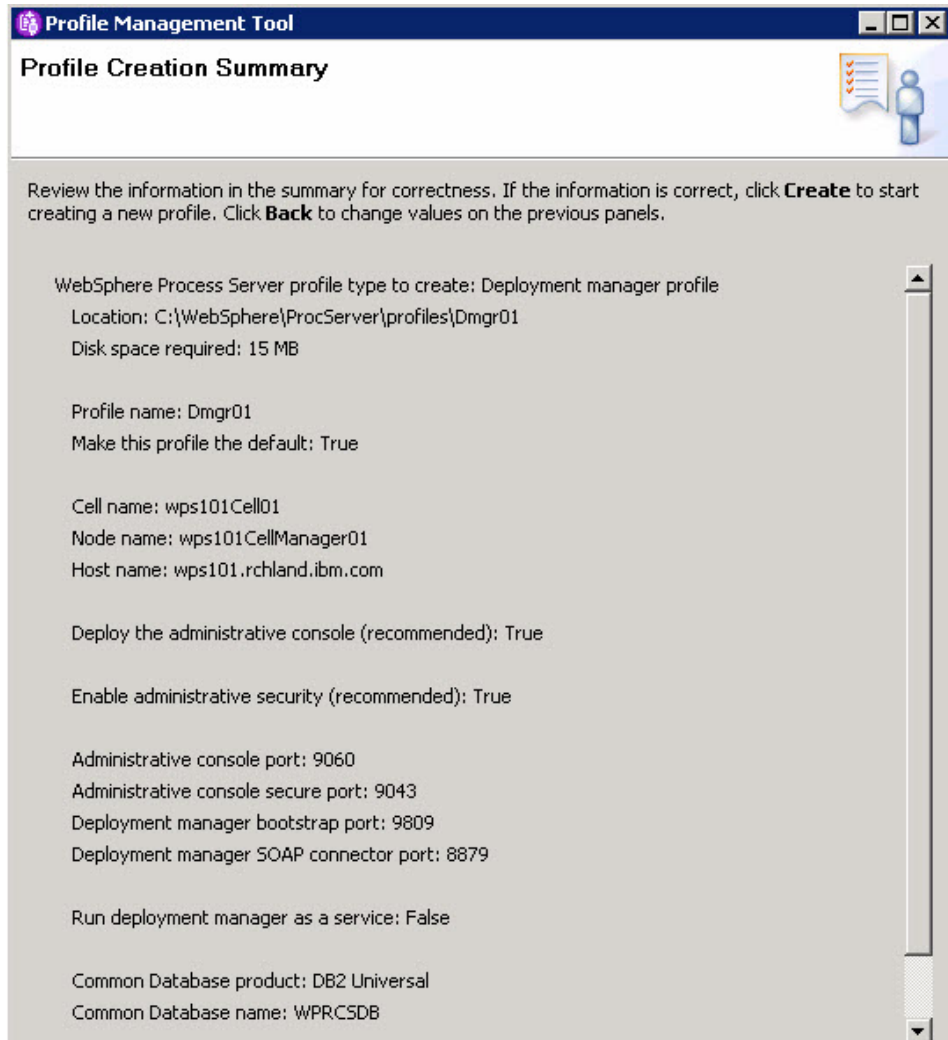


25. From the Database Configuration (Part 2) page enter a User name and Password and click Next.

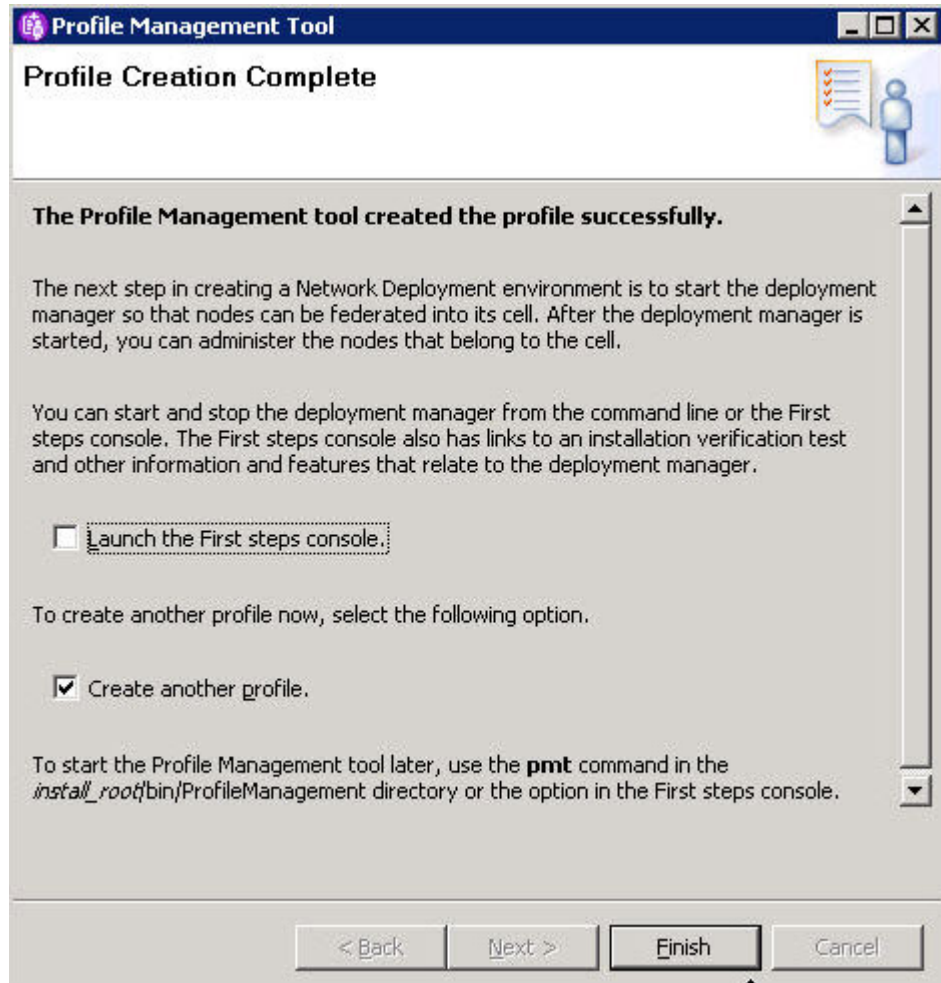




26. From the Profile Creation Summary page, read the information and click **Create**.



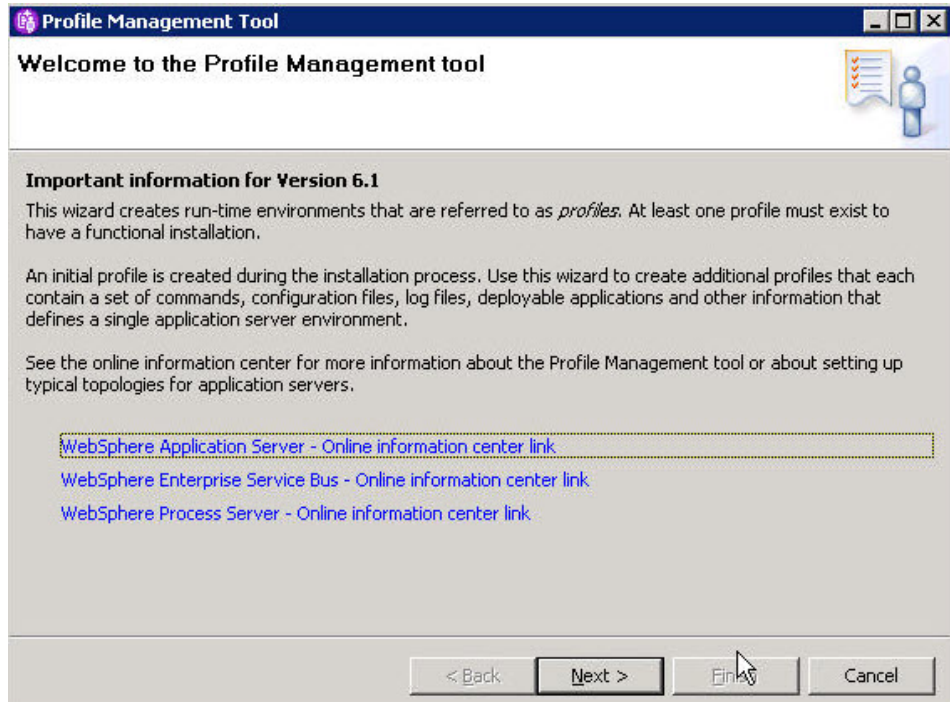
27. From the Profile Creation Complete page, uncheck **Launch First steps console**, check **Create another profile** and click **Finish**.



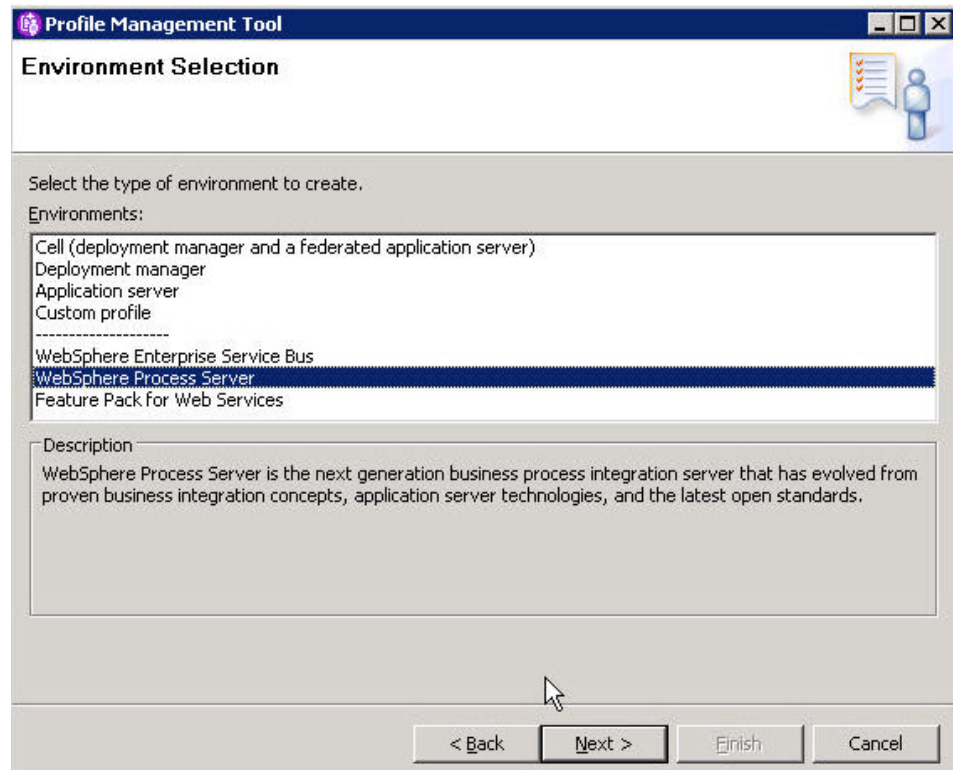
28. Copy the contents of the **WPRCSDB** directory to the database system.  
Example: copy C:\WebSphere\ProcServer\profiles\Dmgr01\dbscripts\CommonDB\DB2\WPRCSDB to the database system.
29. On the database machine run the command `configCommonDB.bat createDB`.  
DB20000I The CREATE DATABASE command completed successfully.  
Enter current password for db2admin:  
  
Database Connection Information  
  
Database server = DB2/NT 9.5.2  
SQL authorization ID = DB2ADMIN  
Local database alias = WPRCSDB  
  
DB20000I The SQL command completed successfully.  
DB20000I The SQL command completed successfully.  
DB20000I The SQL command completed successfully.  
...  
DB20000I The SQL command completed successfully
30. On the Deployment Manager system, start the Deployment Manager.

```
CA Command Prompt
C:\WebSphere\ProcServer\bin>startManager
ADMU0116I: Tool information is being logged in file
           C:\WebSphere\ProcServer\profiles\Dmgr01\logs\dmgr\startServer.log
ADMU0128I: Starting tool with the Dmgr01 profile
ADMU3100I: Reading configuration for server: dmgr
ADMU3200I: Server launched. Waiting for initialization status.
ADMU3000I: Server dmgr open for e-business; process id is 192
```

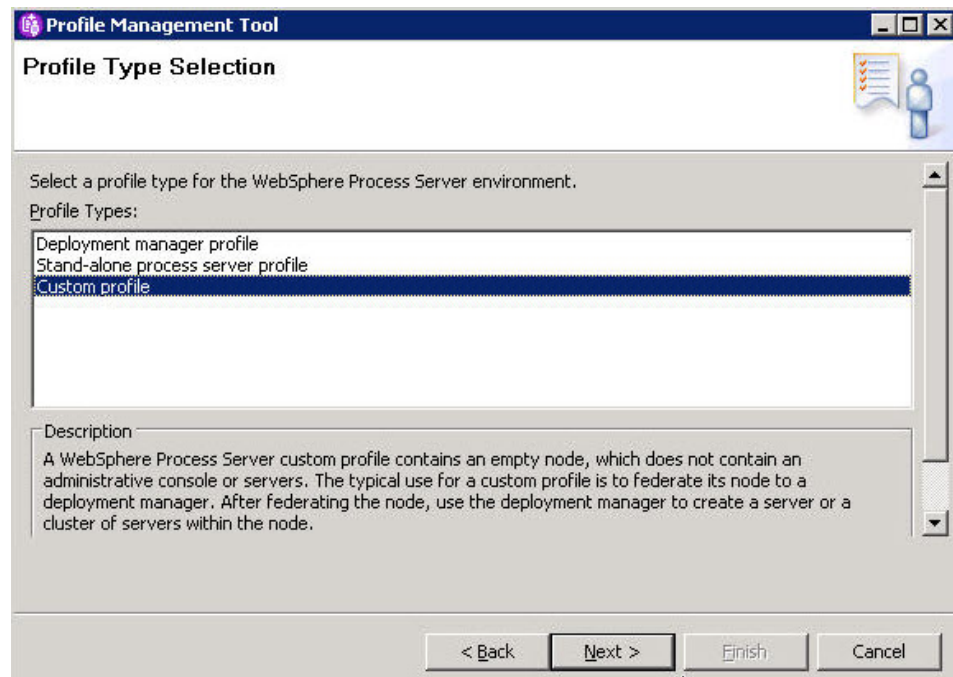
31. From the Welcome to the Profile Management page, click Next.



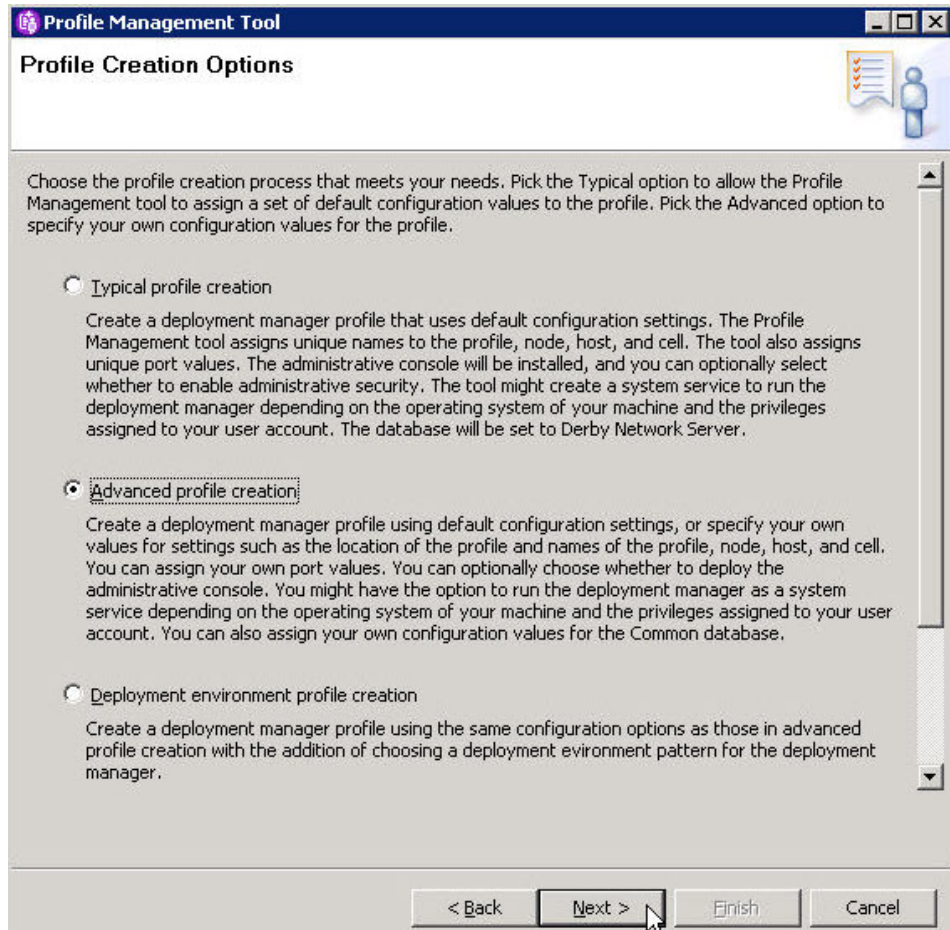
32. From the Environment Selection page, select **WebSphere Process Server** as your environment and click **Next**.



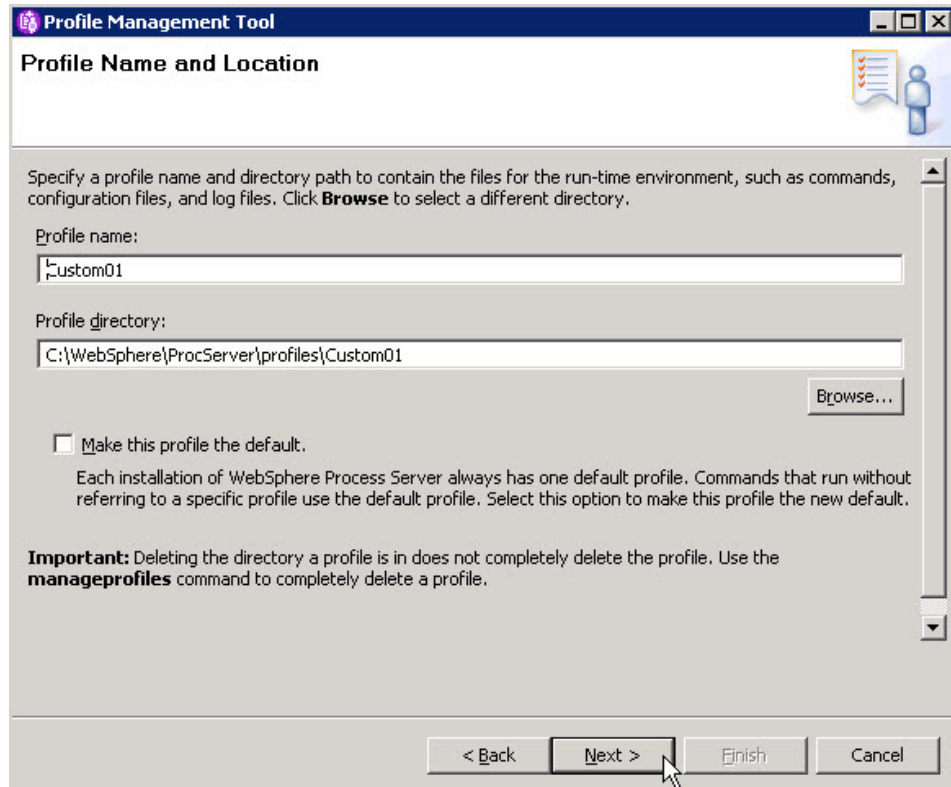
33. From the Profile Type Selection page, select **Custom profile** and click Next.



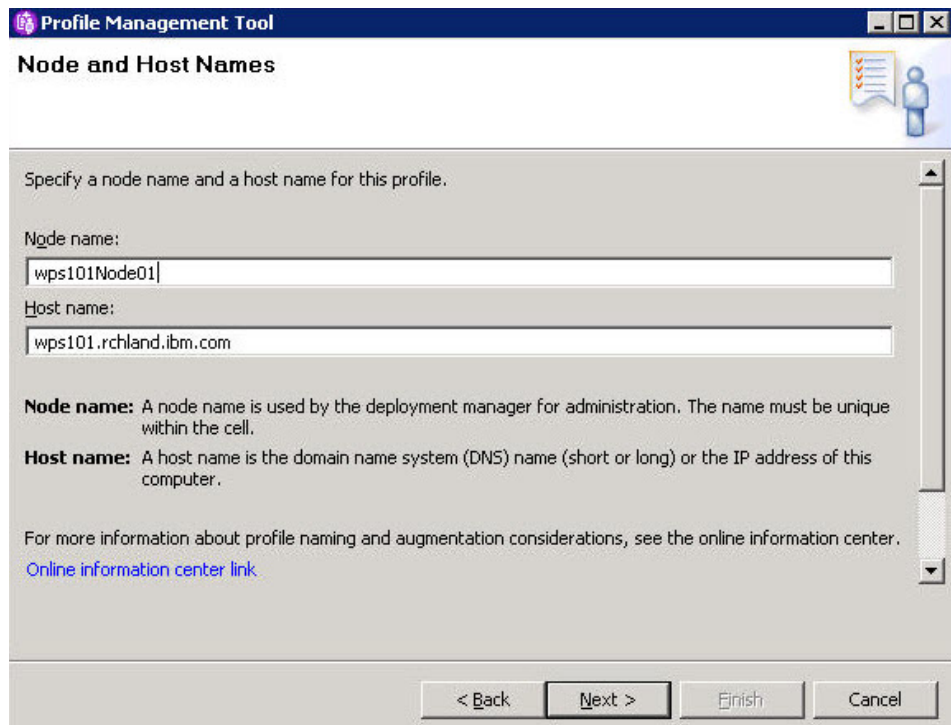
34. From the Profile Creation Options page, select the option for **Advanced profile creation** and click Next.



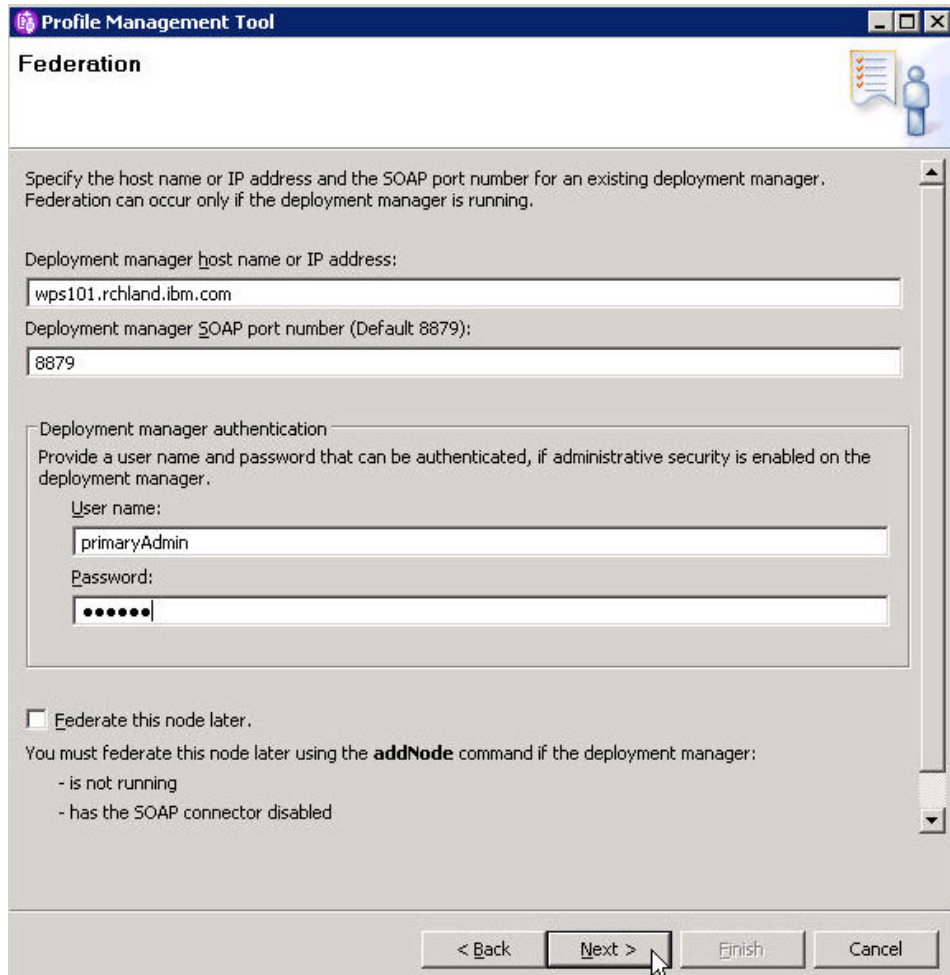
35. From the Profile Name and Location page, enter a name in the Profile name field, choose the directory into which you will install the profile and click **Next**.



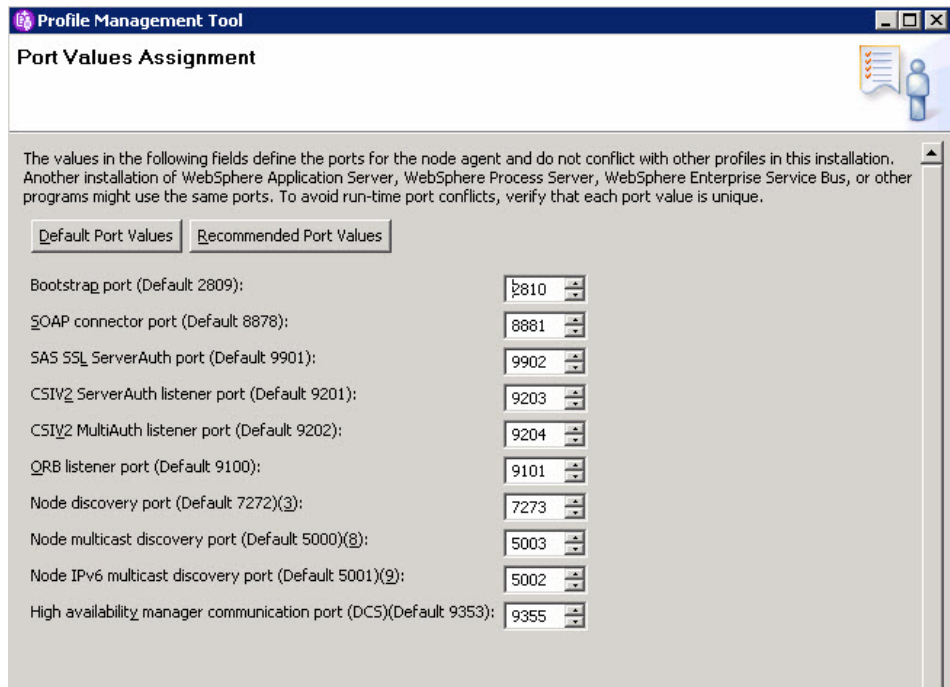
36. From the Node and Host Names page, enter name values for Node and Host click Next.



37. From the Federation page, enter **Deployment manager host name**, **User name**, **Password** and click Next.



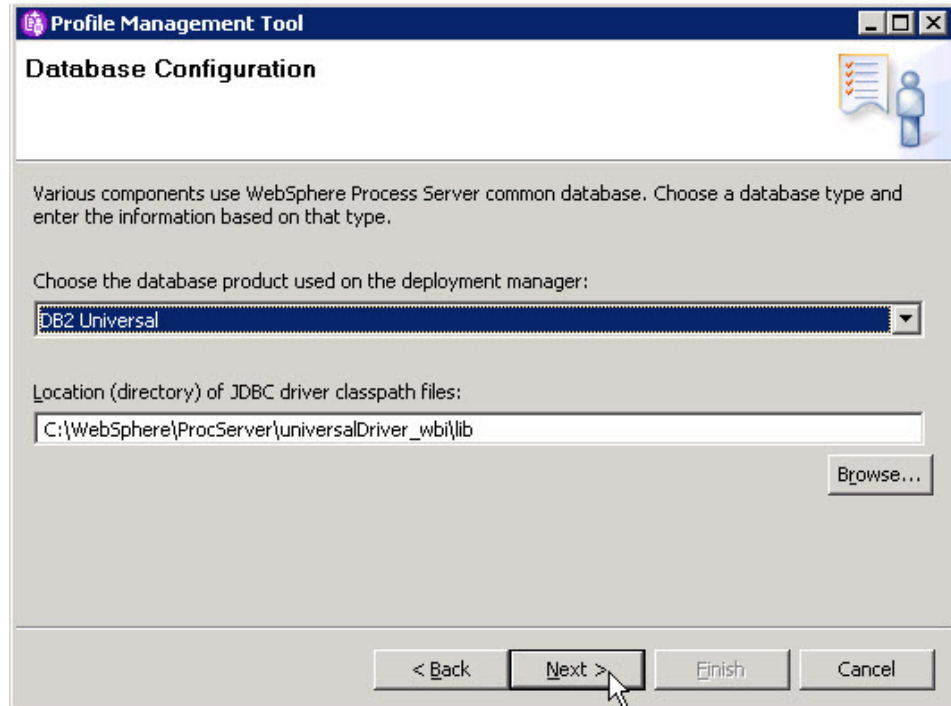
38. From the Port Values Assignment page, click **Next**.



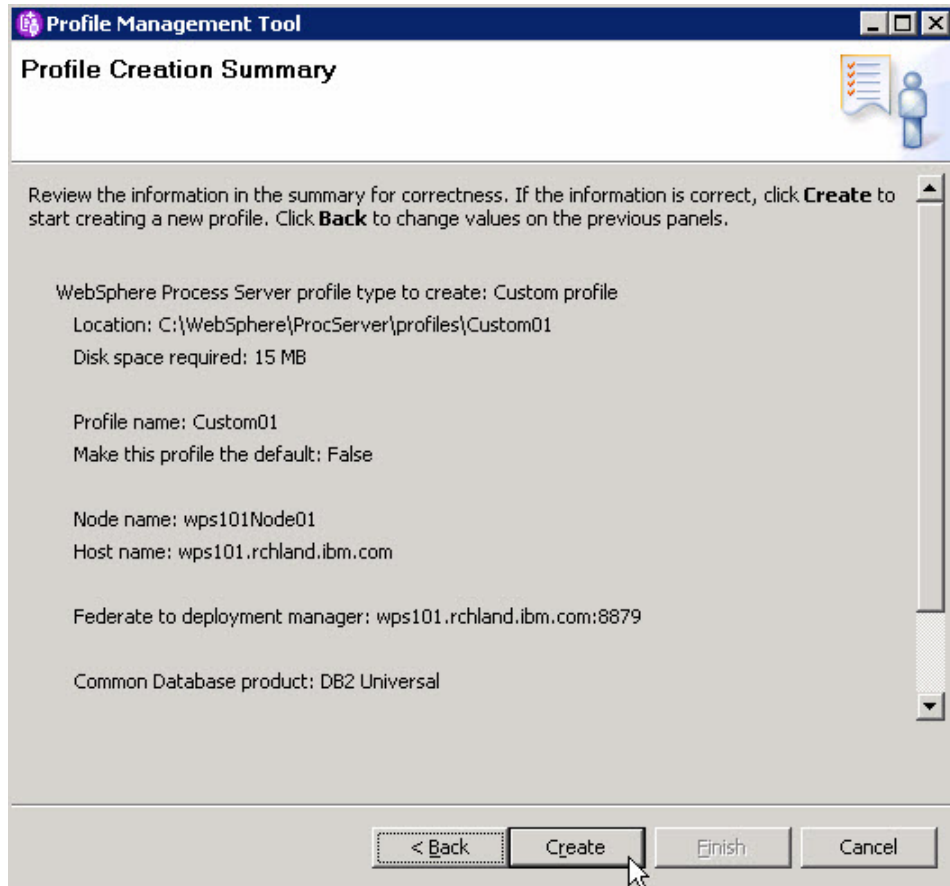


39. From the Database Configuration page, make your database configuration selections.

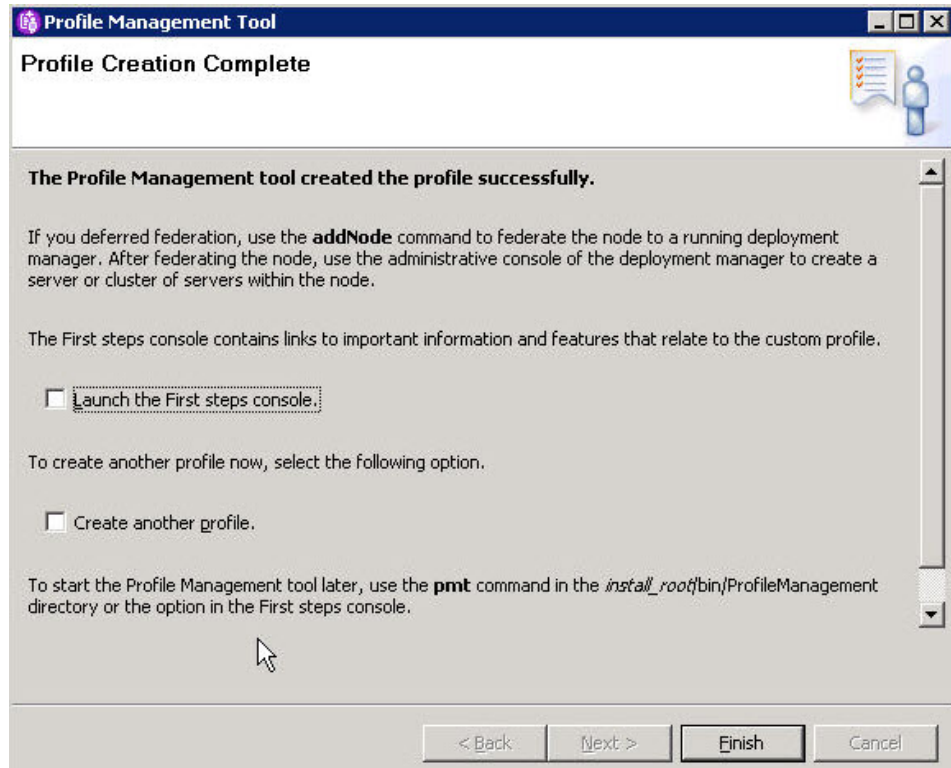
Select **DB2 Universal** as the database product used on the deployment manager, browse to the **Location (directory) of JDBC driver classpath files** and click **Next**.



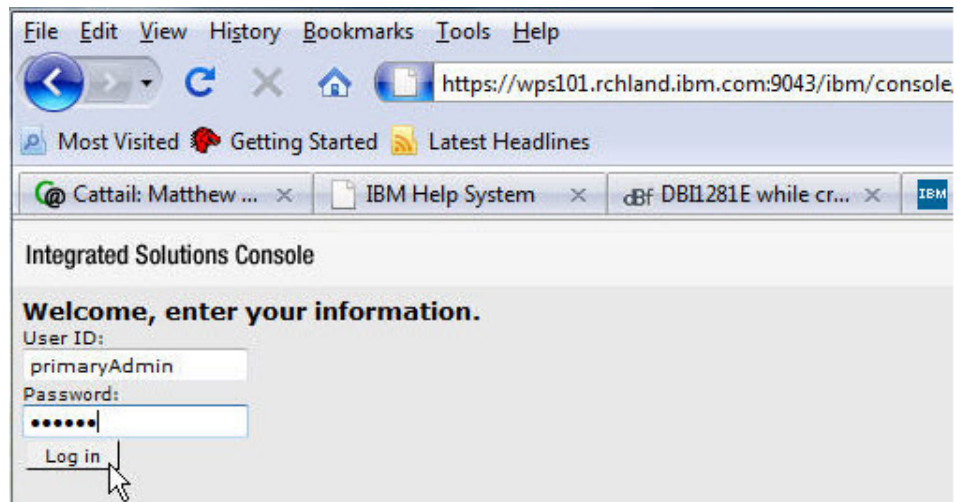
40. From the Profile Creation Summary page, read the information on the custom profiled and click **Create**.



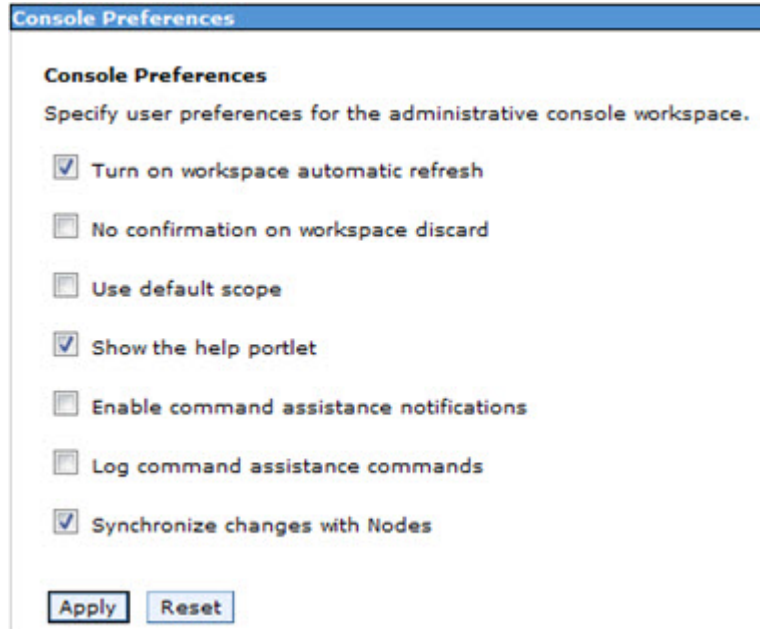
41. From the Profile Creation Complete page, uncheck **Launch First steps**, check **Create another profile** and click **Finish**.



42. Login to the Administrative console.  
Enter a user ID and password and click **Login**.



43. From within the Administrative console, expand **System administration** and select **Console Preferences**.
44. Select **Synchronize changes with Nodes** and click **Apply**.



You have installed WebSphere Process Server.

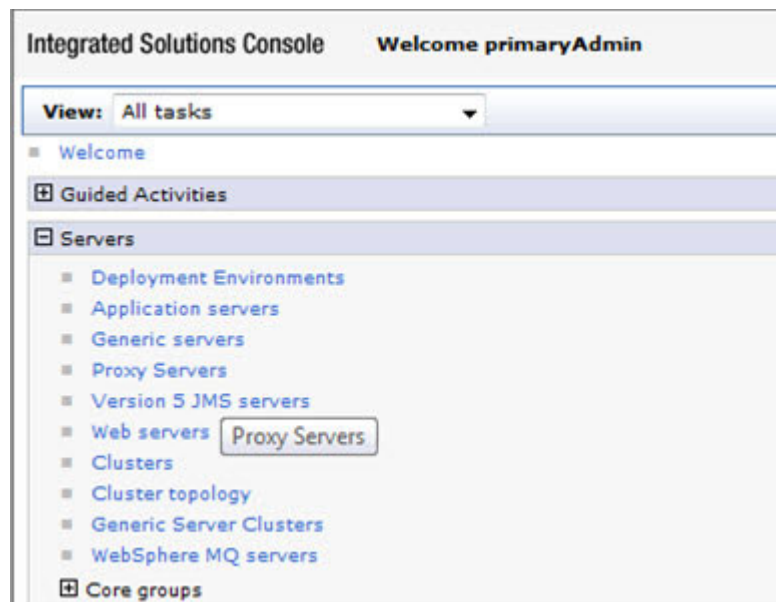
You are now ready to create a proxy server.

#### Creating a proxy server:

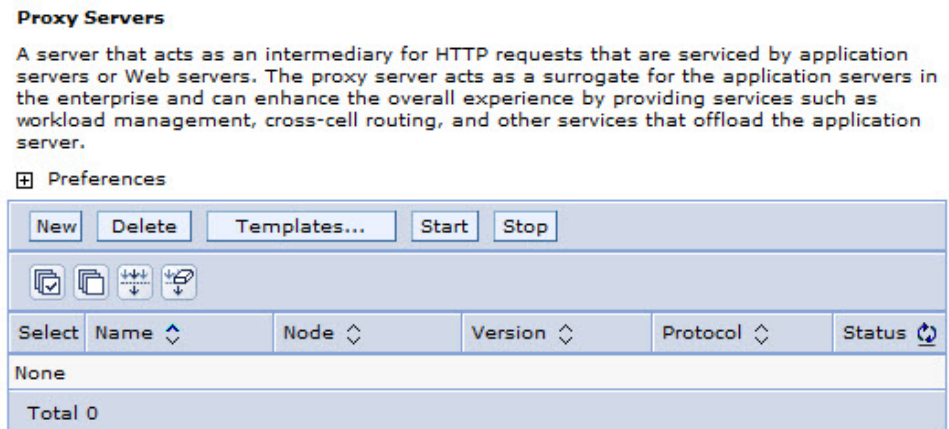
This topic provides information to create and configure a proxy server.

The proxy server routes requests to application server nodes. The proxy server can dynamically route requests to all on-demand configuration (ODC) enabled application servers without additional configuration

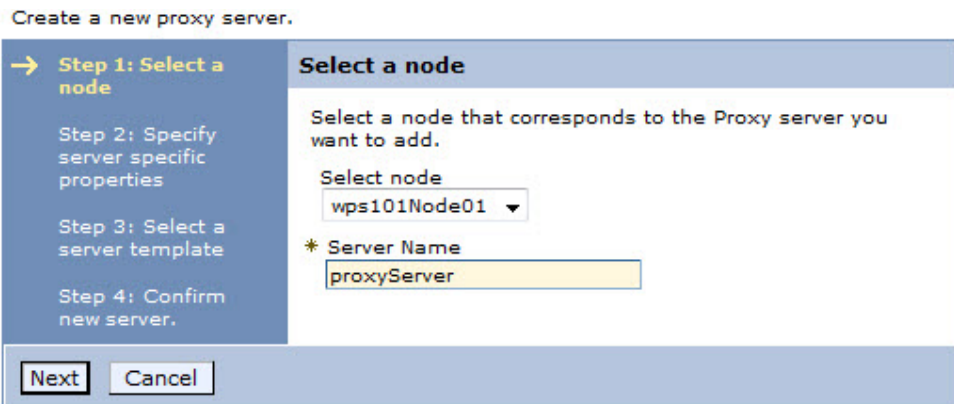
1. Create a proxy server in the administrative console by clicking **Servers** → **Proxy Servers**.



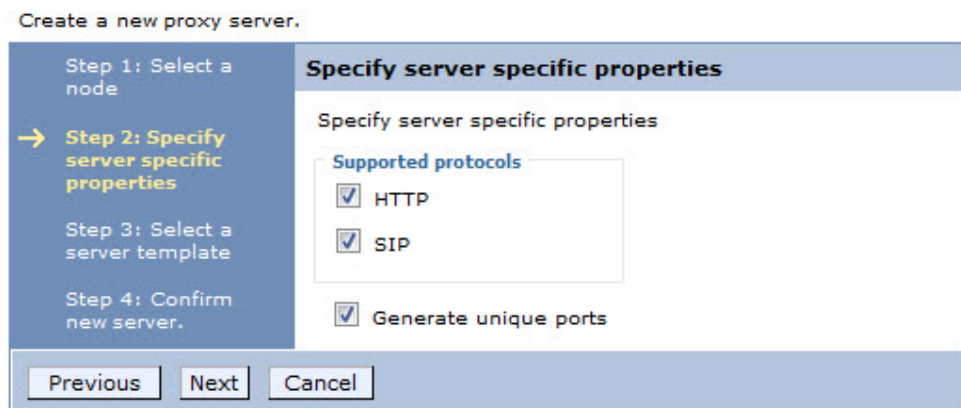
- From the Proxy Servers page click **New**.



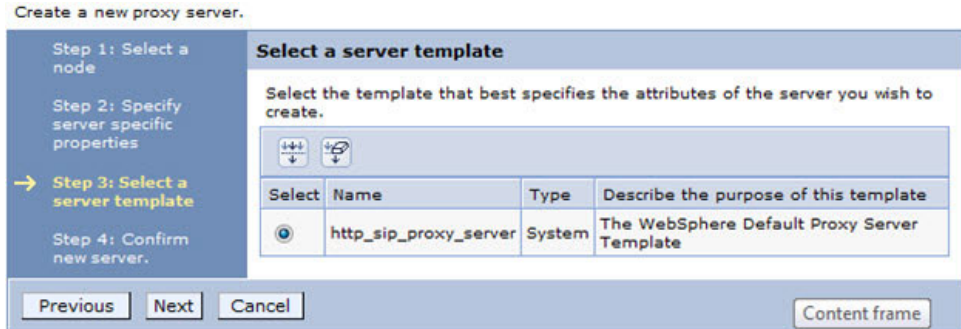
- From the Select a Node page, enter a value for **Server Name** and click **Next**.



- From the Specify server-specific properties page, accept the selected supported protocols and click **Next**.



- From the Select a server template page, click **Next**.



6. From the Confirm a new server page, click **Finish**.



7. Click **Save** and **OK**.

Now you need to configure security.

### Configuring security:

You must address several issues prior to authenticating users, authorizing access to resources, securing applications, and securing communications.

1. Configure the Deployment Manager with your Corporate LDAP server.  
For information on configuring security for WebSphere Process Server, see Configuring WebSphere Process Server security for a deployment environment server in the WebSphere Process Server information center.
2. After configuring the Deployment Manger with your Corporate LDAP server, expand System administration and click **Nodes**.
3. Select the **Custom Node** and click **Full Resynchronize**.
4. Navigate to System administration and click **Node agents**.
5. Stop the Node Agent.

### Node agents

Use this page to manage node agents and application servers on the node that a node agent manages. The node agent process serves as an intermediary between the application servers on the node and the deployment manager. The node agent process runs on every node and is specialized to perform node-specific administration functions, such as server process monitoring, configuration synchronization, file transfer, and request routing.

#### Preferences

Select	Name	Node	Version	Status
<input checked="" type="checkbox"/>	nodeagent	wps101Node01	ND 6.1.0.21 Process Choreographer 6.2.0.0 WPS 6.2.0.0 WS FEP 6.1.0.21	Running

Total 1

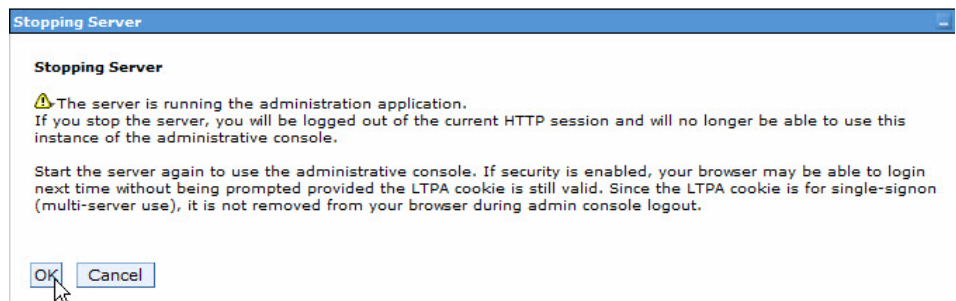
6. Navigate to System administration and click **Deployment manager**.
7. Stop the Deployment Manager.

### Deployment manager

Use this page to stop the deployment manager from running, and to link to other pages which you can use to define additional properties for the deployment manager. The deployment manager provides a single, central point of administrative control for all elements of the WebSphere(R) Application Server distributed cell.



8. Click **OK**.



9. Start the Deployment Manager for Corporate LDAP to be accessible.
10. Start Node Agent.
11. Create groups in your corporate repository.
  - ITAdministrator
  - BusinessLeader
  - BusinessUser

- ProcessOwner
12. Login to the administrative console: `http://<hostname:9060/ibm/console`
  13. Expand **Users and Groups**.
  14. Click **Manage Groups**.



15. Create the following groups as shown below:

Select	Group name	Description	Unique Name
<input type="checkbox"/>	<a href="#">BusinessLeader</a>	Administration actions related to the business of applications.	cn=BusinessLeader,o=defaultWIMFileBasedRealm
<input type="checkbox"/>	<a href="#">BusinessUser</a>	Business User Actions of Application	cn=BusinessUser,o=defaultWIMFileBasedRealm
<input type="checkbox"/>	<a href="#">ITAdministrator</a>	Administration functions of the WebSphere infrastructure.	cn=ITAdministrator,o=defaultWIMFileBasedRealm
<input type="checkbox"/>	<a href="#">ProcessOwner</a>	AdministrativeActions related to the business of Application.	cn=ProcessOwner,o=defaultWIMFileBasedRealm

Page 1 of 1 Total: 4

16. Click **Manage Users**.
17. Create the following users (During user creation map click Group Membership and map the user to the appropriate group).

Select	User ID	First name	Last name	E-mail	Unique Name
<input type="checkbox"/>	<a href="#">BusinessLeader1</a>	Business	Leader1		uid=BusinessLeader1,o=defaultWIMFileBasedRealm
<input type="checkbox"/>	<a href="#">BusinessLeader2</a>	Business	Leader2		uid=BusinessLeader2,o=defaultWIMFileBasedRealm
<input type="checkbox"/>	<a href="#">BusinessUser1</a>	Business	User1		uid=BusinessUser1,o=defaultWIMFileBasedRealm
<input type="checkbox"/>	<a href="#">BusinessUser2</a>	Business	User2		uid=BusinessUser2,o=defaultWIMFileBasedRealm
<input type="checkbox"/>	<a href="#">ITAdministrator1</a>	IT	Administrator1		uid=ITAdministrator1,o=defaultWIMFileBasedRealm
<input type="checkbox"/>	<a href="#">ITAdministrator2</a>	IT	Administrator2		uid=ITAdministrator2,o=defaultWIMFileBasedRealm
<input type="checkbox"/>	<a href="#">ProcessOwner1</a>	Process	Owner1		uid=ProcessOwner1,o=defaultWIMFileBasedRealm
<input type="checkbox"/>	<a href="#">ProcessOwner2</a>	Process	Owner2		uid=ProcessOwner2,o=defaultWIMFileBasedRealm

Page 1 of 1 Total: 8

18. Expand **Users and Groups** and click **Administrative Group Roles**.

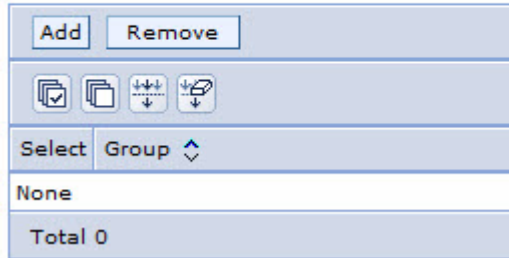


19. From the Administrative Group Roles, click **Add**.



### Administrative Group Roles

Use this page to add, update or to remove a through the administrative console or through

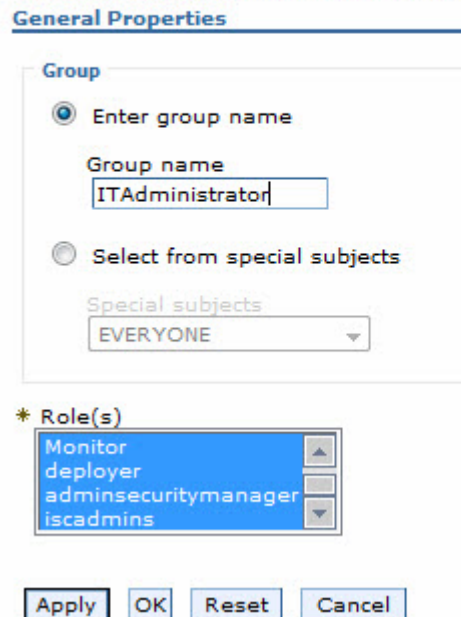


The interface includes an 'Add' button and a 'Remove' button. Below these are icons for selection (checkbox), copy, move, and help. A 'Select' dropdown menu is set to 'Group'. At the bottom, it shows 'None' and 'Total 0'.

20. Enter group name ITAdministrator, and select all options in **Role(s)** and click OK.

### Administrative Group Roles > Group

Use this page to add, update or to remove through the administrative console or th



The 'General Properties' section has two radio buttons: 'Enter group name' (selected) and 'Select from special subjects'. The 'Group name' field contains 'ITAdministrator'. The 'Special subjects' dropdown is set to 'EVERYONE'. The '\* Role(s)' list includes 'Monitor', 'deployer', 'adminsecuritymanager', and 'iscadmins'. At the bottom are 'Apply', 'OK', 'Reset', and 'Cancel' buttons.

21. Click **Save** and **OK**.

Now you can install WebSphere Process Server and create a profile on system 2.

## Installing WebSphere Process Server and creating a profile for system 2

A clustered WebSphere Dynamic Process Edition requires that you install and configure WebSphere Process Server in a clustered environment.

Ensure the system clocks are within 5 minutes of system 1 on system 2 and system 3 before proceeding with the installation.

Federation of the Custom profile on system 2 will fail if the system 2 system clock is not within 5 minutes of the system clock of system 1 where the deployment manager resides.

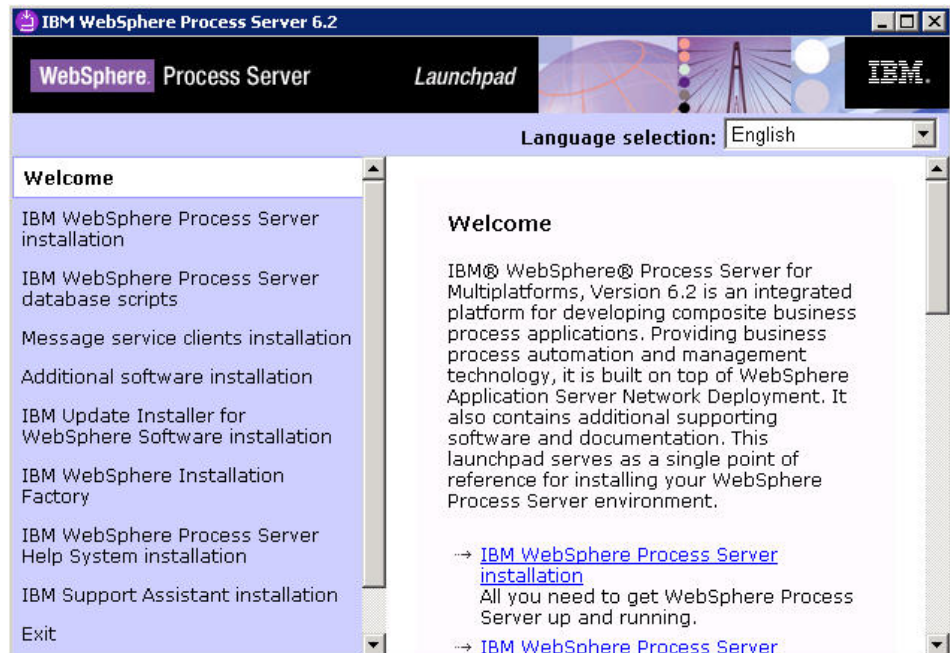
You should have installed WebSphere Process Server on system 1.

This task describes how to install WebSphere Process Server on System 2 and create the profile.

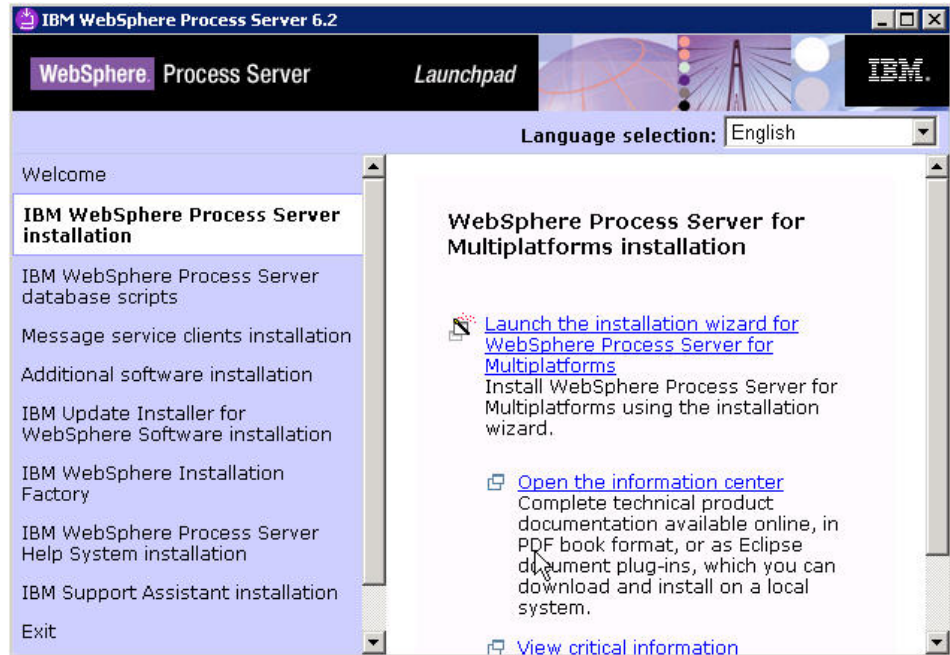
The screen captures are included to make it easier to follow the step instructions.

The step instructions are included to provide the specific task you need to perform and any information needed to perform the task (such as directory locations, parameters to enter, etc.)

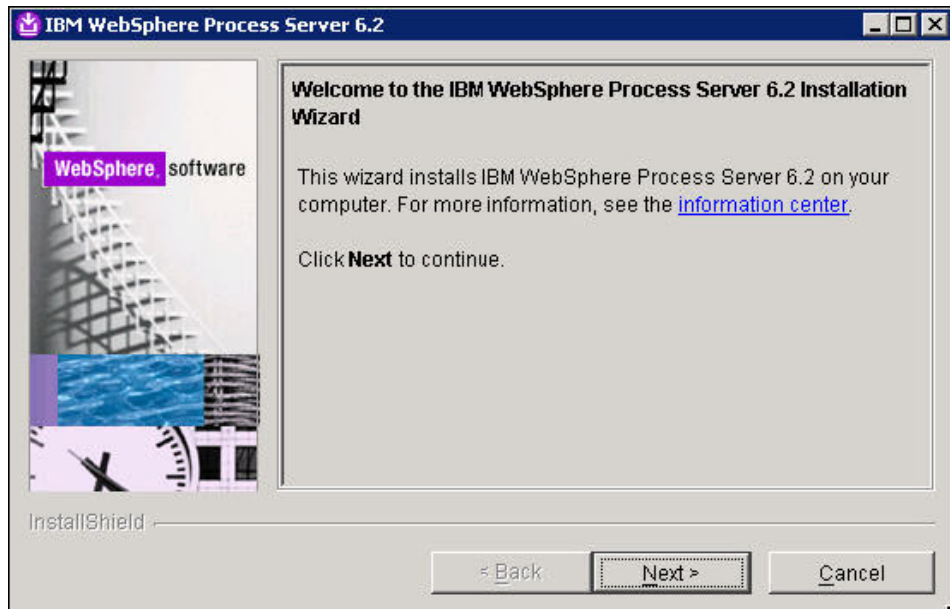
1. From the WebSphere Process Server driver directory, run launchpad.exe.
2. From the WebSphere Process Server Launch pad page, select **IBM WebSphere Process Server installation**.



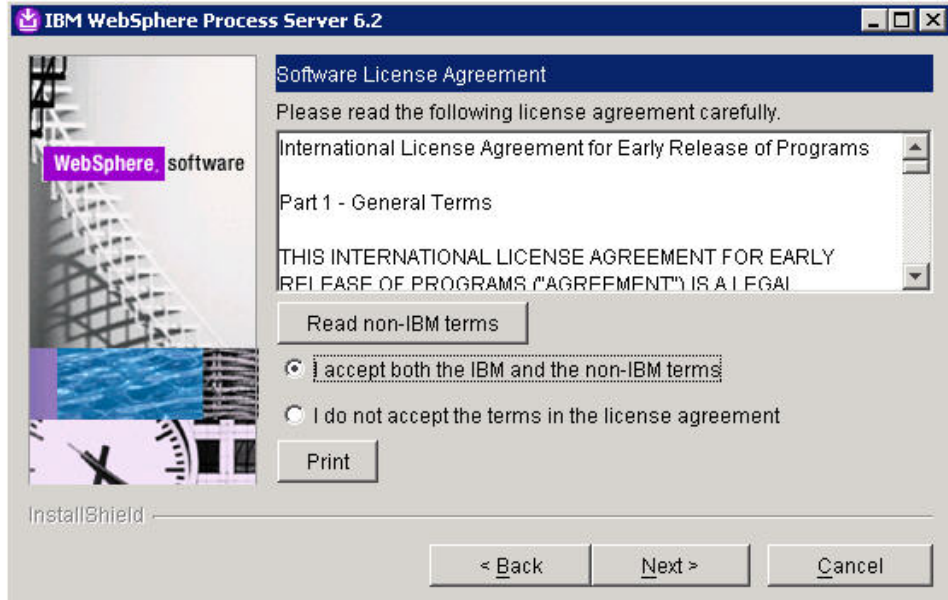
3. Select **Launch the Installation wizard for WebSphere Process Server for Multiplatforms**.



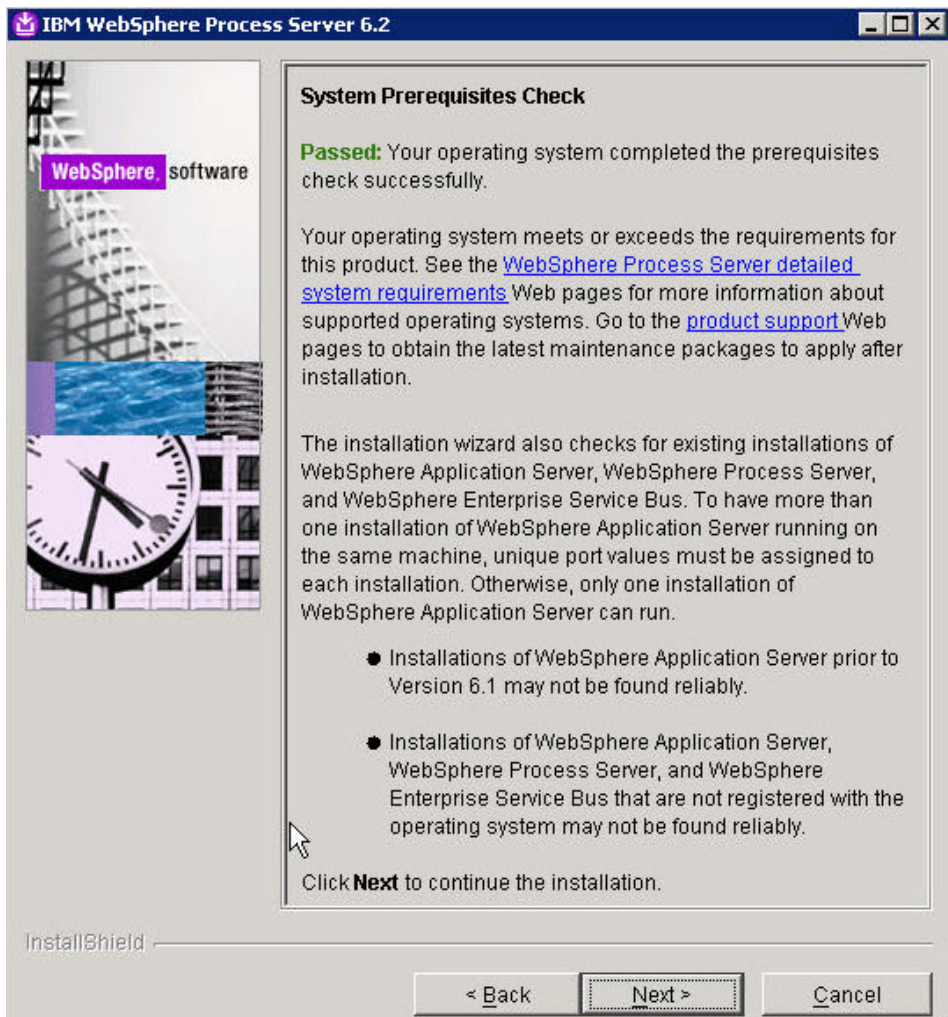
4. From the Welcome to the WebSphere Process Server Installation wizard page, click Next.



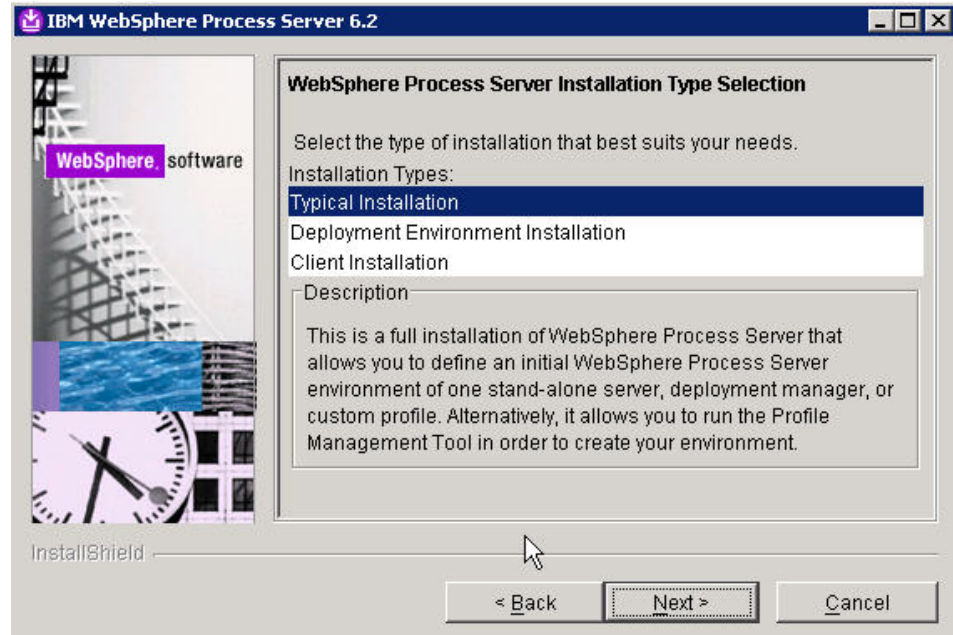
5. From the Software license agreement page, accept the terms and click Next.



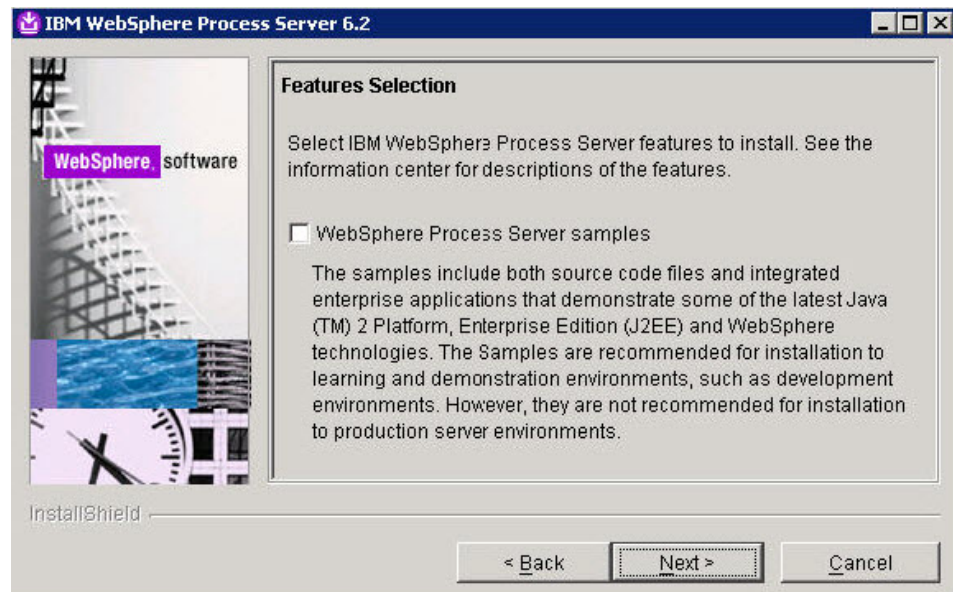
6. From the System Prerequisites check page, click Next.



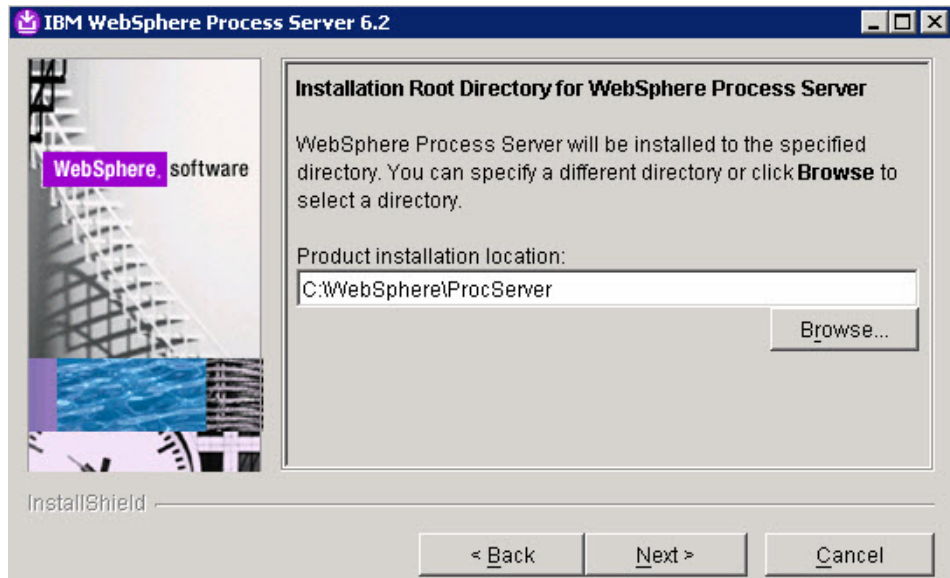
- From the WebSphere Process Server Installation Type Selection page, select **Typical installation** and click **Next**.



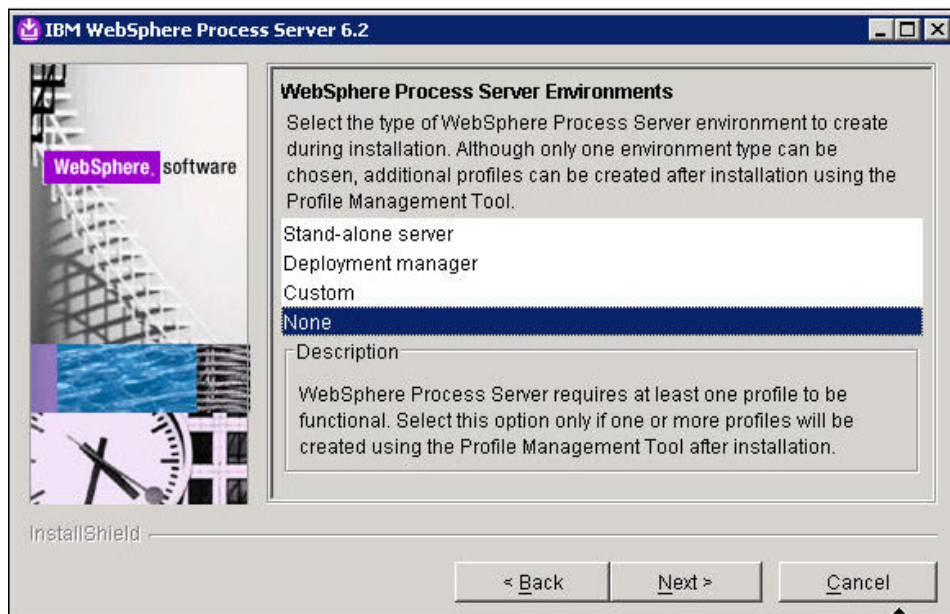
- From the Features Selection page, click **Next**.



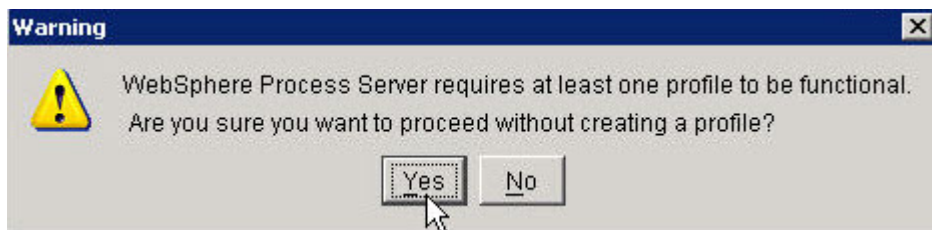
- From the WebSphere Process Server product location directory page, accept the default directory into which WebSphere Process Server will be installed, or browse to a directory of your choice and then click **Next**.



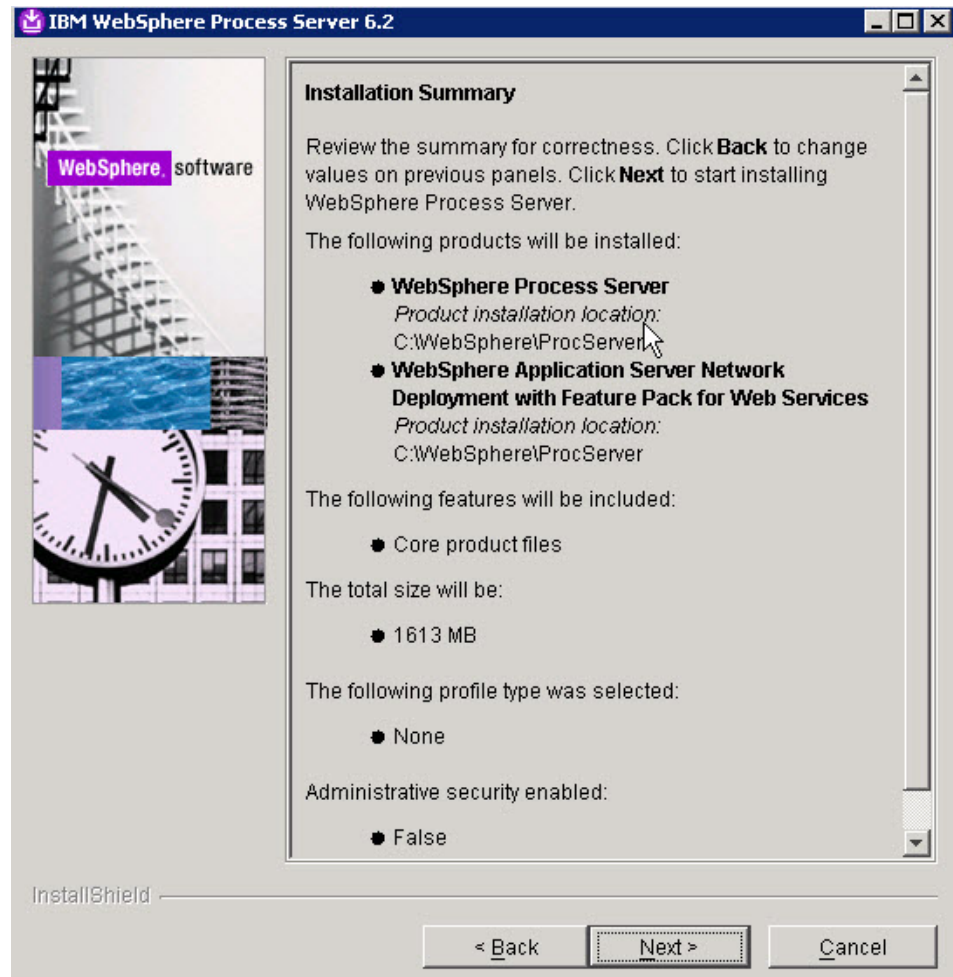
10. From the WebSphere Process Server Environments page, select **None** and click **Next**.



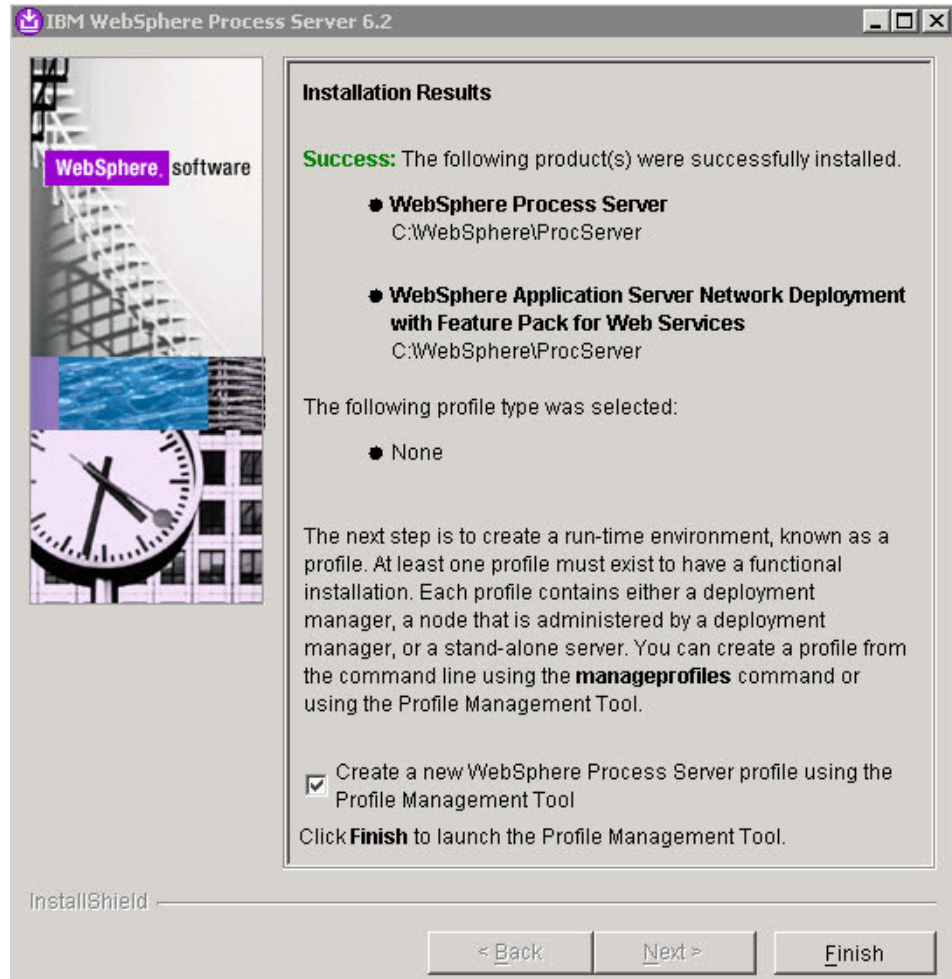
11. From Warning dialog, select **Yes**.



12. From the Installation Summary page review the information on what products will be installed and click **Next**.

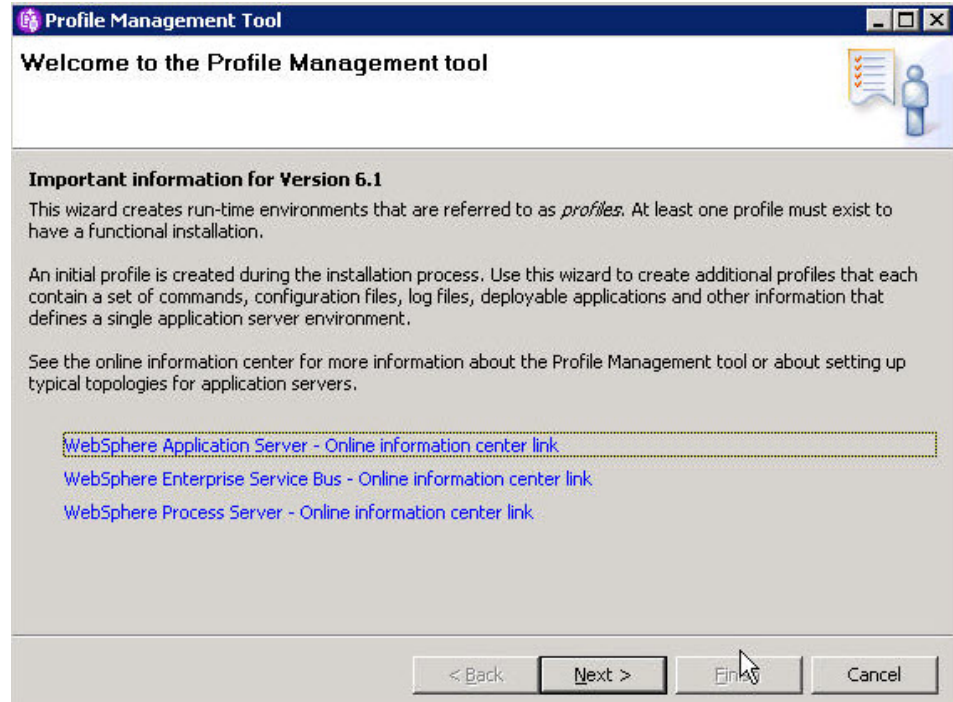


13. From the Installation Results page, make sure the option for **Creating a new WebSphere Process Server profile using the Profile Management Tool** is checked and click **Finish**.

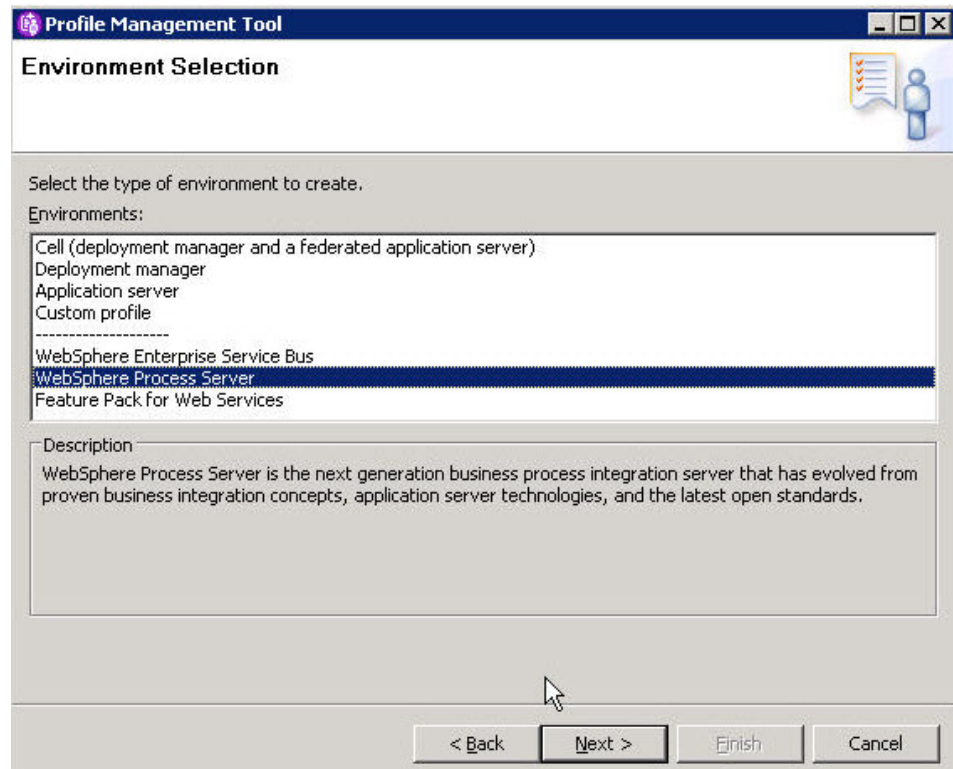


14. From the Profile Management Welcome page, read the information on Profiles and select **Next**.

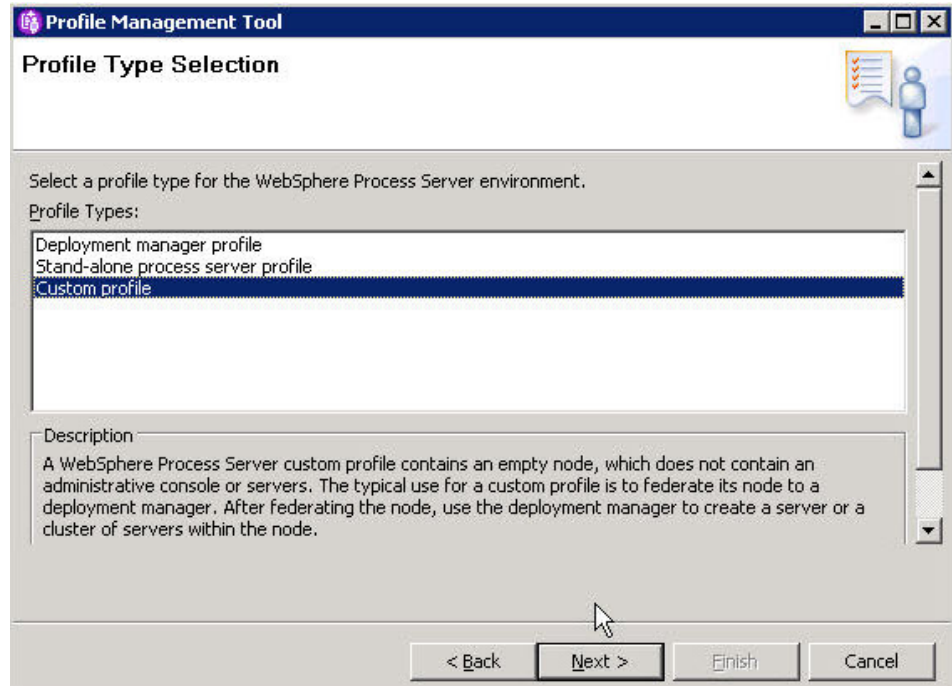




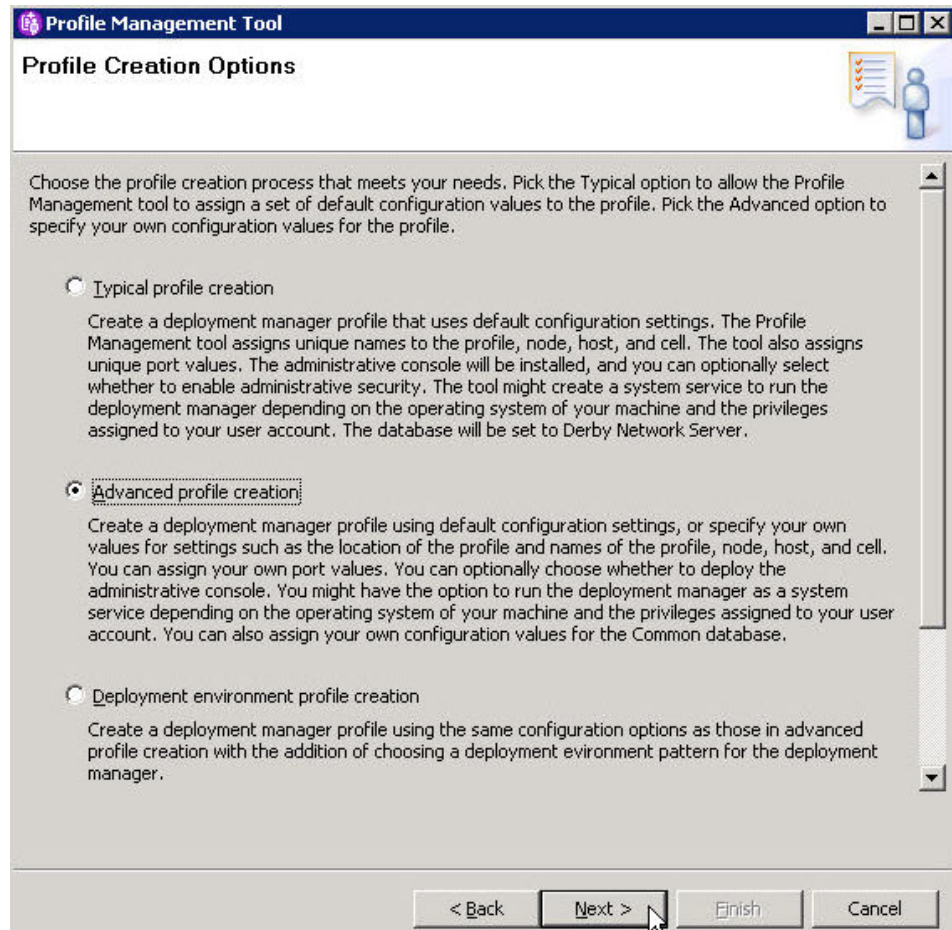
15. From the Environment Selection page, select **WebSphere Process Server** as your environment and click **Next**.



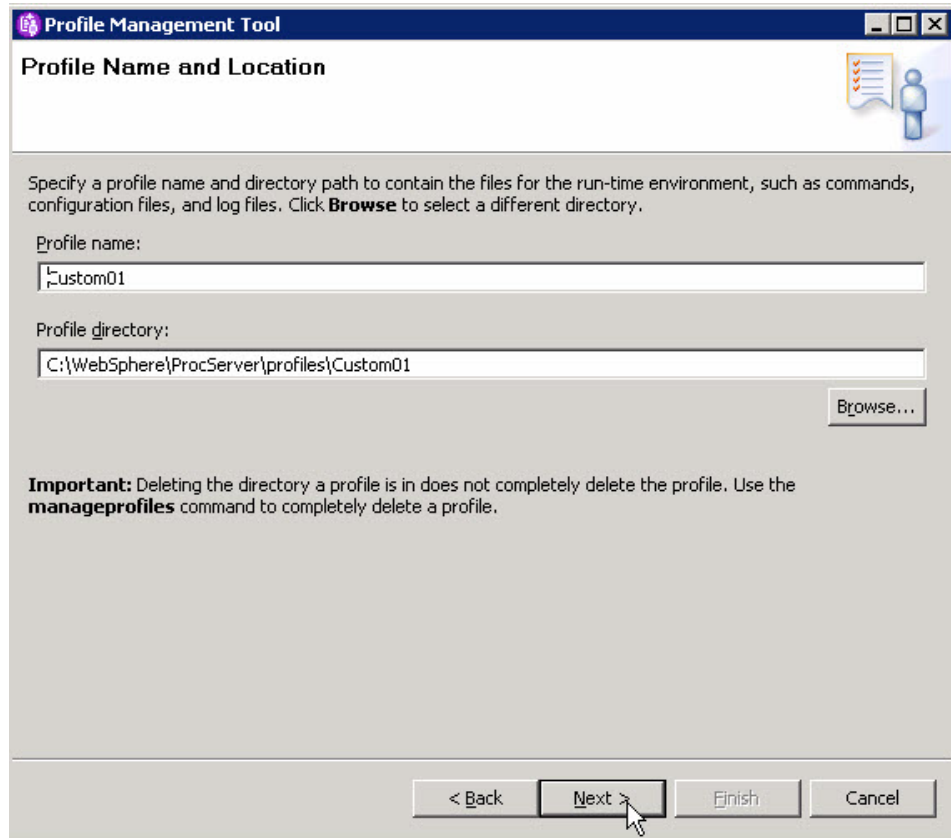
16. From the Profile Type Selection page, select **Deployment manager profile** and click **Next**.



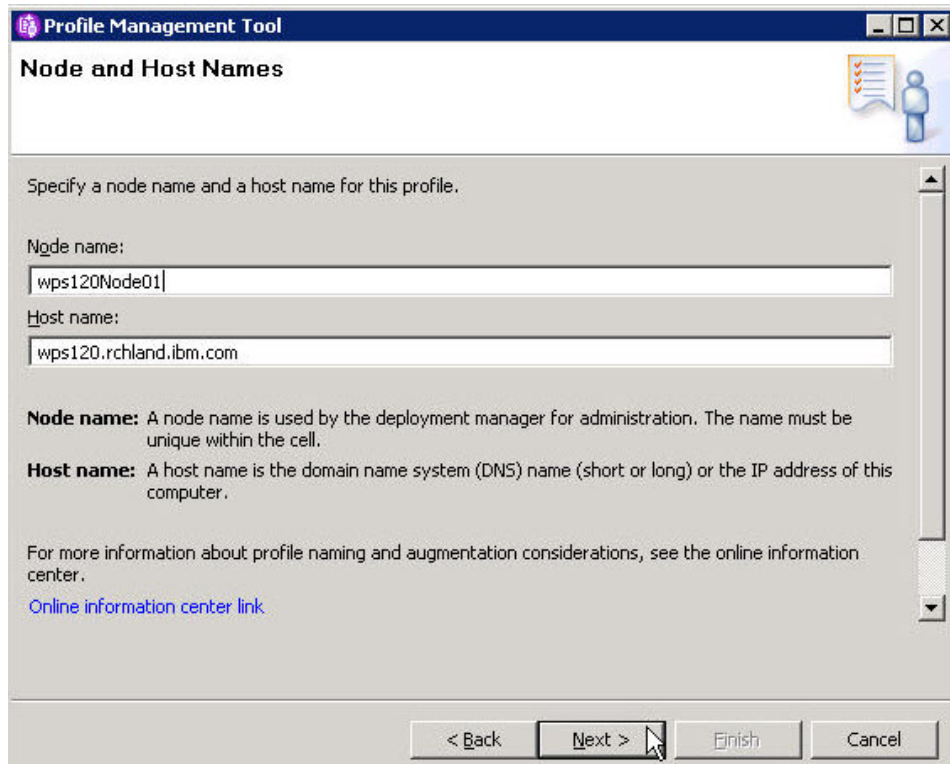
17. From the Profile Creation Options page, select the option for **Advanced profile creation** and click **Next**.



- From the Profile Name and Location page, enter a name in the Profile name field, choose the directory into which you will install the profile and click **Next**.



- From the Node and Host Names page, click **Next**.



20. From the Federation page, enter host name, User name, Password and click **Next**.

**Profile Management Tool**

### Federation

Specify the host name or IP address and the SOAP port number for an existing deployment manager.  
Federation can occur only if the deployment manager is running.

Deployment manager host name or IP address:

Deployment manager SOAP port number (Default 8879):

Deployment manager authentication  
Provide a user name and password that can be authenticated, if administrative security is enabled on the deployment manager.

User name:

Password:

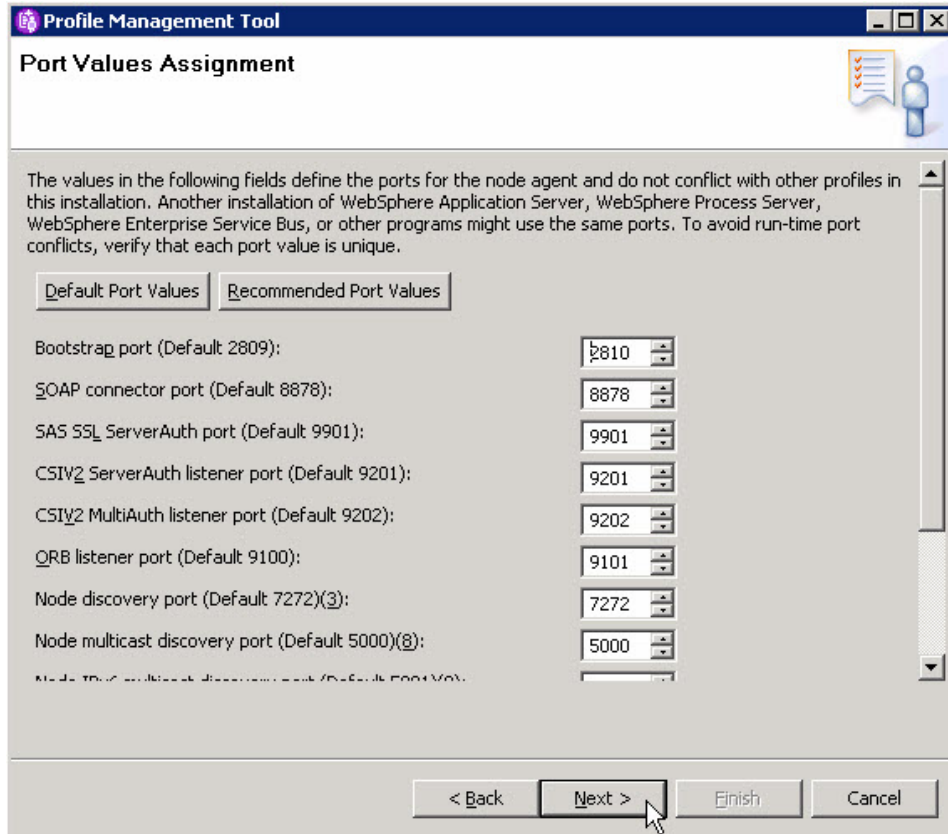
Federate this node later.

You must federate this node later using the **addNode** command if the deployment manager:

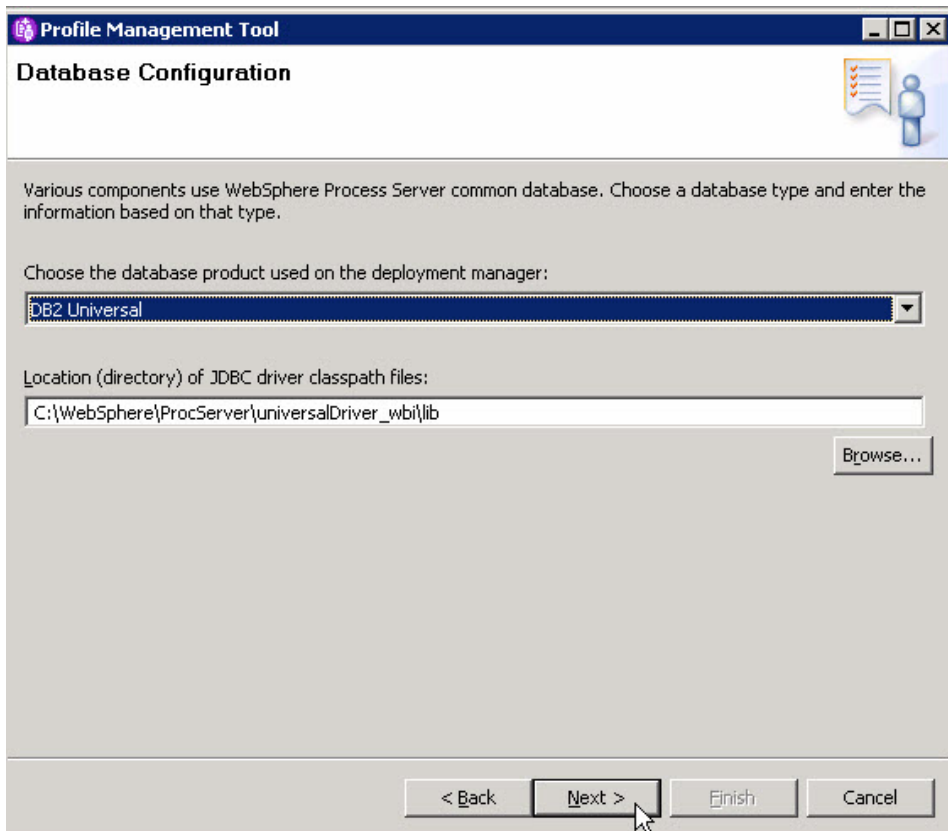
- is not running
- has the SOAP connector disabled

< Back   Next >   Finish   Cancel

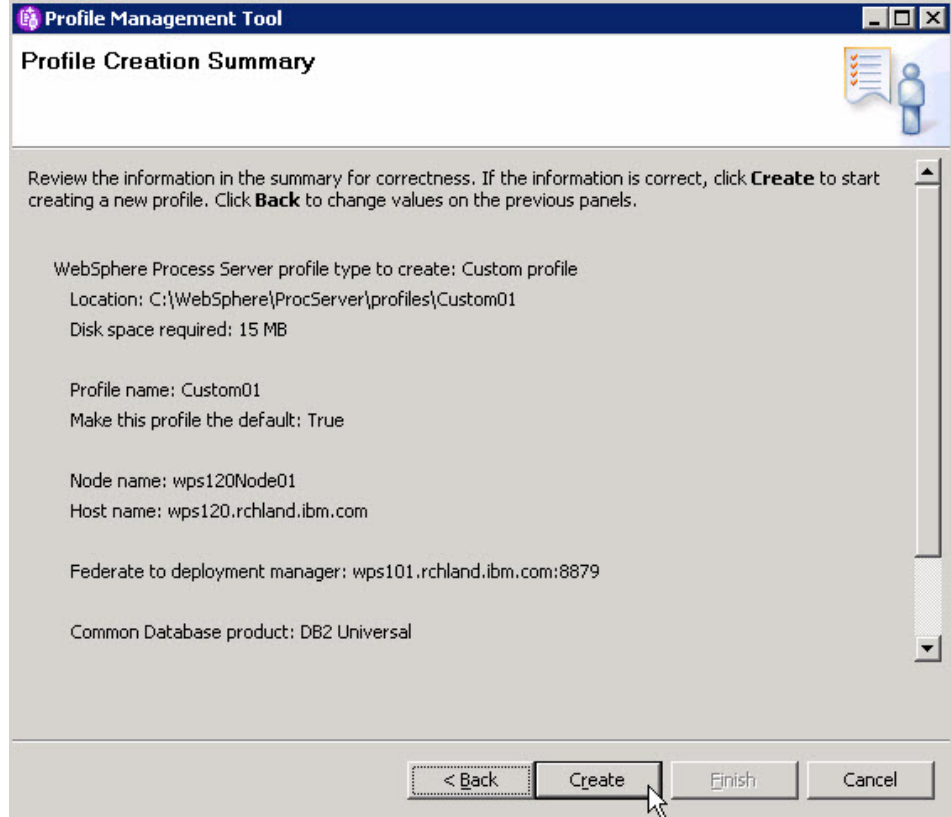
21. From the Port Values Assignment page, click **Next**.



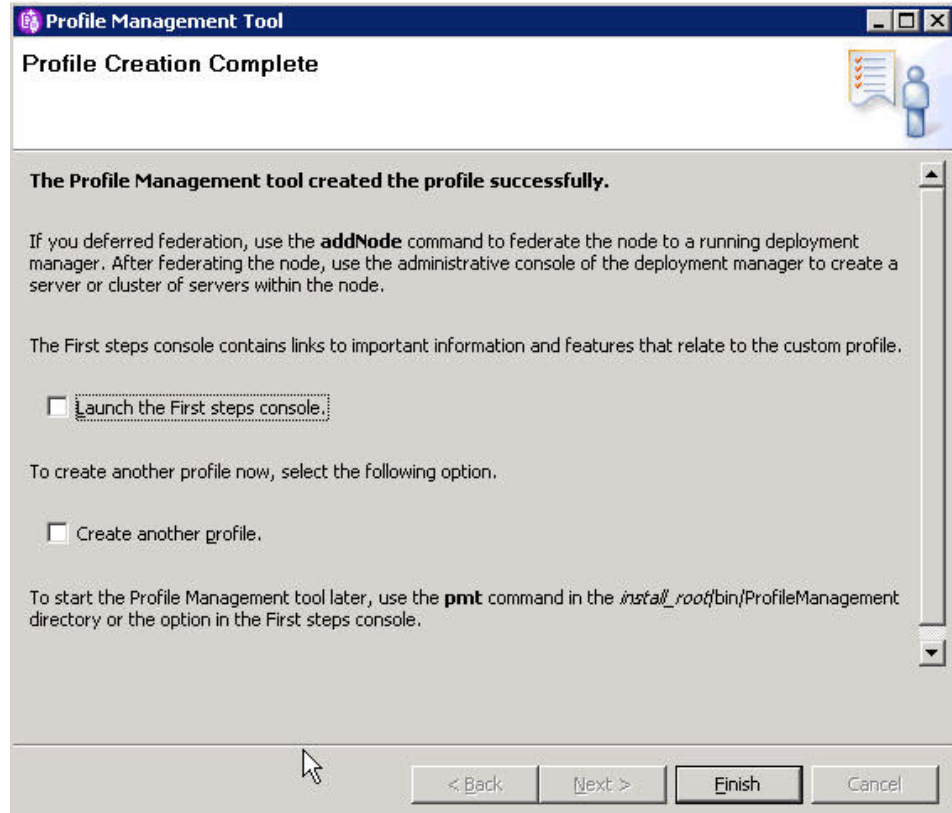
22. From the Database Configuration page, click Next.



23. From the Profile Creation Summary page, read the information and click **Create**.



24. From the Profile Creation Complete page, uncheck **Launch First steps** and click **Finish**.



Now you can install WebSphere Process Server and create a profile on system 3.

### Installing WebSphere Process Server and creating a profile for system 3

A clustered WebSphere Dynamic Process Edition requires that you install and configure WebSphere Process Server in a clustered environment.

Ensure the system clocks are within 5 minutes of node 1 on node 2 and node 3 before proceeding with the installation.

Federation of the Custom profile on node 2 will fail if the node 2 system clock is not within 5 minutes of the system clock of node 1 where the deployment manager resides.

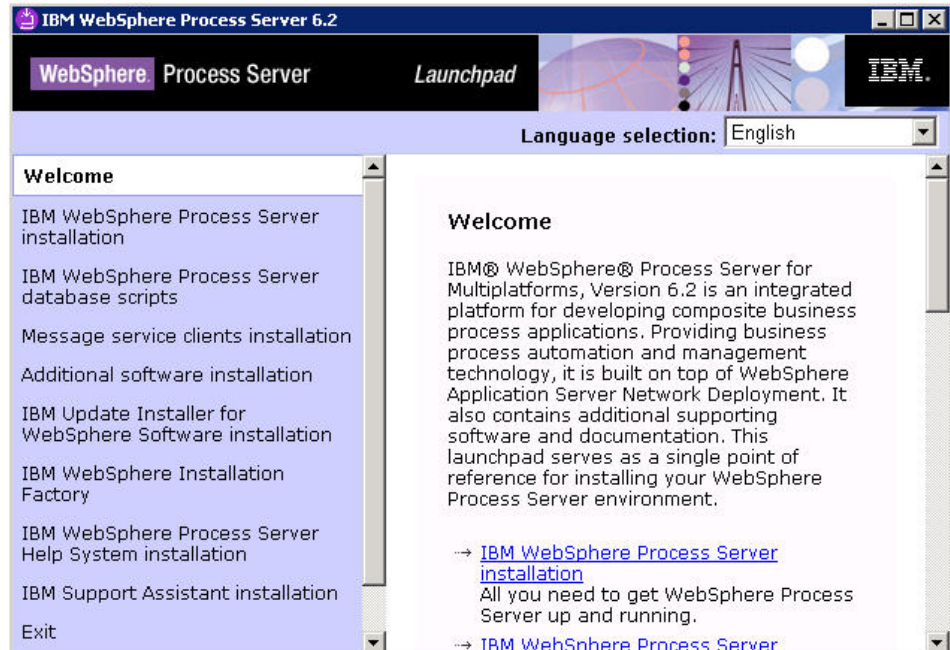
The screen captures are included to make it easier to follow the step instructions.

The step instructions are included to provide the specific task you need to perform and any information needed to perform the task (such as directory locations, parameters to enter, etc.)

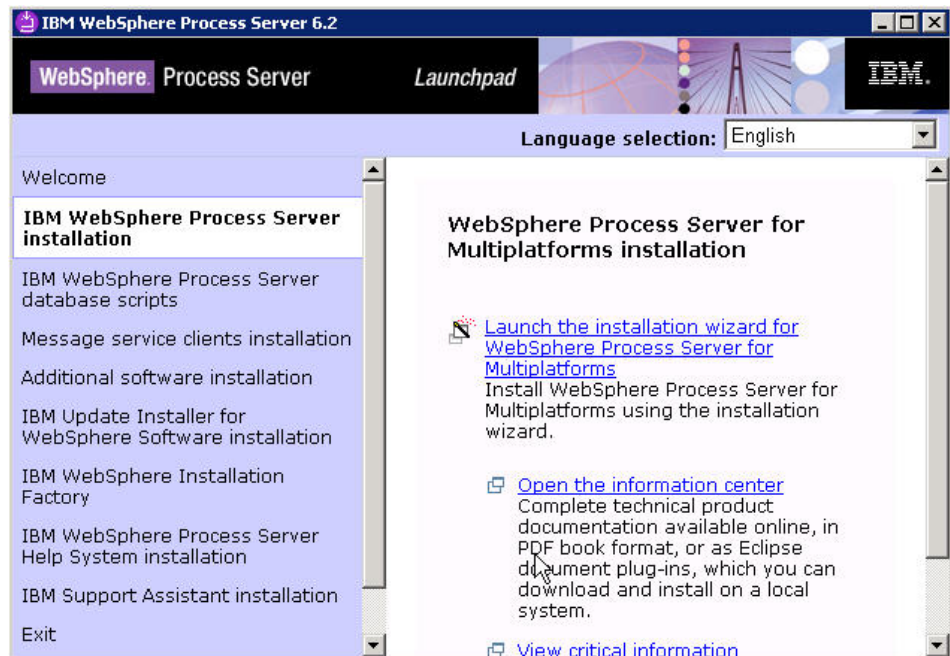
Hints and tips are included to assist with difficult steps.

1. From the WebSphere Process Server driver directory, run `launchpad.exe`.
2. From the WebSphere Process Server Launch pad page, select **IBM WebSphere Process Server installation**.

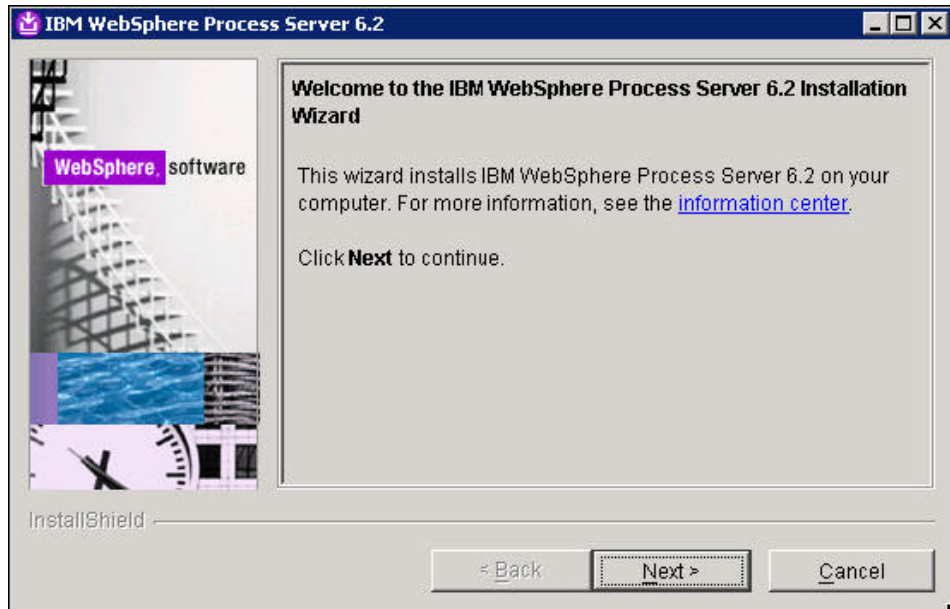




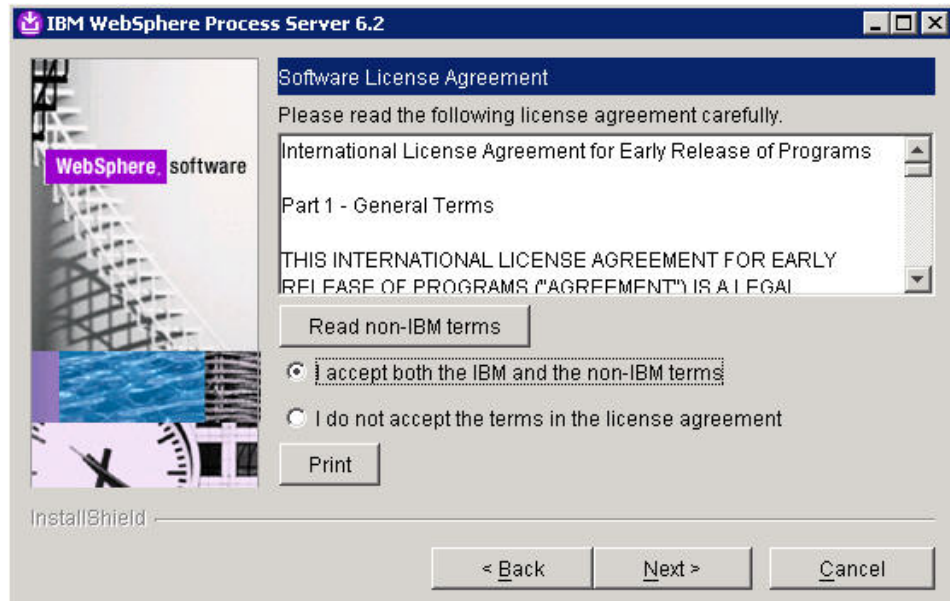
3. Select **Launch the Installation wizard for WebSphere Process Server for Multiplatforms**.



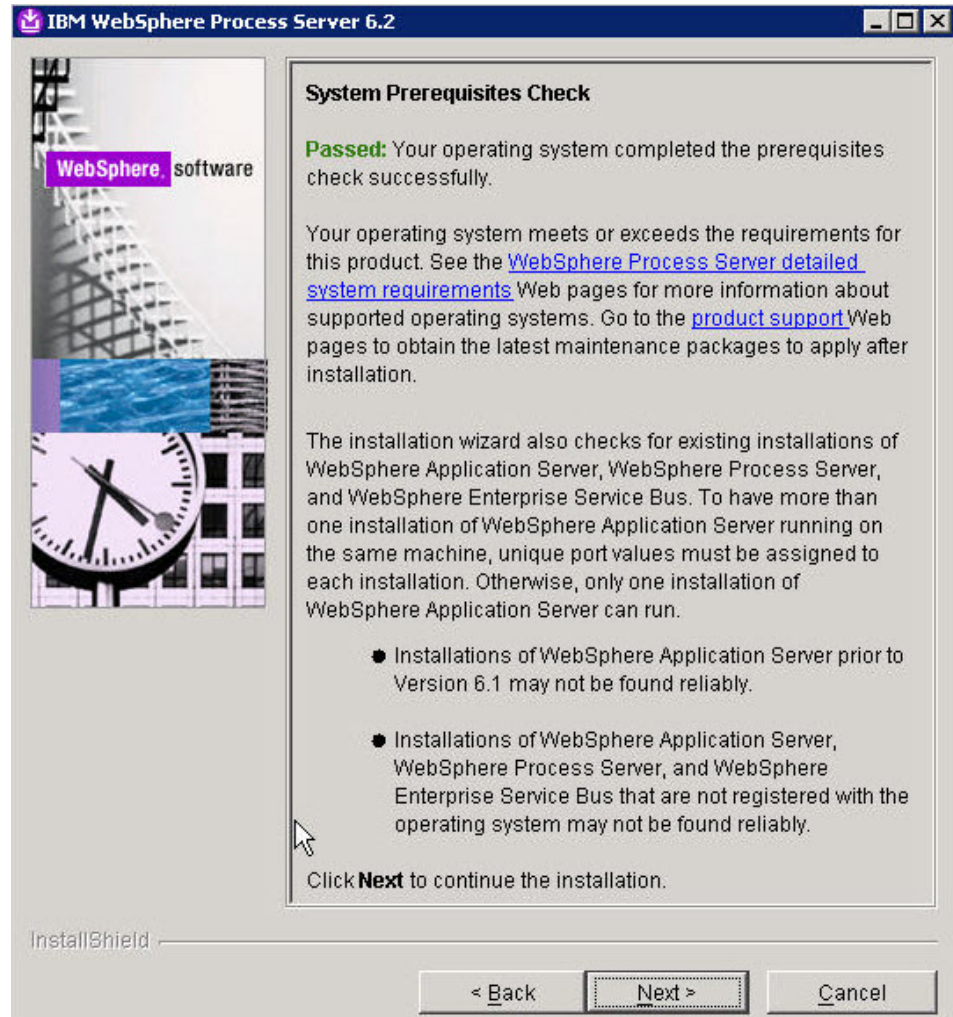
4. From the Welcome to the WebSphere Process Server Installation wizard page, click **Next**.



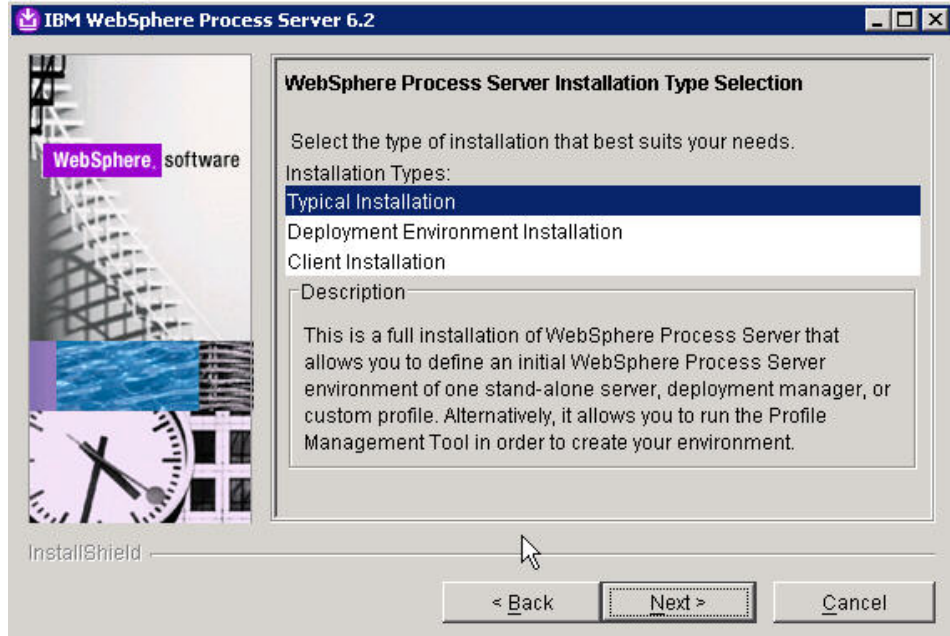
5. From the Software license agreement page, accept the terms and click Next.



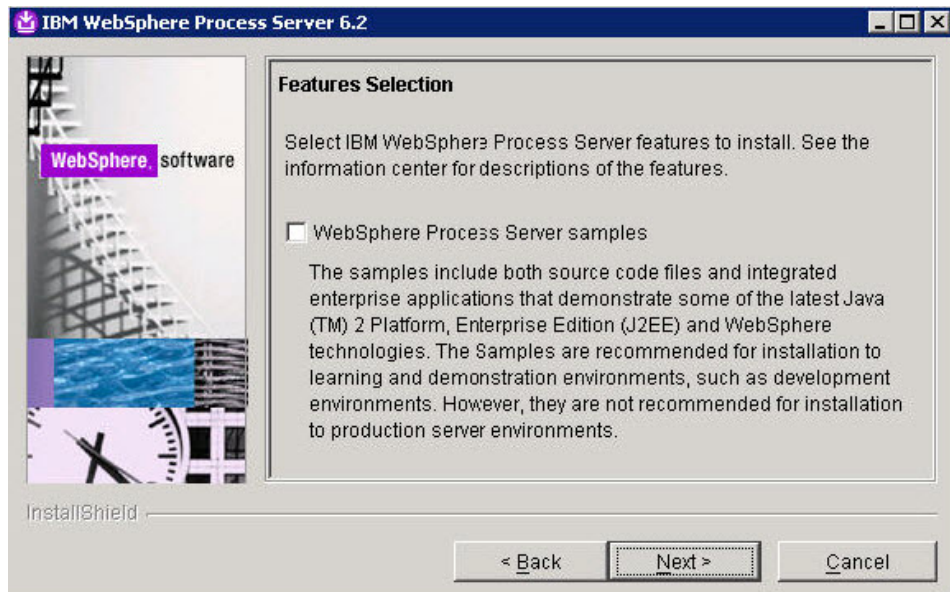
6. From the System Prerequisites check page, click Next.



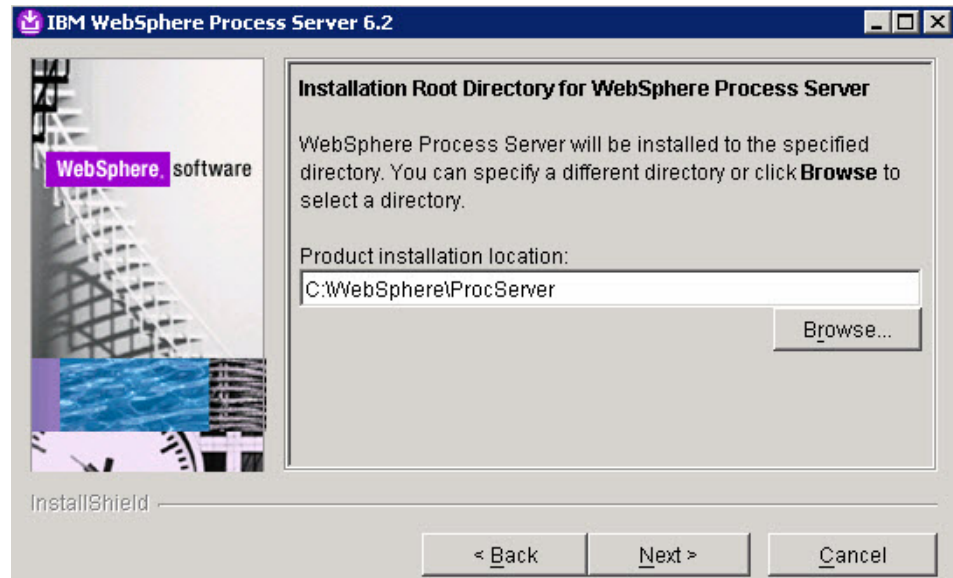
7. From the WebSphere Process Server Installation Type Selection page, select **Typical installation** and click **Next**.



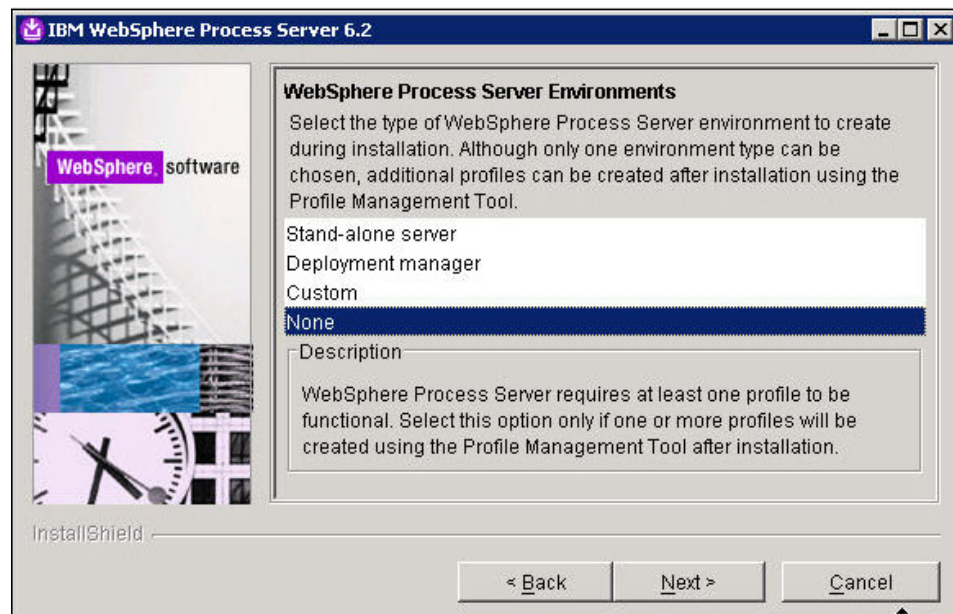
8. From the Features Selection page, click **Next**.



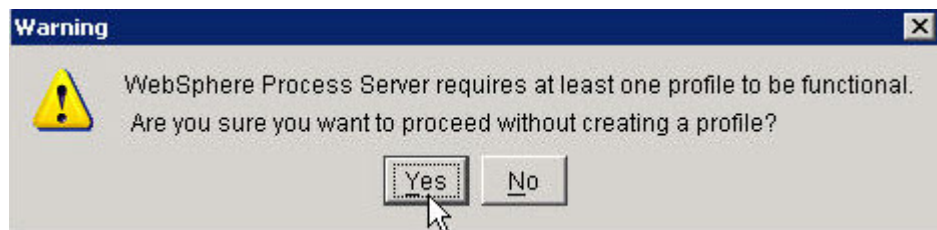
9. From the WebSphere Process Server product location directory page, accept the default directory into which WebSphere Process Server will be installed, or browse to a directory of your choice and then click **Next**.



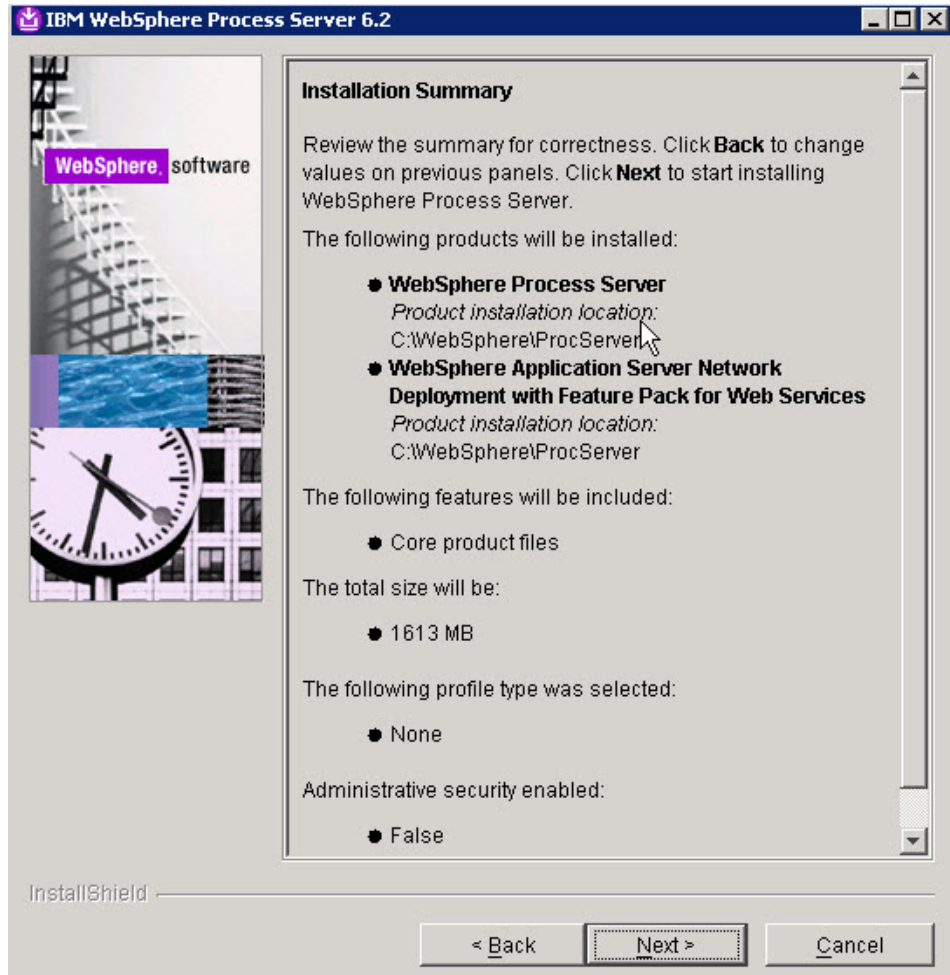
10. From the WebSphere Process Server Environments page, select **None** and click **Next**.



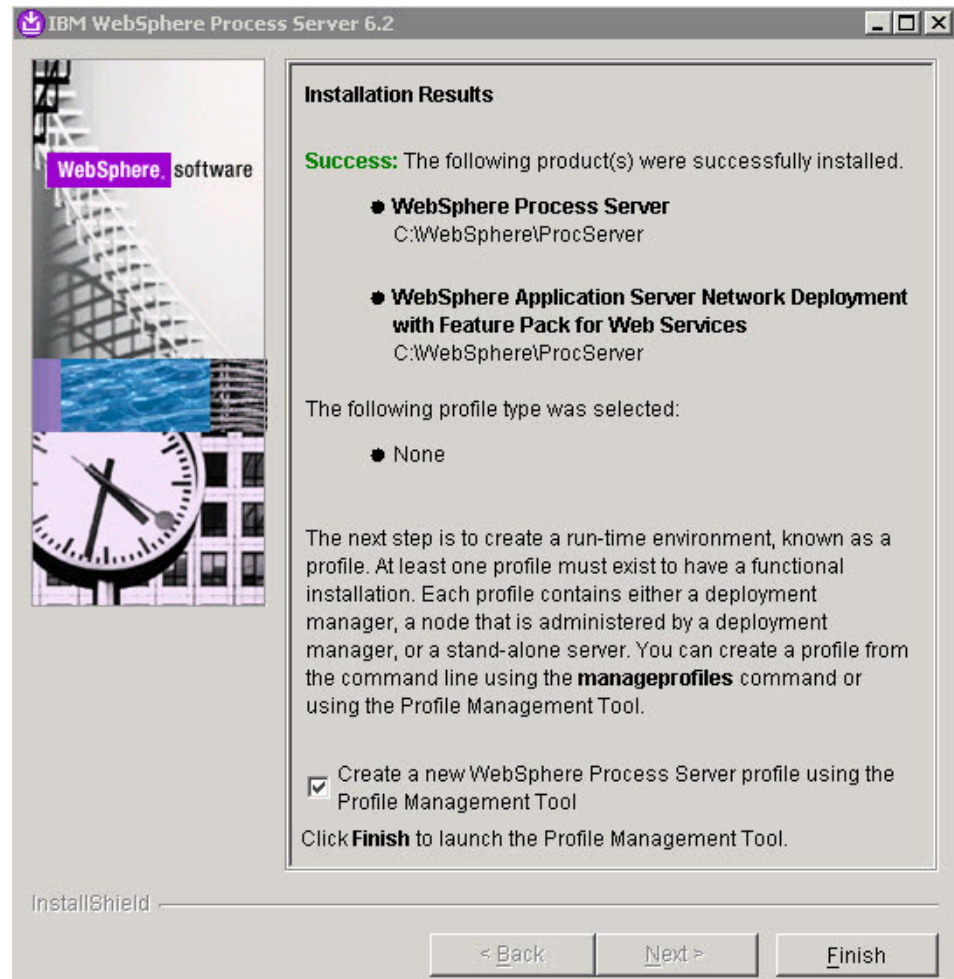
11. From Warning dialog, select **Yes**.



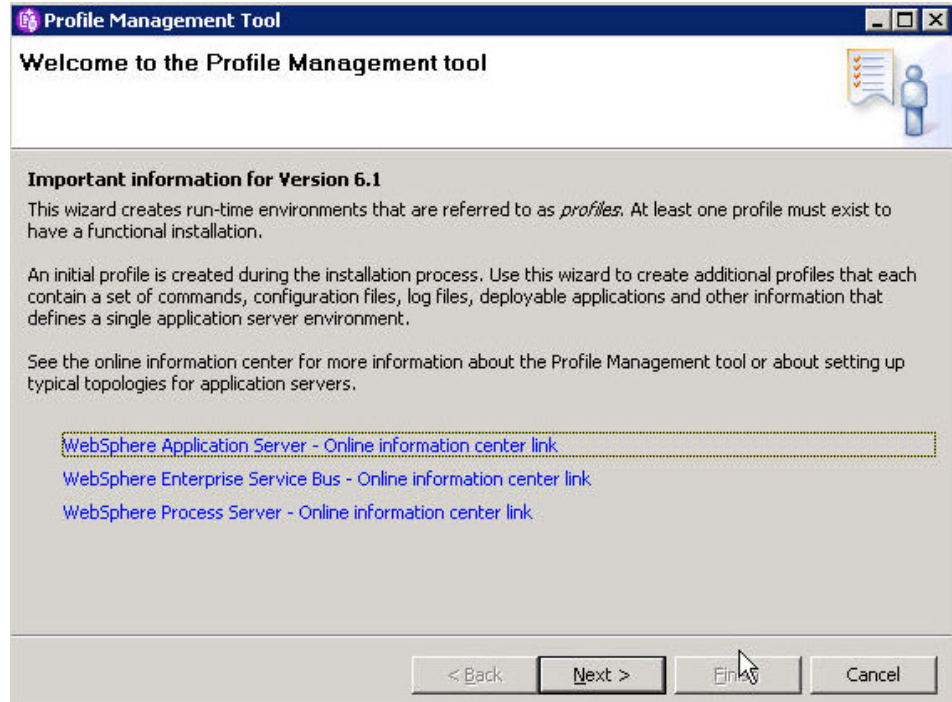
12. From the Installation Summary page review the information on what products will be installed and click **Next**.



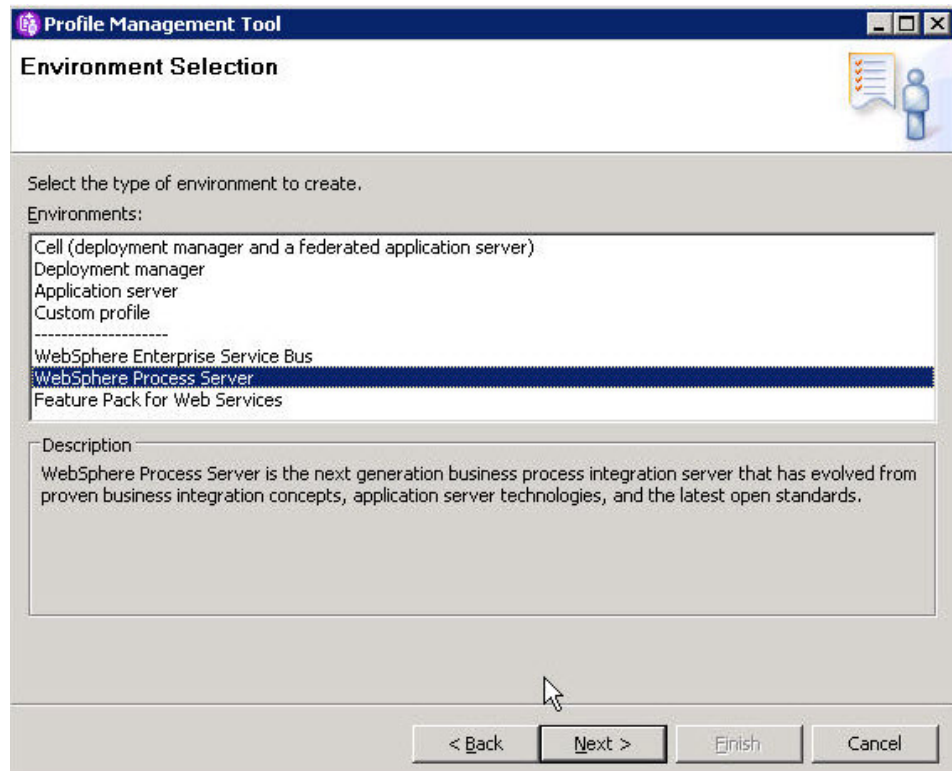
13. From the Installation Results page, make sure the option for **Creating a new WebSphere Process Server profile using the Profile Management Tool** is checked and click **Finish**.



14. From the Profile Management Welcome page, read the information on Profiles and select **Next**.

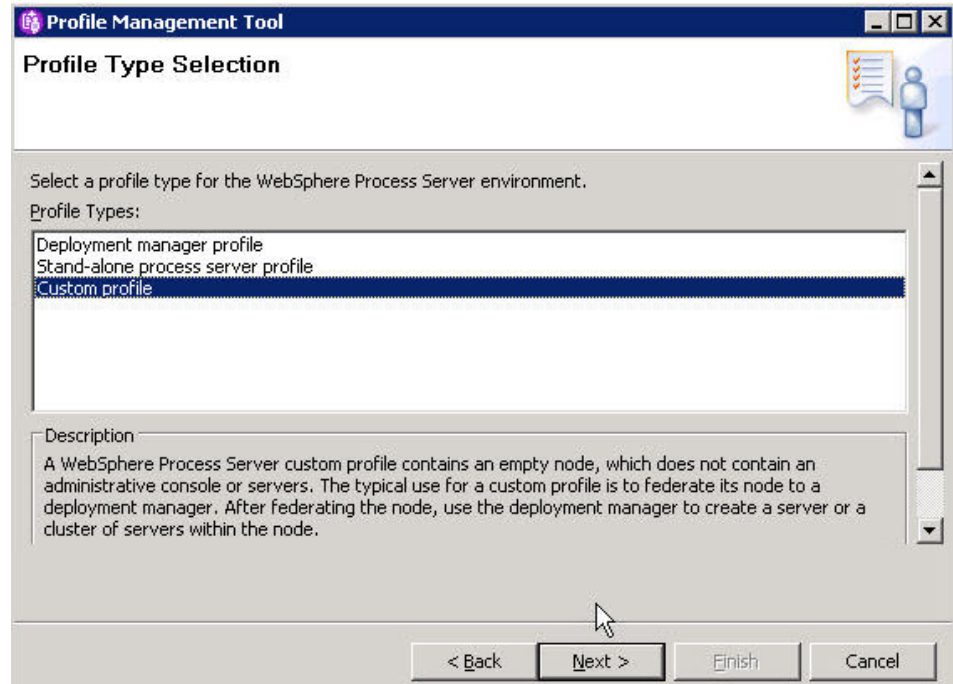


15. From the Environment Selection page, select **WebSphere Process Server** as your environment and click **Next**.

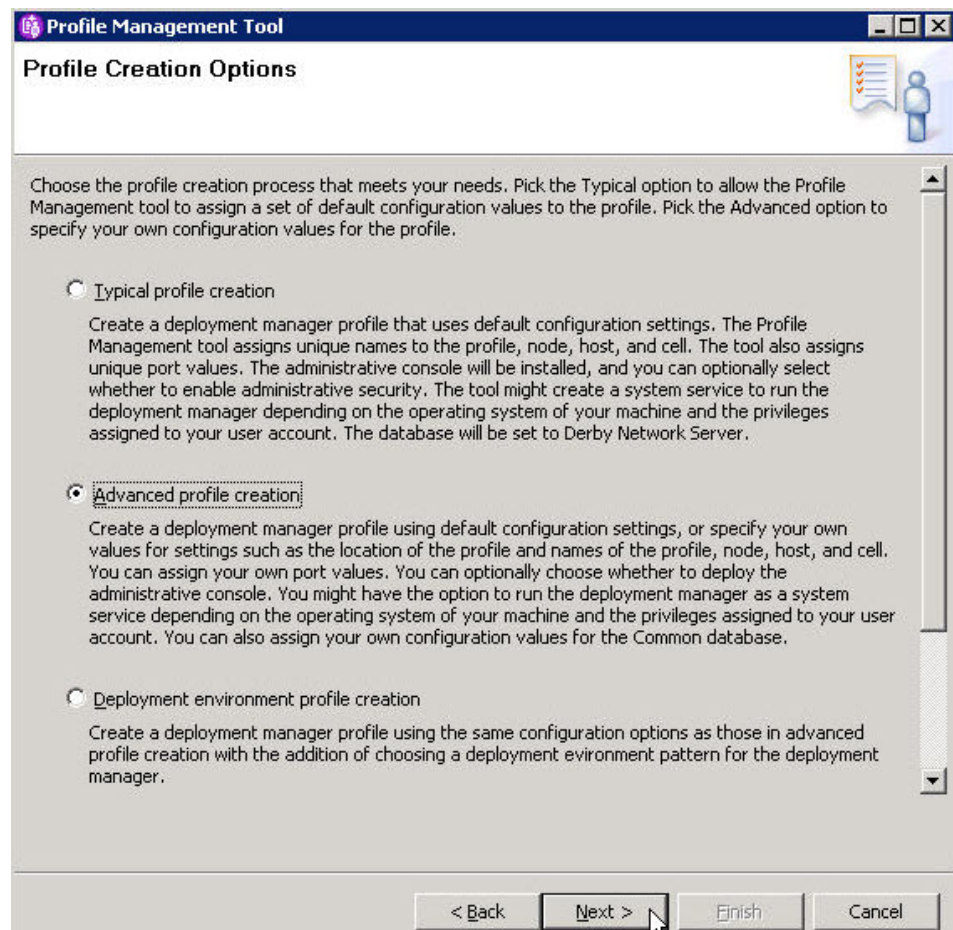


16. From the Profile Type Selection page, select **Deployment manager profile** and click **Next**.

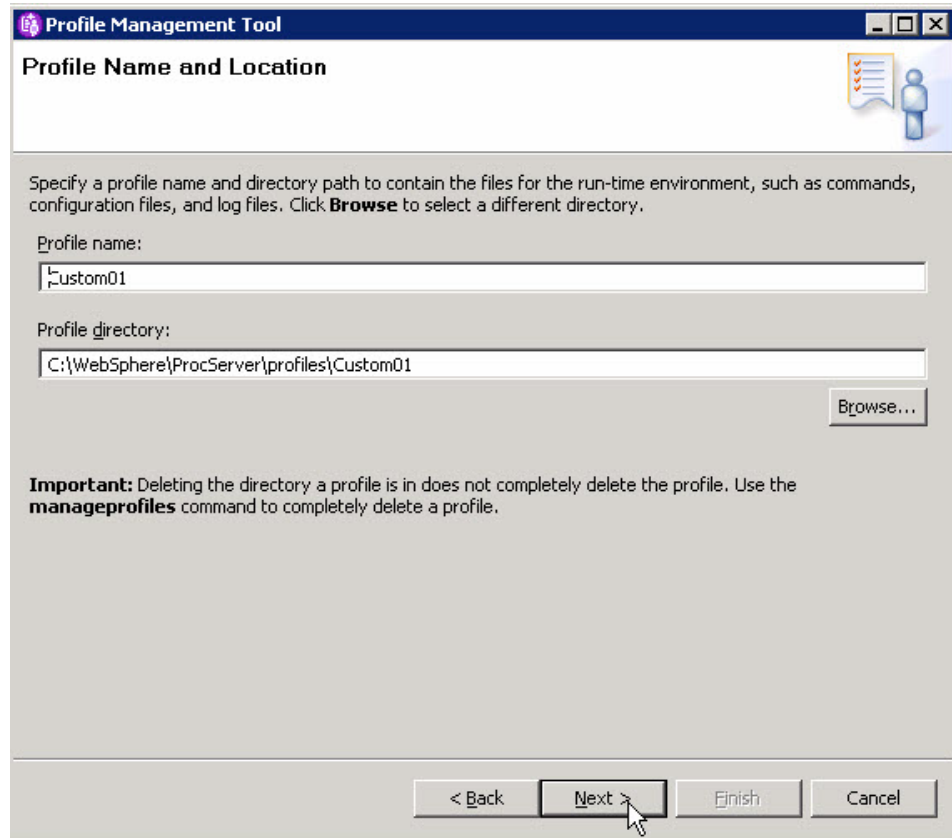




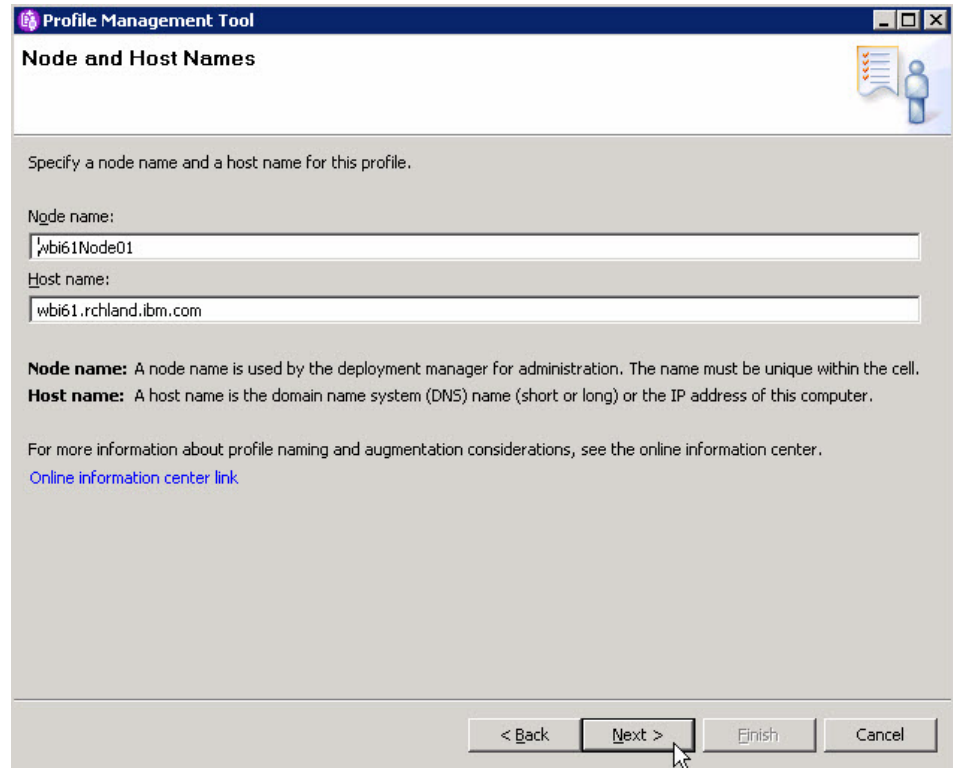
17. From the Profile Creation Options page, select the option for **Advanced profile creation** and click **Next**.



- From the Profile Name and Location page, enter a name in the Profile name field, choose the directory into which you will install the profile and click **Next**.



- From the Node and Host Names page, click **Next**.



20. From the Federation page, enter host name, User name, Password and click **Next**.

The screenshot shows a window titled "Profile Management Tool" with a "Federation" tab. The window contains the following text and fields:

Specify the host name or IP address and the SOAP port number for an existing deployment manager. Federation can occur only if the deployment manager is running.

Deployment manager host name or IP address:

Deployment manager SOAP port number (Default 8879):

Deployment manager authentication  
Provide a user name and password that can be authenticated, if administrative security is enabled on the deployment manager.

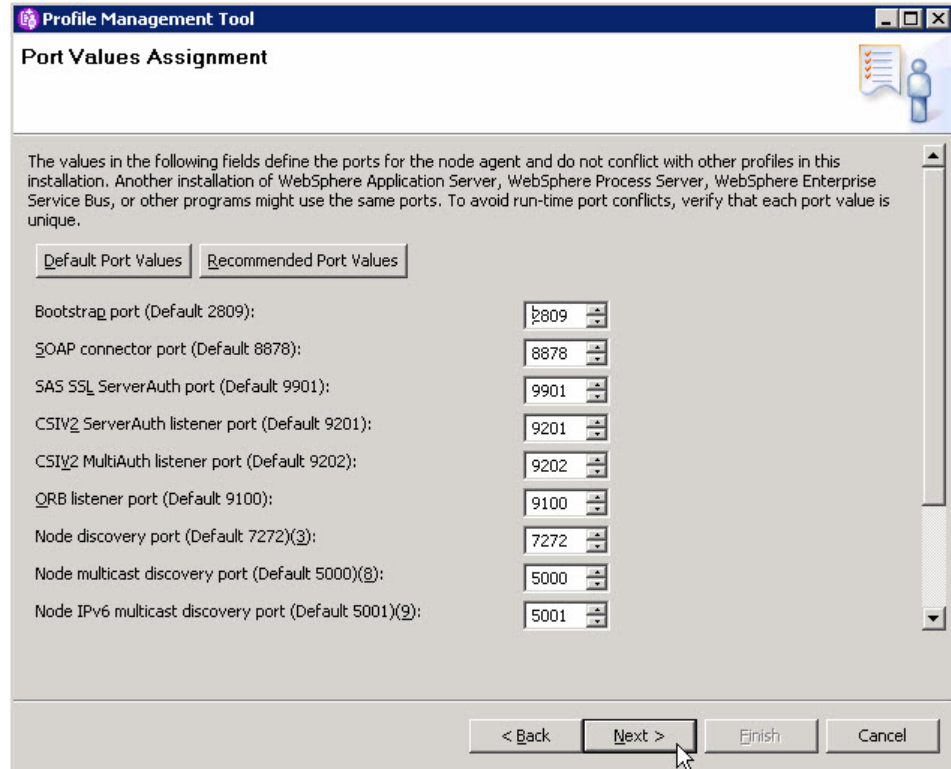
User name:

Password:

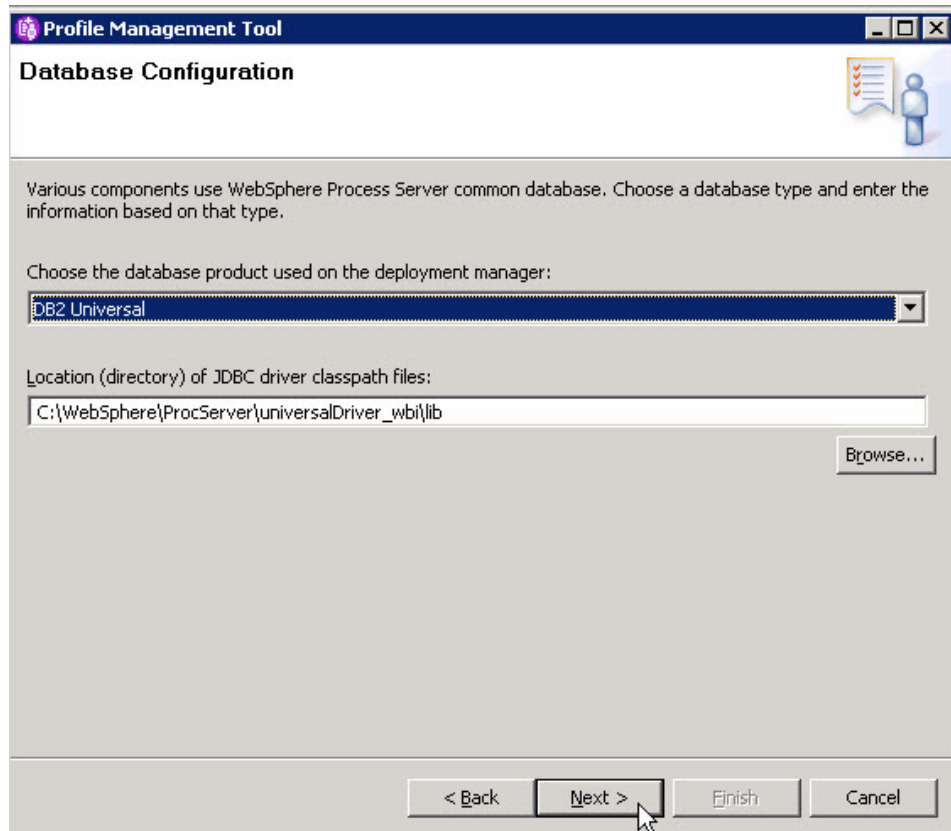
Federate this node later.  
You must federate this node later using the **addNode** command if the deployment manager:  
- is not running  
- has the SOAP connector disabled

At the bottom of the window are four buttons: "< Back", "Next >", "Finish", and "Cancel".

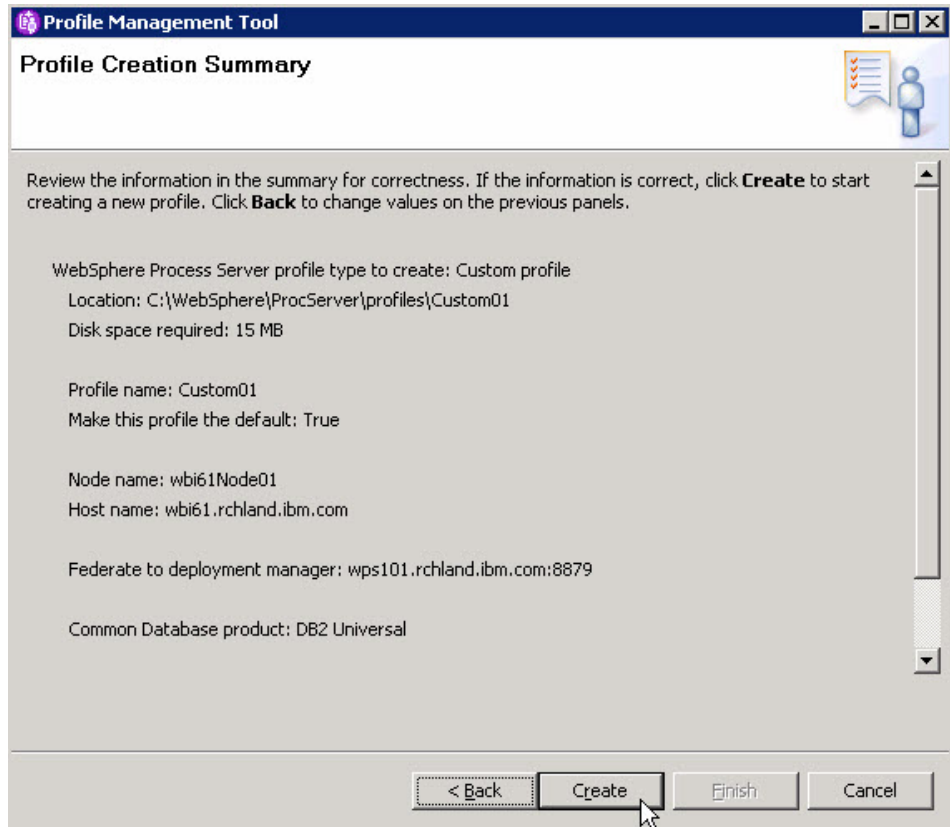
21. From the Port Values Assignment page, click **Next**.



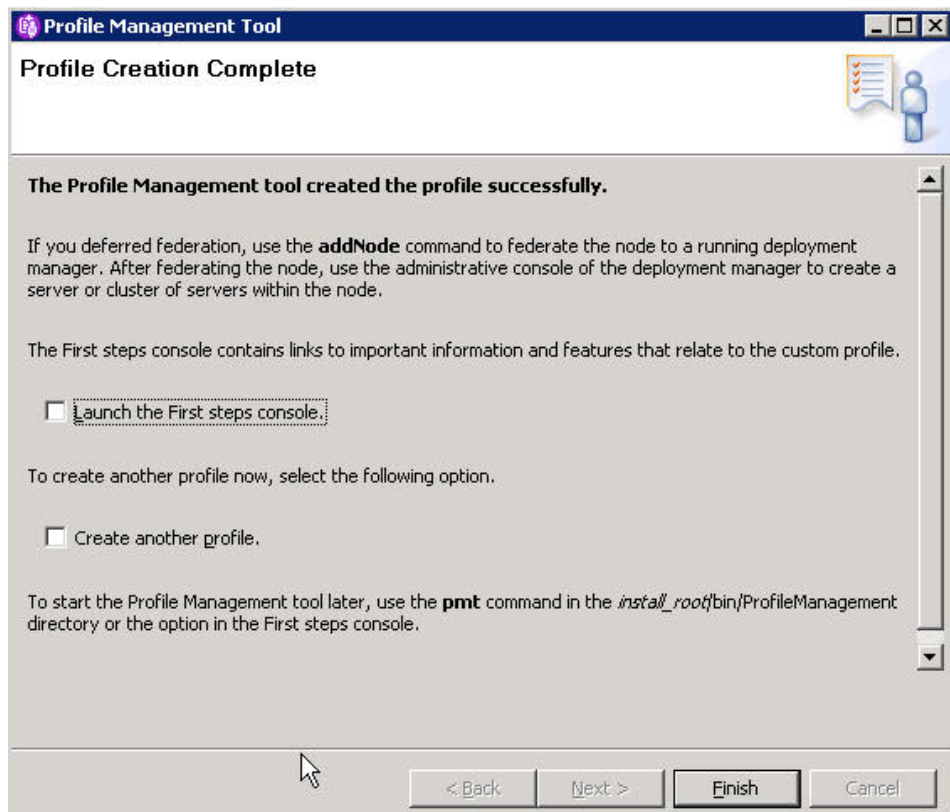
22. From the Database Configuration page, click Next.



23. From the Profile Creation Summary page, read the information and click Create.



24. From the Profile Creation Complete page, uncheck **Launch First steps** and click **Finish**.



Now you can configure WebSphere Process Server.

## Configuring WebSphere Process Server

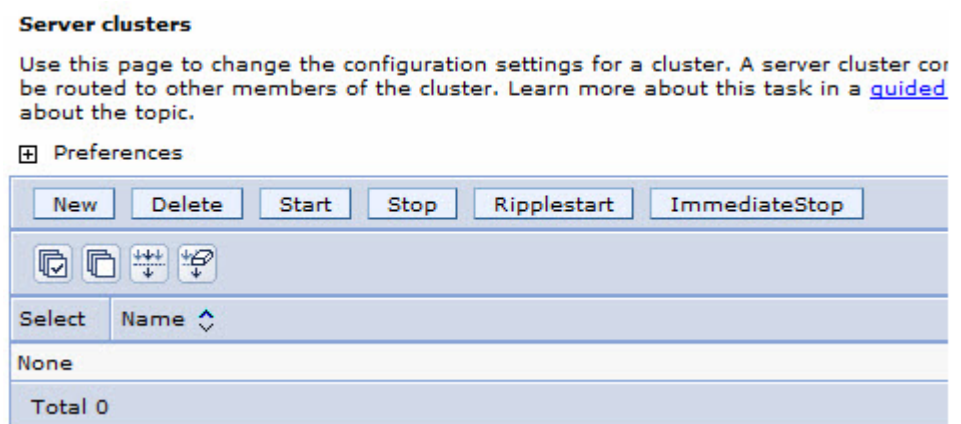
After you have installed WebSphere Process Server, you must complete additional configuration tasks to fully prepare your runtime environment.

### Creating the messaging cluster:

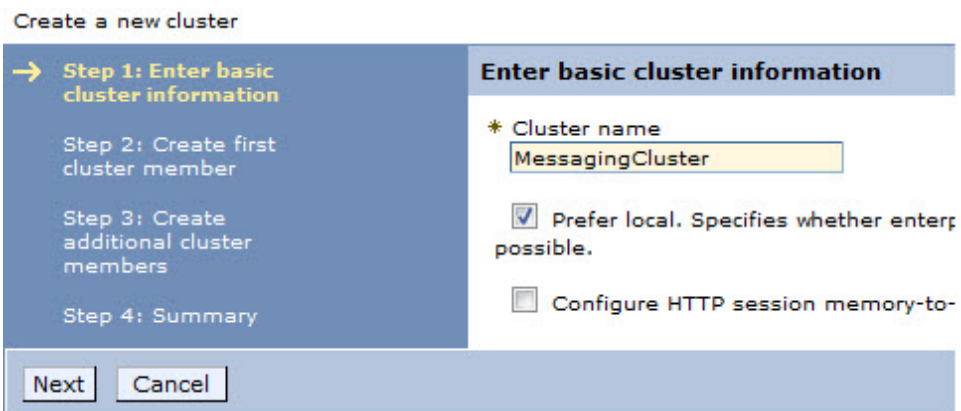
The messaging cluster provides the messaging function. A unit consists of a messaging engine and the clusters or servers that use that messaging engine as a target.

Use the following steps to create the messaging cluster.

1. In the administrative console navigate to **Server** → **Clusters** .
2. From the Server clusters page, click **New**.



3. From the Enter basic cluster information page, enter MessagingCluster in **Cluster name** and click **Next**.



4. From the Create first cluster member page, enter MessagingMember1 in **Member name** , Select node and click **Next**.

Create a new cluster

Step 1: Enter basic cluster information

→ **Step 2: Create first cluster member**

Step 3: Create additional cluster members

Step 4: Summary

### Create first cluster member

The first cluster member determines the server configuration template created from the first member and stored in the cluster.

\* Member name

Select node

\* Weight  
 (0..20)

Generate unique HTTP ports

Select basis for first cluster member:

Create the member using an application template

Create the member using an existing server configuration template

Create the member by converting an existing server configuration template

None. Create an empty cluster.

- From the Create additional cluster members page, enter MessagingMember2 for **Member name**, Select node and click **Add Member**.

Create a new cluster

Step 1: Enter basic cluster information

Step 2: Create first cluster member

→ **Step 3: Create additional cluster members**

Step 4: Summary

### Create additional cluster members

Enter information about this new cluster member. A server configuration template is created for this member and other cluster members are copied from this template.

\* Member name

Select node

\* Weight  
 (0..20)

Generate unique HTTP ports

- From the Create additional cluster members page, click **Next**.



Create a new cluster

Step 1: Enter basic cluster information  
Step 2: Create first cluster member  
→ Step 3: Create additional cluster members  
Step 4: Summary

### Create additional cluster members

Enter information about this new cluster member, and click Add Member to add this cluster member. A server configuration template is created from the first member and stored as part of the cluster. All cluster members are copied from this template.

\* Member name

Select node  
 wbi61Node01 (ND 6.1.0.17) ▼

\* Weight  
 (0..20)

Generate unique HTTP ports

Use the Edit function to edit the properties of a cluster member that is already included in this list. Use the Delete function to remove a cluster member from this list. You are not allowed to edit or remove the first or last already existing cluster member.

Select	Member name	Nodes	Version
<input type="checkbox"/>	MessagingMember1	wps120Node01	Business Process Choreographer 6.1.2.0 ND 6.1.0.17 WPS 6.1.2.0
<input type="checkbox"/>	MessagingMember2	wbi61Node01	Business Process Choreographer 6.1.2.0 ND 6.1.0.17 WPS 6.1.2.0

7. From the Summary page, click **Finish**.

Create a new cluster

Step 1: Enter basic cluster information  
Step 2: Create first cluster member  
Step 3: Create additional cluster members  
→ Step 4: Summary

### Summary

Summary of actions:

Options	Values
Cluster Name	MessagingCluster
Core Group	DefaultCoreGroup
Node group	DefaultNodeGroup
Prefer local	true
Configure HTTP session memory-to-memory replication	false
Server name	MessagingMember1
Node	wps120Node01 (Business Process Choreographer 6.1.2.0 ND 6.1.0.17 WPS 6.1.2.0)
Weight	2
Clone Template	default
Clone Type	default
Generate unique HTTP ports	true
Server name	MessagingMember2
Node	wbi61Node01 (Business Process Choreographer 6.1.2.0 ND 6.1.0.17 WPS 6.1.2.0)
Weight	2
Clone Template	default
Clone Type	default
Generate unique HTTP ports	true

8. Click **Save** and **OK**.

Now you can enable support for SCA on the messaging cluster.

### Enabling support for SCA on the messaging cluster:

Clusters can support Service Component Architecture (SCA) applications, application destinations, or both.

Use this task to enable support for SCA on the messaging cluster.

1. From the Server clusters panel of the administrative console, click **MessagingCluster**.

### Server clusters

Use this page to change the configuration settings for a cluster. A server cluster consists of a group of application servers. If one of the member servers fails, requests will be routed to other members of the cluster. Learn more about this task in a [guided activity](#). A guided activity provides a list of task steps and more general information about the topic.

#### Preferences

New Delete Start Stop Ripplestart ImmediateStop		
[Copy] [Paste] [Refresh] [Delete]		
Select	Name	Status
<input type="checkbox"/>	<a href="#">MessagingCluster</a>	
Total 1		

- From the MessagingCluster configuration page, select **Service Component Architecture**.

#### [Server clusters](#) > MessagingCluster

Use this page to change the configuration settings for a cluster. A server cluster consists of a group of application servers. If one of the member servers fails, requests will be routed to other members of the cluster.

Runtime Configuration Local Topology

**General Properties**

\* Cluster name  
MessagingCluster

Bounding node group name  
DefaultNodeGroup

Prefer local

Enable failover of transaction log recovery

Apply OK Reset Cancel

**Cluster messaging**

- [Messaging engines](#)

**Business Integration**

- [Business Integration Configuration](#)
- [Business Space Configuration](#)
- [System REST Service Endpoints](#)
- [Service Component Architecture](#)
- [Common Event Infrastructure](#)
- [Business Process Choreographer](#)
- [Business Rules](#)

- Check **Support the Service Component Architecture components** and click **OK**

**General Properties**

Support the Service Component Architecture components

**Bus Member Location**

Local  
 Remote

---

**System Bus Member**

System bus destinations support the asynchronous communication of Service Oriented Architecture applications and their Service Component Architecture components with each other.

Database Instance	Schema	Create Tables	User name	Password	Server	Provider
WPRCSDB	WPRSS00	<input checked="" type="checkbox"/>	db2admin	*****	wps101.rchland.ibm.	DB2 Universal

---

**Application Bus Member**

Application bus destinations support the asynchronous communication of WebSphere Business Integration Adapters and other System Component Architecture components.

Enable the WebSphere Business Integration Adapter components

Database Instance	Schema	Create Tables	User name	Password	Server	Provider
WPRCSDB	WPRSA00	<input checked="" type="checkbox"/>	db2admin	*****	wps101.rchland.ibm.	DB2 Universal

4. Click **Save** and **OK**.

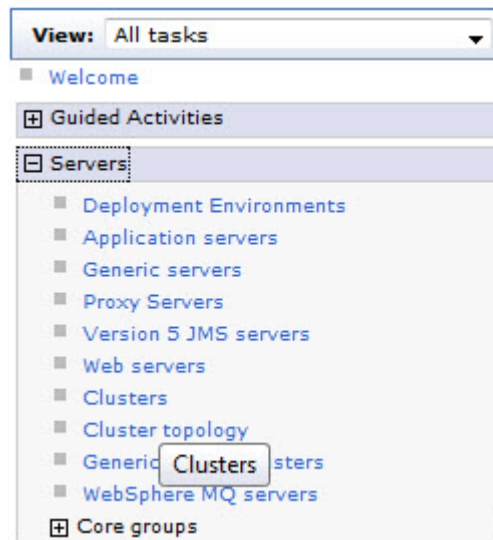
Now, you create the support cluster.

### Creating the support cluster:

Create the support cluster to hold the Common Event Infrastructure.

Use this procedure to create the support cluster.

1. Login to the administrative console.
2. Expand Servers and select **Clusters**.



3. From the Server clusters page, click **New**.

### Server clusters

Use this page to change the configuration settings for a cluster. A server cluster consists of a group of application servers. If one of the member servers fails, requests will be routed to other members of the cluster. Learn more about this task in a [guided activity](#). A guided activity provides a list of task steps and more general information about the topic.

⊕ Preferences

New Delete Start Stop Ripplestart ImmediateStop		
[Icons]		
Select	Name	Status
<input type="checkbox"/>	<a href="#">MessagingCluster</a>	✖
Total 1		

4. From the Enter basic cluster information page, enter **Cluster name** SupportCluster and click Next.

Create a new cluster

<p>→ Step 1: Enter basic cluster information</p> <p>Step 2: Create first cluster member</p> <p>Step 3: Create additional cluster members</p> <p>Step 4: Summary</p>	<h4>Enter basic cluster information</h4> <p>* Cluster name <input type="text" value="SupportCluster"/></p> <p><input checked="" type="checkbox"/> Prefer local. Specifies whether enterprise bean requests will be routed to possible.</p> <p><input type="checkbox"/> Configure HTTP session memory-to-memory replication</p>
Next Cancel	

5. From the Create first cluster member page, enter the **Member name** SupportMember1 and select a value for **Select node** and select **Create the member using an application server template** defaultProcessServer and click Next.

### Create a new cluster

Step 1: Enter basic cluster information

→ **Step 2: Create first cluster member**

Step 3: Create additional cluster members

Step 4: Summary

#### Create first cluster member

The first cluster member determines the server settings for the cluster members. A server configuration template is created from the first member and stored as part of the cluster data. Additional cluster members are copied from this template.

\* Member name  
SupportMember1

Select node  
wps120Node01(ND 6.1.0.17) ▼

\* Weight  
2 (0..20)

Generate unique HTTP ports

Select basis for first cluster member:

Create the member using an application server template.  
defaultProcessServer ▼

Create the member using an existing application server as a template.  
(none) ▼

Create the member by converting an existing application server.  
(none) ▼

None. Create an empty cluster.

Previous Next Cancel

- From the Create additional cluster members page, enter SupportMember2 in **Member name** , Select node and click **Add Member**.

Create a new cluster

Step 1: Enter basic cluster information

Step 2: Create first cluster member

→ **Step 3: Create additional cluster members**

Step 4: Summary

#### Create additional cluster members

Enter information about this new cluster member, and click Add Member to add this cluster member to the member list. A server configuration template is created from the first member and stored as part of the cluster data. Additional cluster members are copied from this template.

\* Member name  
SupportMember2

Select node  
wbi61Node01(ND 6.1.0.17) ▼

\* Weight  
2 (0..20)

Generate unique HTTP ports

Add Member

- Click Next.

→ **Step 3: Create additional cluster members**  
 Step 4: Summary

as part of the cluster data. Additional cluster members are copied from this template.

\* Member name

Select node

\* Weight  
 (0..20)

Generate unique HTTP ports

Use the Edit function to edit the properties of a cluster member that is already included in this list. Use the Delete function to remove a cluster member from this list. You are not allowed to edit or remove the first cluster member or an already existing cluster member.

Select	Member name	Nodes	Version	Weight
<input checked="" type="checkbox"/>	SupportMember1	wps120Node01	Business Process Choreographer 6.1.2.0 ND 6.1.0.17 WPS 6.1.2.0	2
<input type="checkbox"/>	SupportMember2	wbi61Node01	Business Process Choreographer 6.1.2.0 ND 6.1.0.17 WPS 6.1.2.0	2

8. From the Summary page, click **Finish**.

### Create a new cluster

Step 1: Enter basic cluster information

Step 2: Create first cluster member

Step 3: Create additional cluster members

→ **Step 4: Summary**

#### Summary

Summary of actions:

Options	Values
Cluster Name	SupportCluster
Core Group	DefaultCoreGroup
Node group	DefaultNodeGroup
Prefer local	true
Configure HTTP session memory-to-memory replication	false
Server name	SupportMember1
Node	wps120Node01(Business Process Choreographer 6.1.2.0 ND 6.1.0.17 WPS 6.1.2.0)
Weight	2
Clone Template	defaultProcessServer
Clone Type	default
Generate unique HTTP ports	true
Server name	SupportMember2
Node	wbi61Node01(Business Process Choreographer 6.1.2.0 ND 6.1.0.17 WPS 6.1.2.0)
Weight	2
Clone Template	defaultProcessServer
Clone Type	default
Generate unique HTTP ports	true

9. Click **Save** and **OK**.

Now, you enable CEI on the support cluster.

#### Enabling Common Event Infrastructure on the support cluster:

Use the administrative console to configure CEI — such as when you are installing it in cluster — to ensure that the configuration is appropriate on your system

Use this procedure to enable CEI on the support cluster.

1. From the Server clusters page of the administrative console, click **SupportCluster**.

### Server clusters

Use this page to change the configuration settings for a cluster. A server cluster consists of a group of application servers. If one of the member servers fails, requests will be routed to other members of the cluster. Learn more about this task in a [guided activity](#). A guided activity provides a list of task steps and more general information about the topic.

⊕ Preferences

<input type="button" value="New"/> <input type="button" value="Delete"/> <input type="button" value="Start"/> <input type="button" value="Stop"/> <input type="button" value="Ripplestart"/> <input type="button" value="ImmediateStop"/>		
Select	Name	Status
<input type="checkbox"/>	<a href="#">MessagingCluster</a>	✘
<input type="checkbox"/>	<a href="#">SupportCluster</a>	✘
Total 2		

2. From the configuration page of the Support Cluster, expand **Common Event Infrastructure**.

[Server clusters](#) > [SupportCluster](#)

Use this page to change the configuration settings for a cluster. A server cluster consists of a group of application servers. If one of the member servers fails, requests will be routed to other members of the cluster.

Runtime Configuration Local Topology

---

**General Properties**

\* Cluster name

Bounding node group name

Prefer local

Enable failover of transaction log recovery

---

**Cluster messaging**

- [Messaging engines](#)

---

**Business Integration**

- [Business Integration Configuration](#)
- [Business Space Configuration](#)
- [System REST Service Endpoints](#)
- [Service Component Architecture](#)
- ⊕ [Common Event Infrastructure](#)
- ⊕ [Business Process Choreographer](#)
- ⊕ [Business Rules](#)

3. Click **Common Event Infrastructure Server**.

⊖ [Common Event Infrastructure](#)

- [Common Event Infrastructure Destination](#)
- [Common Event Infrastructure Server](#)

4. From the Common Event Infrastructure Server page, check **Enable the event infrastructure server**.



[Server clusters](#) > [SupportCluster](#) > [Common Event Infrastructure Server](#)

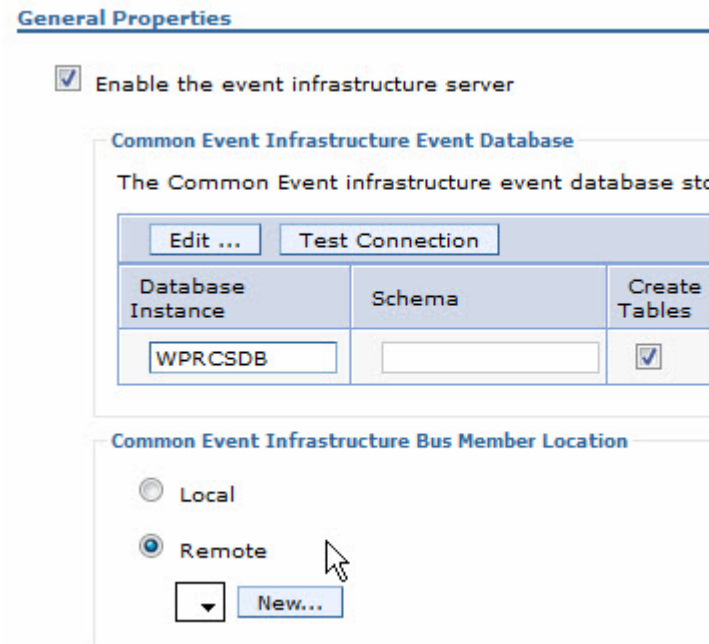
The Common Event Infrastructure is an implementation of a consistent, uniform Common Base Event formatted events. The Common Event Infrastructure keeps track of transactions and other activity.

Configure at least one Common Event Infrastructure server on a deployment.

You can use this panel to configure the data source properties for the event to use a remote destination location.



5. Select **Remote** and click **New**.



6. Select **Cluster=MessagingCluster** and click **Select**.

[Server clusters](#) > [SupportCluster](#) > [Common Event Infrastructure Server](#) > [Browse deployment target](#)

Use this page to select a new deployment target. The table lists all single servers and clusters that are available as deployment targets for the specific component you are configuring.



7. Click **OK**.

**General Properties**

Enable the event infrastructure server

**Common Event Infrastructure Event Database**  
The Common Event infrastructure event database stores Common Base Events for historic data processing.

Edit ... Test Connection

Database Instance	Schema	Create Tables	User name	Password	Server	Provider
WPRCSDB		<input checked="" type="checkbox"/>	db2admin	*****	wbi61.rchland.ibm.cc	DB2 Universal

**Common Event Infrastructure Bus Member Location**

Local  
 Remote

Cluster=MessagingCluster New...

**Common Event Infrastructure Bus Member**  
Common Event Infrastructure bus destination support the asynchronous transmission and distribution of Common Base Events.

Edit ... Test Connection

Database Instance	Schema	Create Tables	User name	Password	Server	Provider
WPRCSDB	WPRCM00	<input checked="" type="checkbox"/>	db2admin	*****	wbi61.rchland.ibm.cc	DB2 Universal

Apply OK Reset Cancel

8. Click **Save** and **OK**.
9. Expand **Common Event Infrastructure** and select **Common Event Infrastructure Server**.
10. In the Messages box click **JMS Authentication Alias**.

**Messages**

The Common Event Infrastructure Server has already been configured.

You may change data source settings for the event database and/or the bus' message store. Ensure that the Common Event Infrastructure system is in a quiesced state.

Default user name and password are applied to the Common Event Infrastructure security. They can be viewed or changed in the [JMS Authentication Alias](#) panel.

11. Change User ID, Password and click **OK**.

[Server clusters](#) > [SupportCluster](#) > [Common Event Infrastructure Server](#) > [CommonEventInfrastructureJMSAuthAlias](#)

Specifies a list of user identities and passwords for Java(TM) 2 connector security to use.

**Configuration**

**General Properties**

Alias  
CommonEventInfrastructureJMSAuthAlias

User ID  
primaryAdmin

Password  
\*\*\*\*\*

Confirm Password  
\*\*\*\*\*

Apply OK Reset Cancel

12. Click **Save** and **OK**.

Now, you create the application cluster.

### Creating the application cluster:

You must create and configure the cluster correctly before installing and starting the first application that contains a service.

Use this procedure to create the application cluster.

1. In the administrative console navigate to **Server** → **Clusters** .
2. From the Server clusters page, click **New**.

#### Server clusters

Use this page to change the configuration settings for a cluster. A server cluster consists of a group of appli will be routed to other members of the cluster. Learn more about this task in a [guided activity](#). A guided act information about the topic.

#### Preferences

The screenshot shows the 'Server clusters' page with a toolbar containing buttons for 'New', 'Delete', 'Start', 'Stop', 'Ripplestart', and 'ImmediateStop'. Below the toolbar is a table with the following data:

Select	Name	Status
<input type="checkbox"/>	<a href="#">MessagingCluster</a>	✘
<input type="checkbox"/>	<a href="#">SupportCluster</a>	✘

Total 2

3. From the Enter basic cluster information page, enter ApplicationCluster in **Cluster name** and click **Next**.

The screenshot shows the 'Enter basic cluster information' page. On the left, there is a navigation pane with four steps: 'Step 1: Enter basic cluster information' (selected), 'Step 2: Create first cluster member', 'Step 3: Create additional cluster members', and 'Step 4: Summary'. The main content area contains the following information:

- \* Cluster name:
- Prefer local. Specifies whether enterprise bean requests will be routed to the node on which the client resides when possible.
- Configure HTTP session memory-to-memory replication

At the bottom, there are 'Next' and 'Cancel' buttons.

4. From the Create first cluster member page, enter ApplicationMember1 in **Member name** , Select node, choose defaultProcessServer template and click **Next**.

Step 1: Enter basic cluster information

→ **Step 2: Create first cluster member**

Step 3: Create additional cluster members

Step 4: Summary

### Create first cluster member

The first cluster member determines the server settings for the cluster members. A server configuration template is created from the first member and stored as part of the cluster data. Additional cluster members are copied from this template.

\* Member name

Select node

\* Weight  
 (0..20)

Generate unique HTTP ports

Select basis for first cluster member:

Create the member using an application server template.

Create the member using an existing application server as a template.

Create the member by converting an existing application server.

None. Create an empty cluster.

- From the Create additional cluster members page, enter ApplicationMember2 for **Member name**, Select node and click **Add Member**.

Step 1: Enter basic cluster information

Step 2: Create first cluster member

→ **Step 3: Create additional cluster members**

Step 4: Summary

### Create additional cluster members

Enter information about this new cluster member, and click Add Member to add this cluster member to the member list. A server configuration template is created from the first member and stored as part of the cluster data. Additional cluster members are copied from this template.

\* Member name

Select node

\* Weight  
 (0..20)

Generate unique HTTP ports

- From the Create additional cluster members page, click **Next**.

cluster member

→ Step 3: Create additional cluster members

Step 4: Summary

configuration template is created from the first member and stored as part of the cluster data. Additional cluster members are copied from this template.

\* Member name

Select node  
wbi61Node01(ND 6.1.0.21) ▼

\* Weight  
 (0..20)

Generate unique HTTP ports

Use the Edit function to edit the properties of a cluster member that is already included in this list. Use the Delete function to remove a cluster member from this list. You are not allowed to edit or remove the first cluster member or an already existing cluster member.

Select	Member name	Nodes	Version	Weight
	ApplicationMember1	wps120Node01	ND 6.1.0.21 Process Choreographer 6.2.0.0 WPS 6.2.0.0 WS FEP 6.1.0.21	2
<input type="checkbox"/>	ApplicationMember2	wbi61Node01	ND 6.1.0.21 Process Choreographer 6.2.0.0 WPS 6.2.0.0 WS FEP 6.1.0.21	2

7. From the Summary page, click **Finish**.

Step 1: Enter basic cluster information

Step 2: Create first cluster member

Step 3: Create additional cluster members

→ **Step 4: Summary**

### Summary

Summary of actions:

Options	Values
Cluster Name	ApplicationCluster
Core Group	DefaultCoreGroup
Node group	DefaultNodeGroup
Prefer local	true
Configure HTTP session memory-to-memory replication	false
Server name	ApplicationMember1
Node	wps120Node01(ND 6.1.0.21 Process Choreographer 6.2.0.0 WPS 6.2.0.0 WS FEP 6.1.0.21)
Weight	2
Clone Template	defaultProcessServer
Clone Type	default
Generate unique HTTP ports	true
Server name	ApplicationMember2
Node	wbi61Node01(ND 6.1.0.21 Process Choreographer 6.2.0.0 WPS 6.2.0.0 WS FEP 6.1.0.21)
Weight	2
Clone Template	defaultProcessServer
Clone Type	default
Generate unique HTTP ports	true

Previous
Finish
Cancel

8. Click **Save** and **OK**.

Now, you configure the CEI runtime properties on the application cluster.

#### Configuring the CEI runtime properties on the application cluster:

Use the administrative console to configure the CEI runtime properties on the application cluster.

Use this procedure to configure the CEI runtime properties on the application cluster.

1. From the Server clusters page, select **ApplicationCluster**.

### Server clusters

Use this page to change the configuration settings for a cluster. A server cluster consists of a group of application servers. If one of the member servers fails, requests will be routed to other members of the cluster. Learn more about this task in a [guided activity](#). A guided activity provides a list of task steps and more general information about the topic.

#### Preferences

New Delete Start Stop Ripplestart ImmediateStop		
Select	Name	Status
<input type="checkbox"/>	<a href="#">ApplicationCluster</a>	✖
<input type="checkbox"/>	<a href="#">MessagingCluster</a>	✖
<input type="checkbox"/>	<a href="#">SupportCluster</a>	✖
Total 3		

- Expand Common Event Infrastructure and click **Common Event Infrastructure Destination**.

#### Server clusters > ApplicationCluster

Use this page to change the configuration settings for a cluster. A server cluster consists of a group of application servers. If one of the member servers fails, requests will be routed to other members of the cluster.

Runtime Configuration Local Topology

**General Properties**

\* Cluster name  
ApplicationCluster

Bounding node group name  
DefaultNodeGroup

Prefer local

Enable failover of transaction log recovery

Apply OK Reset Cancel

**Cluster messaging**

- Messaging engines

**Business Integration**

- Business Integration Configuration
- Business Space Configuration
- System REST Service Endpoints
- Service Component Architecture
- Common Event Infrastructure
  - [Common Event Infrastructure Destination](#)
  - Common Event Infrastructu

Use this page to cc

- Select JNDI name `cell/clusters/SupportCluster/com/ibm/events/configuration/emitter/Default` and click OK.

#### Server clusters > ApplicationCluster > Common Event Infrastructure Destination

Use this page to configure the runtime properties of the Common Event Infrastructure service.

Configuration

**General Properties**

Enable service at server startup

Event Infrastructure emitter factory JNDI name.

`cell/clusters/SupportCluster/com/ibm/events/configuration/emitter/Default`

`com/ibm/events/configuration/emitter/Default`

Apply OK Reset Cancel

- Click Save and OK.

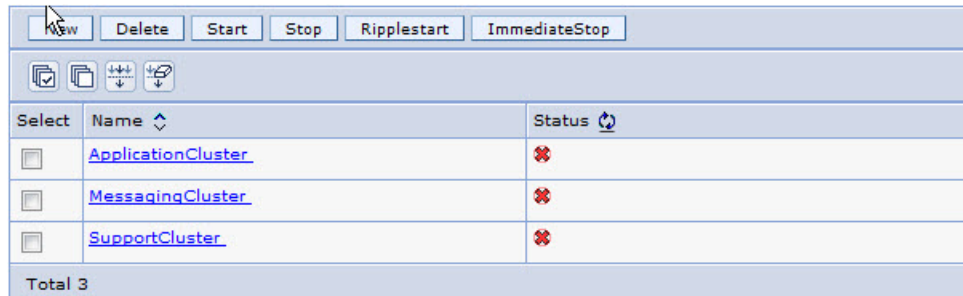
Now, you enable support for SCA on the application cluster.

## Enabling support for SCA on the application cluster:

Clusters can support Service Component Architecture (SCA) applications, application destinations, or both.

Use this procedure to enable support for SCA on the application cluster.

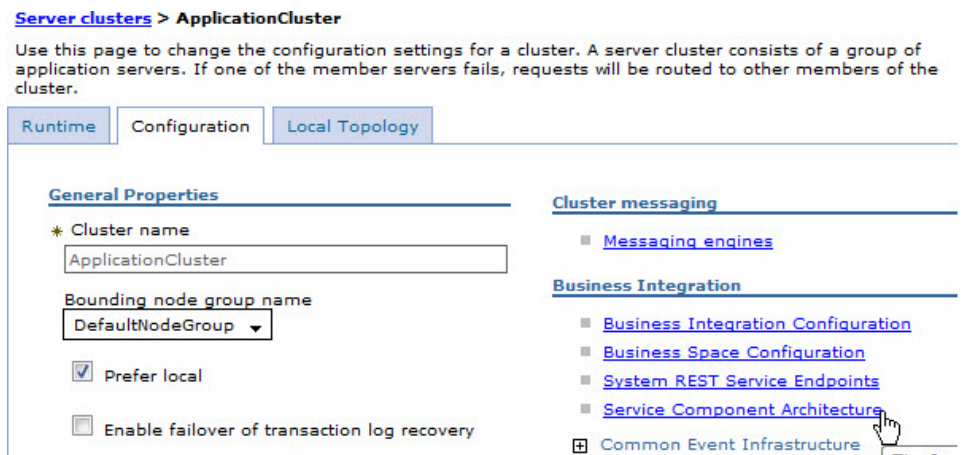
1. From the Server clusters page, click **ApplicationCluster**.



Select	Name	Status
<input type="checkbox"/>	<a href="#">ApplicationCluster</a>	✘
<input type="checkbox"/>	<a href="#">MessagingCluster</a>	✘
<input type="checkbox"/>	<a href="#">SupportCluster</a>	✘

Total 3

2. From the ApplicationCluster configuration page, select **Service Component Architecture**.



[Server clusters](#) > [ApplicationCluster](#)

Use this page to change the configuration settings for a cluster. A server cluster consists of a group of application servers. If one of the member servers fails, requests will be routed to other members of the cluster.

Runtime | Configuration | Local Topology

**General Properties**

- \* Cluster name: ApplicationCluster
- Bounding node group name: DefaultNodeGroup
- Prefer local
- Enable failover of transaction log recovery

**Cluster messaging**

- Messaging engines

**Business Integration**

- Business Integration Configuration
- Business Space Configuration
- System REST Service Endpoints
- Service Component Architecture
- Common Event Infrastructure

3. Check **Support the Service Component Architecture components** and click **OK**



[Server clusters](#) > [ApplicationCluster](#) > [Service Component Architecture](#)

The Service Component Architecture enables this deployment target for Ser  
WebSphere Business Integration Adapters, identify a bus member to host I

Configuration

**General Properties**

- Support the Service Component Architecture components

4. Select **Remote**, Ensure MessagingCluster is selected and click **OK**.



## General Properties

Support the Service Component Architecture components

### Bus Member Location

Local

Remote

WebSphere:cluster=MessagingCluster ▼

New

### System Bus Member

System bus destinations support the asynchronous components with each other.

Edit ...

Test Connection

Database Instance	Schema	Create Tables
WPRCSDB	WPRSS00	<input checked="" type="checkbox"/>

### Application Bus Member

Application bus destinations support the asynchronous components.

Enable the WebSphere Business Integration Ad

Edit ...

Test Connection

Database Instance	Schema	Create Tables
WPRCSDB	WPRSA00	<input checked="" type="checkbox"/>

Apply

OK

Reset

Cancel

5. Click **Save** and **OK**.

Now, you configure Business Process Choreographer on the application cluster.

### Configuring Business Process Choreographer on the application cluster:

Use the administrative console to configure Business Process Choreographer on the application cluster.

Use this procedure to configure Business Process Choreographer on the application cluster.

1. On the database system create a database called BPEDB.

```
C:\> DB2 CLP - DB2COPY1
C:\dbscripts>db2 create db BPEDB
DB20000I The CREATE DATABASE command completed successfully.
```

- From the administrative console, expand **Servers** → **Clusters** and select **ApplicationCluster**.
- Expand **Business Process Choreographer** and select **Business Process Choreographer Containers**.

**Server clusters > ApplicationCluster**

Use this page to change the configuration settings for a cluster. A server cluster consists of a group of application server member servers. If a member server fails, requests will be routed to other members of the cluster.

Runtime Configuration Local Topology

---

**General Properties**

\* Cluster name  
ApplicationCluster

Bounding node group name  
DefaultNodeGroup

Prefer local

Enable failover of transaction log recovery

Apply OK Reset Cancel

**Cluster messaging**

- Messaging engines

**Business Integration**

- Business Integration Configuration
- Business Space Configuration
- System REST Service Endpoints
- Service Component Architecture
- Common Event Infrastructure
- Business Process Choreographer
  - Business Process Choreographer Containers
  - Business Flow Manager

- Modify **Database Instance** to BPEDB.

▼ **Data Source**

Edit... Test Connection...

Database Instance	Schema Name	Create Tables	User Name	Password	Server	Provider
BPEDB	WPRBE00	<input checked="" type="checkbox"/>	db2admin	*****	wbi61.rchlar	DB2 Universal

- Uncheck **Enable e-mail service**.

▼ **Human Task Manager Mail Session**

Enable e-mail service

Mail transport host

Mail transport user

Mail transport password

Confirm mail transport password

Business Process Choreographer Explorer URL

- Enter **Group** ITAdministrator for Role **Administrator** and **Monitor**, Verify User, enter Password, and confirm Password.

Role	User	Group	Description
Administrator	<input type="text"/>	ITAdministr	User name(s) and/or group name(s) for the business flow and human task administrator role. Users assigned to this role have all privileges.
Monitor	<input type="text"/>	ITAdministr	User name(s) and/or group name(s) for the business flow and human task monitor role. Users assigned to this role can view the properties of all of the business process and task objects.

Authentication	User	Password	Confirm Password	Description
JMS Authentication	<input type="text" value="primaryAdm"/>	<input type="password" value="*****"/>	<input type="password" value="*****"/>	Authentication used to authorize communication between messaging engines on the system integration bus
JMS API Authentication	<input type="text" value="primaryAdm"/>	<input type="password" value="*****"/>	<input type="password" value="*****"/>	Authentication for business flow manager message-driven bean to process asynchronous API calls
Escalation User Authentication	<input type="text" value="primaryAdm"/>	<input type="password" value="*****"/>	<input type="password" value="*****"/>	Authentication for human task manager message-driven bean to process asynchronous API calls
Cleanup Service User Authentication	<input type="text" value="primaryAdm"/>	<input type="password" value="*****"/>	<input type="password" value="*****"/>	Authentication for the business flow and human task administrator role to process cleanup services

- Expand **Bus** and uncheck **Use the default configuration**, select **Remote** and click **New**.

**Bus**

Use the default configuration

**Bus Member Location**

Local  
 Remote

(none)

Database Instance	Schema Name
None	

- Select **WebSphere:cluster=MessagingCluster** and click **Select**.

**Server clusters**

[Server clusters](#) > [ApplicationCluster](#) > [Business Process Choreogra](#)

Use this page to select a new deployment target. The table lists all s for the specific component you are configuring.

Preferences

Select	Deployment Target
<input checked="" type="radio"/>	WebSphere:cluster=MessagingCluster
<input type="radio"/>	WebSphere:cluster=SupportCluster
<input type="radio"/>	WebSphere:node=wps101Node01,server=proxyServer
Total 3	

- Click **OK**.

▼ Bus

Use the default configuration

Bus Member Location

Local

Remote

WebSphere:cluster=MessagingCluster

Database Instance	Schema Name	Create Tables	User Name	Password	Server	Provider
WPRCSDB	WPRBM00	<input checked="" type="checkbox"/>	db2admin	*****	wbi61.rchlar	DB2 Universal

```

2008-12-03 00:14:18 Beginning configuration ...
2008-12-03 00:14:30 Configuring component 'Business Process Choreographer' on deployment
target 'ApplicationCluster'.
2008-12-03 00:14:30 Configuring component 'Business Flow Manager' on deployment
target 'ApplicationCluster'.
2008-12-03 00:14:34 ADMA5016I: Installation of BPEContainer_ApplicationCluster started.
2008-12-03 00:14:37 ADMA5058I: Application and module versions are validated with
versions of deployment targets.
2008-12-03 00:14:37 WSEC0106W: Your application may have Web Services Security enabled.
If it does, you must go to the Enterprise Application Management panels to configure
the binding information for Web Services Security. The binding information for Web
Services Security is not collected during application deployment. If it is not properly
configured, your application may not start or be usable.
2008-12-03 00:14:37 ADMA5005I: The application BPEContainer_ApplicationCluster is
configured in the WebSphere Application Server repository.
2008-12-03 00:14:37 ADMA5053I: The library references for the installed optional
package are created.
2008-12-03 00:14:37 ADMA5005I: The application BPEContainer_ApplicationCluster is
configured in the WebSphere Application Server repository.
2008-12-03 00:14:37 ADMA5001I: The application binaries are saved in
C:\WebSphere\ProcServer\profiles\Dmgr01\wstemp~-1112840563\workspace\cells\wps101Cell101
\applications\BPEContainer_ApplicationCluster.ear\BPEContainer_ApplicationCluster.ear
2008-12-03 00:14:37 ADMA5005I: The application BPEContainer_ApplicationCluster is
configured in the WebSphere Application Server repository.
2008-12-03 00:14:38 SECJ0400I: Successfully updated the application
BPEContainer_ApplicationCluster with the appContextIDForSecurity information.
2008-12-03 00:14:39 ADMA5005I: The application BPEContainer_ApplicationCluster
is configured in the WebSphere Application Server repository.
2008-12-03 00:14:39 CWSCA3013I: Resources for the SCA application
"BPEContainer_ApplicationCluster" are being configured.
2008-12-03 00:14:39 CWSCA3023I: The EAR file "bpecontainer_ApplicationCluster.ear"
is being loaded for the SCA module.
2008-12-03 00:14:39 CWSCA3017I: Installation task "Resource Task for SCA Messaging
Binding and EIS Binding" is running.
2008-12-03 00:14:39 CWSCA3017I: Installation task "Resource Task for SCA Messaging
Binding and JMS Binding" is running.
2008-12-03 00:14:39 CWSCA4201I: SCA module "BFMIF_ApplicationCluster" JMS artifacts
for "com/ibm/bpe/api/sca/BFMJMS" are being installed
2008-12-03 00:14:43 CWSCA4204I: SCA module "BFMIF_ApplicationCluster" JMS destination
for "com/ibm/bpe/api/sca/BFMJMS" with JNDI name
"BFMIF_ApplicationCluster/com/ibm/bpe/api/sca/BFMJMS_FAILEDEVENT_D" is being installed.
2008-12-03 00:14:43 CWSCA4203I: SCA module
"BFMIF_ApplicationCluster" destination on service integration bus
"SCA.SYSTEM.wps101Cell101.Bus" with JNDI name
"BFMIF_ApplicationCluster.com.ibm.bpe.api.sca.BFMJMS_FAILEDEVENT_D_SIB"
and type "javax.jms.Queue" is being installed.
2008-12-03 00:14:43 CWSCA4206I: SCA module "BFMIF_ApplicationCluster"
JMS connection factory for "com/ibm/bpe/api/sca/BFMJMS" with JNDI name
"sca/resource/jms/SCA.JMS/SystemBus_CF" is being installed.

```

2008-12-03 00:14:44 CWSCA4206I: SCA module "BFMIF\_ApplicationCluster" JMS connection factory for "com/ibm/bpe/api/sca/BFMJMS" with JNDI name "BFMIF\_ApplicationCluster/com/ibm/bpe/api/sca/BFMJMS\_FAILEDEVENT\_REPLAY\_CF" is being installed.

2008-12-03 00:14:44 CWSCA3017I: Installation task "SIBus Destination Resource Task for SCA Asynchronous Invocations" is running.

2008-12-03 00:14:44 CWSCA3017I: Installation task "EJB NamespaceBinding Resource Task for SCAImportBinding" is running.

2008-12-03 00:14:44 CWSCA3017I: Installation task "SIBus Destination Resource Task for SCA SOAP/JMS Invocations" is running.

2008-12-03 00:14:44 CWSCA3017I: Installation task "PolicySet Task for JaxWsImportBinding and JaxWsExportBinding" is running.

2008-12-03 00:14:44 CWSCA3014I: Resources for the SCA application "BPEContainer\_ApplicationCluster" have been configured successfully.

2008-12-03 00:14:45 ADMA5011I: The cleanup of the temp directory for application BPEContainer\_ApplicationCluster is complete.

2008-12-03 00:14:45 ADMA5013I: Application BPEContainer\_ApplicationCluster installed successfully.

2008-12-03 00:14:46 Creating JMS resources for component 'Business Flow Manager'.

2008-12-03 00:14:49 Configuring component 'Human Task Manager' on deployment target 'ApplicationCluster'.

2008-12-03 00:14:52 ADMA5016I: Installation of TaskContainer\_ApplicationCluster started.

2008-12-03 00:14:54 ADMA5058I: Application and module versions are validated with versions of deployment targets.

2008-12-03 00:14:54 WSEC0106W: Your application may have Web Services Security enabled. If it does, you must go to the Enterprise Application Management panels to configure the binding information for Web Services Security. The binding information for Web Services Security is not collected during application deployment. If it is not properly configured, your application may not start or be usable.

2008-12-03 00:14:54 ADMA5005I: The application TaskContainer\_ApplicationCluster is configured in the WebSphere Application Server repository.

2008-12-03 00:14:54 ADMA5053I: The library references for the installed optional package are created.

2008-12-03 00:14:54 ADMA5005I: The application TaskContainer\_ApplicationCluster is configured in the WebSphere Application Server repository.

2008-12-03 00:14:54 ADMA5001I: The application binaries are saved in C:\WebSphere\ProcServer\profiles\Dmgr01\wstemp\112840563\workspace\cells\wps101Cell101\applications\TaskContainer\_ApplicationCluster.ear\TaskContainer\_ApplicationCluster.ear

2008-12-03 00:14:54 ADMA5005I: The application TaskContainer\_ApplicationCluster is configured in the WebSphere Application Server repository.

2008-12-03 00:14:54 SECJ0400I: Successfully updated the application TaskContainer\_ApplicationCluster with the appContextIDForSecurity information.

2008-12-03 00:14:55 ADMA5005I: The application TaskContainer\_ApplicationCluster is configured in the WebSphere Application Server repository.

2008-12-03 00:14:55 CWSCA3013I: Resources for the SCA application "TaskContainer\_ApplicationCluster" are being configured.

2008-12-03 00:14:55 CWSCA3023I: The EAR file "task\_ApplicationCluster.ear" is being loaded for the SCA module.

2008-12-03 00:14:55 CWSCA3017I: Installation task "Resource Task for SCA Messaging Binding and EIS Binding" is running.

2008-12-03 00:14:55 CWSCA3017I: Installation task "Resource Task for SCA Messaging Binding and JMS Binding" is running.

2008-12-03 00:14:55 CWSCA3017I: Installation task "SIBus Destination Resource Task for SCA Asynchronous Invocations" is running.

2008-12-03 00:14:56 CWSCA3017I: Installation task "EJB NamespaceBinding Resource Task for SCAImportBinding" is running.

2008-12-03 00:14:56 CWSCA3017I: Installation task "SIBus Destination Resource Task for SCA SOAP/JMS Invocations" is running.

2008-12-03 00:14:56 CWSCA3017I: Installation task "PolicySet Task for JaxWsImportBinding and JaxWsExportBinding" is running.

2008-12-03 00:14:56 CWSCA3014I: Resources for the SCA application "TaskContainer\_ApplicationCluster" have been configured successfully.

2008-12-03 00:14:56 ADMA5011I: The cleanup of the temp directory for application TaskContainer\_ApplicationCluster is complete.

2008-12-03 00:14:56 ADMA5013I: Application TaskContainer\_ApplicationCluster installed successfully.

2008-12-03 00:14:57 Creating JMS resources for component 'Human Task Manager'.

2008-12-03 00:14:58 ADMA5016I: Installation of SchedulerCalendars started.

2008-12-03 00:14:58 ADMA5005I: The application SchedulerCalendars is configured in the WebSphere Application Server repository.

2008-12-03 00:14:58 ADMA5011I: The cleanup of the temp directory for application SchedulerCalendars is complete.

2008-12-03 00:14:58 ADMA5013I: Application SchedulerCalendars installed successfully.

2008-12-03 00:14:58 ADMA5016I: Installation of BusinessCalendar started.

2008-12-03 00:14:58 ADMA5005I: The application BusinessCalendar is configured in the WebSphere Application Server repository.

2008-12-03 00:14:58 ADMA5011I: The cleanup of the temp directory for application BusinessCalendar is complete.

2008-12-03 00:14:58 ADMA5013I: Application BusinessCalendar installed successfully.

2008-12-03 00:14:59 ADMA5016I: Installation of HTM\_PredefinedTasks\_V620\_ApplicationCluster started.

2008-12-03 00:14:59 ADMA5058I: Application and module versions are validated with versions of deployment targets.

2008-12-03 00:14:59 ADMA5005I: The application HTM\_PredefinedTasks\_V620\_ApplicationCluster is configured in the WebSphere Application Server repository.

2008-12-03 00:15:00 CWT000008I: The human tasks in application HTM\_PredefinedTasks\_V620\_ApplicationCluster have been successfully configured in the WebSphere configuration repository.

2008-12-03 00:15:00 ADMA5053I: The library references for the installed optional package are created.

2008-12-03 00:15:00 ADMA5005I: The application HTM\_PredefinedTasks\_V620\_ApplicationCluster is configured in the WebSphere Application Server repository.

2008-12-03 00:15:00 ADMA5001I: The application binaries are saved in C:\WebSphere\ProcServer\profiles\Dmgr01\wstemp\~1112840563\workspace\cells\wps101Cell101\applications\HTM\_PredefinedTasks\_V620\_ApplicationCluster.ear\HTM\_PredefinedTasks\_V620\_ApplicationCluster.ear

2008-12-03 00:15:00 ADMA5005I: The application HTM\_PredefinedTasks\_V620\_ApplicationCluster is configured in the WebSphere Application Server repository.

2008-12-03 00:15:01 SECJ0400I: Successfully updated the application HTM\_PredefinedTasks\_V620\_ApplicationCluster with the appContextIDForSecurity information.

2008-12-03 00:15:01 ADMA5005I: The application HTM\_PredefinedTasks\_V620\_ApplicationCluster is configured in the WebSphere Application Server repository.

2008-12-03 00:15:01 CWSCA3013I: Resources for the SCA application "HTM\_PredefinedTasks\_V620\_ApplicationCluster" are being configured.

2008-12-03 00:15:01 CWSCA3023I: The EAR file "HTM\_PredefinedTasks\_V620\_ApplicationCluster.ear" is being loaded for the SCA module.

2008-12-03 00:15:01 CWSCA3017I: Installation task "Resource Task for SCA Messaging Binding and EIS Binding" is running.

2008-12-03 00:15:01 CWSCA3017I: Installation task "Resource Task for SCA Messaging Binding and JMS Binding" is running.

2008-12-03 00:15:01 CWSCA3017I: Installation task "SIBus Destination Resource Task for SCA Asynchronous Invocations" is running.

2008-12-03 00:15:01 CWSCA3017I: Installation task "EJB NamespaceBinding Resource Task for SCAImportBinding" is running.

2008-12-03 00:15:01 CWSCA3017I: Installation task "SIBus Destination Resource Task for SCA SOAP/JMS Invocations" is running.

2008-12-03 00:15:01 CWSCA3017I: Installation task "PolicySet Task for JaxWsImportBinding and JaxWsExportBinding" is running.

2008-12-03 00:15:01 CWSCA3014I: Resources for the SCA application "HTM\_PredefinedTasks\_V620\_ApplicationCluster" have been configured successfully.

2008-12-03 00:15:02 ADMA5011I: The cleanup of the temp directory for application HTM\_PredefinedTasks\_V620\_ApplicationCluster is complete.

2008-12-03 00:15:02 ADMA5013I: Application HTM\_PredefinedTasks\_V620\_ApplicationCluster installed successfully.

2008-12-03 00:15:03 ADMA5016I: Installation of

HTM\_PredefinedTaskMsg\_V620\_ApplicationCluster started.

2008-12-03 00:15:03 ADMA5058I: Application and module versions are validated with versions of deployment targets.

2008-12-03 00:15:03 ADMA5005I: The application HTM\_PredefinedTaskMsg\_V620\_ApplicationCluster is configured in the WebSphere Application Server repository.

2008-12-03 00:15:03 CWT00008I: The human tasks in application HTM\_PredefinedTaskMsg\_V620\_ApplicationCluster have been successfully configured in the WebSphere configuration repository.

2008-12-03 00:15:03 ADMA5053I: The library references for the installed optional package are created.

2008-12-03 00:15:03 ADMA5005I: The application HTM\_PredefinedTaskMsg\_V620\_ApplicationCluster is configured in the WebSphere Application Server repository.

2008-12-03 00:15:03 ADMA5001I: The application binaries are saved in C:\WebSphere\ProcServer\profiles\Dmgr01\wstemp\~112840563\workspace\cells\wps101Cell101\Applications\HTM\_PredefinedTaskMsg\_V620\_ApplicationCluster.ear\HTM\_PredefinedTaskMsg\_V620\_ApplicationCluster.ear

2008-12-03 00:15:03 ADMA5005I: The application HTM\_PredefinedTaskMsg\_V620\_ApplicationCluster is configured in the WebSphere Application Server repository.

2008-12-03 00:15:03 SECJ0400I: Successfully updated the application HTM\_PredefinedTaskMsg\_V620\_ApplicationCluster with the appContextIDForSecurity information.

2008-12-03 00:15:03 ADMA5005I: The application HTM\_PredefinedTaskMsg\_V620\_ApplicationCluster is configured in the WebSphere Application Server repository.

2008-12-03 00:15:03 CWSCA3013I: Resources for the SCA application "HTM\_PredefinedTaskMsg\_V620\_ApplicationCluster" are being configured.

2008-12-03 00:15:03 CWSCA3023I: The EAR file "HTM\_PredefinedTaskMsg\_V620\_ApplicationCluster.ear" is being loaded for the SCA module.

2008-12-03 00:15:03 CWSCA3017I: Installation task "Resource Task for SCA Messaging Binding and EIS Binding" is running.

2008-12-03 00:15:03 CWSCA3017I: Installation task "Resource Task for SCA Messaging Binding and JMS Binding" is running.

2008-12-03 00:15:03 CWSCA3017I: Installation task "SIBus Destination Resource Task for SCA Asynchronous Invocations" is running.

2008-12-03 00:15:04 CWSCA3017I: Installation task "EJB NamespaceBinding Resource Task for SCAImportBinding" is running.

2008-12-03 00:15:04 CWSCA3017I: Installation task "SIBus Destination Resource Task for SCA SOAP/JMS Invocations" is running.

2008-12-03 00:15:04 CWSCA3017I: Installation task "PolicySet Task for JaxWsImportBinding and JaxWsExportBinding" is running.

2008-12-03 00:15:04 CWSCA3014I: Resources for the SCA application "HTM\_PredefinedTaskMsg\_V620\_ApplicationCluster" have been configured successfully.

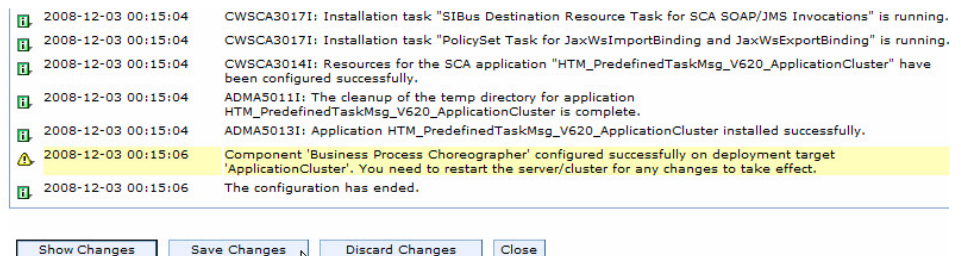
2008-12-03 00:15:04 ADMA5011I: The cleanup of the temp directory for application HTM\_PredefinedTaskMsg\_V620\_ApplicationCluster is complete.

2008-12-03 00:15:04 ADMA5013I: Application HTM\_PredefinedTaskMsg\_V620\_ApplicationCluster installed successfully.

2008-12-03 00:15:06 Component 'Business Process Choreographer' configured successfully on deployment target 'ApplicationCluster'. You need to restart the server/cluster for any changes to take effect.

2008-12-03 00:15:06 The configuration has ended.

## 10. Click Save Changes and OK.



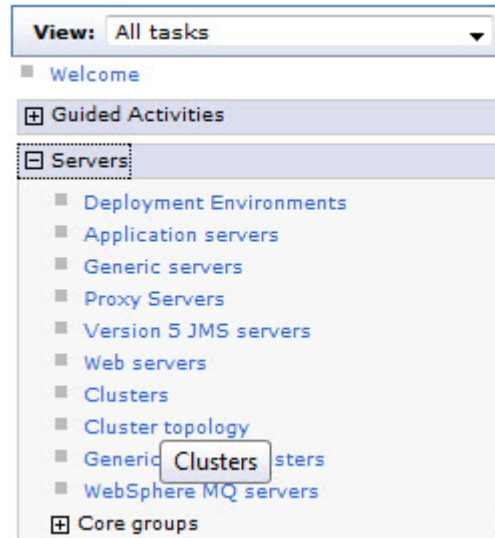
Now, you create support 2 cluster.

## Creating support 2 cluster:

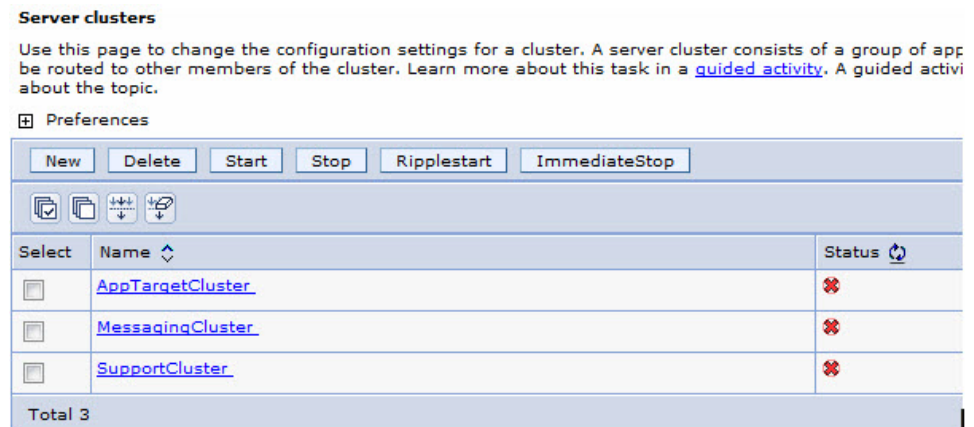
Use the administrative console to create the support 2 cluster.

Use this procedure to create the support 2 cluster.

1. Login to the administrative console.
2. Expand Servers and select **Clusters**.



3. Click New.



4. From the Enter basic cluster information page, enter **Cluster name** Support2Cluster and click **Next**.



Create a new cluster

→ Step 1: Enter basic cluster information

Step 2: Create first cluster member

Step 3: Create additional cluster members

Step 4: Summary

### Enter basic cluster information

\* Cluster name

Prefer local. Specifies whether enterprise bean requests will be routed to the node on which the client resides when possible.

Configure HTTP session memory-to-memory replication

- From the Create first cluster member page, enter the **Member name** Support2Member1 and select a value for **Select node** and select **Create the member using an application server template** defaultProcessServer and click **Next**.

Create a new cluster

Step 1: Enter basic cluster information

→ Step 2: Create first cluster member

Step 3: Create additional cluster members

Step 4: Summary

### Create first cluster member

The first cluster member determines the server settings for the cluster members created from the first member and stored as part of the cluster data. Additional members are created from the first member and stored as part of the cluster data. Additional members are created from the first member and stored as part of the cluster data.

\* Member name

Select node

\* Weight  
 (0..20)

Generate unique HTTP ports

Select basis for first cluster member:

Create the member using an application server template.

Create the member using an existing application server as a template.

Create the member by converting an existing application server.

None. Create an empty cluster.

- From the Create additional cluster members page, enter SupportMember2 in **Member name** , Select node and click **Add Member**.

Create a new cluster

Step 1: Enter basic cluster information

Step 2: Create first cluster member

→ Step 3: Create additional cluster members

Step 4: Summary

### Create additional cluster members

Enter information about this new cluster member, and server configuration template is created from the first members are copied from this template.

\* Member name  
Support2Member2

Select node  
wbi61Node01(ND 6.1.0.17) ▼

\* Weight  
2 (0..20)

Generate unique HTTP ports

Add Member

Use the Edit function to edit the properties of a cluster member that is already included in this list. You are not allowed to edit or remove the first cluster member.

Edit Delete

Select	Member name	Nodes
<input type="checkbox"/>	Support2Member1	wps120Node01

Previous Next Cancel

7. Click Next.

Create a new cluster

Step 1: Enter basic cluster information

Step 2: Create first cluster member

→ Step 3: Create additional cluster members

Step 4: Summary

### Create additional cluster members

Enter information about this new cluster member, and click Add Member to add this cluster member. A server configuration template is created from the first member and stored as part of the cluster data. Members are copied from this template.

\* Member name  
[ ]

Select node  
wbi61Node01(ND 6.1.0.17) ▼

\* Weight  
2 (0..20)

Generate unique HTTP ports

Add Member

Use the Edit function to edit the properties of a cluster member that is already included in this list. You are not allowed to edit or remove the first cluster member.

Edit Delete

Select	Member name	Nodes	Version
<input type="checkbox"/>	Support2Member1	wps120Node01	Business Process Choreographer 6.1.2.0 ND 6.1.0.17 WPS 6.1.2.0
<input type="checkbox"/>	Support2Member2	wbi61Node01	Business Process Choreographer 6.1.2.0 ND 6.1.0.17 WPS 6.1.2.0

Previous Next Cancel

8. From the Summary page, click Finish.



9. Click **Save** and **OK**.

Now, you configure Business Process Choreographer Explorer on support 2 cluster.

### Configuring Business Process Choreographer Explorer on support 2 cluster:

Business Process Choreographer Explorer is a Web application that implements a generic Web user interface for interacting with business processes and human tasks. Use the administrative console to configure Business Process Choreographer Explorer on support 2 cluster.

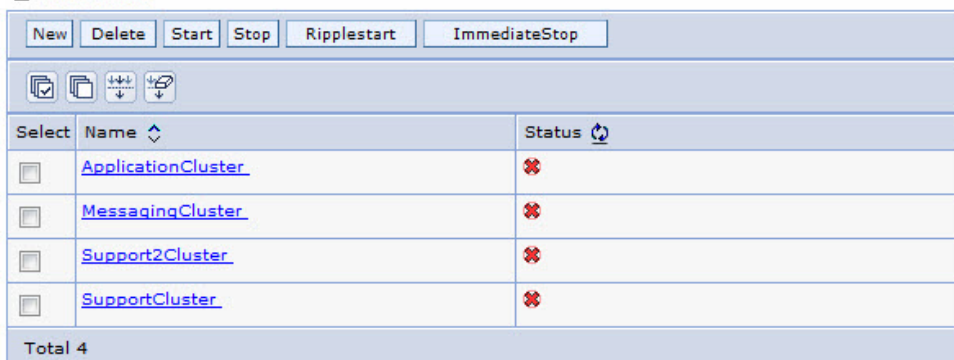
This procedure describes how to configure Business Process Choreographer Explorer on support 2 cluster.

1. From the administrative console, expand **Servers** → **Clusters** and click **Support2Cluster**.

#### Server clusters

Use this page to change the configuration settings for a cluster. A server cluster consists of a group of application servers. If one of the member servers fails, requests will be routed to other members of the cluster. Learn more about this task in a [guided activity](#). A guided activity provides a list of task steps and more general information about the topic.

☒ Preferences



2. From the support 2 cluster page, expand **Business Process Choreographer** and select **Business Process Choreographer Explorer**.

[Server clusters](#) > [SupportCluster2](#)

Use this page to change the configuration settings for a cluster. A server cluster consists of a group of application servers. If one of the member servers fails, requests will be routed to other members of the cluster.

Runtime Configuration Local Topology

---

**General Properties**

\* Cluster name

Bounding node group name

Prefer local

Enable failover of transaction log recovery

**Cluster messaging**

- [Messaging engines](#)

**Business Integration**

- [Business Integration Configuration](#)
- [Business Space Configuration](#)
- [System REST Service Endpoints](#)
- [Service Component Architecture](#)
- ▣ Common Event Infrastructure
- ▣ [Business Process Choreographer](#)
  - [Business Process Choreographer Containers](#)
  - [Business Flow Manager](#)
  - [Human Task Manager](#)
  - [Business Process Choreographer Explorer](#)
  - [Business Process Choreographer Event](#)

3. From the Business Process Choreographer Explorer page, click **Add**.

[Server clusters](#) > [SupportCluster2](#) > [Business Process Choreographer Explorer](#)

The Business Process Choreographer Explorer is a web application for managing and administering process instances choreographer container.

Use this configuration panel to set up the explorer for a target business process choreographer container.

Select	Explorer	Context Root	Managed Contai
None			
Total			

4. From the Business Process Choreographer Explorer Configuration page, enter the **Business Flow Manager REST API URL**, the **Human Task Manager REST API URL** and click **OK**.

**Configuration**

---

**General Properties**

Enable autostart

Context root  
/bpc

Explorer search result limit  
10000

---

**Managed Business Process Choreographer Container**

Managed Business Process Choreographer container  
Cluster=ApplicationCluster

Business Flow Manager REST API URL  
http://wps101.rchland.ibm.com:80/rest/bpm/bfm

Human Task Manager REST API URL  
http://wps101.rchland.ibm.com:80/rest/bpm/htm

---

**Reporting Function**

Enable reporting function

Visualize monitoring data from this event collector  
▼

Snapshot report range (in days)  
60

Apply OK Reset Cancel

5. Click Save Changes and OK.

**Configuration Status**

2008-11-12 18:06:58	Beginning configuration ...
2008-11-12 18:06:58	Configuring component 'Business Process Choreographer Explorer' on deployment target 'SupportCluster2'.
2008-11-12 18:07:18	ADMA5016I: Installation of BPCEXplorer_SupportCluster2 started.
2008-11-12 18:07:23	ADMA5058I: Application and module versions are validated with versions of deployment targets.
2008-11-12 18:07:23	ADMA5005I: The application BPCEXplorer_SupportCluster2 is configured in the WebSphere Application Server
2008-11-12 18:07:23	ADMA5053I: The library references for the installed optional package are created.
2008-11-12 18:07:24	ADMA5005I: The application BPCEXplorer_SupportCluster2 is configured in the WebSphere Application Server
2008-11-12 18:07:26	ADMA5001I: The application binaries are saved in C:\ProcServer62\profiles\Dmgr01\wstemp\1112840563\wps101Cell01\applications\BPCEXplorer_SupportCluster2.ear\BPCEXplorer_SupportCluster2.ear
2008-11-12 18:07:26	ADMA5005I: The application BPCEXplorer_SupportCluster2 is configured in the WebSphere Application Server
2008-11-12 18:07:28	SECJ0400I: Successfully updated the application BPCEXplorer_SupportCluster2 with the appContextIDForSecur
2008-11-12 18:07:29	ADMA5005I: The application BPCEXplorer_SupportCluster2 is configured in the WebSphere Application Server
2008-11-12 18:07:31	ADMA5011I: The cleanup of the temp directory for application BPCEXplorer_SupportCluster2 is complete.
2008-11-12 18:07:31	ADMA5013I: Application BPCEXplorer_SupportCluster2 installed successfully.
2008-11-12 18:07:31	The configuration has ended.

Now, you configure Business Rules Manager on support 2 cluster.

### Configuring Business Rules Manager on support cluster 2:

The business rules manager is a Web-based tool that assists the business analyst in browsing and modifying business rule values. Use the administrative console to configure Business Rules Manager on support cluster 2.

Use this procedure to configure Business Rules Manager on support 2 cluster.

1. From the administrative console, expand **Servers** → **Clusters** and click **Support2Cluster**.

#### Server clusters

Use this page to change the configuration settings for a cluster. A server cluster consists of a group of application servers. If one of the member servers fails, requests will be routed to other members of the cluster. Learn more about this task in a [guided activity](#). A guided activity provides a list of task steps and more general information about the topic.

⊞ Preferences

<input type="button" value="New"/> <input type="button" value="Delete"/> <input type="button" value="Start"/> <input type="button" value="Stop"/> <input type="button" value="Ripplestart"/> <input type="button" value="ImmediateStop"/>		
Select	Name	Status
<input type="checkbox"/>	<a href="#">ApplicationCluster</a>	✖
<input type="checkbox"/>	<a href="#">MessagingCluster</a>	✖
<input type="checkbox"/>	<a href="#">Support2Cluster</a>	✖
<input type="checkbox"/>	<a href="#">SupportCluster</a>	✖
Total 4		

2. From the Support2Cluster page, expand **Business Rules** and select **Business Rules Manager Configuration**.

#### Server clusters > Support2Cluster

Use this page to change the configuration settings for a cluster. A server cluster consists of a group of application servers. If one of the member servers fails, requests will be routed to other members of the cluster.

<b>Runtime</b>	<b>Configuration</b>	<b>Local Topology</b>
<p><b>General Properties</b></p> <p>* Cluster name  <input type="text" value="Support2Cluster"/></p> <p>Bounding node group name  <input type="text" value="DefaultNodeGroup"/></p> <p><input checked="" type="checkbox"/> Prefer local</p> <p><input type="checkbox"/> Enable failover of transaction log recovery</p> <p><input type="button" value="Apply"/> <input type="button" value="OK"/> <input type="button" value="Reset"/> <input type="button" value="Cancel"/></p>		<p><b>Cluster messaging</b></p> <ul style="list-style-type: none"> <li><a href="#">Messaging engines</a></li> </ul> <p><b>Business Integration</b></p> <ul style="list-style-type: none"> <li><a href="#">Business Integration Configuration</a></li> <li><a href="#">Business Space Configuration</a></li> <li><a href="#">System REST Service Endpoints</a></li> <li><a href="#">Service Component Architecture</a></li> <li><input type="checkbox"/> Common Event Infrastructure</li> <li><input type="checkbox"/> Business Process Choreographer</li> <li><input type="checkbox"/> Business Rules <ul style="list-style-type: none"> <li><a href="#">Business Rules Manager Configuration</a></li> </ul> </li> </ul>

3. From the Business Rules Manager Configuration page, check **Install business rules manager** and click **OK**.

**Server clusters > SupportCluster2 > Business Rules Manager Configuration**

Use the business rules manager configuration page to install business rules r is usually hosted on a server or cluster. Business rules, business rule templat during run time.

Configuration

**General Properties**

Install business rules manager

Context root

4. Click **Save** and **OK**.

Now, you configure Business Space on support 2 cluster.

**Configuring Business Space on support cluster 2:**

WebSphere® Process Server includes Business Space powered by WebSphere, which provides a common interface for application users to create, manage and integrate Web interfaces across the IBM® WebSphere Business Process Management portfolio. Use the administrative console to configure Business Space on support 2 cluster.

Use this procedure to configure Business Space on support 2 cluster.

1. From the administrative console, expand **Servers** → **Clusters** and click **Support2Cluster**.

**Server clusters**

Use this page to change the configuration settings for a cluster. A server cluster consists of a group of application servers. If one of the member servers fails, requests will be routed to other members of the cluster. Learn more about this task in a [guided activity](#). A guided activity provides a list of task steps and more general information about the topic.

Preferences

<input type="button" value="New"/> <input type="button" value="Delete"/> <input type="button" value="Start"/> <input type="button" value="Stop"/> <input type="button" value="Ripplestart"/> <input type="button" value="ImmediateStop"/>		
Select	Name	Status
<input type="checkbox"/>	<a href="#">ApplicationCluster</a>	✖
<input type="checkbox"/>	<a href="#">MessagingCluster</a>	✖
<input type="checkbox"/>	<a href="#">Support2Cluster</a>	✖
<input type="checkbox"/>	<a href="#">SupportCluster</a>	✖
Total 4		

2. From the Support 2 Cluster page, select **Business Space Configuration**.

[Server clusters](#) > [Support2Cluster](#)

Use this page to change the configuration settings for a cluster. A server cluster consists of a group of application servers. If one of the member servers fails, requests will be routed to other members of the cluster.

Runtime Configuration Local Topology

**General Properties**

\* Cluster name  
Support2Cluster

Bounding node group name  
DefaultNodeGroup

Prefer local

Enable failover of transaction log recovery

**Cluster messaging**

- [Messaging engines](#)

**Business Integration**

- [Business Integration Configuration](#)
- [Business Space Configuration](#)
- [System REST Service Endpoints](#)
- [Service Component Architecture](#)

- From the Business Space Configuration page, check **Business Space service** and click **OK**.

[Server clusters](#) > [Support2Cluster](#) > [Business Space Configuration](#)

Use the Business Space Configuration page to install Business Space powered by WebSphere to your runtime environment. Business Space is a common interface for application users to create, manage, and integrate Web interfaces across the IBM WebSphere Business Process Management portfolio. The Business Space service is hosted on a server or cluster.

Configuration

**General Properties**

Install Business Space service

Database schema name  
IBMBUSSP

Existing Business Space data source  
[Empty field]

Create Business Space data source using:  
WBI\_DataSource

Apply OK Reset Cancel

- Click **Save** and **OK**.

Messages

- "Business Space has been installed successfully."
- "Business Space has been configured successfully."
- "Locate the database scripts for your database type under the directory <WAS Installation Root>/profiles/<your profile>/dbscripts/BusinessSpace. Run the scripts to create the business space tables."
- "The Solution Management space has been configured successfully."
- Changes have been made to your local configuration. You can:
  - [Save](#) directly to the master configuration.
  - [Review](#) changes before saving or discarding.
- An option to synchronize the configuration across multiple nodes can be disabled in [Preferences](#).
- The server may need to be restarted for these changes to take effect.

- Locate the BusinessSpace directory.



Go to <WAS Installation Root>/profiles/Dmgr01/dbscripts and copy it to the database system.

6. On the database system connect to WPRCSDB:

```
C:\dbscripts\BusinessSpace\DB2\WPRCSDB>db2 connect to WPRCSDB user db2admin
Enter current password for db2admin:
```

Database Connection Information

```
Database server      = DB2/NT 9.5.2
SQL authorization ID = DB2ADMIN
Local database alias = WPRCSDB
```

7. Create Business Space tables with createTable\_BusinessSpace.sql.

```
C:\dbscripts\BusinessSpace\DB2\WPRCSDB>db2 -tf createTable_BusinessSpace.sql
DB20000I The SQL command completed successfully.
```

```
DB20000I The SQL command completed successfully.
```

```
DB20000I The SQL command completed successfully.
```

```
DB20000I The SQL command completed successfully.
```

```
DB20000I The SQL command completed successfully.
```

```
DB20000I The SQL command completed successfully.
```

```
DB20000I The SQL command completed successfully.
```

```
DB20000I The SQL command completed successfully.
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DB20000I The SQL command completed successfully.
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DB20000I The SQL command completed successfully.
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DB20000I The SQL command completed successfully.
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DB20000I The SQL command completed successfully.
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DB20000I The SQL command completed successfully.
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DB20000I The SQL command completed successfully.
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DB20000I The SQL command completed successfully.
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DB20000I The SQL command completed successfully.
```

```
DB20000I The SQL command completed successfully.
```

```
DB20000I The SQL command completed successfully.
```

```
DB20000I The SQL command completed successfully.
```

8. Bind the database.

```
C:\>cd "Program Files\IBM\SQLLIB\bnd
```

```
C:\Program Files\IBM\SQLLIB\bnd>db2 bind @db2cli.lst blocking all grant public
```

```
LINE      MESSAGES FOR db2cli.lst
```

```
-----
SQL0061W The binder is in progress.
SQL0091N Binding was ended with "0" errors and "0" warnings.
```

```
C:\Program Files\IBM\SQLLIB\bnd>db2 connect reset
```

```
DB20000I The SQL command completed successfully.
```

Now, you restart all processes in the cell.

## Restarting all processes in the cell:

Use the administrative console to restart all processes in the cell.

Use this procedure to restart all processes in the cell.

1. From the administrative console, expand **System Administration** and click **Nodes**.
2. From the Nodes page, select all nodes except **CellManager** and click **Full Resynchronize**.

**Nodes**

Use this page to manage nodes in the application server environment. A node corresponds to a physical cc system with a distinct IP host address. The following table lists the managed and unmanaged nodes in this first node is the deployment manager. Add new nodes to the cell and to this list by clicking Add Node.

⊞ Preferences

Add Node Remove Node Force Delete Synchronize Full Resynchronize Stop

Select	Name	Version	Discovery Protocol	Status
<input checked="" type="checkbox"/>	<a href="#">wbi61Node01</a>	ND 6.1.0.21 Process Choreographer 6.2.0.0 WPS 6.2.0.0 WS FEP 6.1.0.21	TCP	↔
<input type="checkbox"/>	<a href="#">wps101CellManager01</a>	ND 6.1.0.21 Process Choreographer 6.2.0.0 WPS 6.2.0.0 WS FEP 6.1.0.21	TCP	↔
<input checked="" type="checkbox"/>	<a href="#">wps101Node01</a>	ND 6.1.0.21 Process Choreographer 6.2.0.0 WPS 6.2.0.0 WS FEP 6.1.0.21	TCP	↔
<input checked="" type="checkbox"/>	<a href="#">wps120Node01</a>	ND 6.1.0.21 Process Choreographer 6.2.0.0 WPS 6.2.0.0 WS FEP 6.1.0.21	TCP	↔

Total 4

⊞ Messages

- Successfully initiated synchronization of the repository on node wbi61Node01 with the deployment manager's repository.
- Successfully initiated synchronization of the repository on node wps101Node01 with the deployment manager's repository.
- Successfully initiated synchronization of the repository on node wps120Node01 with the deployment manager's repository.

3. Ensure proxyServer is not running.

### Proxy Servers

A server that acts as an intermediary for HTTP requests that are serviced by application servers or Web servers. The proxy server acts as a surrogate for the application servers in the enterprise and can enhance the overall experience by providing services such as workload management, cross-cell routing, and other services that offload the application server.

Preferences

New Delete Templates... Start Stop					
Select	Name	Node	Version	Protocol	Status
<input type="checkbox"/>	<a href="#">proxyServer</a>	wps101Node01	ND 6.1.0.21 Process Choreographer 6.2.0.0 WPS 6.2.0.0 WS FEP 6.1.0.21	HTTP, SIP	✘
Total 1					

4. Ensure clusters are not running.

### Server clusters

Use this page to change the configuration settings for a cluster. A server cluster consists of a group of application servers. If one of the member servers fails, requests will be routed to other members of the cluster. Learn more about this task in a [guided activity](#). A guided activity provides a list of task steps and more general information about the topic.

Preferences

New Delete Start Stop Ripplestart ImmediateStop		
Select	Name	Status
<input type="checkbox"/>	<a href="#">ApplicationCluster</a>	✘
<input type="checkbox"/>	<a href="#">MessagingCluster</a>	✘
<input type="checkbox"/>	<a href="#">Support2Cluster</a>	✘
<input type="checkbox"/>	<a href="#">SupportCluster</a>	✘
Total 4		

5. Stop all Node Agents.

### Node agents

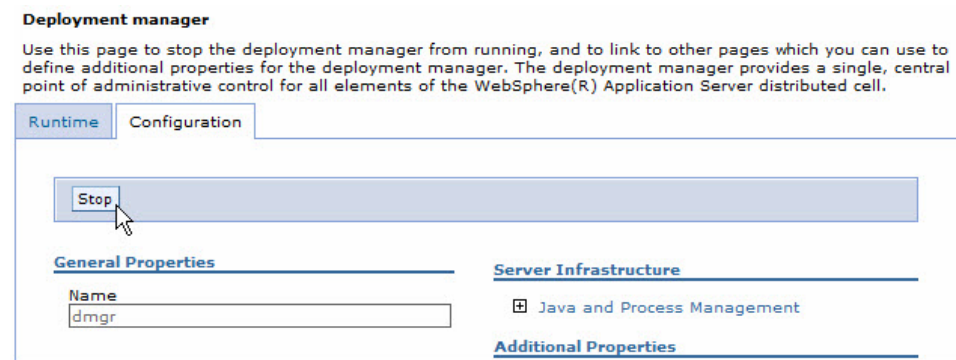
Use this page to manage node agents and application servers on the node that a node agent manages. The node agent process serves as an intermediary between the application servers on the node and the deployment manager. The node agent process runs on every node and is specialized to perform node-specific administration functions, such as server process monitoring, configuration synchronization, file transfer, and request routing.

Preferences

Stop Restart Restart all Servers on Node				
Select	Name	Node	Version	Status
<input type="checkbox"/>	<a href="#">nodeagent</a>	wps101Node01	ND 6.1.0.21 Process Choreographer 6.2.0.0 WPS 6.2.0.0 WS FEP 6.1.0.21	✘
<input type="checkbox"/>	<a href="#">nodeagent</a>	wbi61Node01	ND 6.1.0.21 Process Choreographer 6.2.0.0 WPS 6.2.0.0 WS FEP 6.1.0.21	✘
<input type="checkbox"/>	<a href="#">nodeagent</a>	wps120Node01	ND 6.1.0.21 Process Choreographer 6.2.0.0 WPS 6.2.0.0 WS FEP 6.1.0.21	✘
Total 3				

6. Stop the Deployment Manager.

This is a good time save log files and start clean.



7. Start the Deployment Manager and verify the logs are clean.
8. Start the Node Agent(s) and verify the logs are clean.
9. Start the proxyServer and verify the logs are clean.
10. Start the MessagingCluster and verify the logs are clean.
11. Start the ApplicationCluster and verify the logs are clean (Server started clean after second stop/start).
12. Start the SupportCluster and verify the logs are clean.
13. Start the Support2Cluster and verify the logs are clean (Server started clean after second stop/start).

Verify the WebSphere Process Server installation and configuration.

## Verifying the installation of WebSphere Process Server 6.2

Check settings and behavior to ensure the software is running.

Verification step instructions provides quick understanding of what to check to make sure the software is running properly.

1. Start the deployment manager.  
C:\WebSphere\ProcServer\bin>startManager.

```
C:\WebSphere\ProcServer\bin>startManager
ADMU0116I: Tool information is being logged in file
           C:\WebSphere\ProcServer\profiles\Dmgr01\logs\dmgr\startServer.log
ADMU0128I: Starting tool with the Dmgr01 profile
ADMU3100I: Reading configuration for server: dmgr
ADMU3200I: Server launched. Waiting for initialization status.
ADMU3000I: Server dmgr open for e-business; process id is 2552
C:\WebSphere\ProcServer\bin>
```

2. Search the C:\WebSphere\ProcServer\profiles\Dmgr01\logs\dmgr\SystemOut.log for any errors.  
You can ignore the following error:[9/9/08 16:44:47:001 CDT] 00000016  
ExtensionRegi E CWXRS0004E: Failed to resolve plug-in

Now you are ready to install WebSphere Service Registry and Repository Version 6.2.

## WebSphere Service Registry and Repository Version 6.2

WebSphere Service Registry and Repository provides technical service metadata in the runtime environment.

With WebSphere Service Registry and Repository, you can:

- Enable SOA governance of your services throughout the service lifecycle.
- Promote reuse and eliminate redundancies by increasing visibility of services, applications and processes.
- Enhance connectivity by increasing runtime flexibility of applications integrated using the Enterprise Service Bus (ESB).
- Optimize the use of services in SOA by exchanging rich service information with runtime monitoring tools and operational data stores.
- Enable governance and lifecycle management of your high-value applications, such as WebSphere MQ, CICS and IMS.
- Enable policy management across the SOA lifecycle spanning all categories of policy.

## Installing WebSphere Service Registry and Repository

You install the software using the installation wizard. You can obtain the WebSphere Service Registry and Repository 6.2 product files in two ways, from the disks in the product package or by downloading installation images from the Passport Advantage® site, if you are licensed to do so.

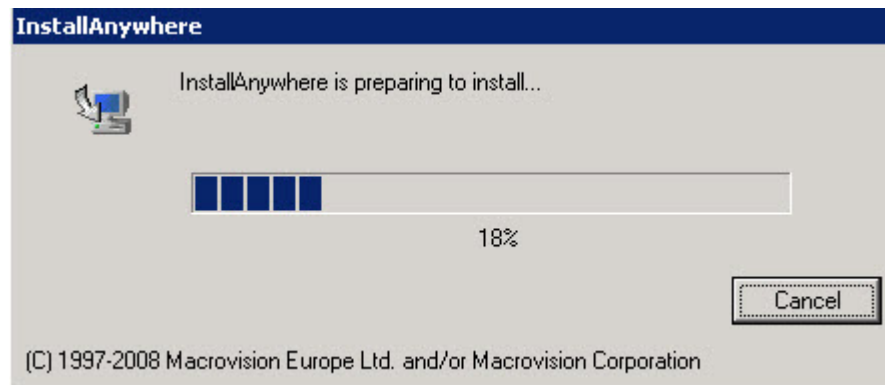
Use this procedure to install WebSphere Service Registry and Repository on the database server and the application server and to create a deployment manager (Dmgr01) profile.

This single installation procedure installs WebSphere Service Registry and Repository and creates the associated profiles for the systems.

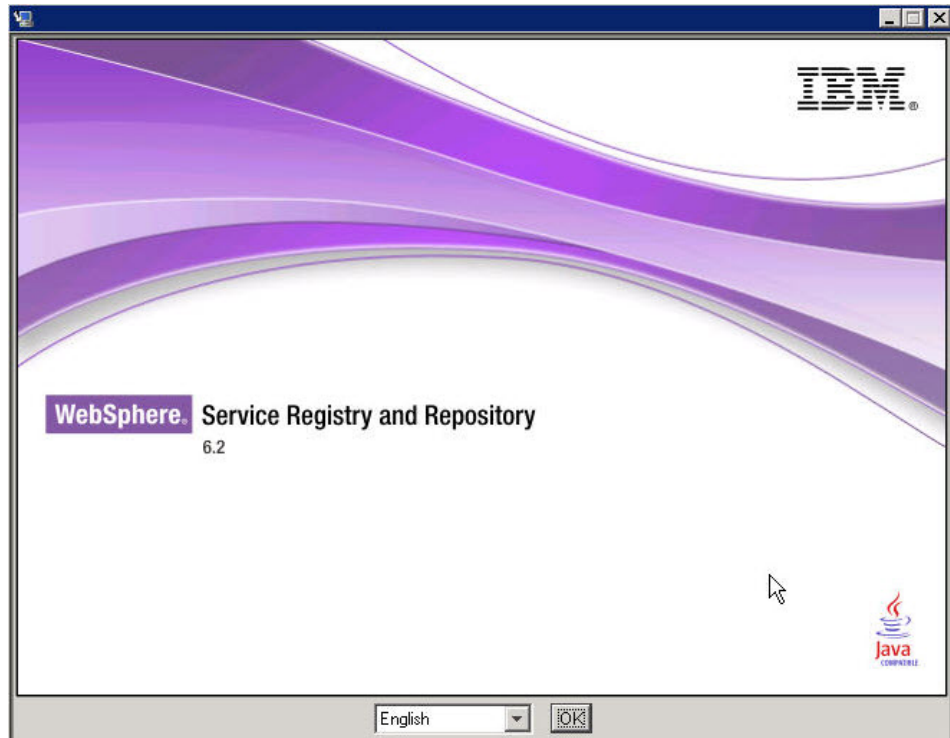
The screen captures are included to make it easier to follow the step instructions.

The step instructions are included to provide the specific task you need to perform and any information needed to perform the task (such as directory locations, parameters to enter, etc.)

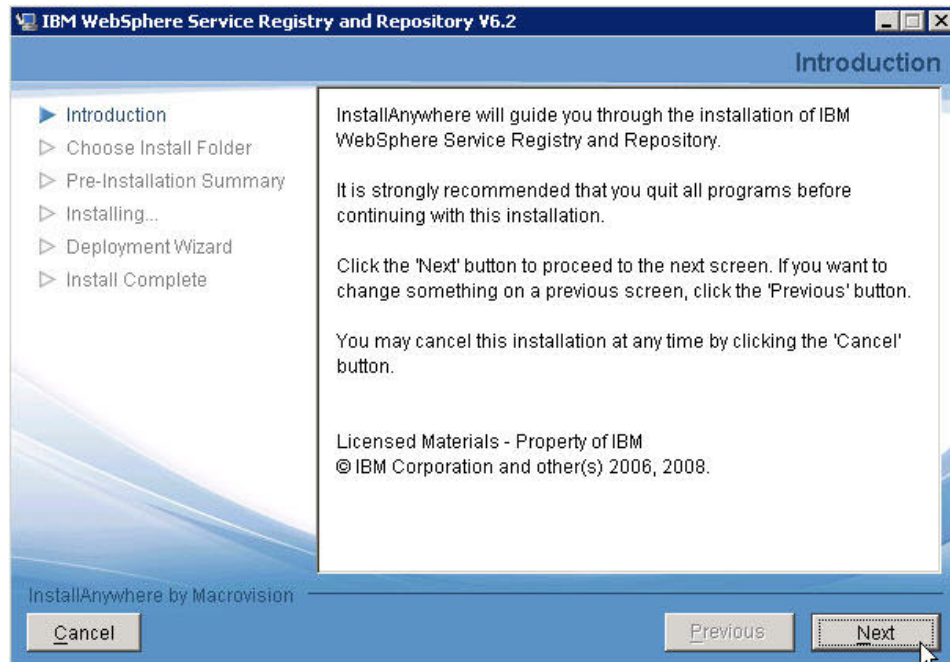
1. On the database system unzip and run the install.exe.



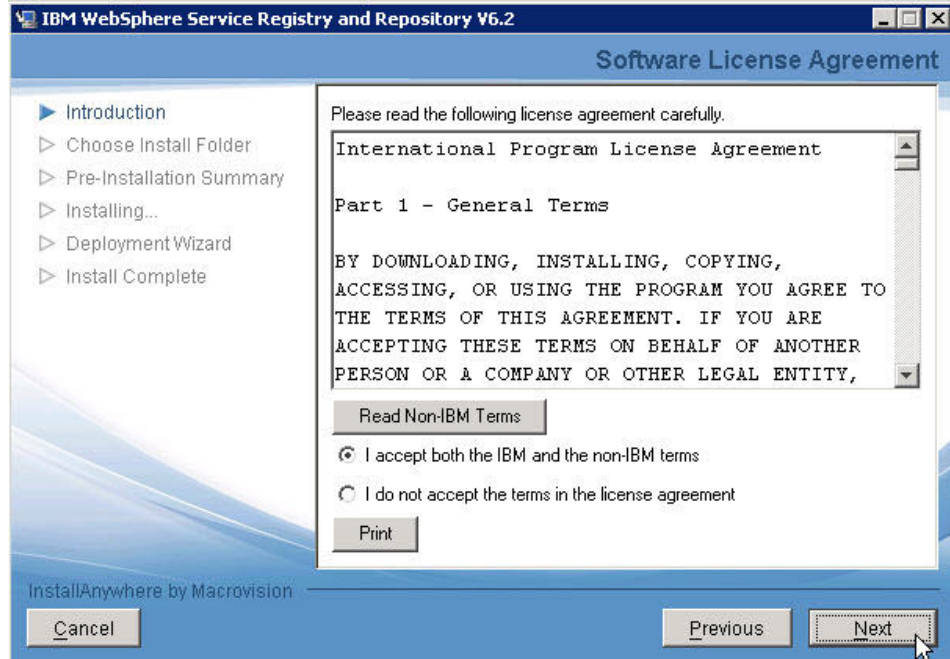
2. From the WebSphere Service Registry and Repository page, click **OK**.



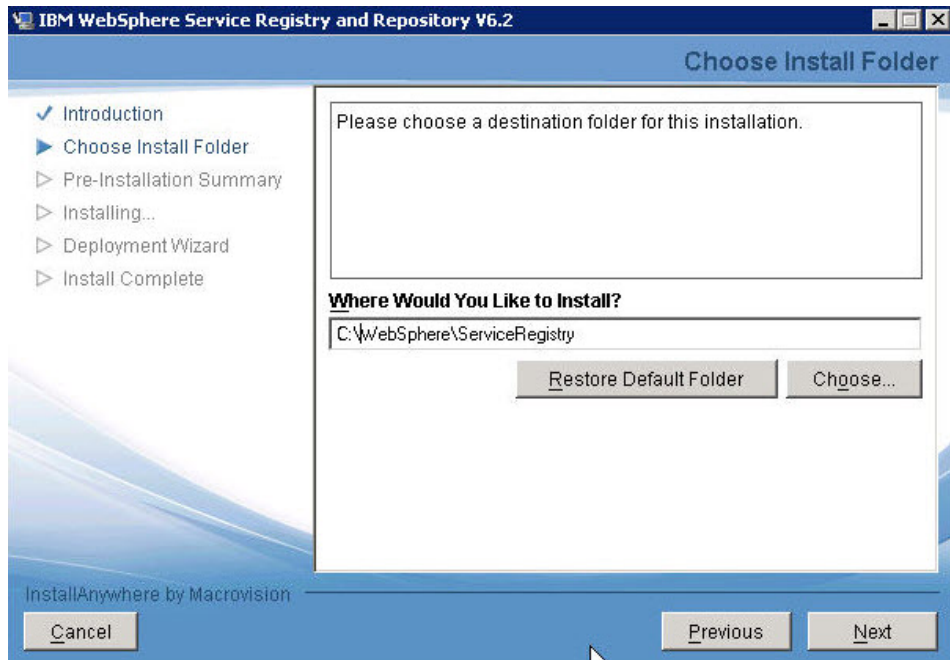
3. From the Introduction page select **Next**.



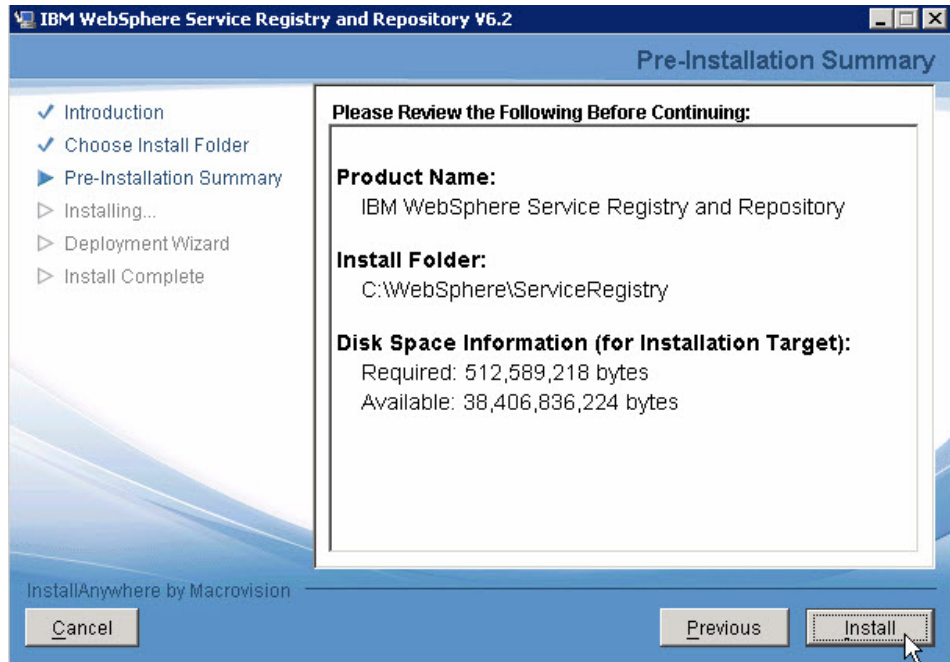
4. From the Software License Agreement page, accept the terms of the license agreements and click **Next**.



5. From the Choose Install Folder page, choose into which directory you want to install and click **Next**.

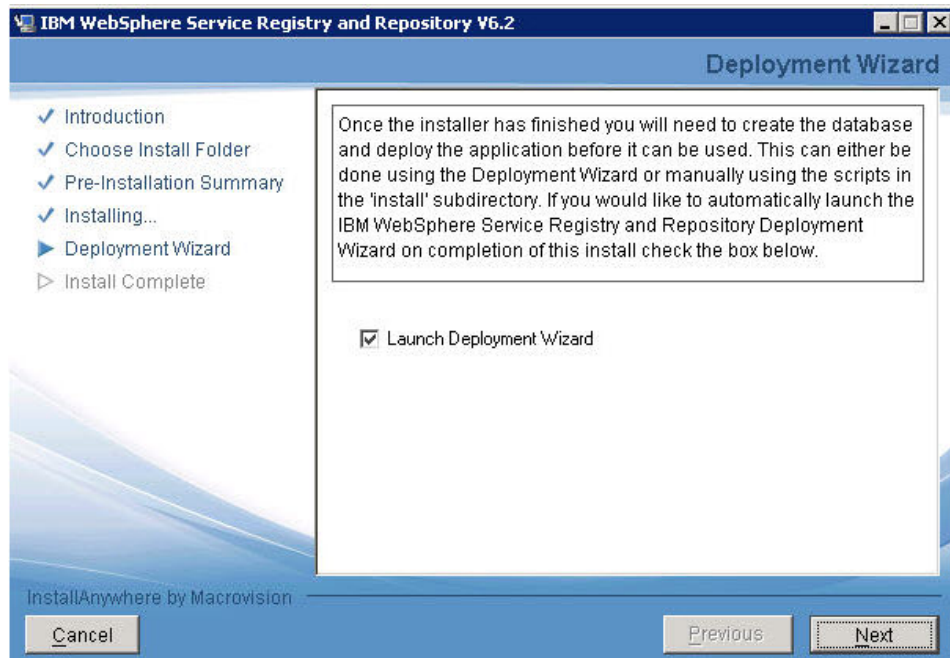


6. From the Pre-installation Summary page, review the selections that you have made and click **Install**.



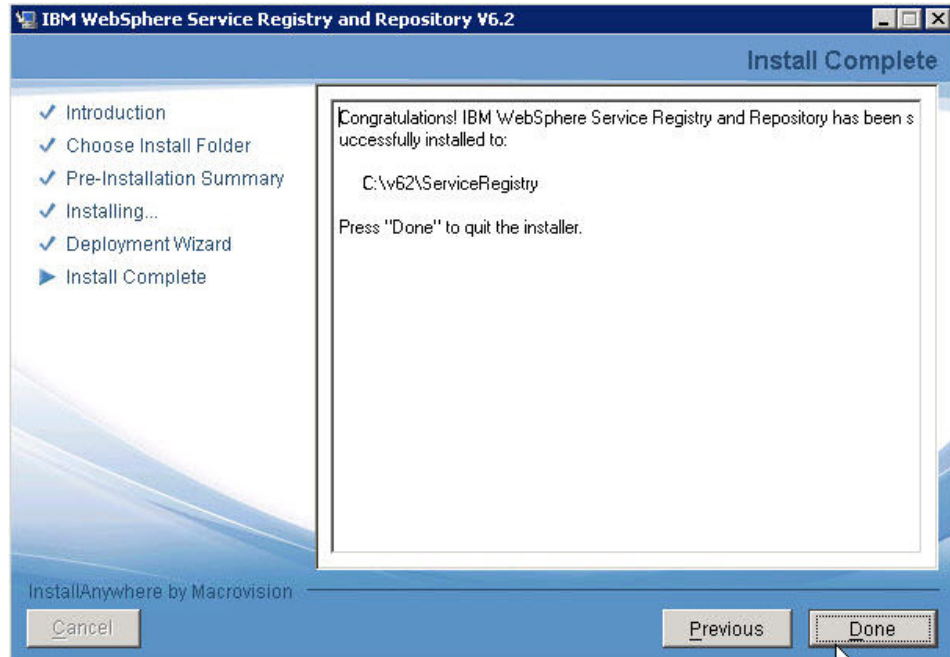
- From the Deployment Wizard launch page, read the description of the Deployment Wizard functionality.

If you want to launch the Deployment wizard, make sure the **Launch Deployment Wizard** checkbox is checked and click **Next**.

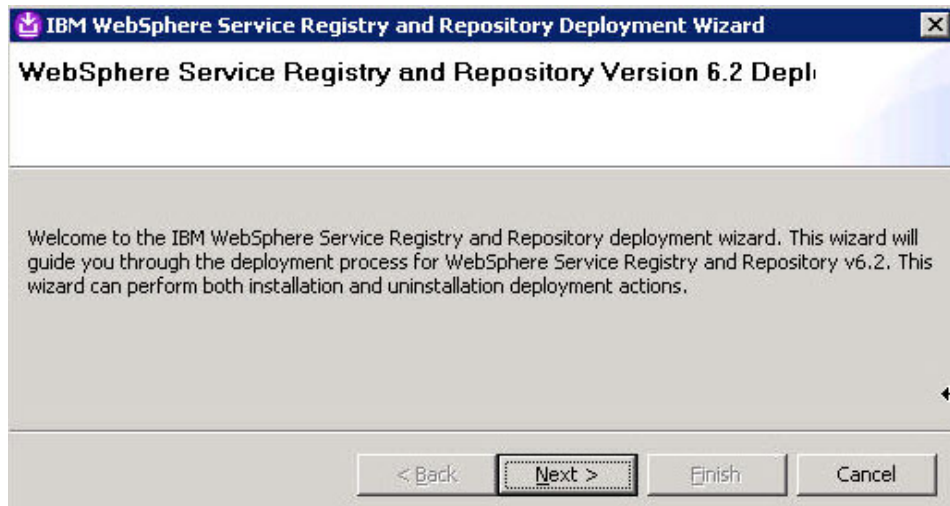


- From the Install Complete page, click **Done**.

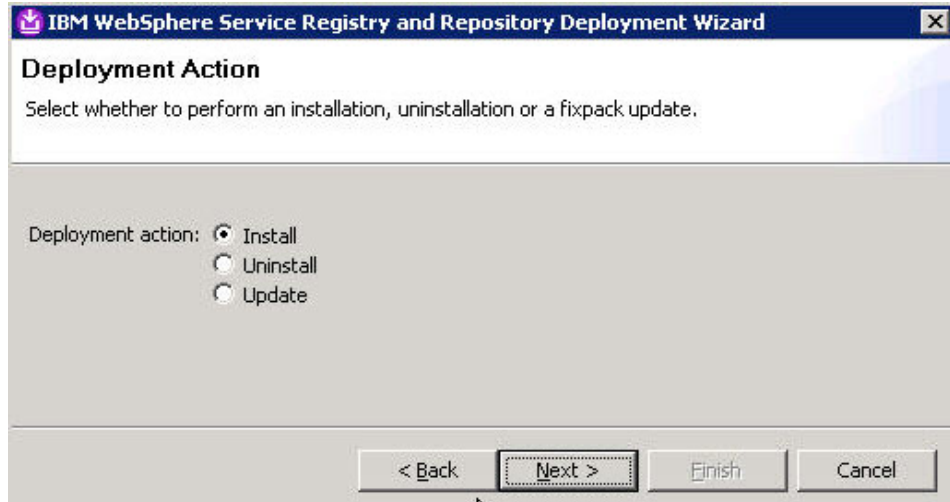




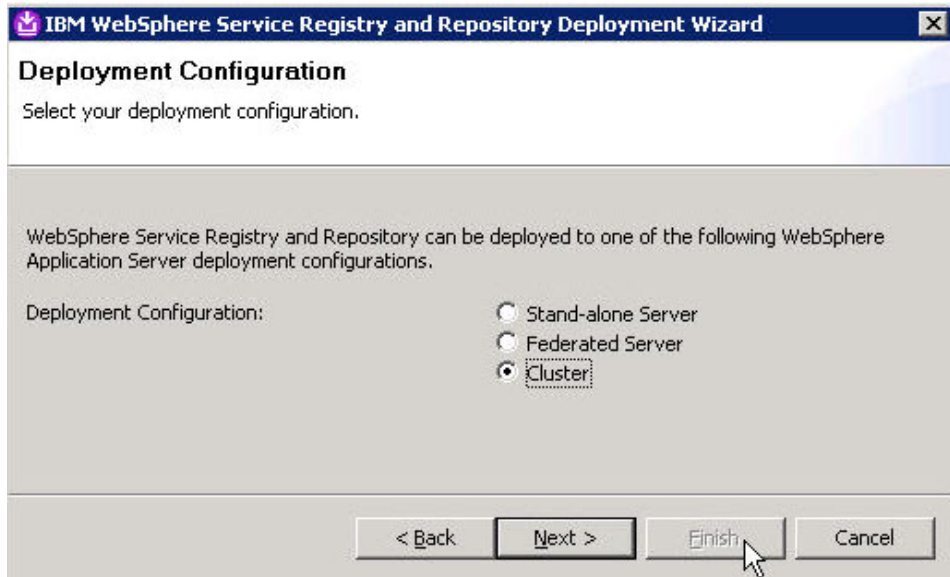
9. From the Deployment Wizard welcome screen, read the description and click **Next**.



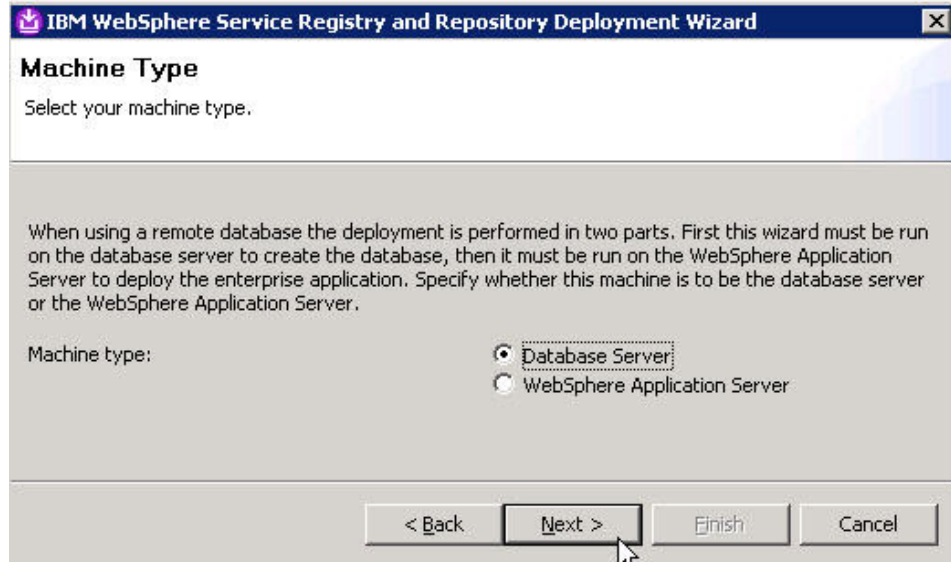
10. From the Deployment Action page, make sure **Install** is selected and click **Next**.



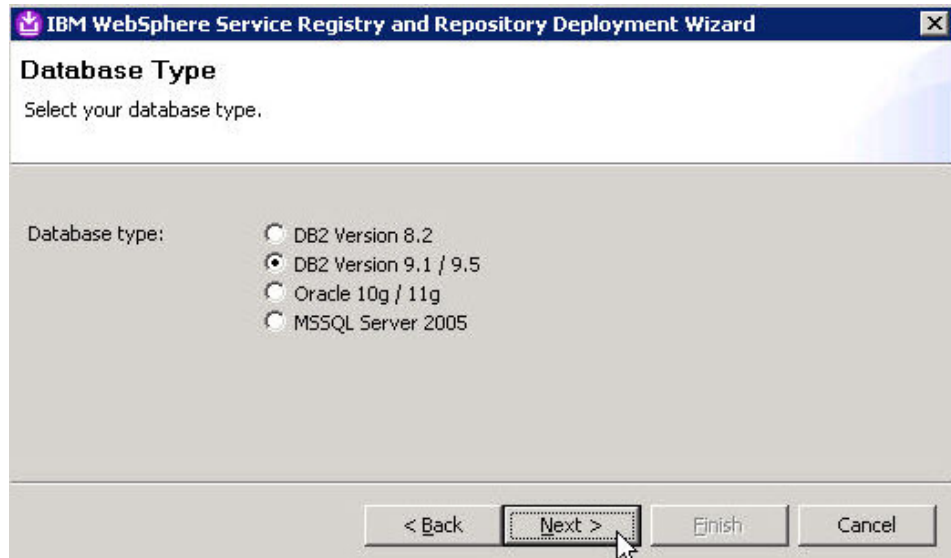
11. From the Deployment Configuration page, make sure **Cluster** is selected and click **Next**.



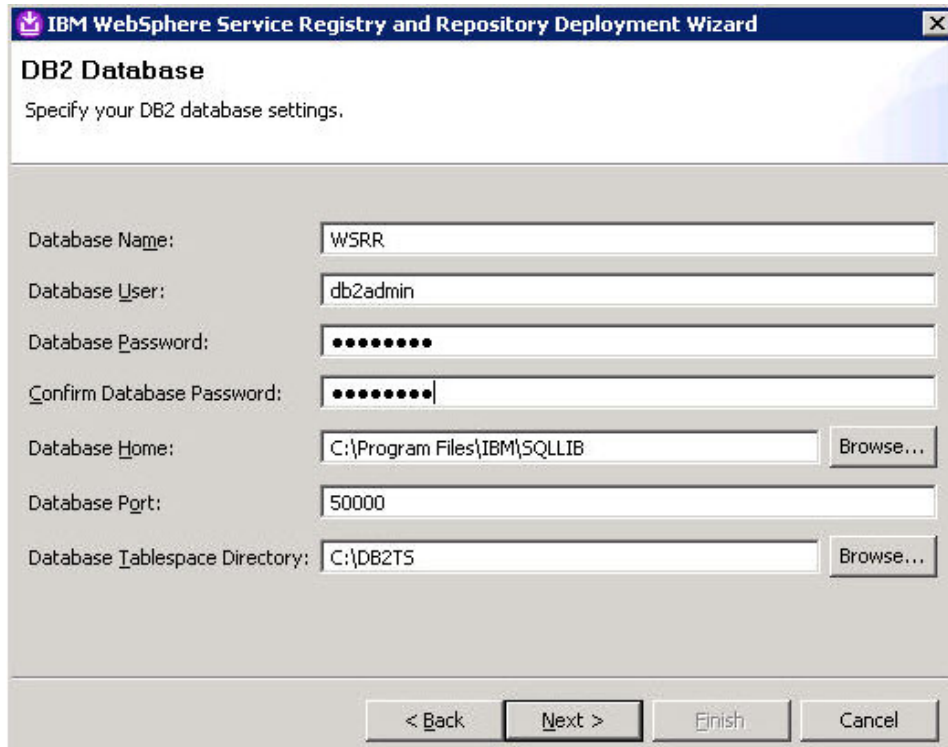
12. From the Machine Type page, select **Database Server** as the machine type.



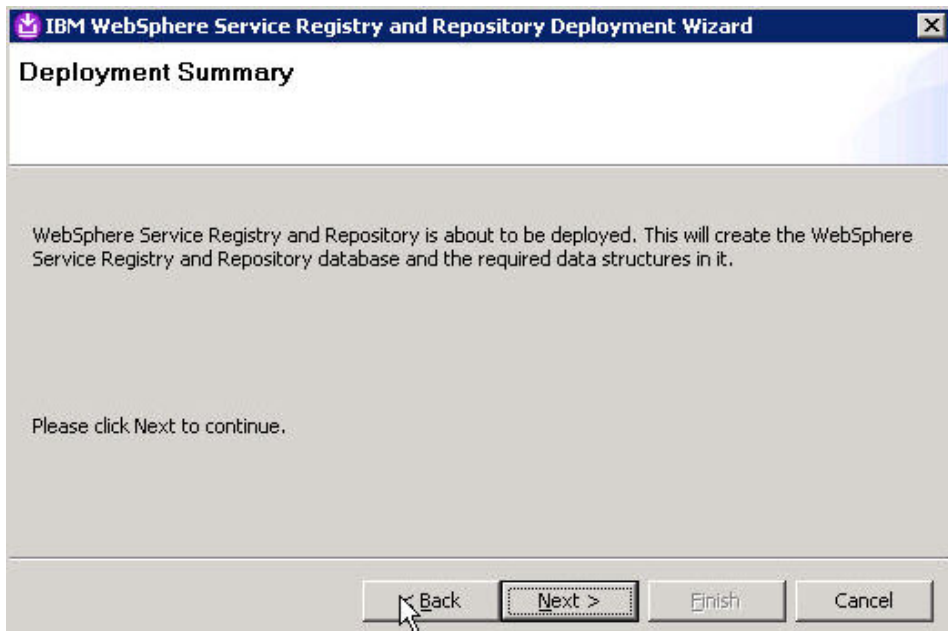
13. From the Database Type page, select **DB2 Version 9.1 / 9.5** and click **Next**.



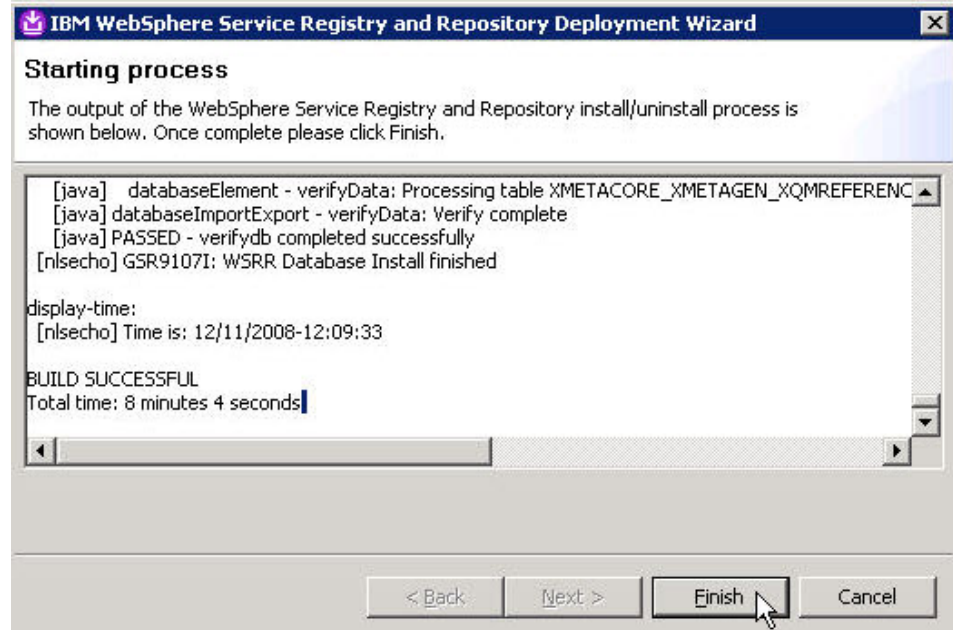
14. From the DB2 Database settings page, enter a value for **Database user** and **Database password** and click **Next**.



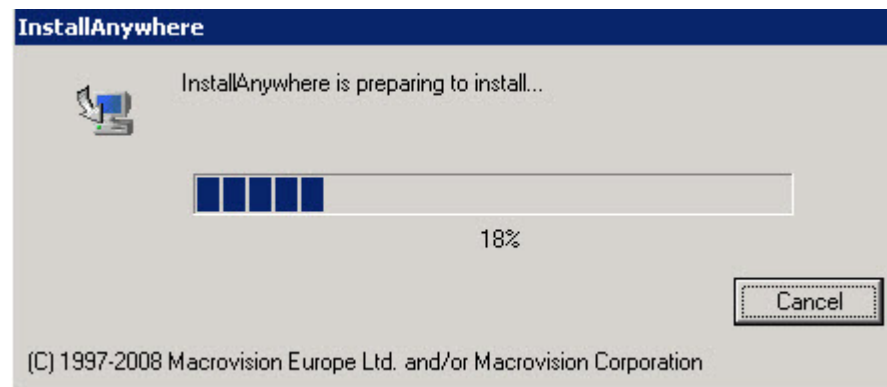
15. From the Deployment Summary page, click **Next**.



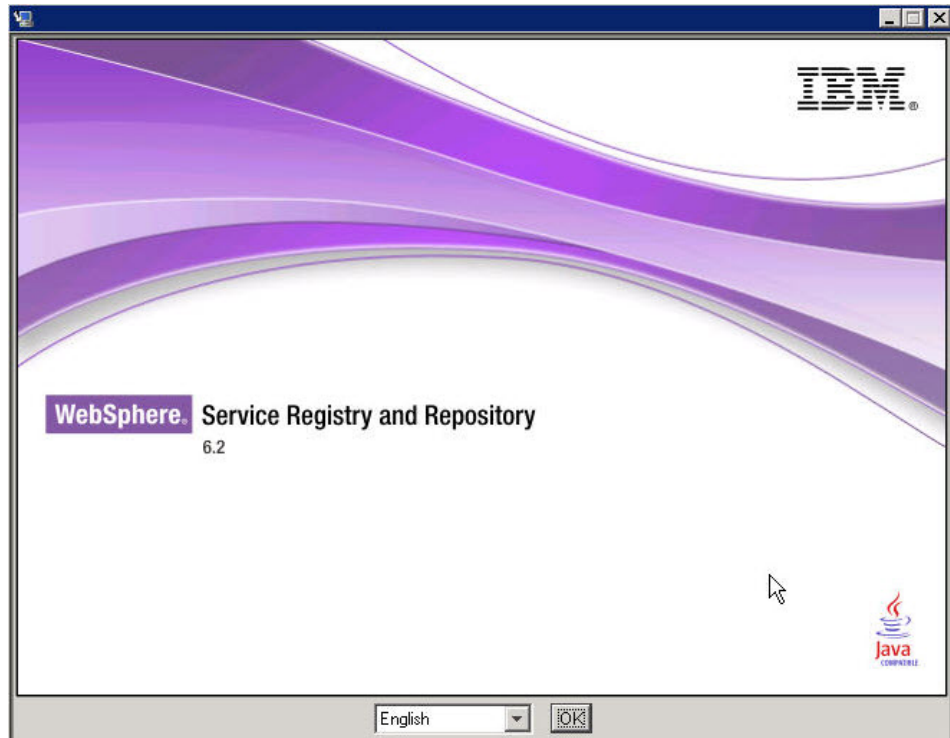
16. From the Starting Process page, click **Finish**.



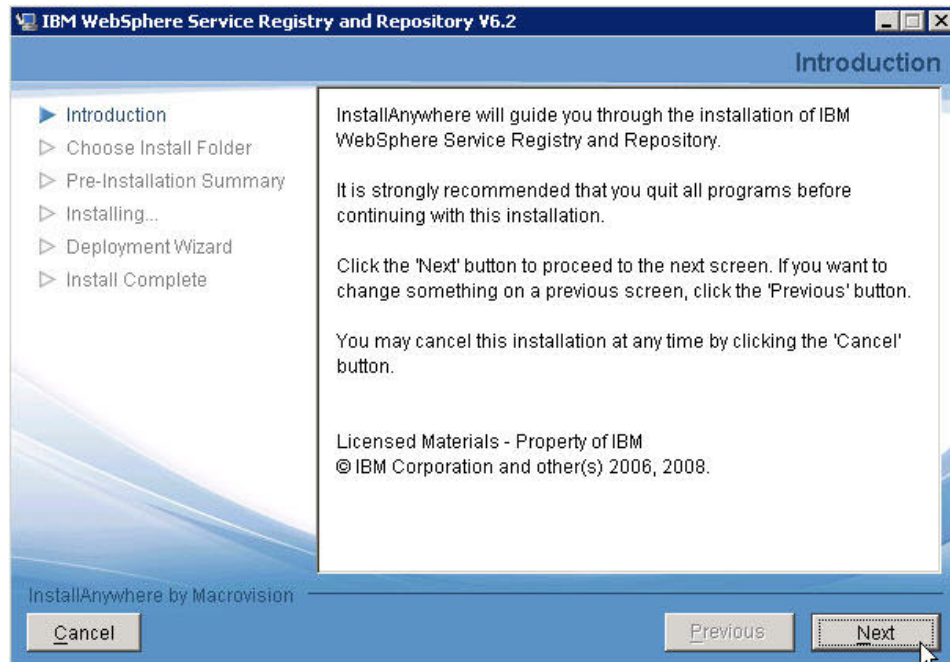
17. On the **deployment manager system** in the WSRR 6.2.0.2 driver directory run the install.exe.



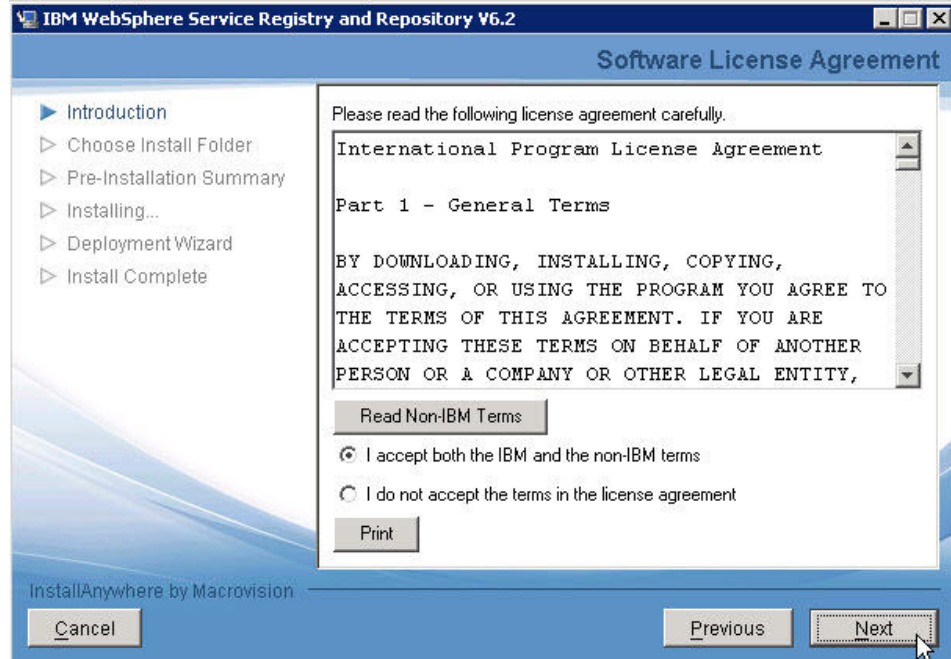
18. From the WebSphere Service Registry and Repository page, click **OK**.



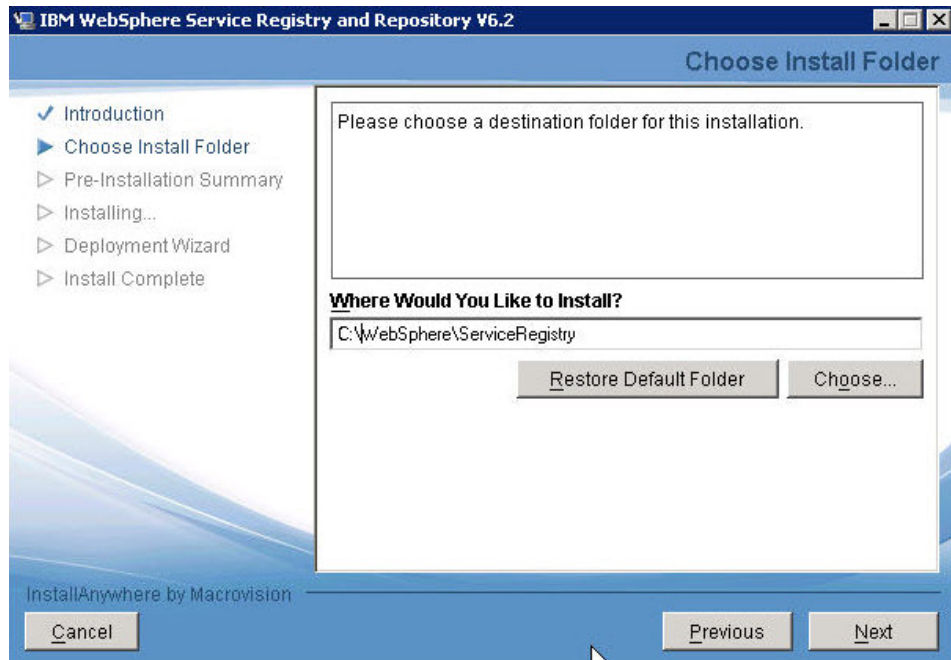
19. From the Introduction page select **Next**.



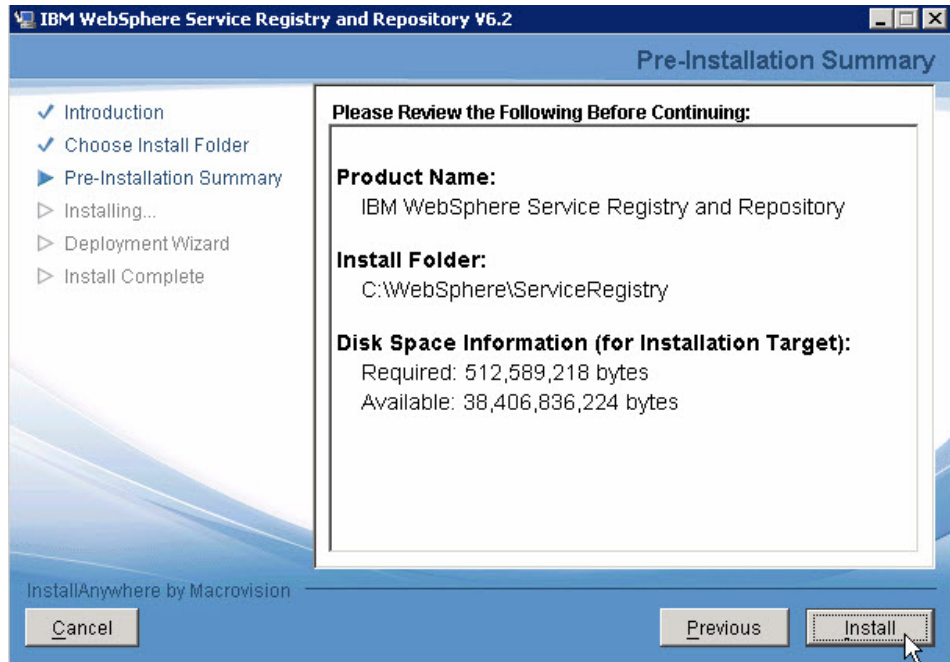
20. From the Software License Agreement page, accept the terms of the license agreements and click **Next**.



21. From the Choose Install Folder page, choose into which directory you want to install and click **Next**.

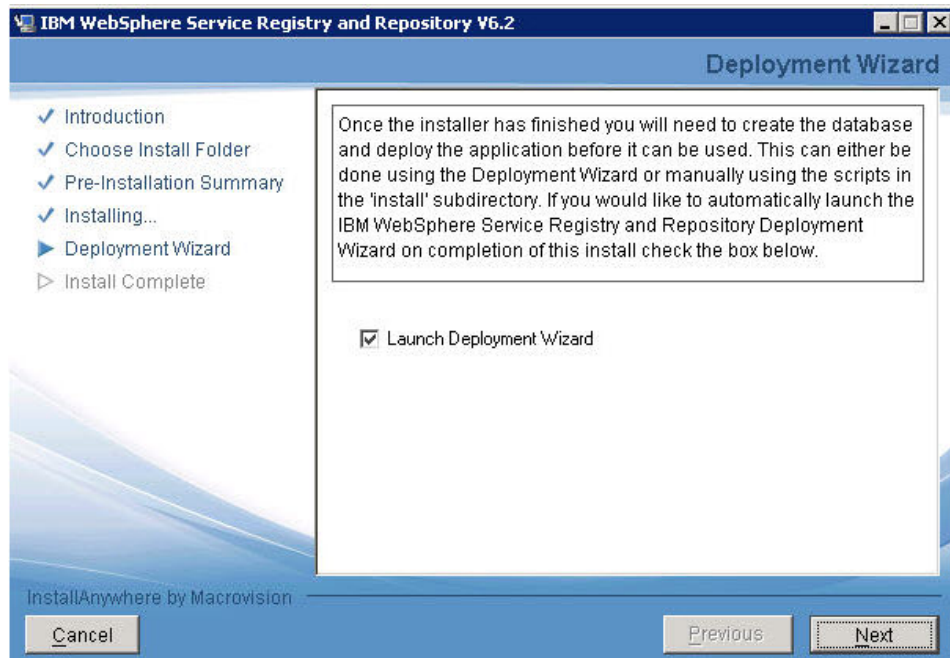


22. From the Pre-installation Summary page, review the selections that you have made and click **Install**



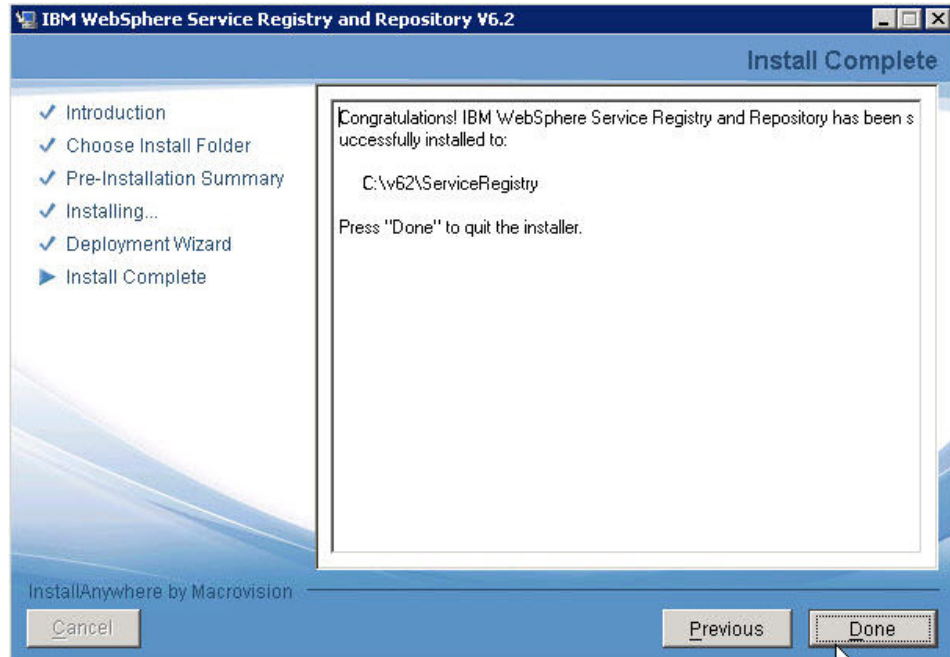
23. From the Deployment Wizard launch page, read the description of the Deployment Wizard functionality.

If you want to launch the Deployment wizard, make sure the **Launch Deployment Wizard** checkbox is checked and click **Next**.

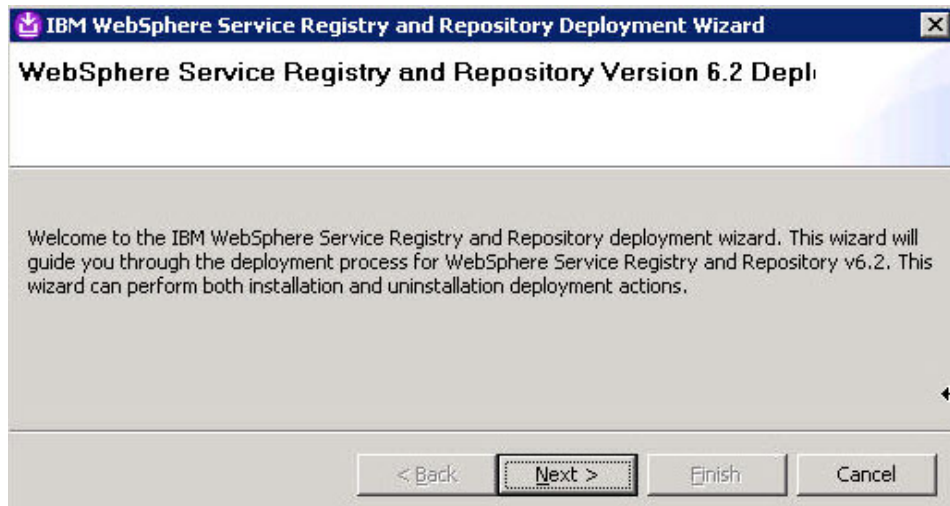


24. From the Install Complete page, click **Done**.

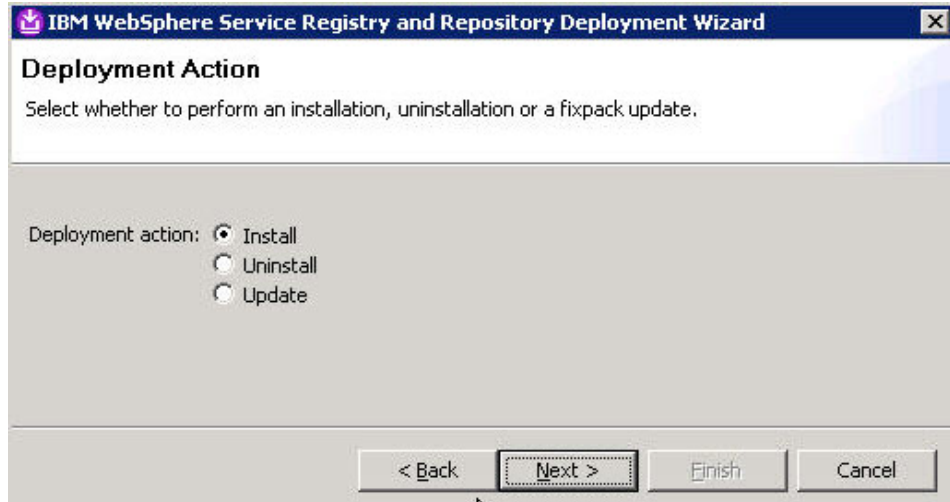




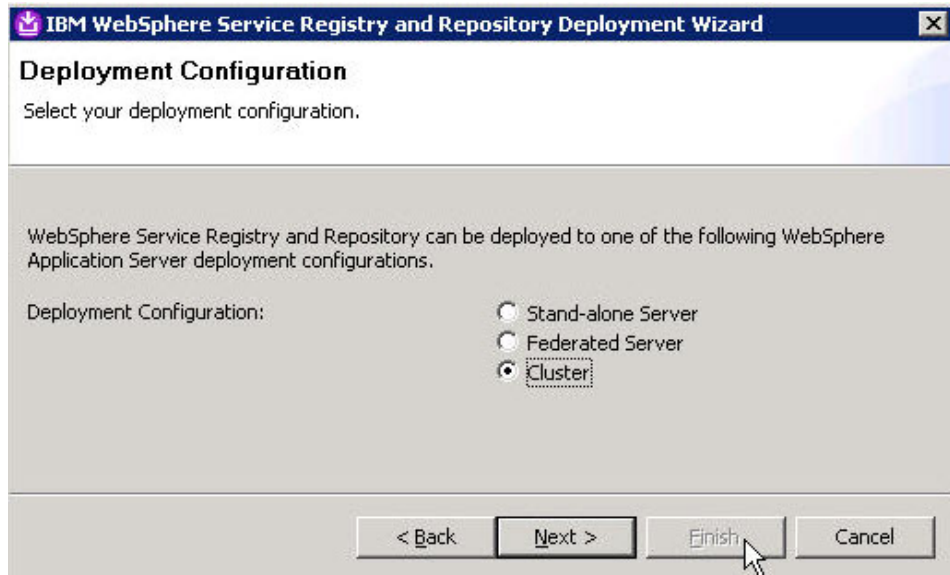
25. From the Deployment Wizard welcome screen, read the description and click **Next**.



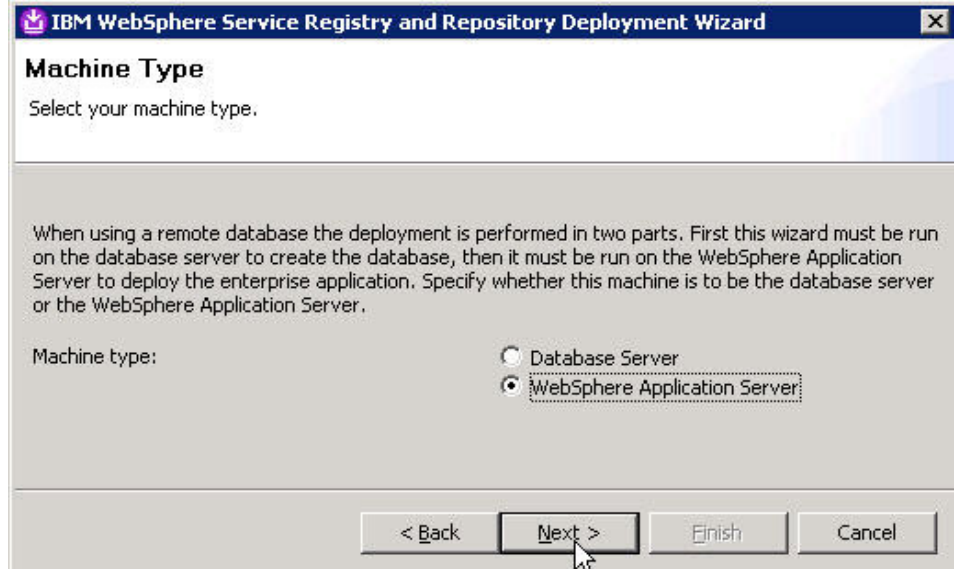
26. From the Deployment Action page, make sure **Install** is selected and click **Next**.



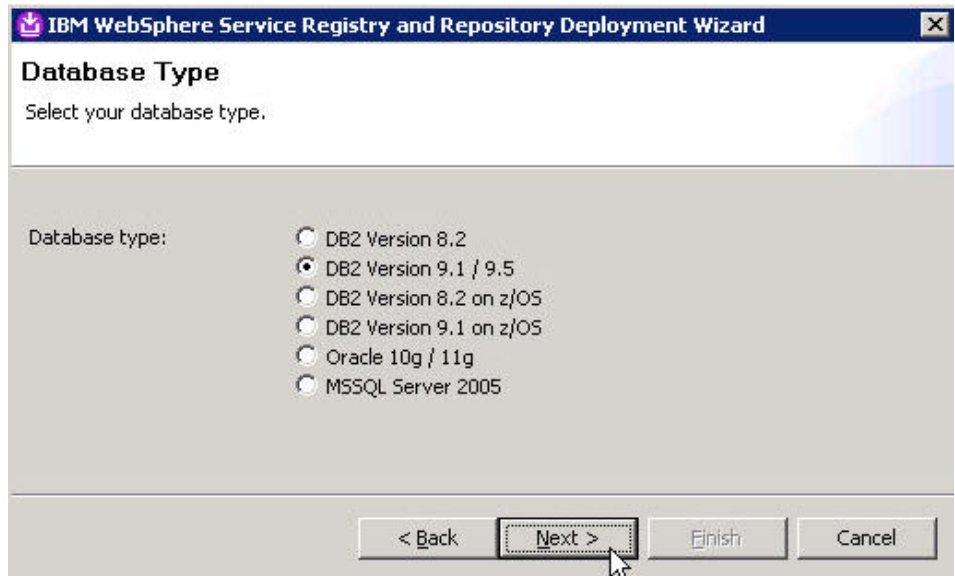
27. From the Deployment Configuration page, make sure **Cluster** is selected and click **Next**.



28. From the Machine Type page, select **WebSphere Application Server** as the machine type.



29. From the Database Type page, select **DB2 Version 9.1 / 9.5** and click **Next**.



30. From the Remote Database Settings page, enter values for Database User, Password, Database Hostname and click **Next**.

**Remote Database**  
Specify your remote database settings.

Database Name: WSRR

Database User: db2admin

Database Password: ●●●●●●

Confirm Database Password: ●●●●●●

Database Hostname: wbi61.rchland.ibm.com

Database Port: 50000

< Back   Next >   Finish   Cancel

- From the WebSphere Application Server Settings page, browse to the Installation Directory, enter **Profile Name** Dmgr01, change **SOAP Port**, enter a value for **Cluster Name** and click **Next**.

**WebSphere Application Server**  
Specify your WebSphere Application Server installation settings.

Installation Directory: C:\ProcServer62   Browse...

Profile Name: Dmgr01

SOAP Port: 8879

Cluster Name: SupportCluster

< Back   Next >   Finish   Cancel

- From the WebSphere Application Server Security Settings page, enter Admin User, Admin Password and click **Next**.

IBM WebSphere Service Registry and Repository Deployment Wizard

### WebSphere Application Server Security

Specify your WebSphere Application Server security settings.

Is security enabled?  Yes  
 No

Admin User: primaryAdmin

Admin Password: ●●●●●●

Confirm Admin Password: ●●●●●●

Specify the user ID and password to use for JMS access. The default is to use your WebSphere Application Server administrator ID.

Use Admin ID?  Yes  
 No

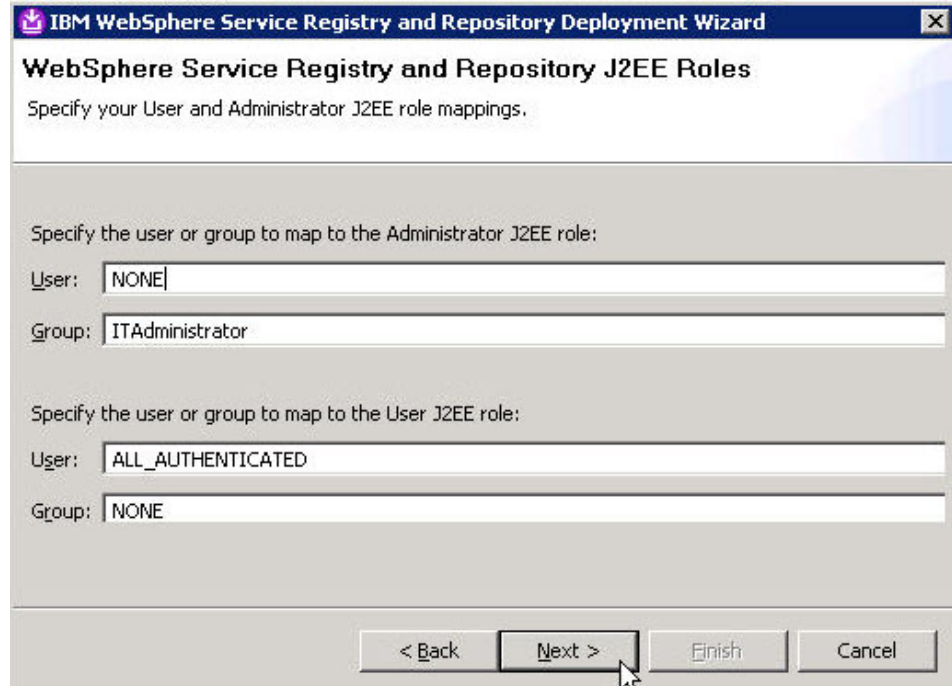
JMS User: \_\_\_\_\_

JMS Password: \_\_\_\_\_

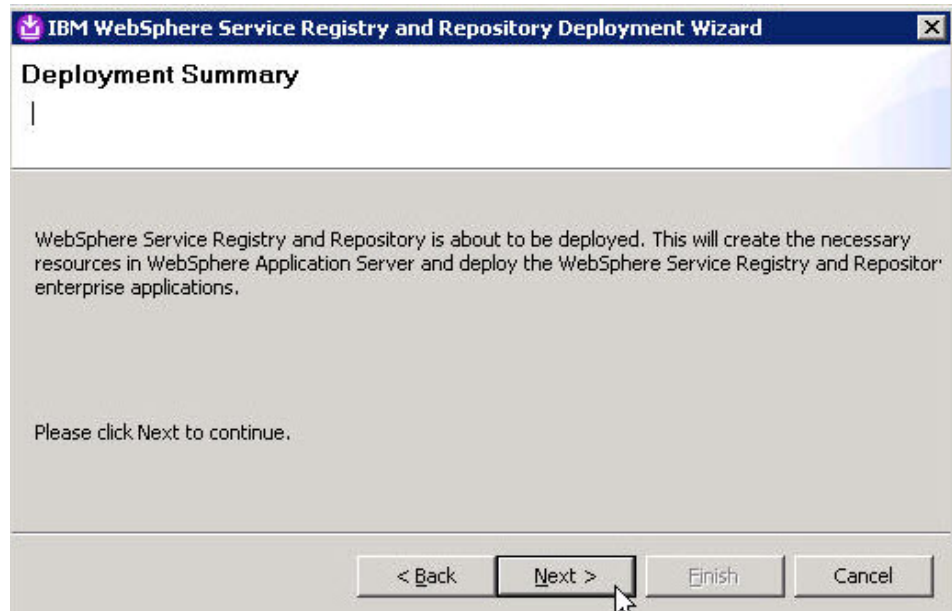
Confirm JMS Password: \_\_\_\_\_

< Back   Next >   Finish   Cancel

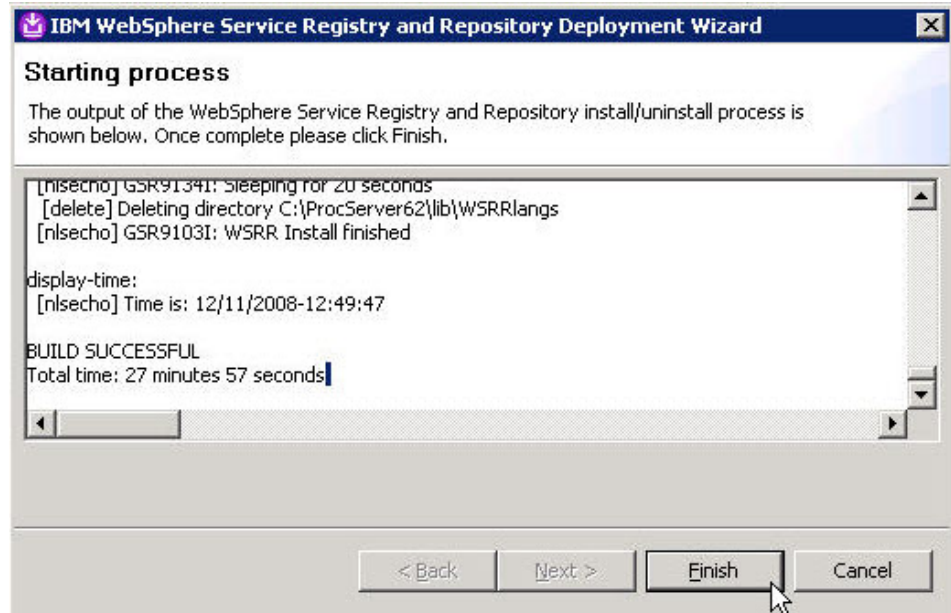
33. Change Administrator J2EE role User mapping to NONE, Group to ITAdministrator and Click Next.
34. From the WebSphere Service Registry and Repository J2EE Roles page, modify User **ITAdministrator** and click **Next**.



35. From the Deployment Summary page, click **Next**.



36. From the Starting Process page, click **Finish**.



Now, you can verify the installation of WebSphere Service Registry and Repository.

## Verifying the installation of WebSphere Service Registry and Repository 6.2

Check the settings and behavior to ensure the software is running.

Verification step instructions provides quick understanding of what to check to make sure the software is running properly.

1. Open the WebSphere Application Server Administrative console in a web browser.  
For example: <http://localhost:9060/ibm/console>.
2. Two Service Registry and Repository applications are installed and all have been started:
  - **ServiceRegistry**
  - **ServiceRegistryTS**
3. Stop the server.  
Run `C:\WebSphere\ProcServer62\bin\stopServer server1`
4. Enter WebSphere Service Registry and Repository home console, like <http://hostname:port/ServiceRegistry>. For example <http://localhost:9080/ServiceRegistry>.
5. Enter login information.
6. Stop the server.

## WebSphere Business Services Fabric Version 6.2

WebSphere Business Services Fabric enables business users to rapidly assemble new business processes, make concurrent changes with governance but minimal impact to IT, while reusing, sharing current IT assets.

WebSphere Business Services Fabric:

- Uses business defined vocabulary and tasks to enable the assembly of existing and new IT assets into SOA-based, discrete business functions called 'Business Services.
- Stores and acts upon formerly hard-coded, individual process attributes in an IT-governed, easily updatable database and runtime environment, enabling enterprise-wide policy changes to be proliferated concurrently across all applicable processes.
- Includes NEW enhanced business user experience and customizable web-based user interface; automated, policy-based feedback loop with WebSphere Monitor enabling corporate-wide process changes with no human interaction; improved consumability and design tooling to manage roles, channels, and assertions
- Includes NEW prescriptive guidance for developing your own content packs including how-to-guide, industry-specific examples, key performance indicators templates
- Includes New Product Lifecycle Management (PLM) Content Pack applies to Automotive, Electronics, Aerospace and Defense, and Industrial verticals.
- Includes Optional Industry Content Packs help you get started even quicker with prebuilt SOA accelerators designed to speed time to market for industry-specific composite business applications in the form of business services templates

### **Installing WebSphere Business Services Fabric 6.2 on system 1**

Use the installation wizard to install the software. You can obtain the WebSphere Business Services Fabric 6.2 product files in two ways, from the disks in the product package or by downloading installation images from the Passport Advantage® site, if you are licensed to do so.

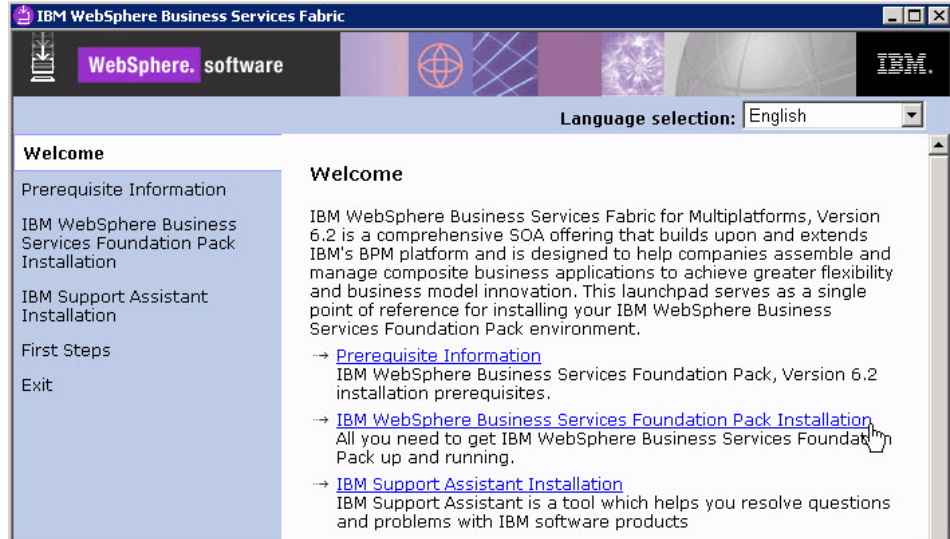
This task describes the procedure for installing WebSphere Business Services Fabric 6.2 on system 1 and creating the deployment manager profile.

The screen captures are included to make it easier to follow the step instructions.

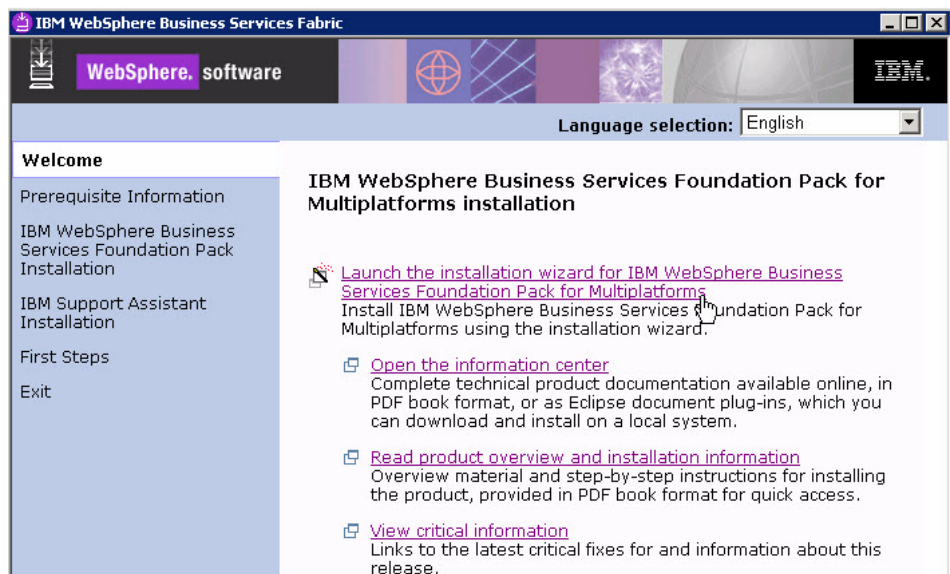
The step instructions are included to provide the specific task you need to perform and any information needed to perform the task (such as directory locations, parameters to enter, etc.)

1. Stop proxyServer.
2. Stop all clusters.
3. Stop all Node Agents.
4. Stop the Deployment Manager.  
This is a good time save log files and start clean.
5. On the Deployment Manager system run launchpad.exe from the unzipped Fabric Foundation Pack driver.
6. From the Welcome page, click **IBM WebSphere Business Services Foundation Pack Installation**.

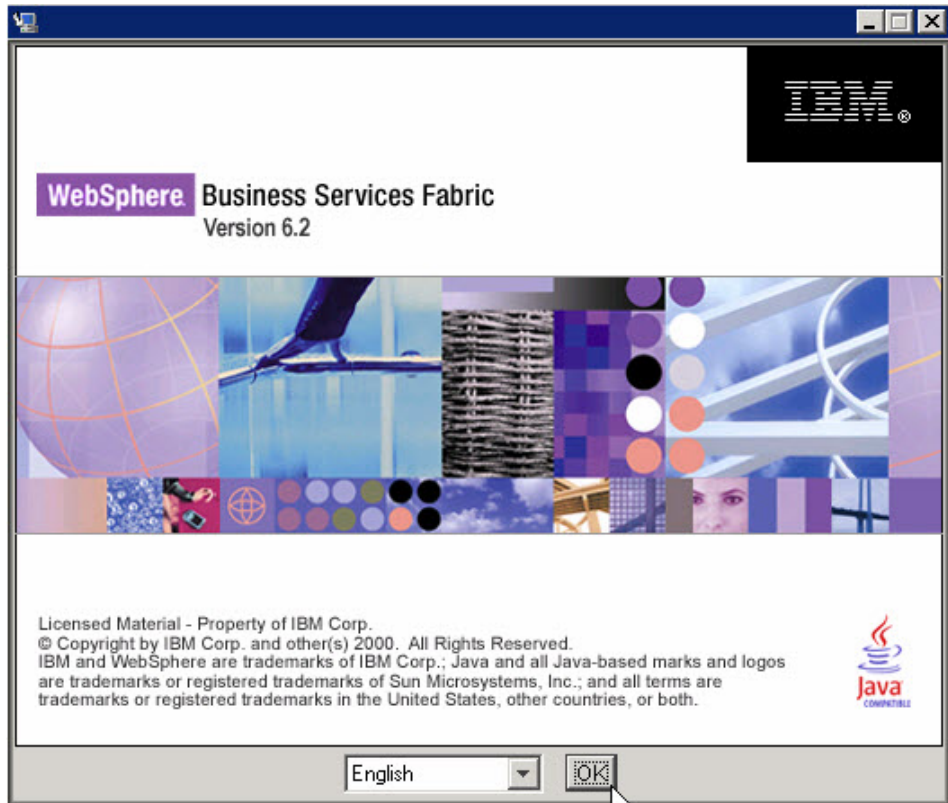




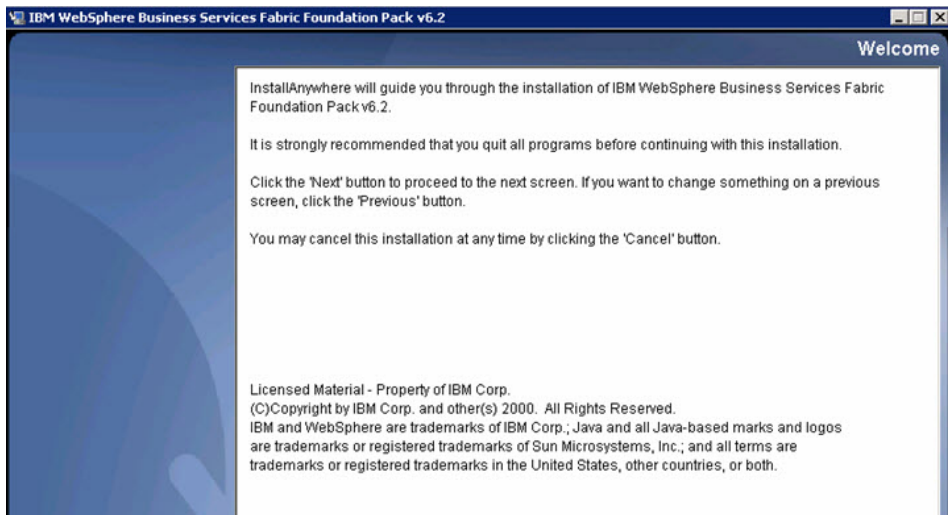
- From the IBM WebSphere Business Services Foundation Pack for Multiplatforms installation page, select **Launch the installation wizard for IBM WebSphere Business Services Foundation Pack for Multiplatforms**.



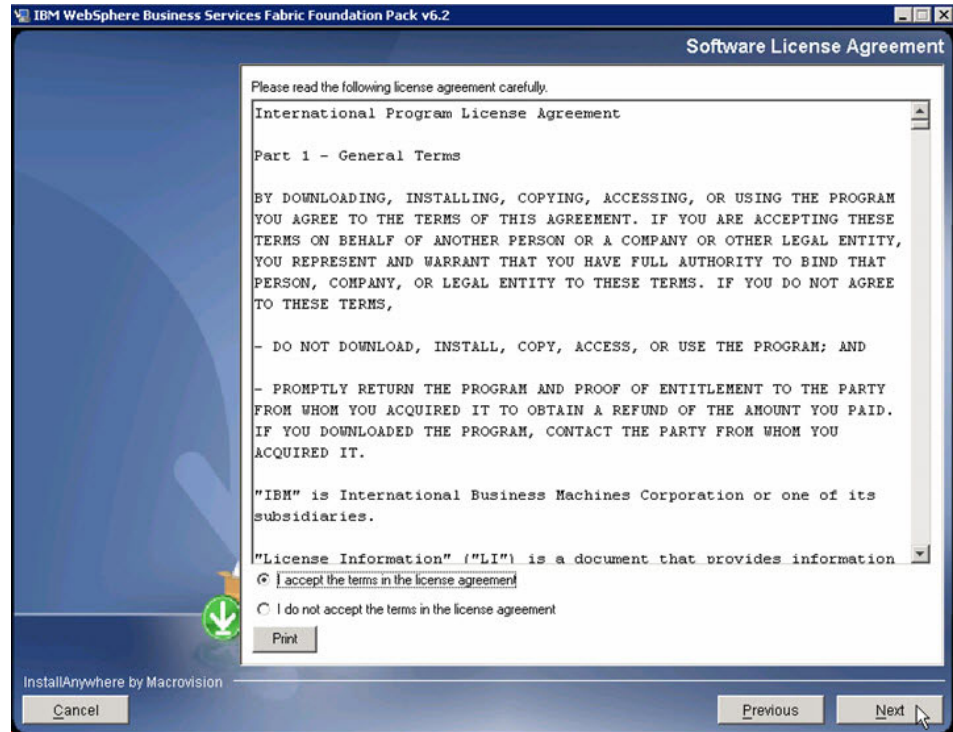
- From WebSphere Business Services Fabric page, click **OK**.



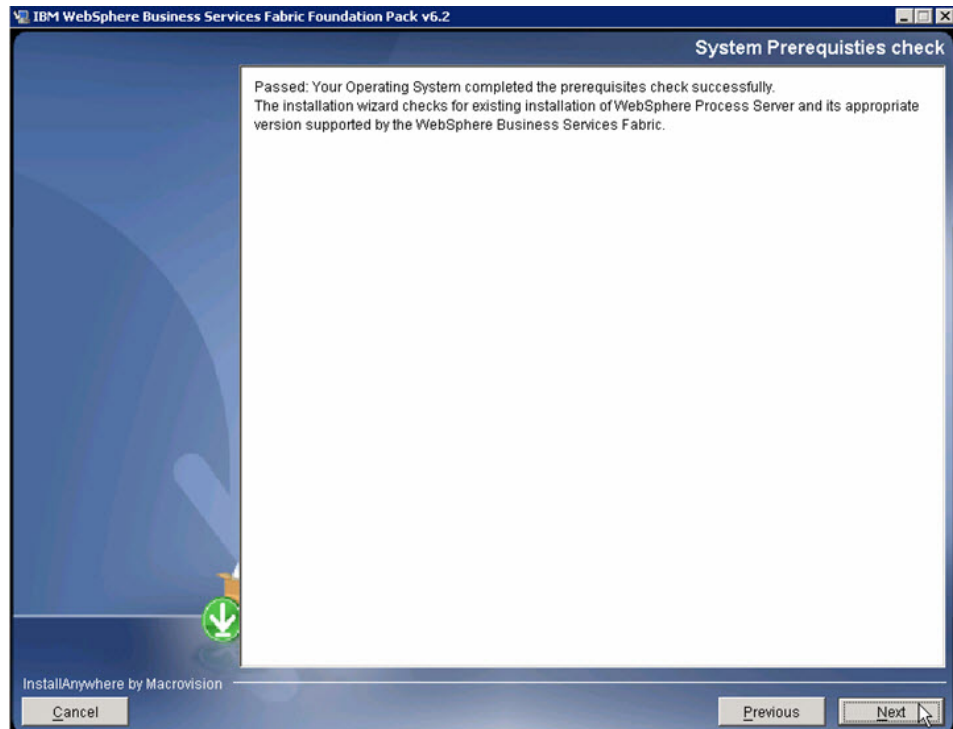
9. From the Welcome page, click Next.



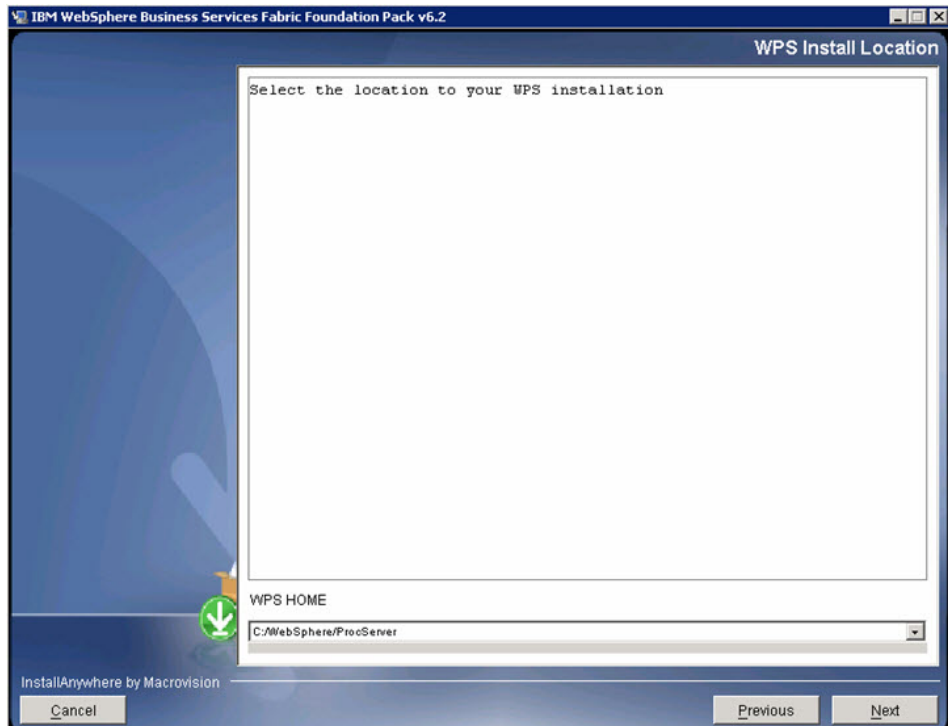
10. From the Software License Agreement page, accept the terms and click Next.



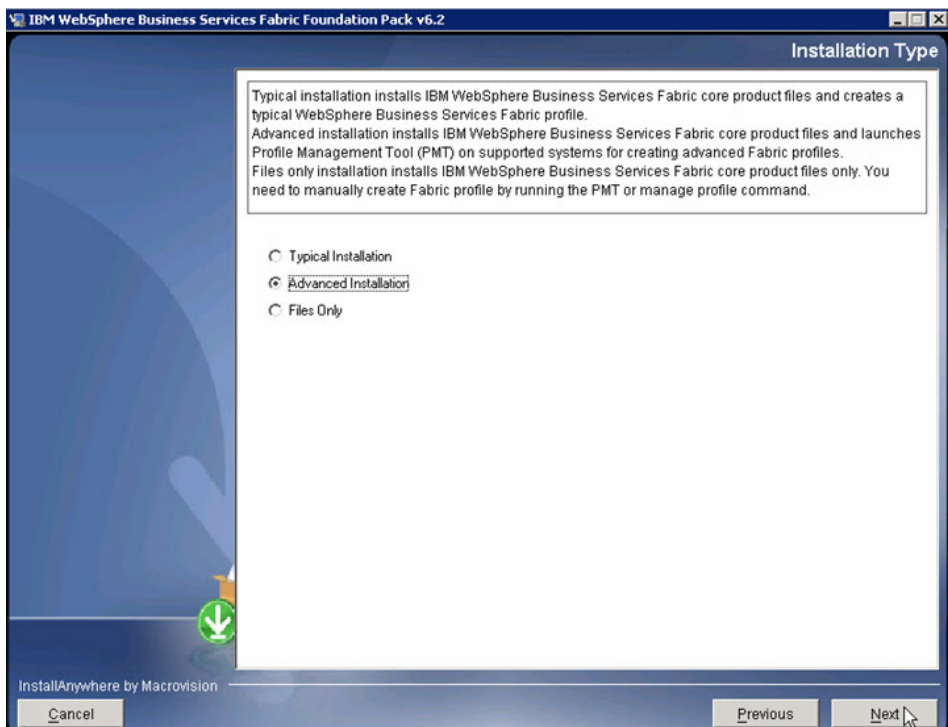
11. From the System prerequisites check page, click **Next**.



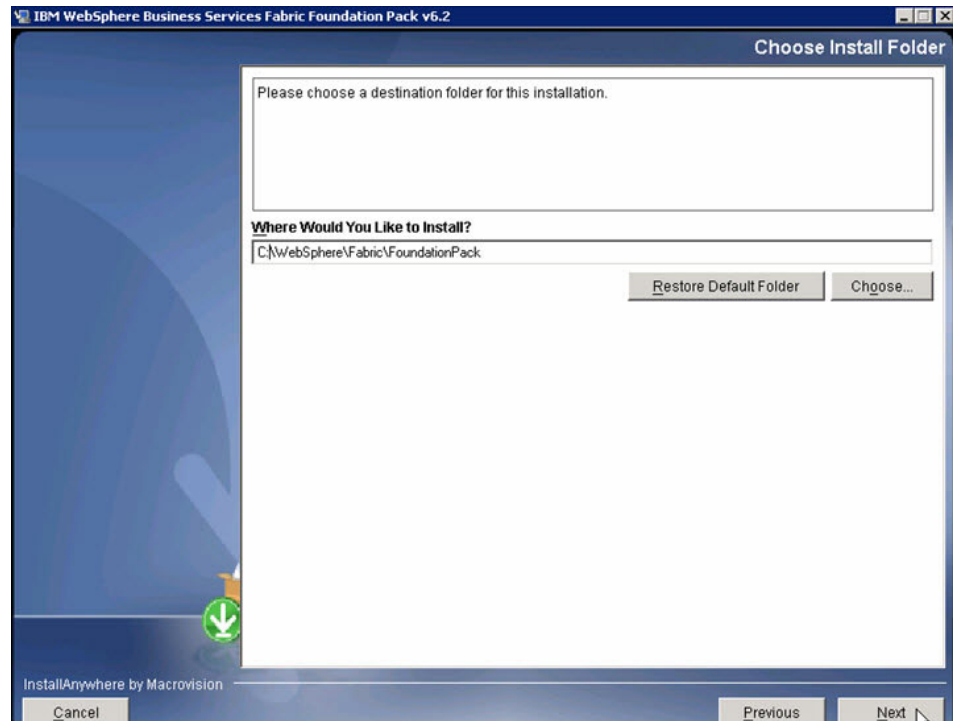
12. From the WPS Install location page, select the WebSphere Process Server home directory and click **Next**.



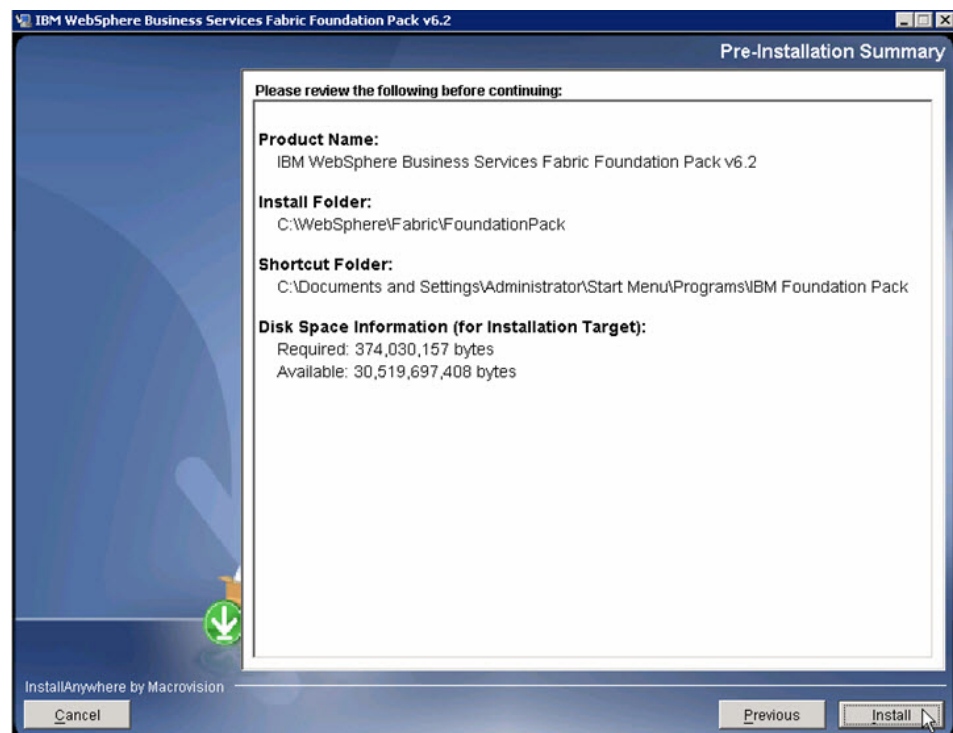
13. From the Installation type selection page, select **Advance Installation** and click **Next** .



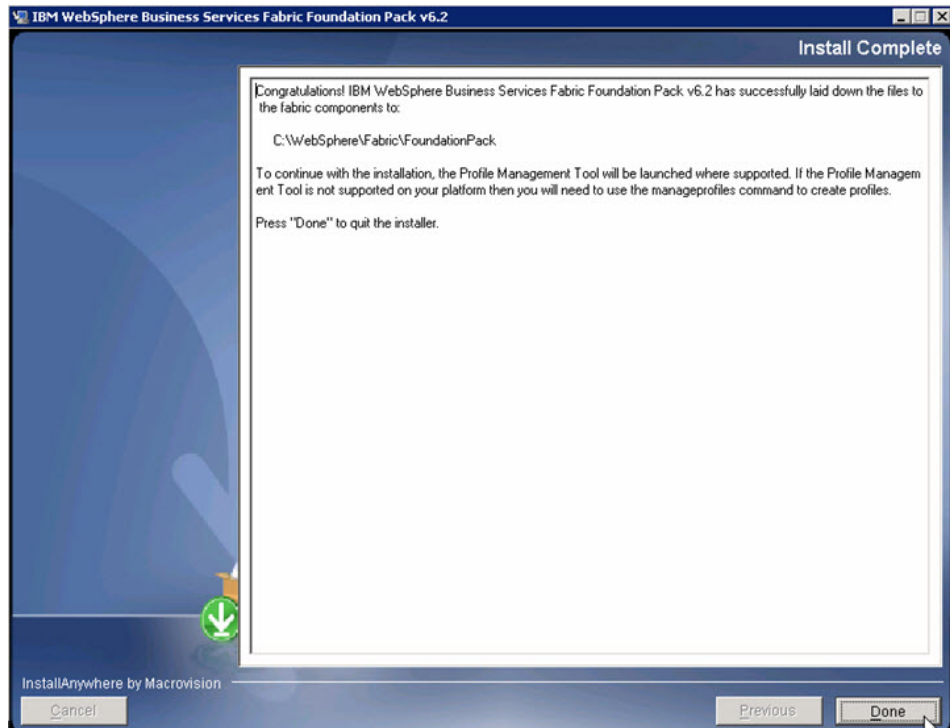
14. From the Choose Install Folder page, choose the directory into which you will install WebSphere Business Services Fabric and click **Next**.



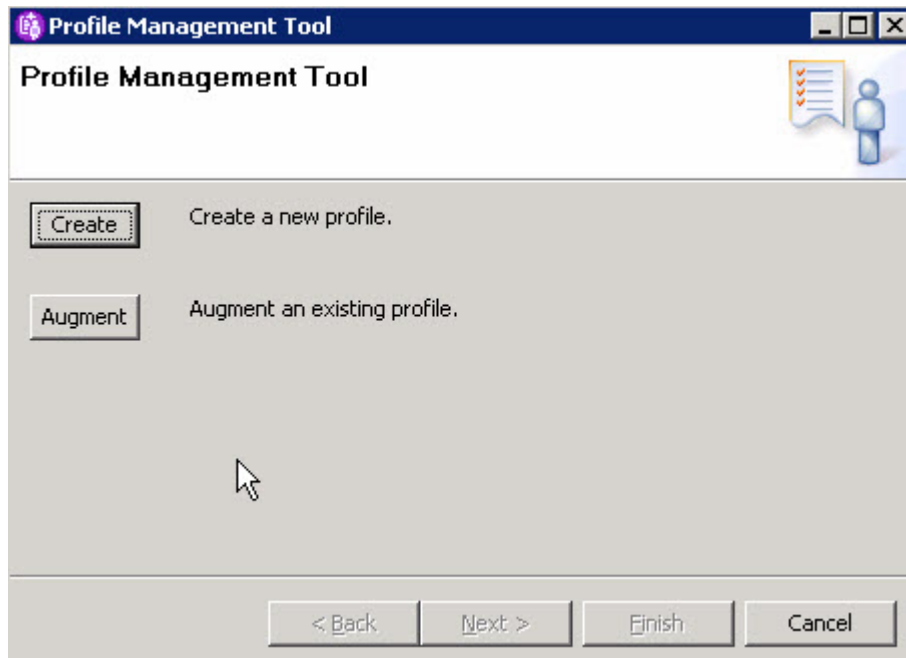
15. From the Preinstallation Summary page, review your decisions and click **Install**.



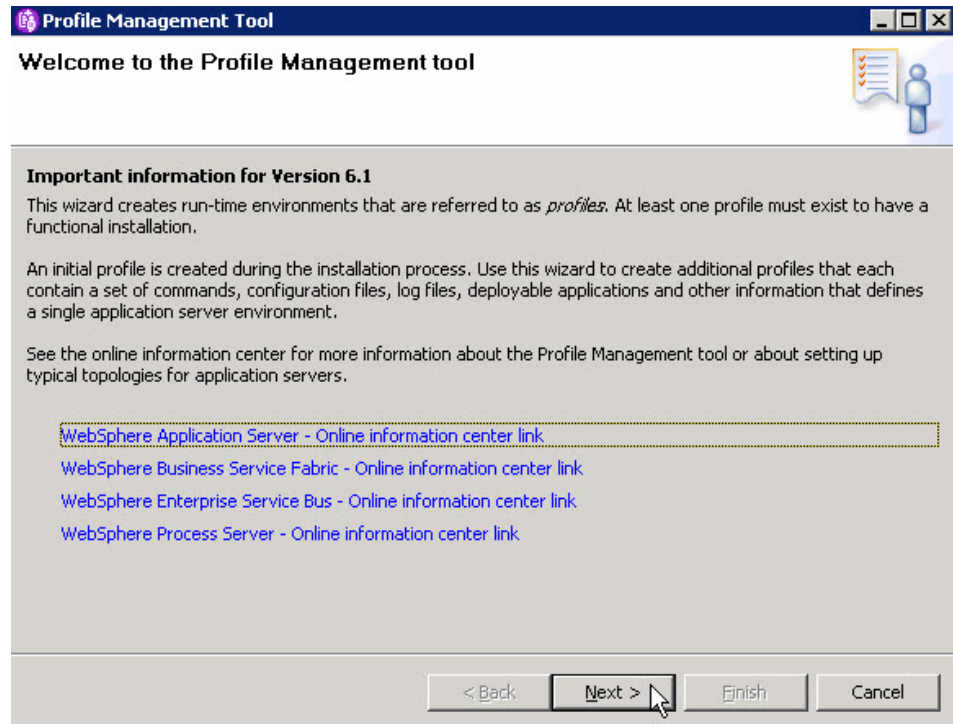
16. From the Install Complete page, click **Done**.



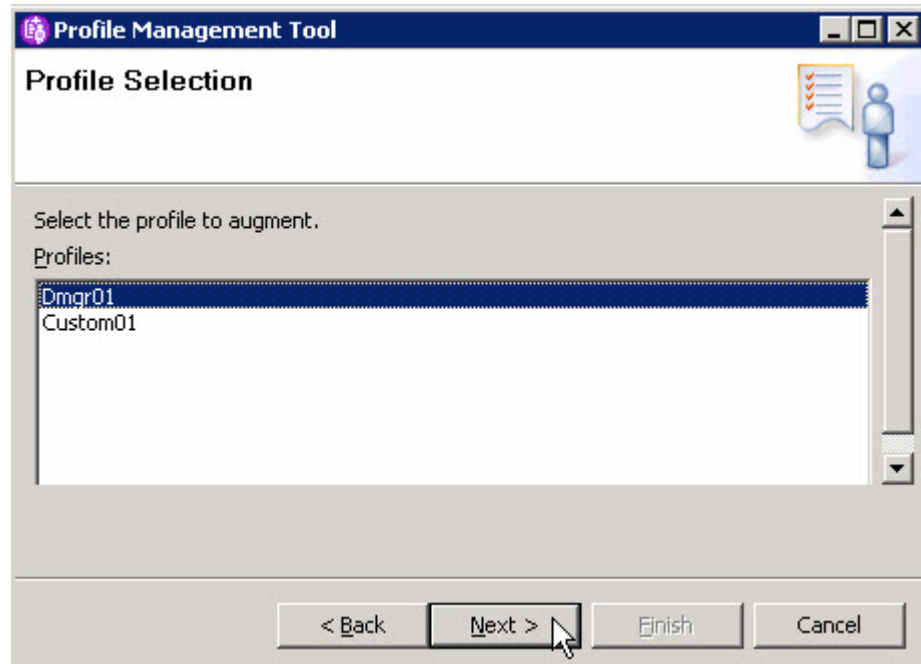
17. From the Profile Management Tool page, click **Augment**.



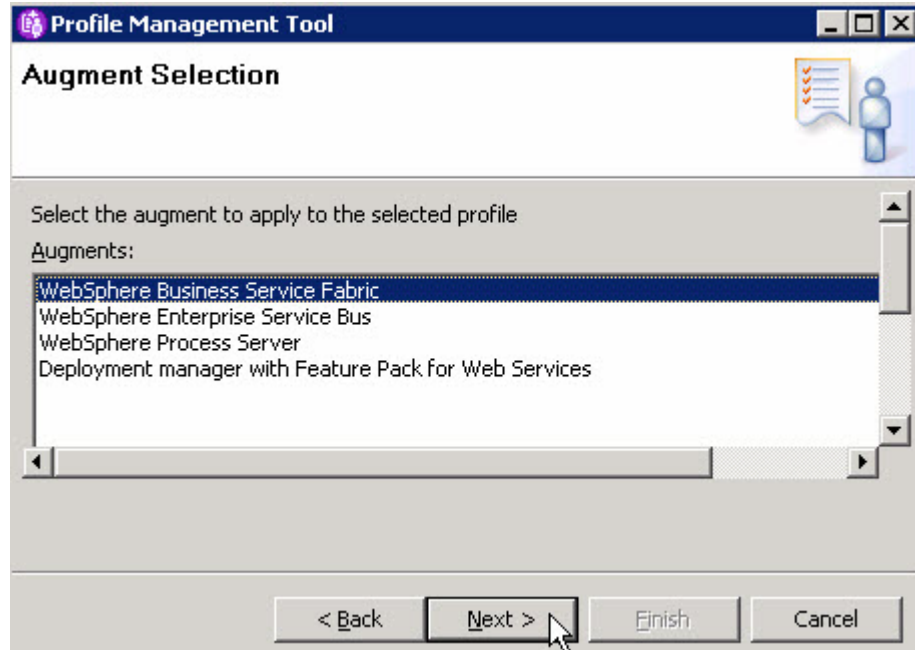
18. From the Welcome to the Profile Management tool page, click **Next**.



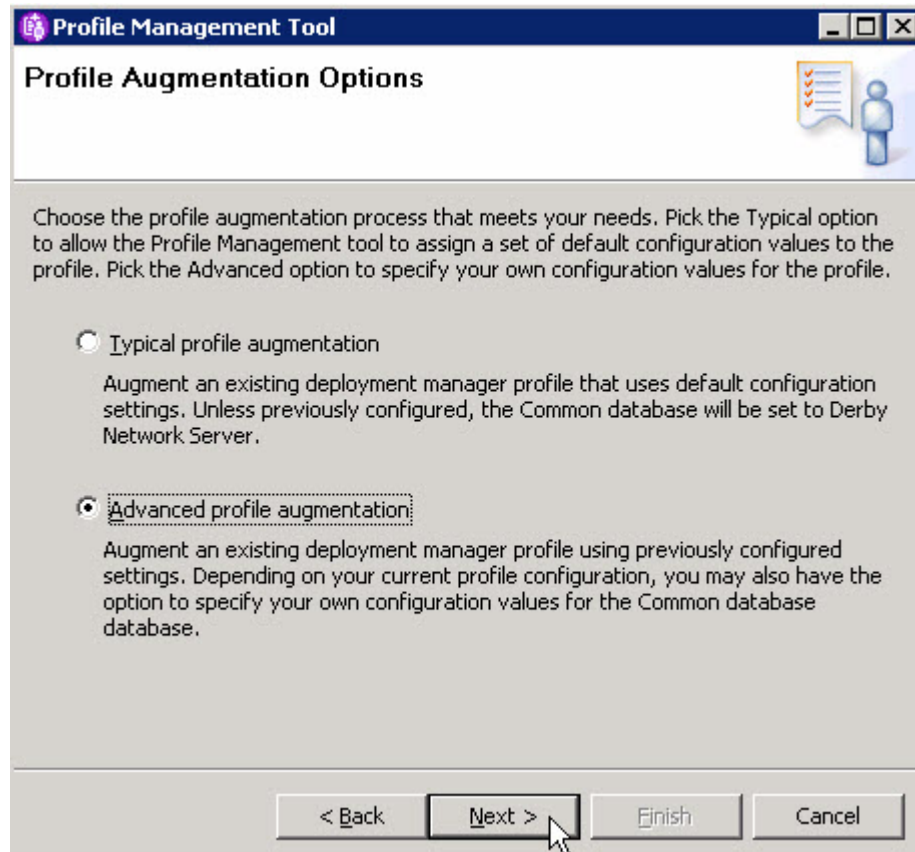
19. From the Profile Selection page, select **Dmgr01** and click **Next**.



20. From the Augment Selection page, select **Business Service Fabric** and click **Next**.

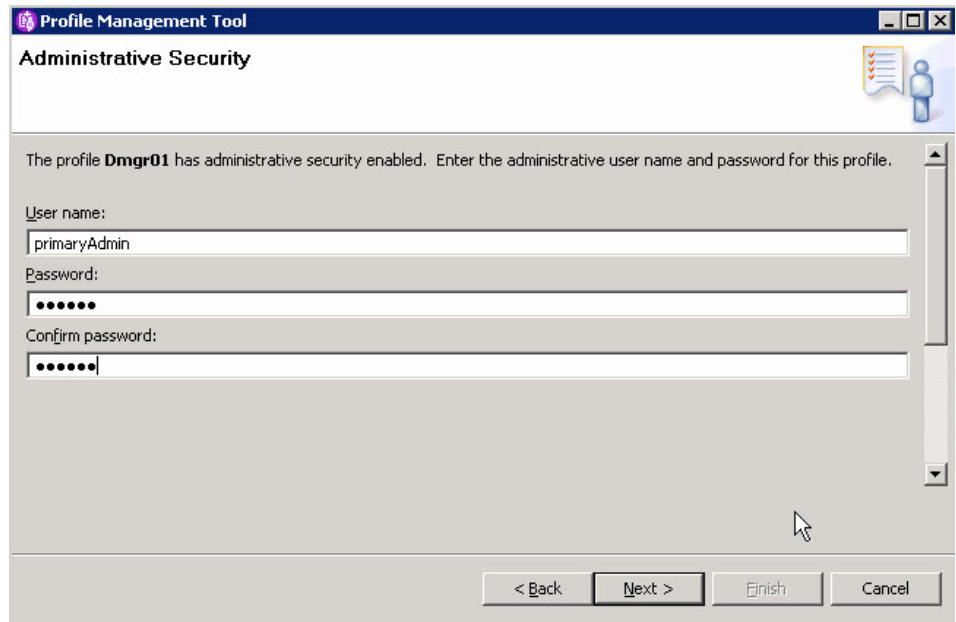


21. From the Profile Augmentation Options page, select **Advanced profile augmentation** and click **Next**.

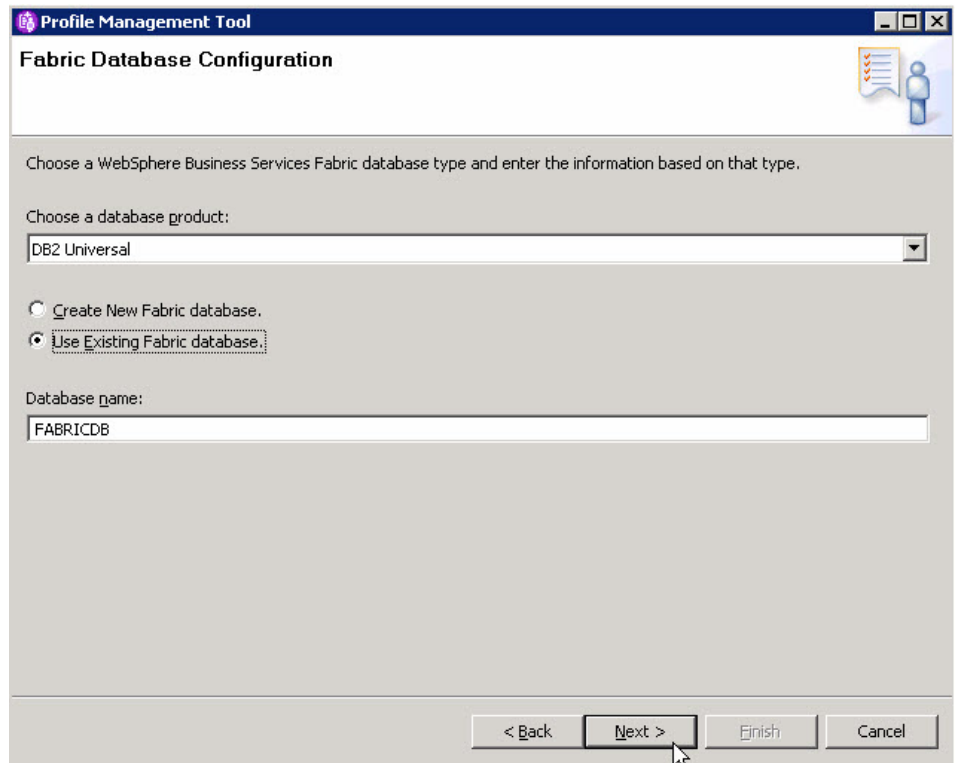


22. From the Administrative Security page, enter a user name and password and click **Next**.





23. From the Fabric Database Configuration page, select **Use Existing Fabric database** and click **Next**.



24. From the Fabric Database Configuration (Part 2) page, select enter a user name and password, update the Database server host name and click **Next**.

### Fabric Database Configuration (Part 2)

Additional information is required to complete configuration for the DB2 Universal database.

User name to authenticate with the database:

Password for database authentication:

Confirm password:

Location (directory) of JDBC driver classpath files:

JDBC driver type:  
 2  
 4

Database server host name (for example IP address):

Server port:

< Back   Next >   Finish   Cancel

25. From the Profile Augmentation Summary page, click **Augment**.

Review the information in the summary for correctness. If the information is correct, click **Augment** to start augmenting this profile. Click **Back** to change values on the previous panels.

WebSphere Business Services Fabric augmentation profile type: WebSphere Business Services Fabric deployment manager

Location: C:\WebSphere\ProcServer\profiles\Dmgr01  
 Disk space required: 17 MB

Profile name: Dmgr01  
 Make this profile the default: False

Cell name: wps101Cell01  
 Node name: wps101CellManager01  
 Host name: wps101.rchland.ibm.com

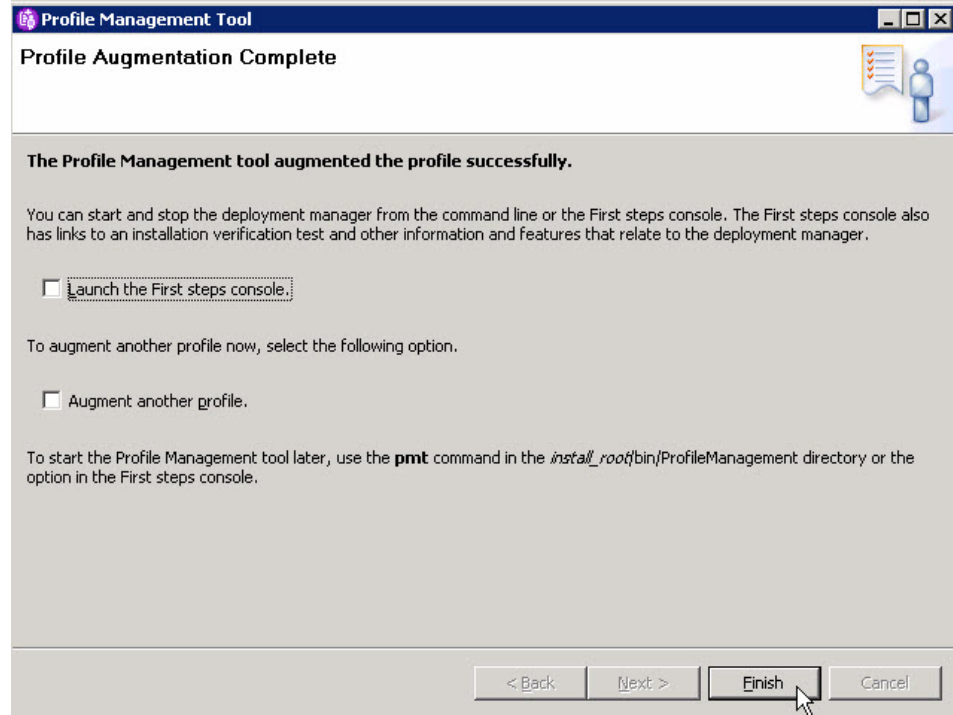
Enable administrative security (recommended): True

Administrative console port: 9060  
 Administrative console secure port: 9043  
 Deployment manager bootstrap port: 9809  
 Deployment manager SOAP connector port: 8879

Fabric Database product: DB2 Universal  
 Fabric Database name: FABRICDB

< Back   **Augment**   Finish   Cancel

26. From the Profile Augmentation Complete page, uncheck **Launch the First steps console** and click **Finish**.



27. Start the Deployment Manager.

Install WebSphere Business Services Fabric 6.2 and create the custom profile on system 2.

## Installing WebSphere Business Services Fabric 6.2 on system 2

Use the installation wizard to install the software on an additional system and create a custom profile.

You have installed WebSphere Business Services Fabric 6.2 and created the Dmgr profile.

Use this procedure to install WebSphere Business Services Fabric 6.2 and create the custom profile on system 2..

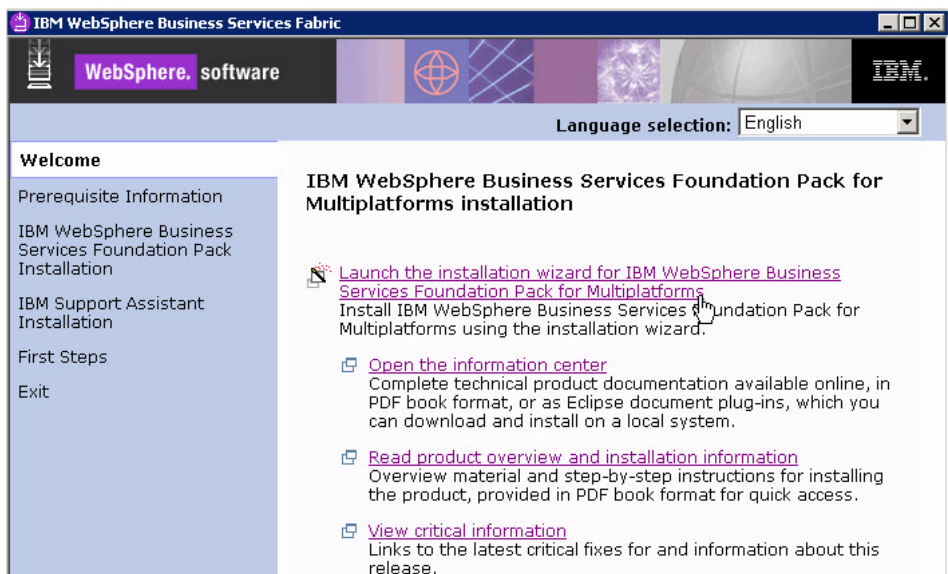
The screen captures are included to make it easier to follow the step instructions.

The step instructions are included to provide the specific task you need to perform and any information needed to perform the task (such as directory locations, parameters to enter, etc.)

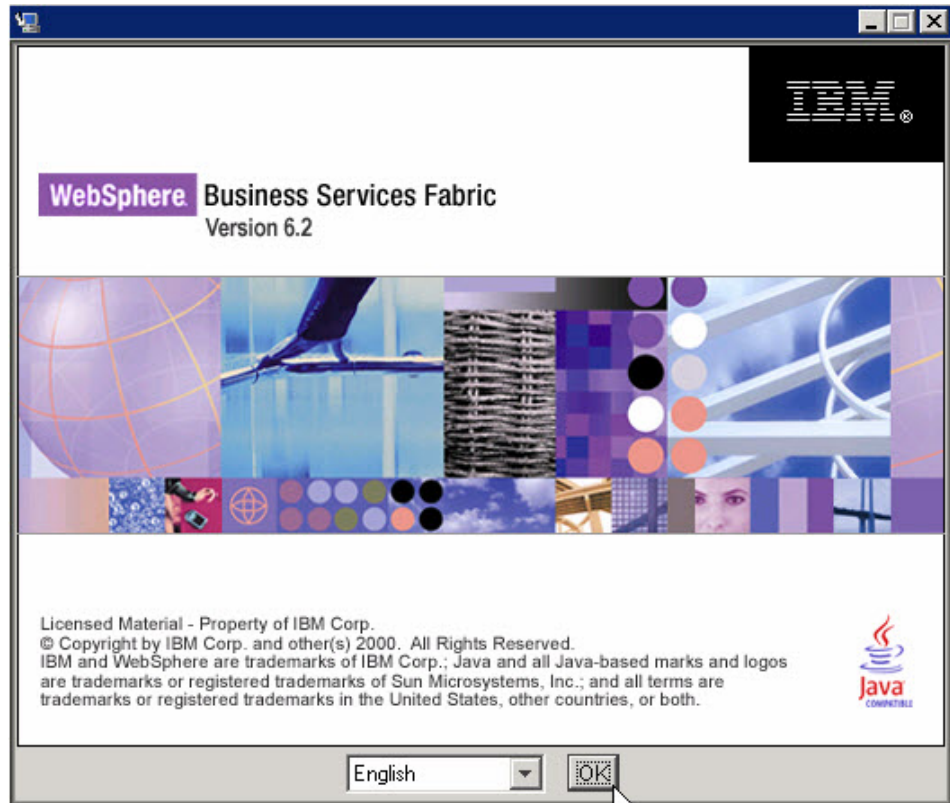
1. On the Deployment Manager system run `launchpad.exe` from the unzipped Fabric Foundation Pack driver.
2. From the Welcome page, click **IBM WebSphere Business Services Foundation Pack Installation**.



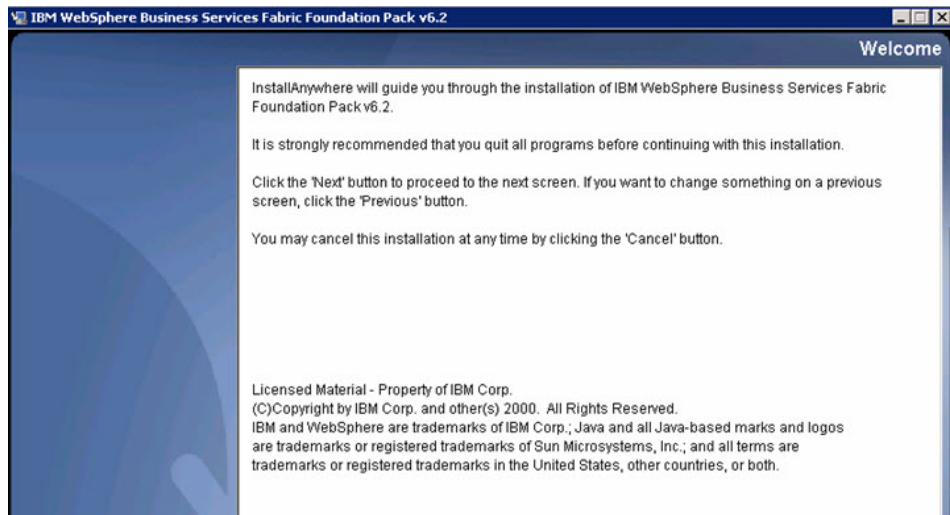
3. From the IBM WebSphere Business Services Foundation Pack for Multiplatforms installation page, select **Launch the installation wizard for IBM WebSphere Business Services Foundation Pack for Multiplatforms**.



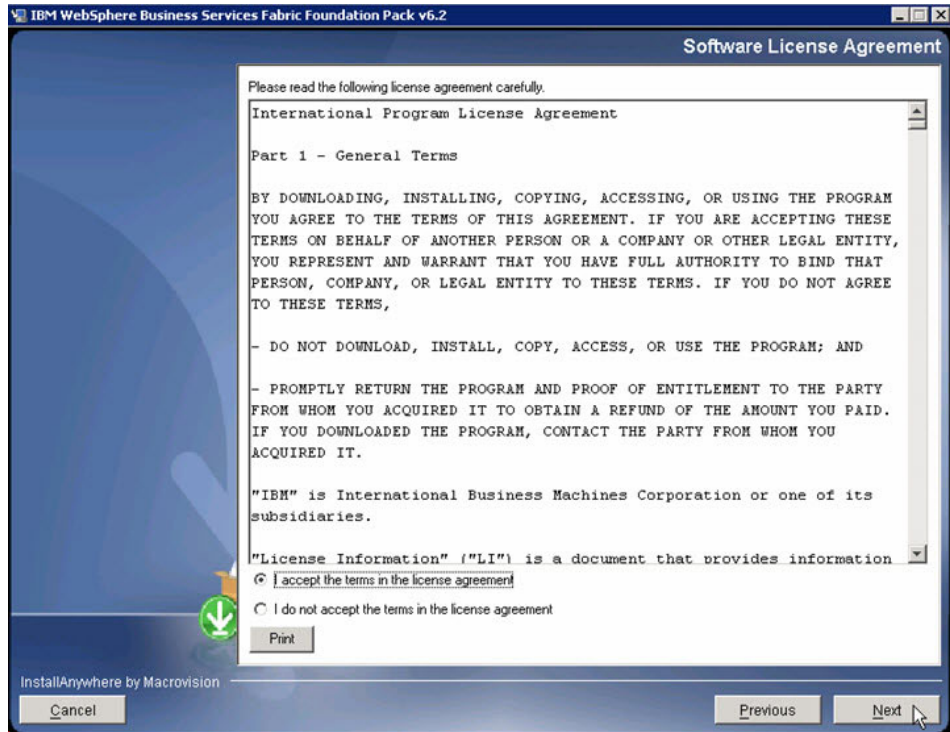
4. From WebSphere Business Services Fabric page, click **OK**.



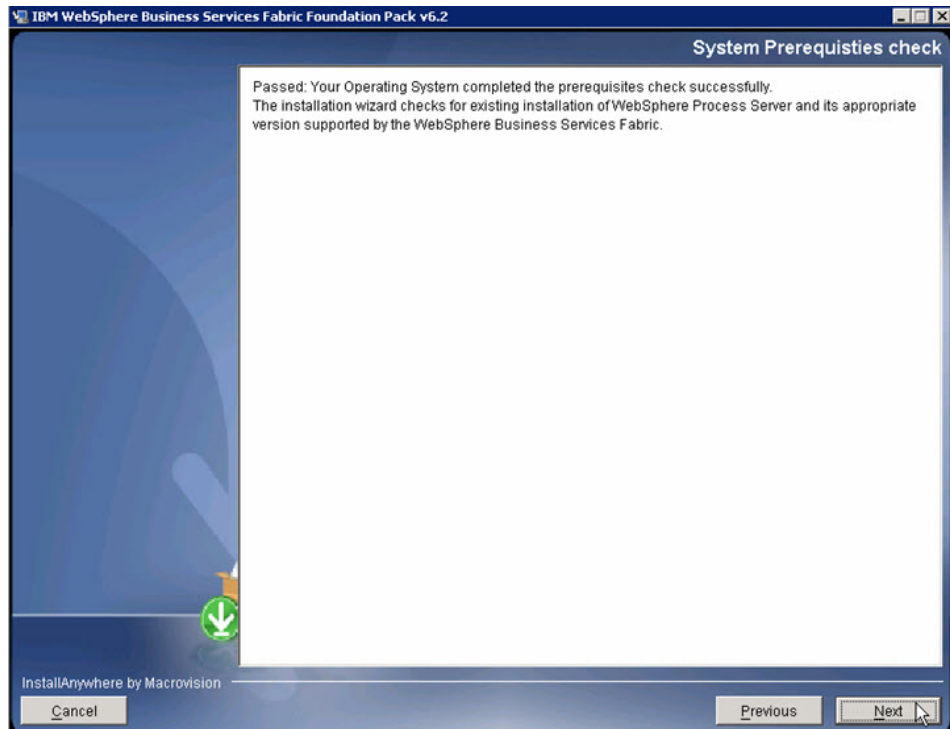
5. From the Welcome page, click Next .



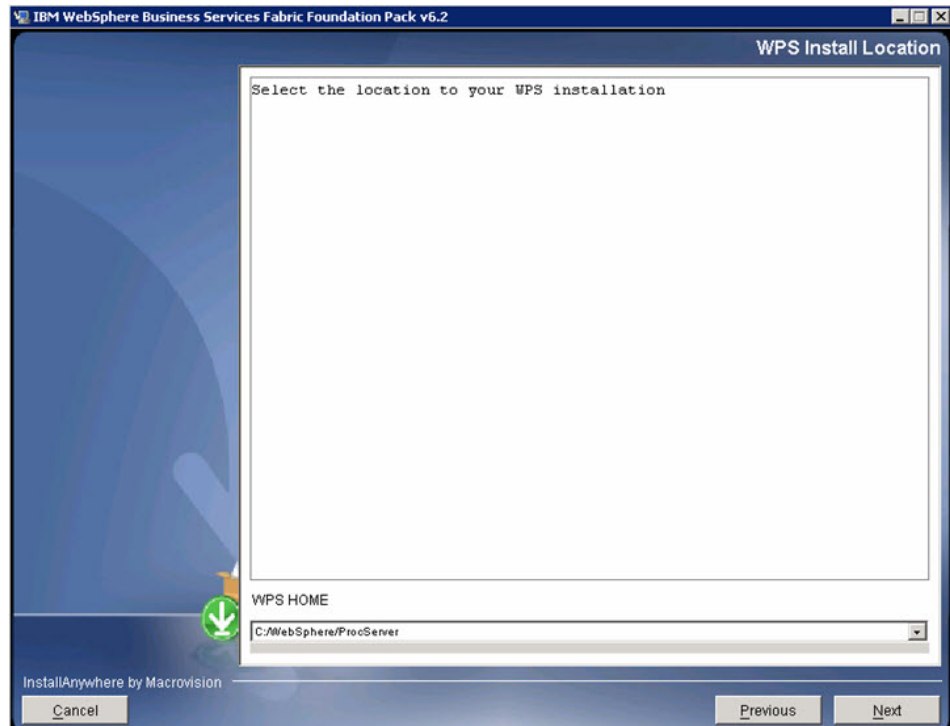
6. From the Software License Agreement page, accept the terms and click Next.



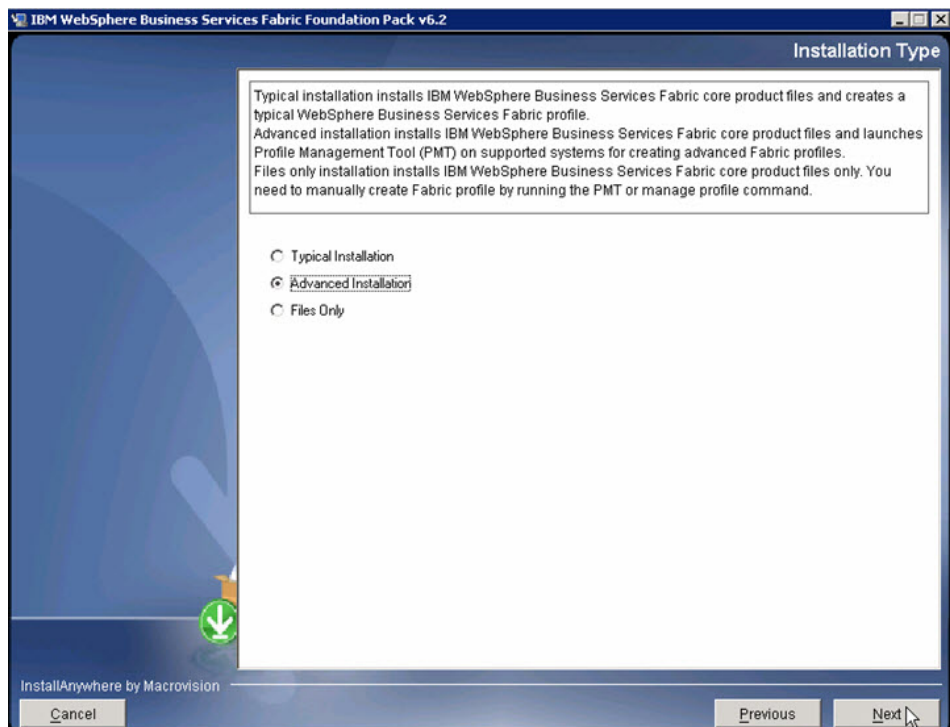
7. From the System prerequisites check page, click **Next**.



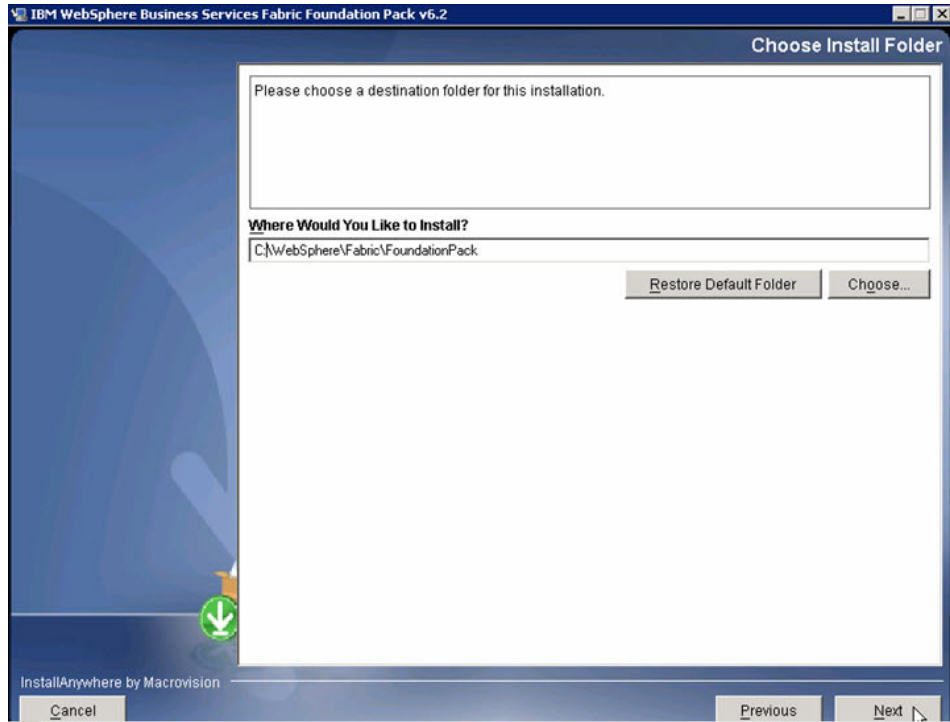
8. From the WPS Install location page, select the WebSphere Process Server home directory and click **Next**.



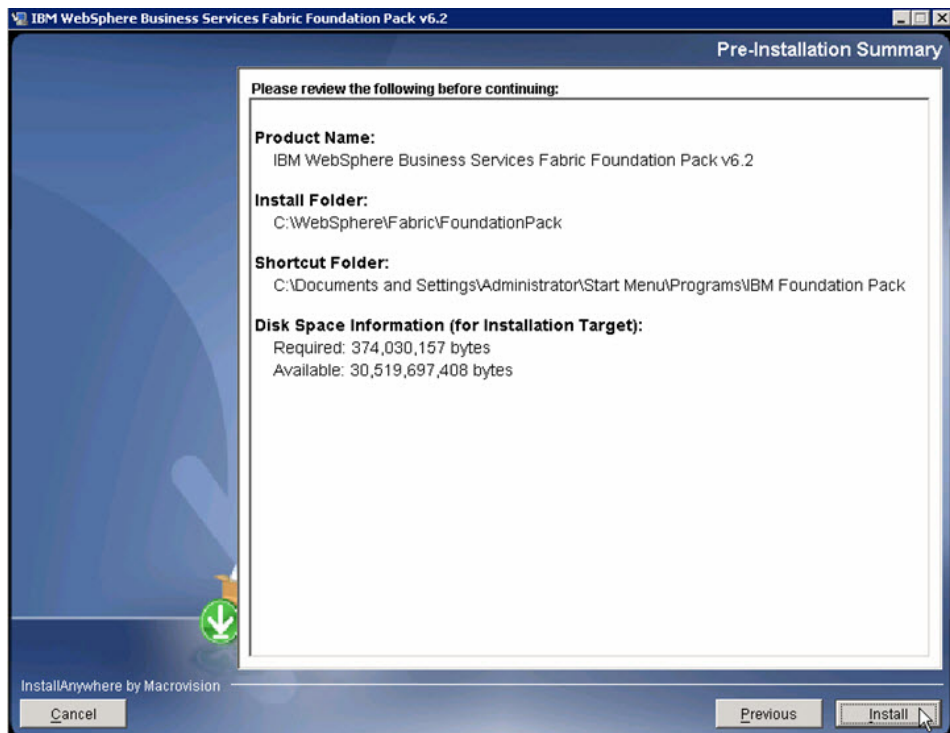
9. From the Installation type selection page, select **Advance Installation** and click **Next** .



10. From the Choose Install Folder page, choose the directory into which you will install WebSphere Business Services Fabric and click **Next**.

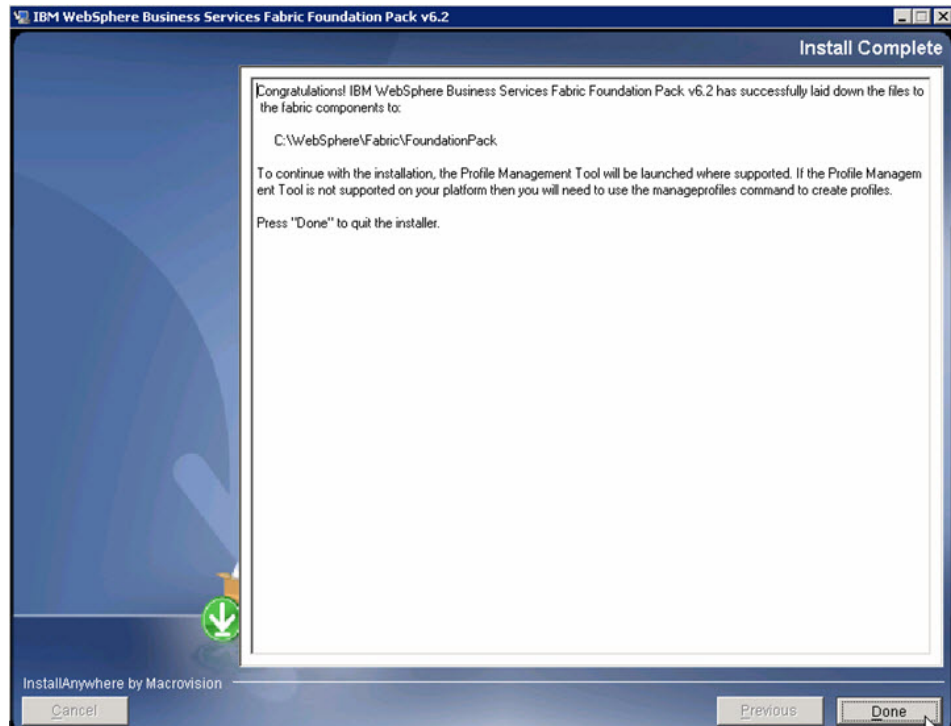


11. From the Preinstallation Summary page, review your decisions and click **Install**.

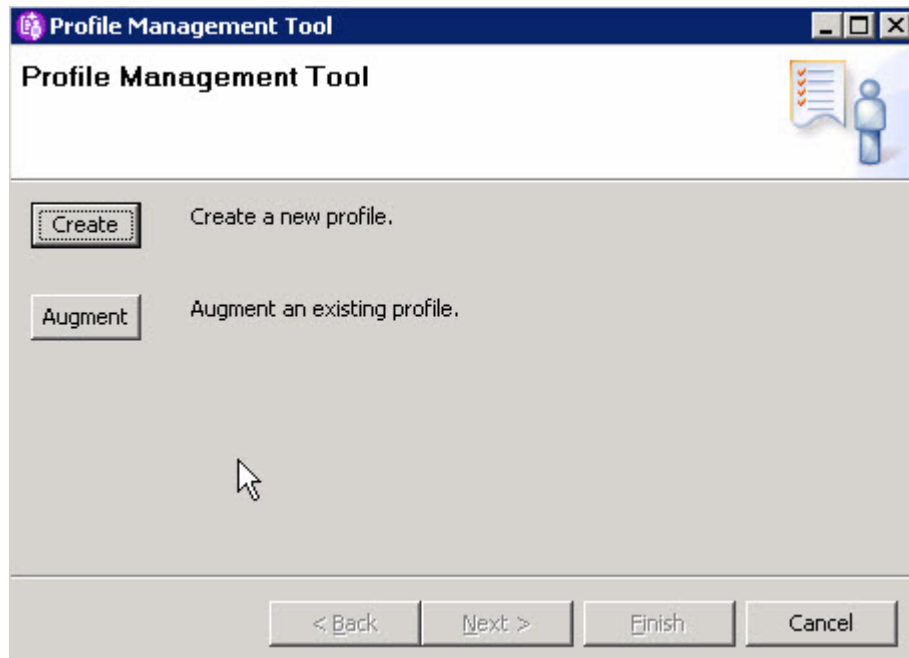


12. From the Install Complete page, click **Done**.

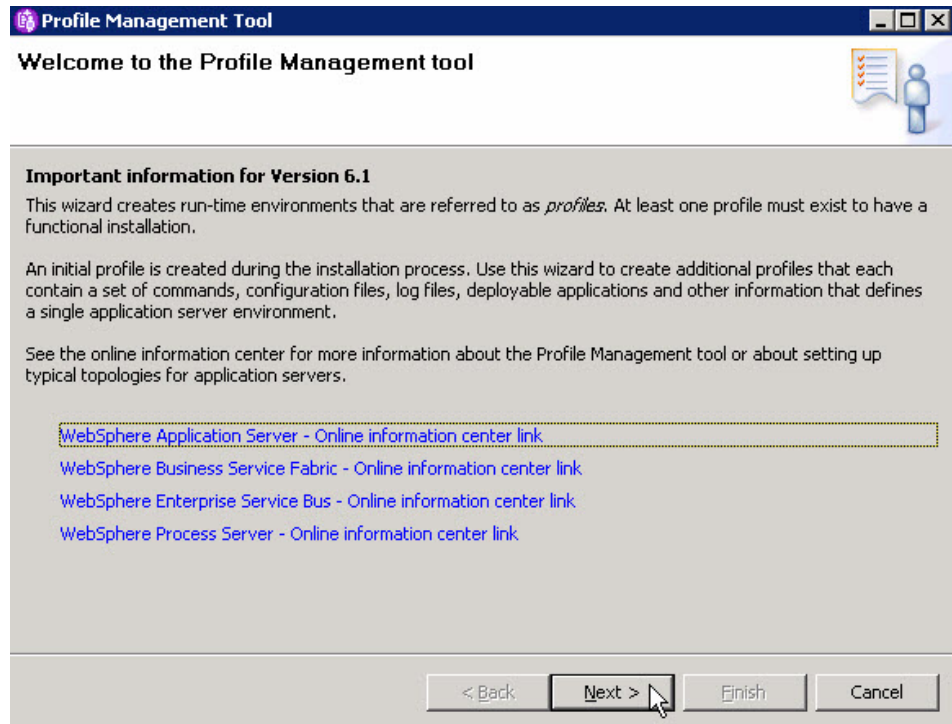




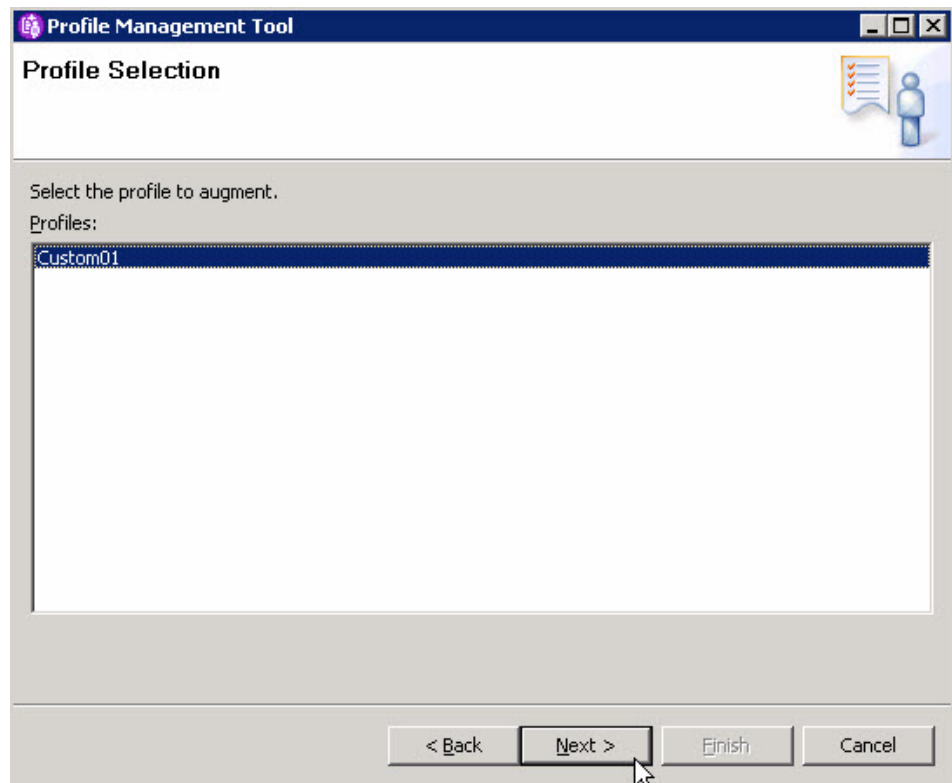
13. From the Profile Management Tool page, click **Augment**.



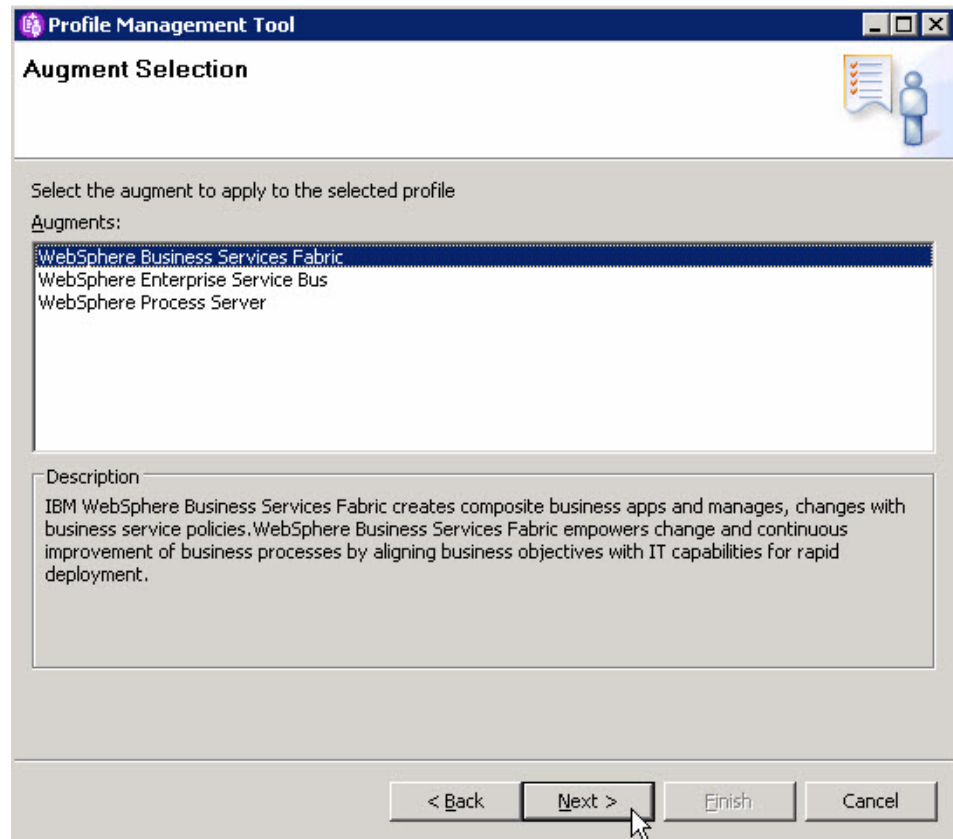
14. From the Welcome to the Profile Management tool page, click **Next**.



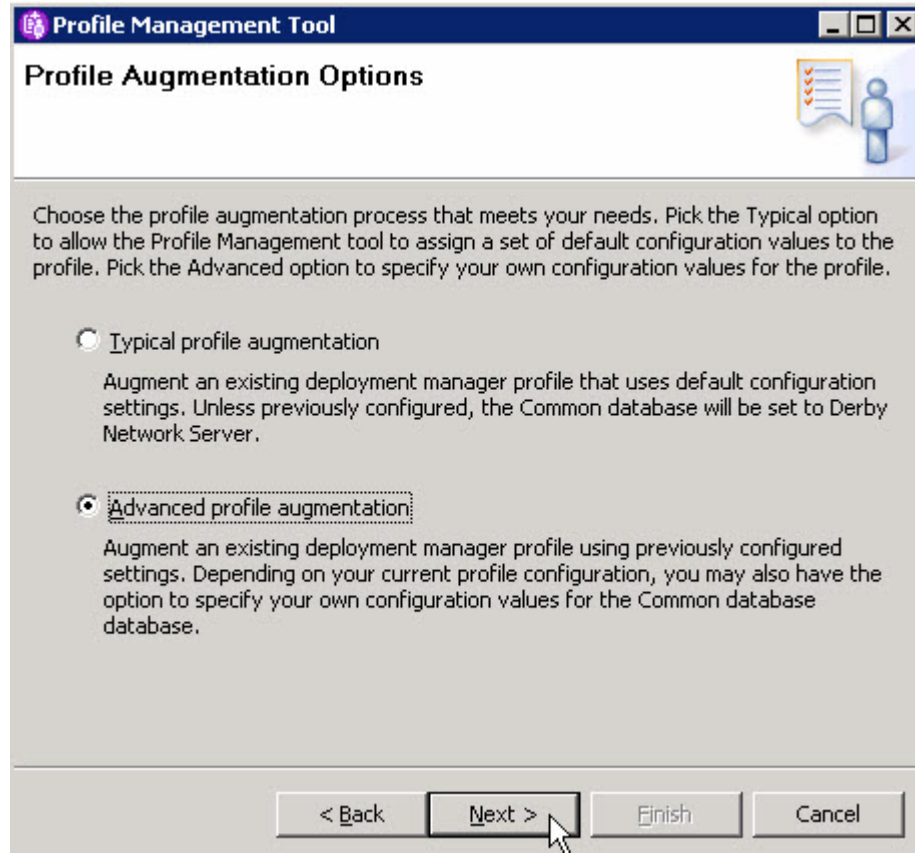
15. From the Profile Selection page, select **Custom01** and click **Next**.



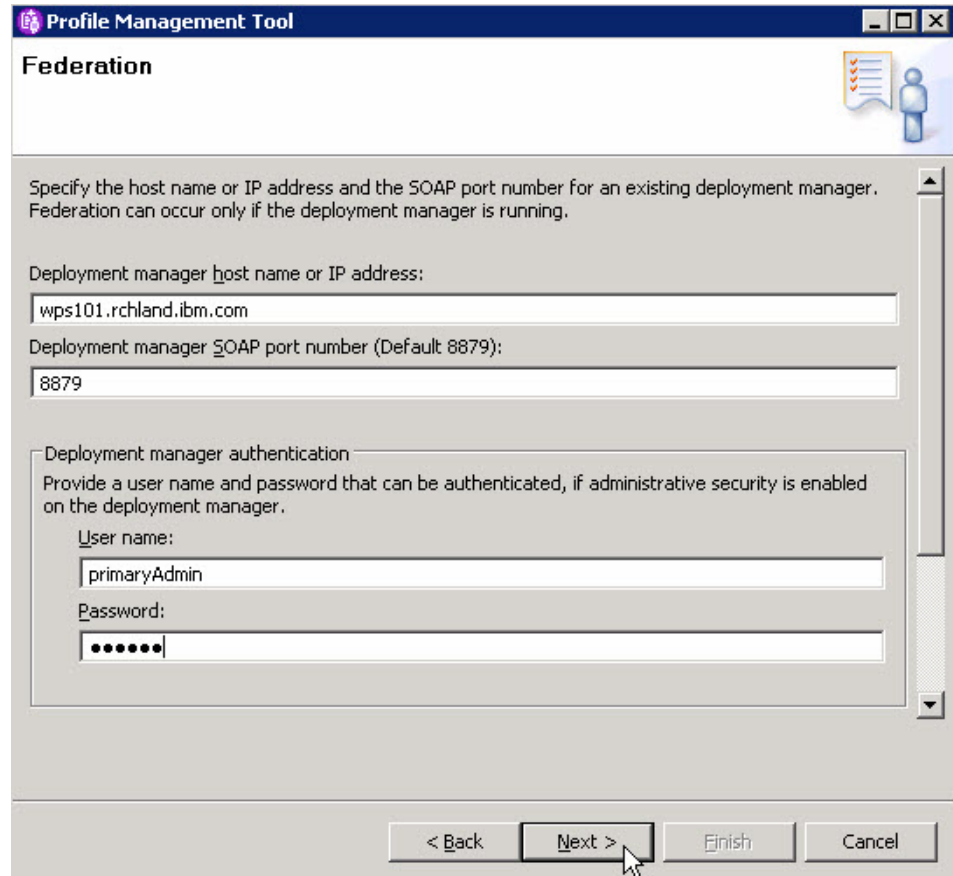
16. From the Augment Selection page, select **Business Service Fabric** and click **Next**.



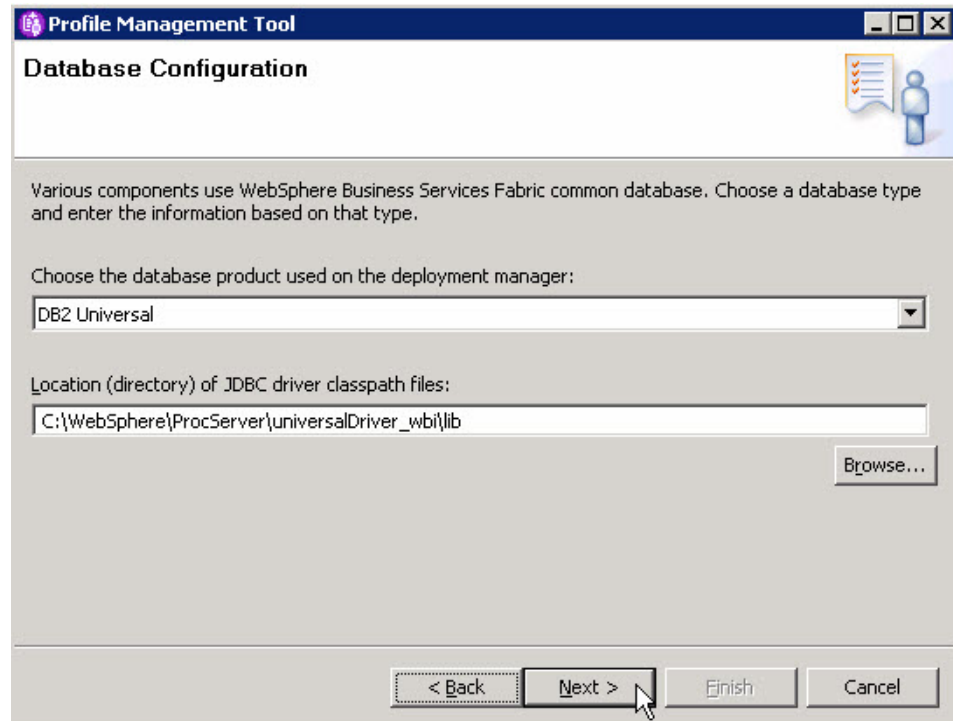
17. From the Profile Augmentation Options page, select **Advanced profile augmentation** and click **Next**.



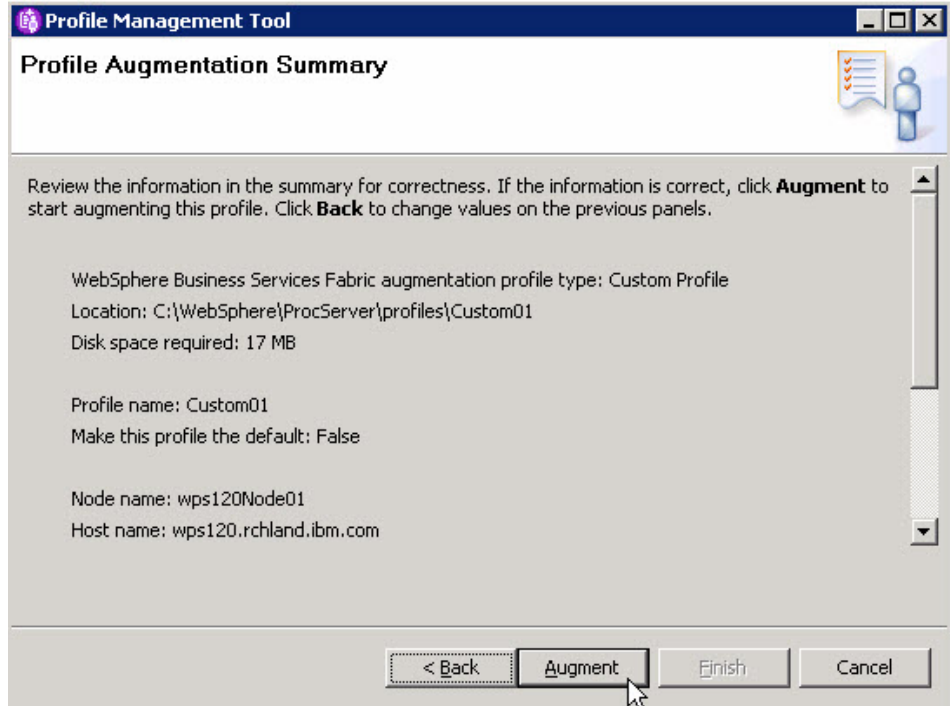
18. From the Federation page, enter host name, User name, Password and click **Next**.



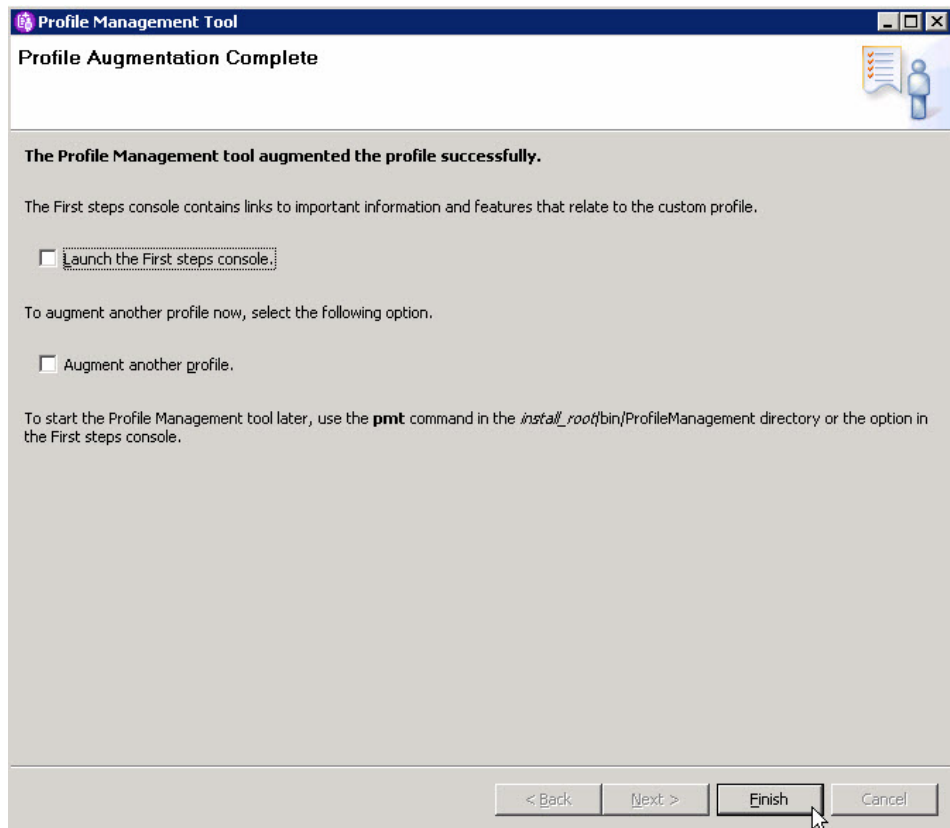
19. From the Database Configuration page, click **Next**.



20. From the Profile Augmentation Summary page, click **Augment**.



21. From the Profile Augmentation Complete page, uncheck **Launch first steps console** and click **Finish**.



Now you can install WebSphere Business Services Fabric 6.2 on system 3 and create the custom profile for that installation.

## Installing WebSphere Business Services Fabric 6.2 on system 3

Use the installation wizard to install the software on an additional system and create a custom profile.

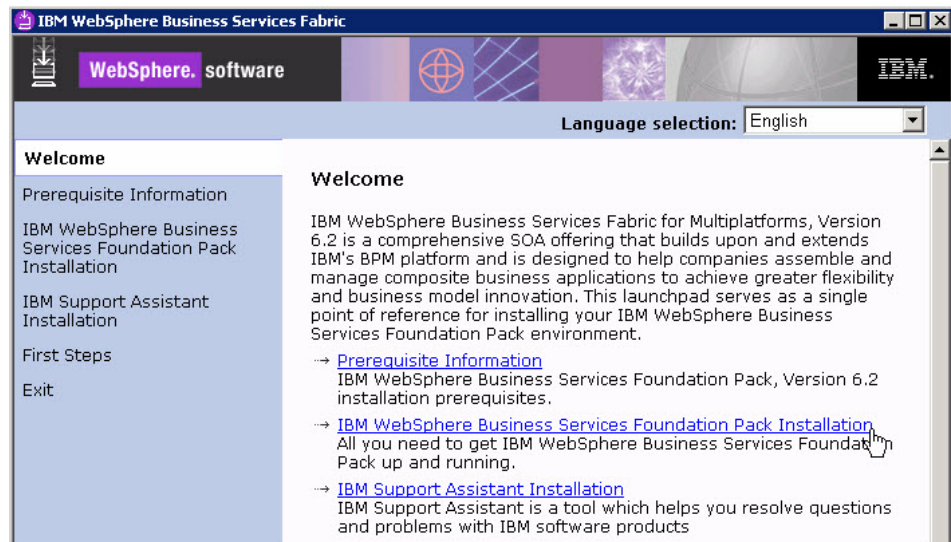
You have installed WebSphere Business Services Fabric 6.2 on system 2.

Use this procedure to install WebSphere Business Services Fabric 6.2 and create the custom profile on system 3.

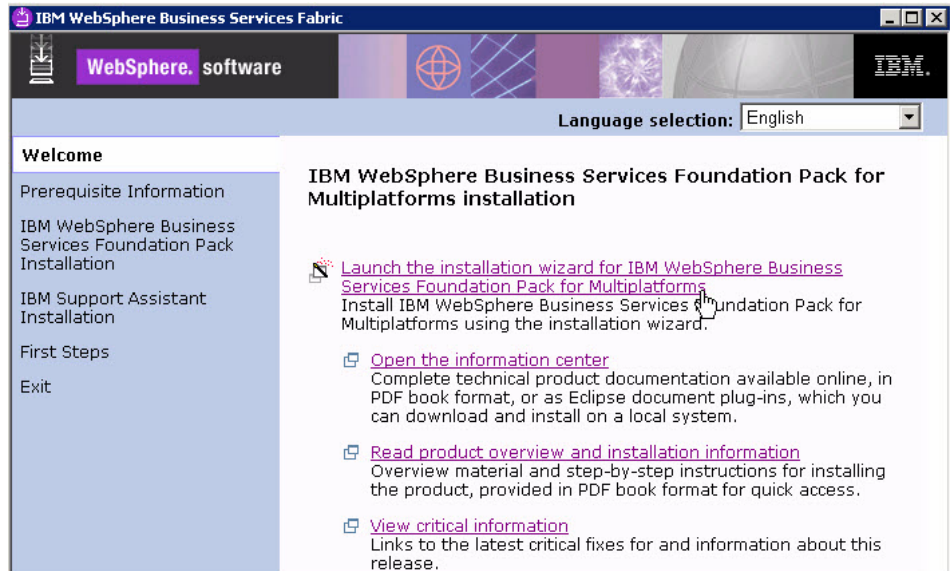
The screen captures are included to make it easier to follow the step instructions.

The step instructions are included to provide the specific task you need to perform and any information needed to perform the task (such as directory locations, parameters to enter, etc.)

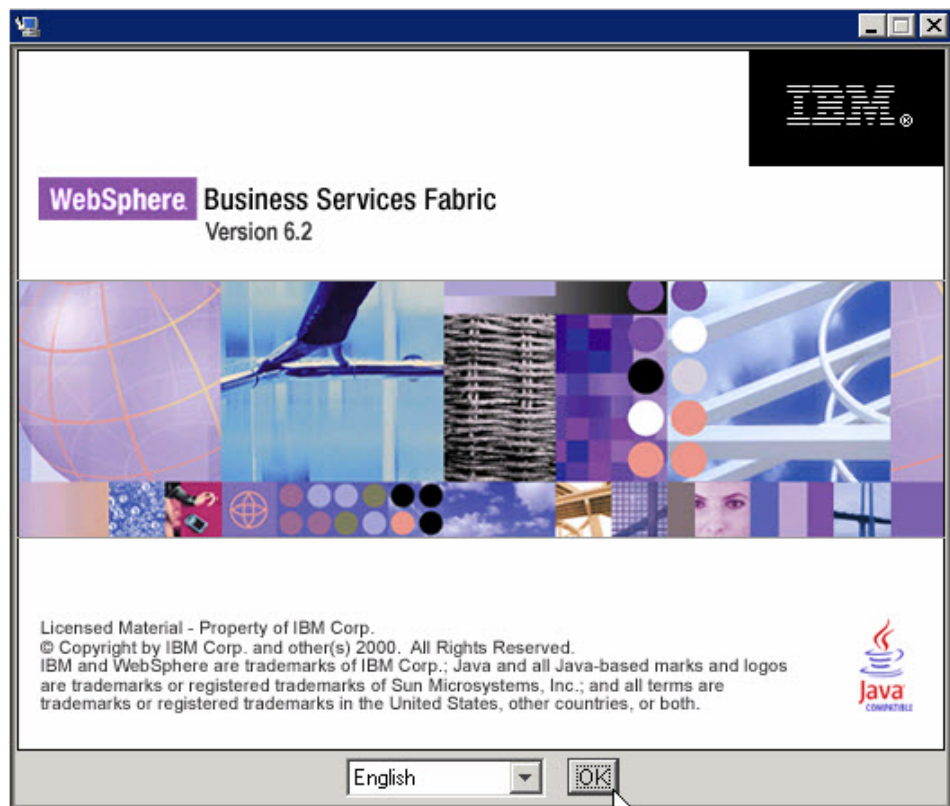
1. On the Deployment Manager system run launchpad.exe from the unzipped Fabric Foundation Pack driver.
2. From the Welcome page, click **IBM WebSphere Business Services Foundation Pack Installation**.



3. From the IBM WebSphere Business Services Foundation Pack for Multiplatforms installation page, select **Launch the installation wizard for IBM WebSphere Business Services Foundation Pack for Multiplatforms**.

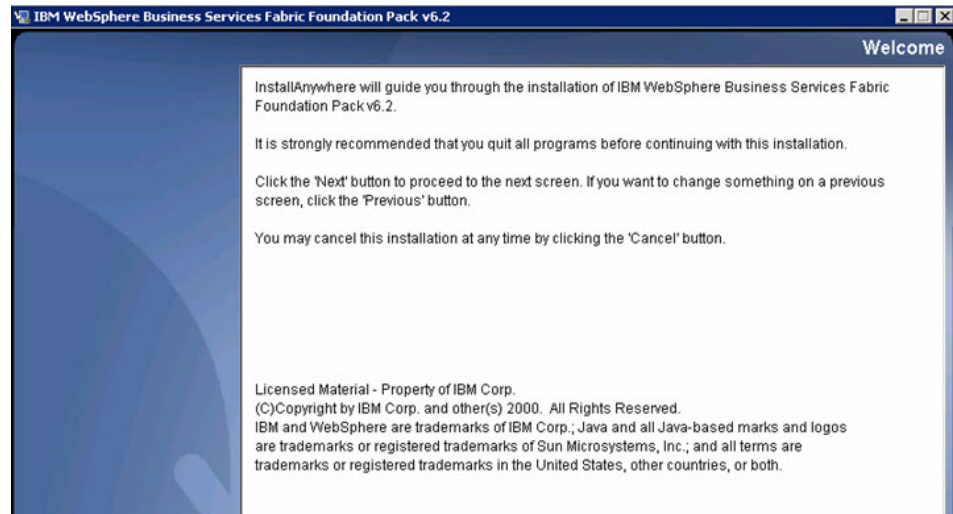


4. From WebSphere Business Services Fabric page, click **OK**.

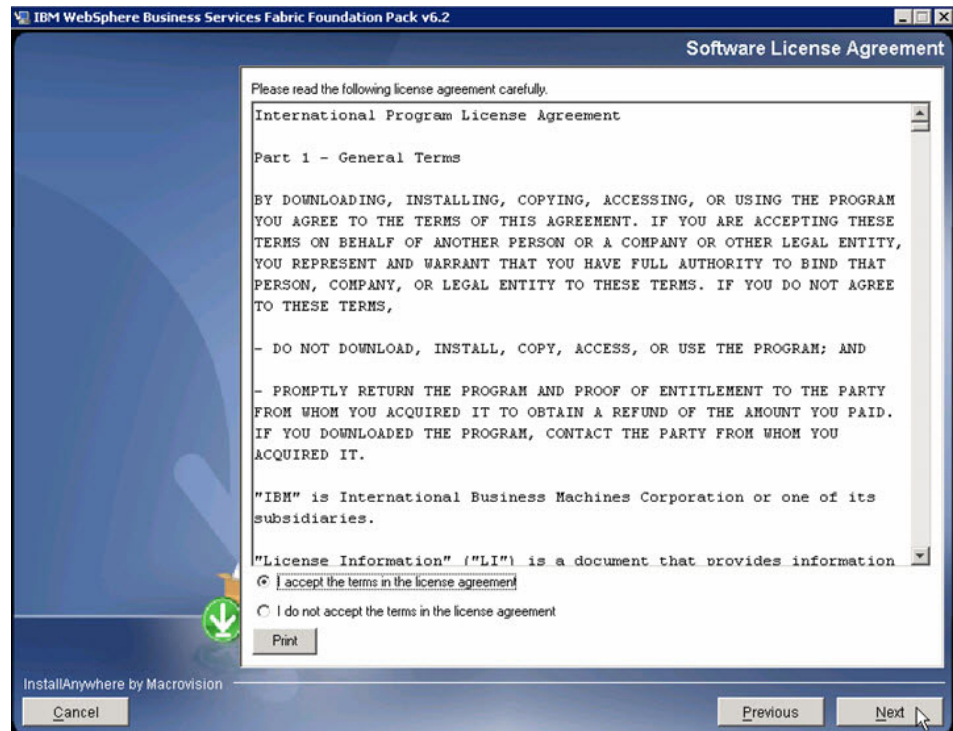


5. From the Welcome page, click **Next** .

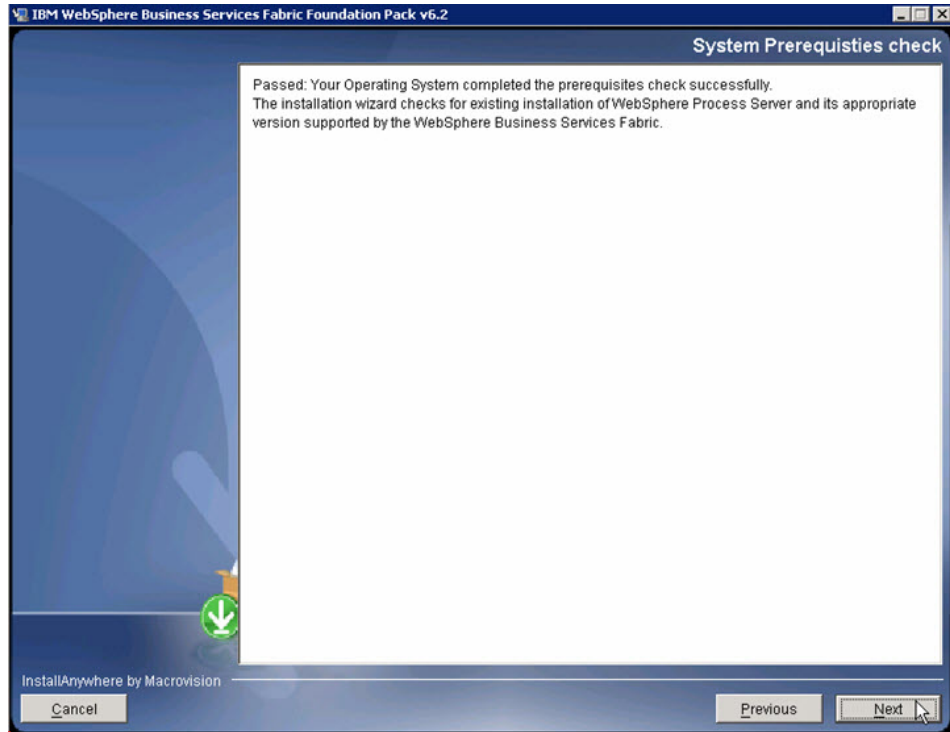




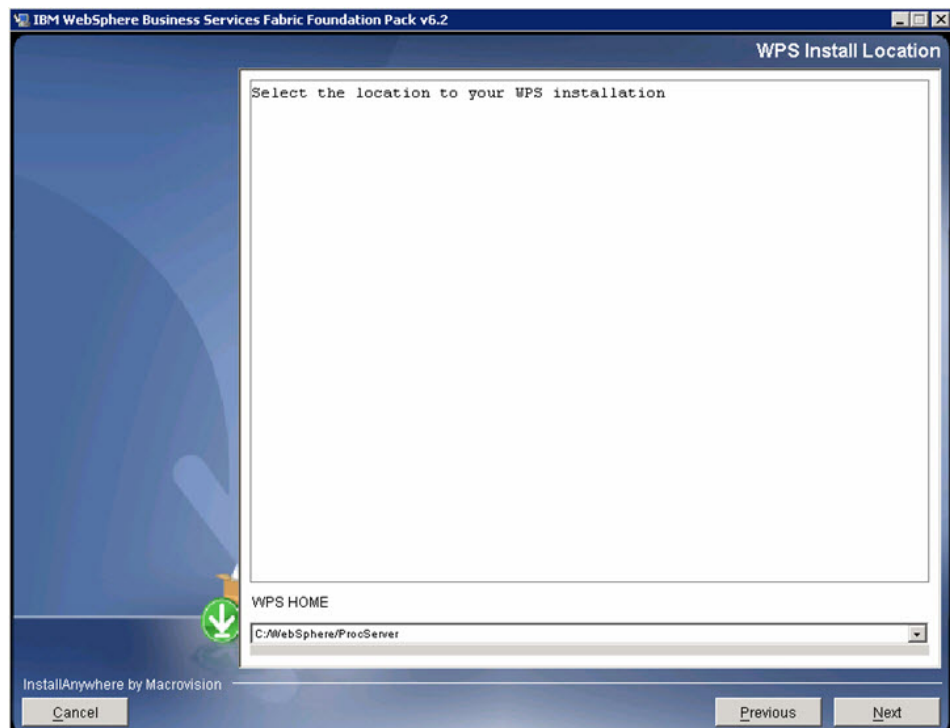
6. From the Software License Agreement page, accept the terms and click Next.



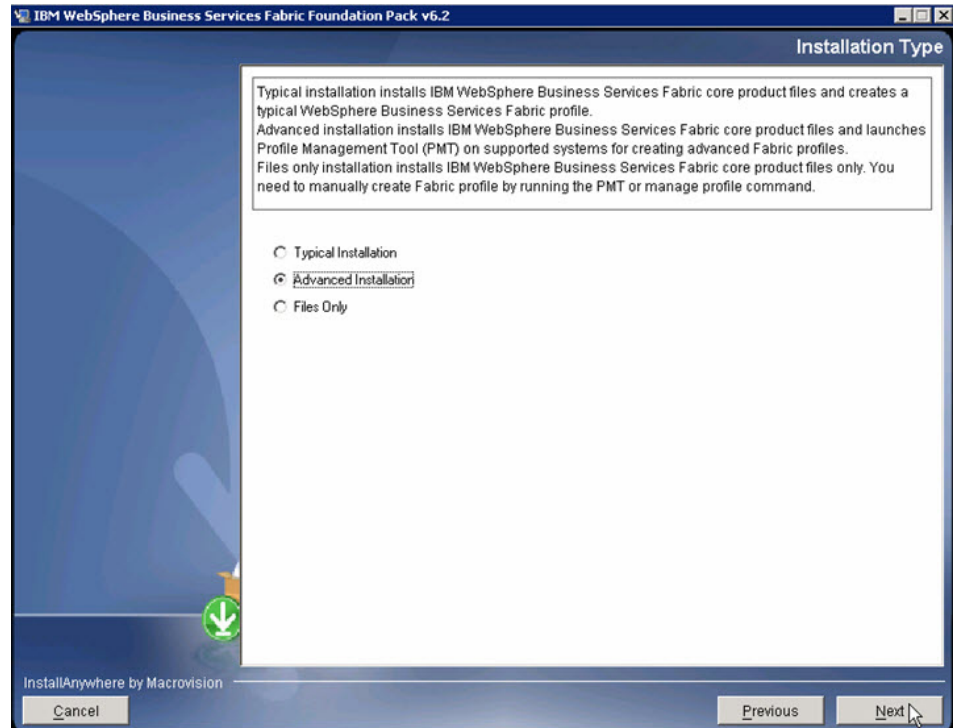
7. From the System prerequisites check page, click Next.



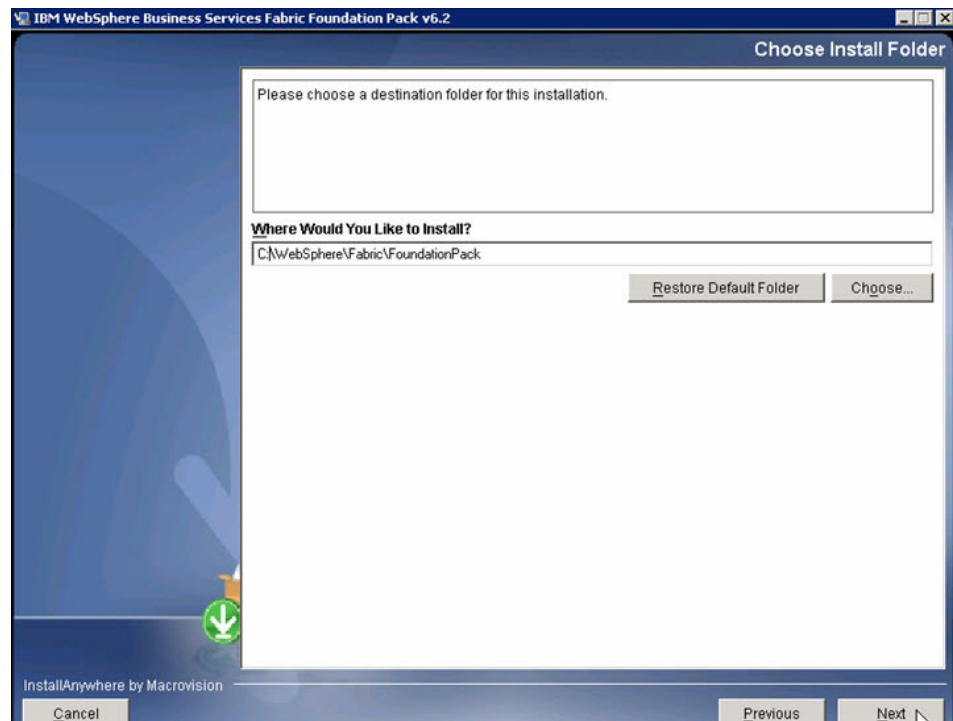
8. From the WPS Install location page, select the WebSphere Process Server home directory and click **Next**.



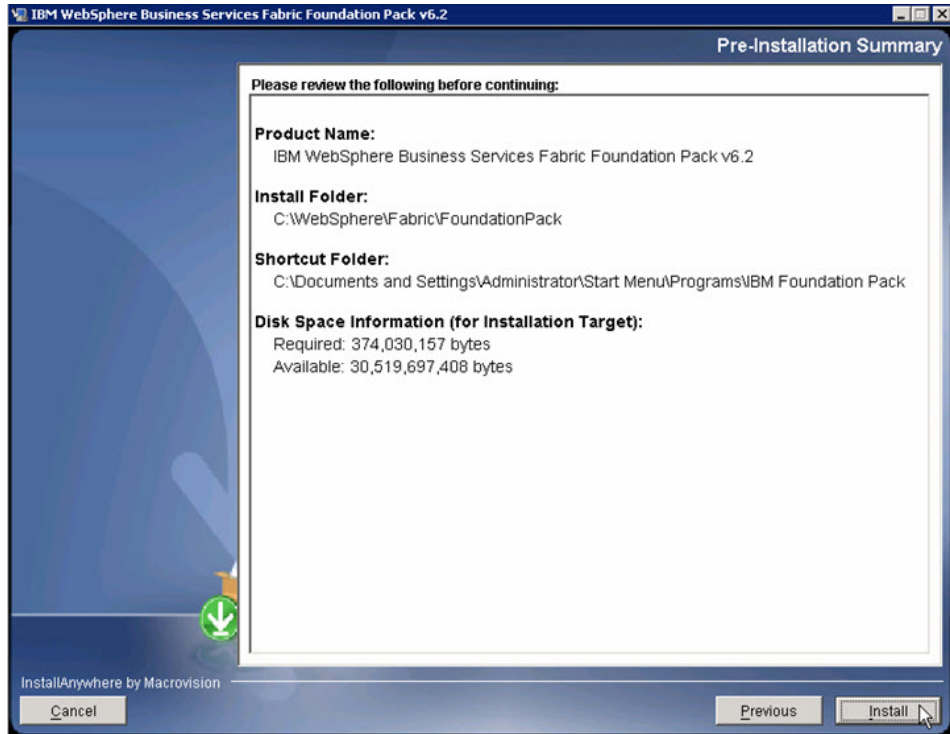
9. From the Installation type selection page, select **Advance Installation** and click **Next**.



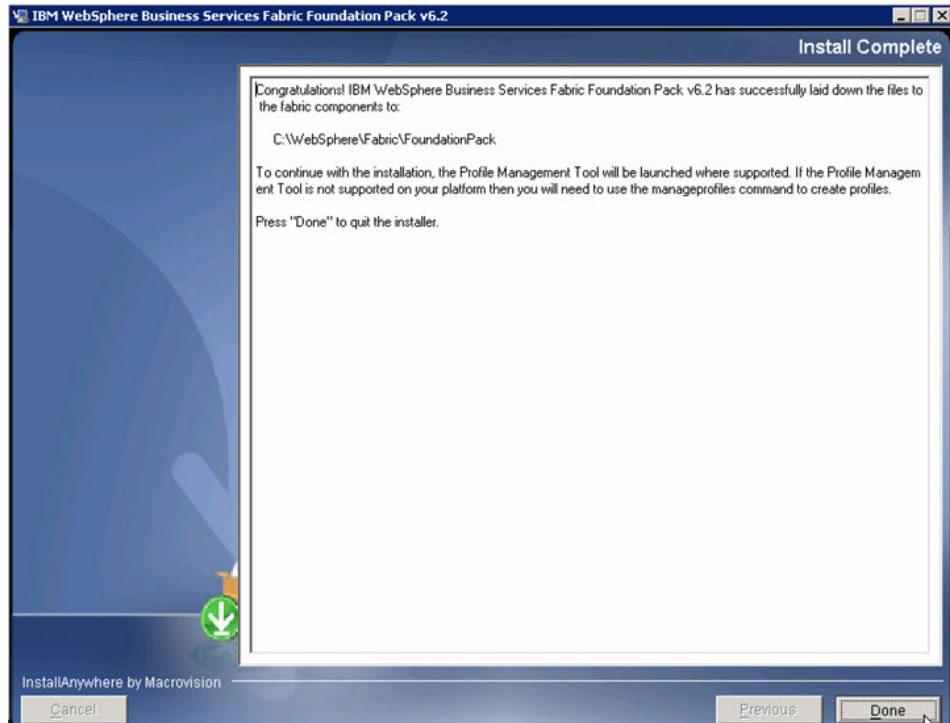
10. From the Choose Install Folder page, choose the directory into which you will install WebSphere Business Services Fabric and click **Next**.



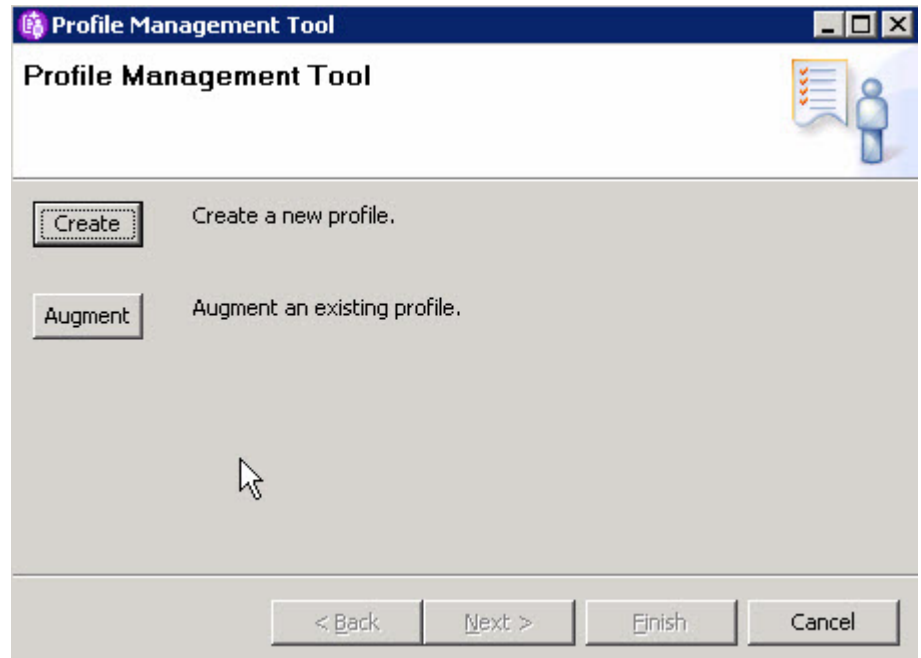
11. From the Preinstallation Summary page, review your decisions and click **Install**.



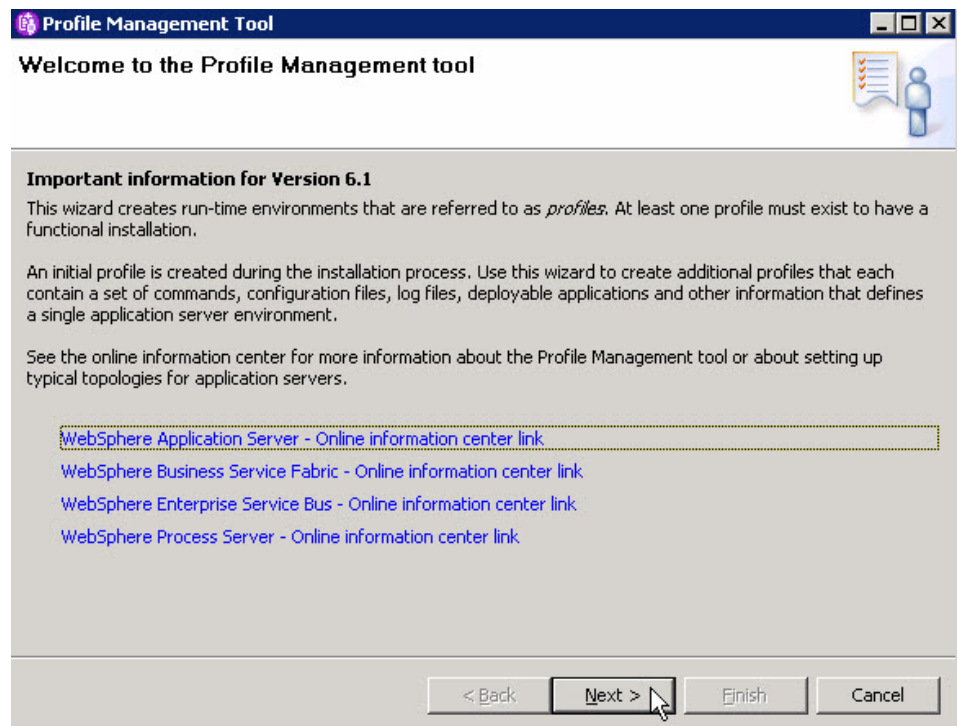
12. From the Install Complete page, click **Done**.



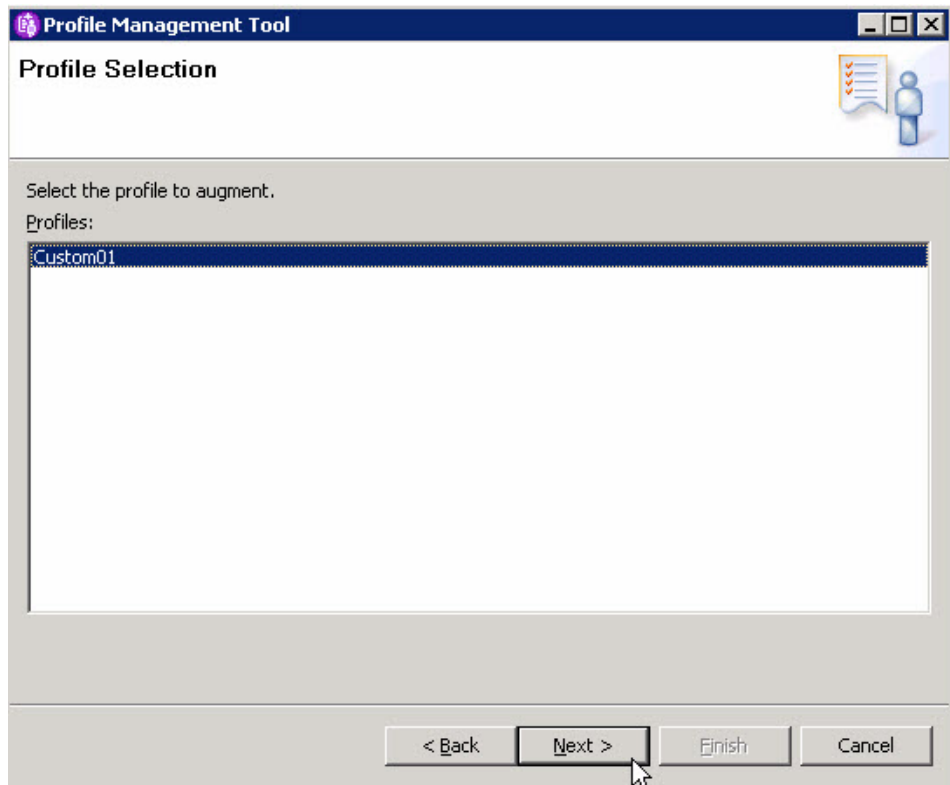
13. From the Profile Management Tool page, click **Augment**.



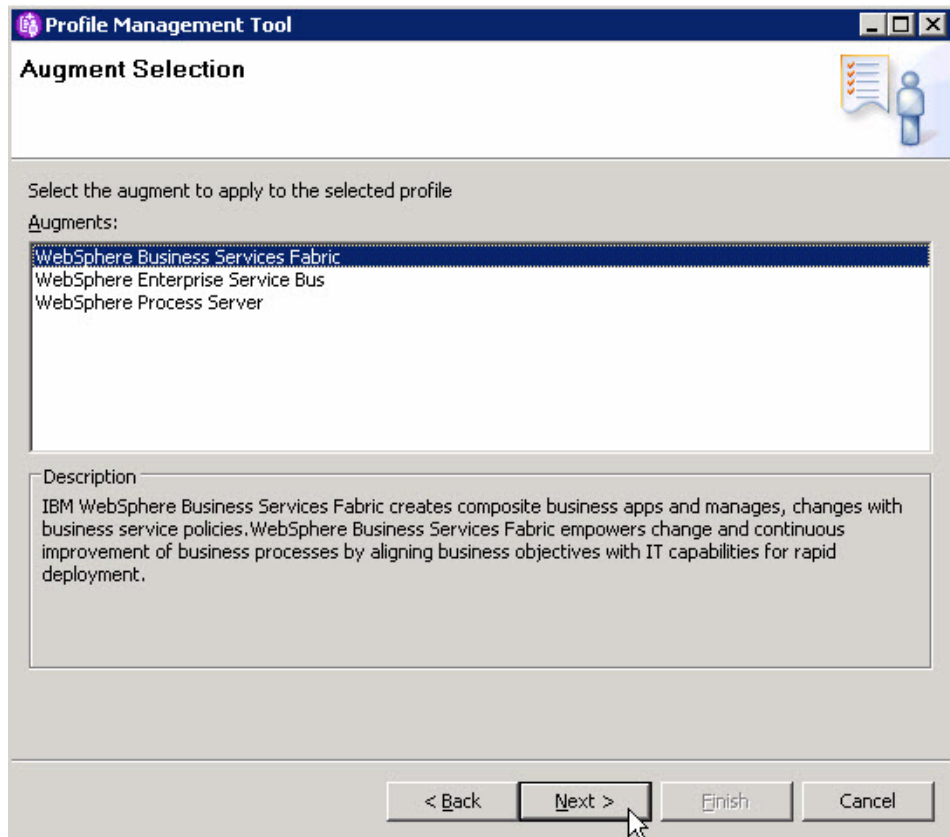
14. From the Welcome to the Profile Management tool page, click Next.



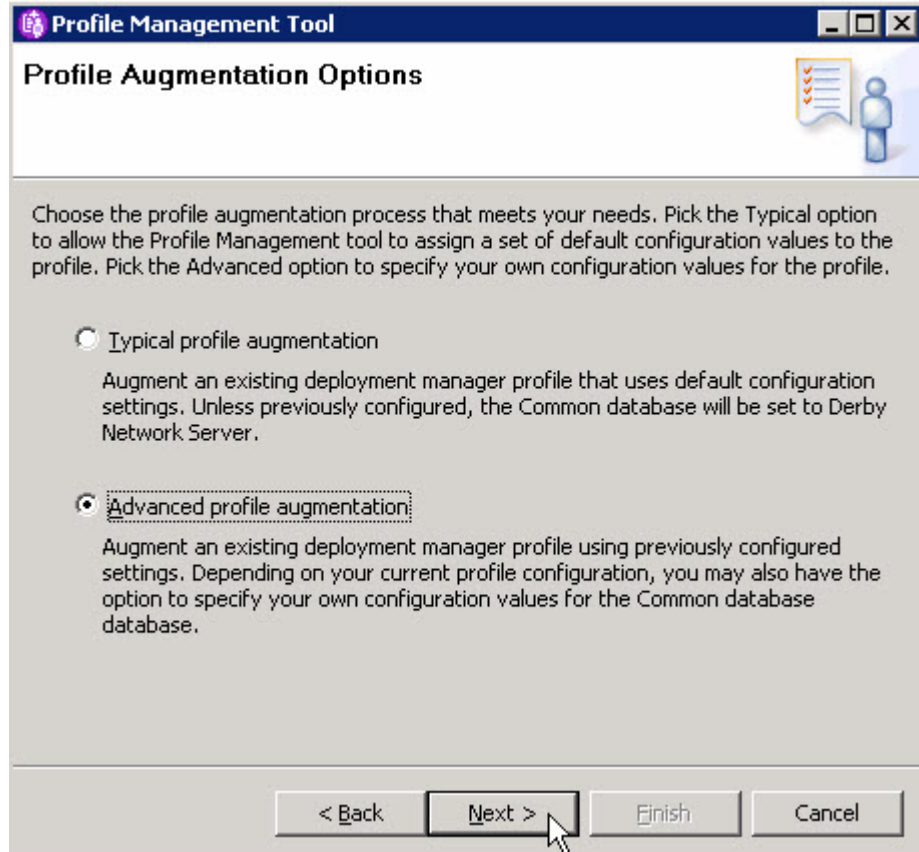
15. From the Profile Selection page, select **Custom01** and click Next.



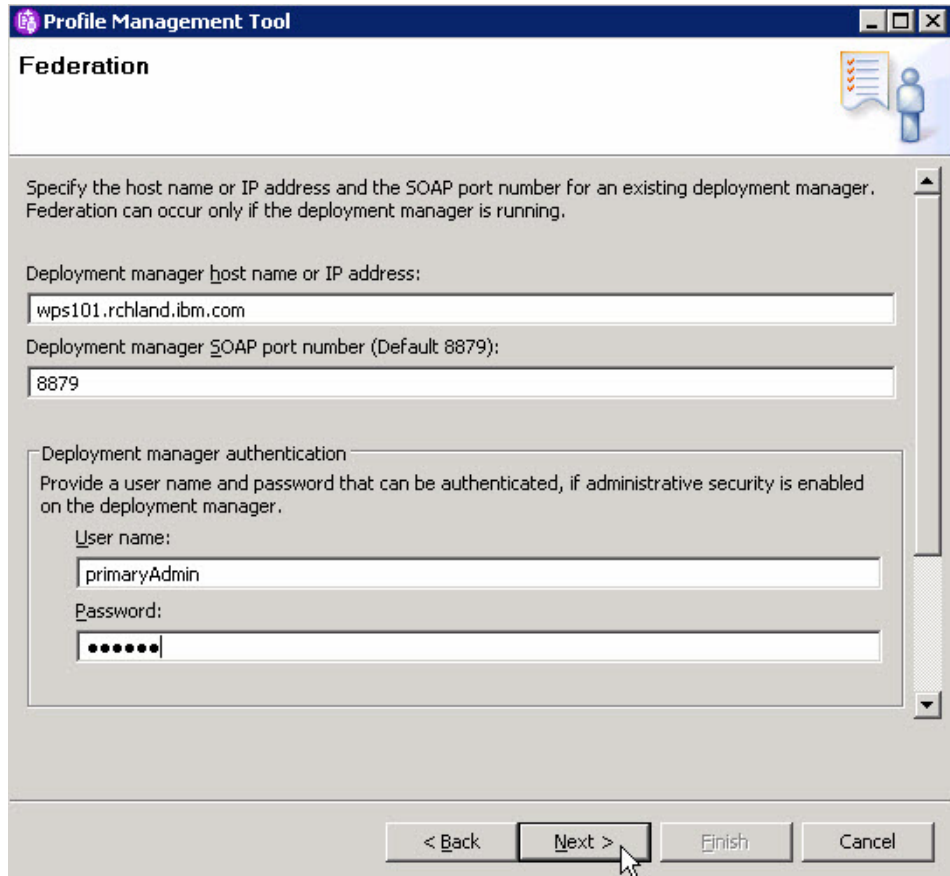
16. From the Augment Selection page, select **Business Service Fabric** and click **Next**.



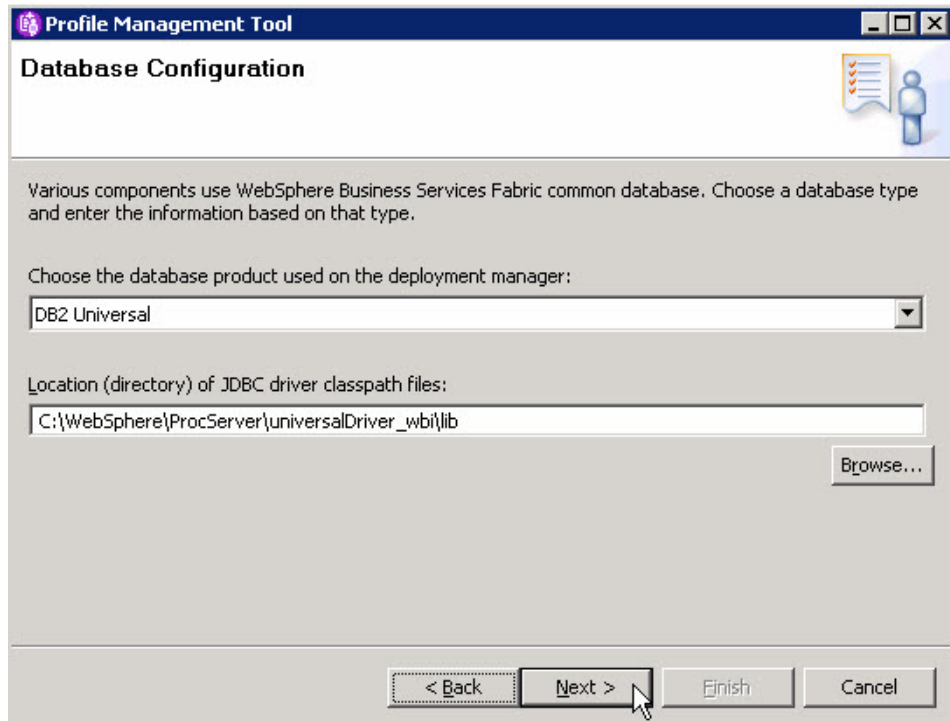
17. From the Profile Augmentation Options page, select **Advanced profile augmentation** and click **Next**.



18. From the Federation page, enter host name, User name, Password and click **Next**.

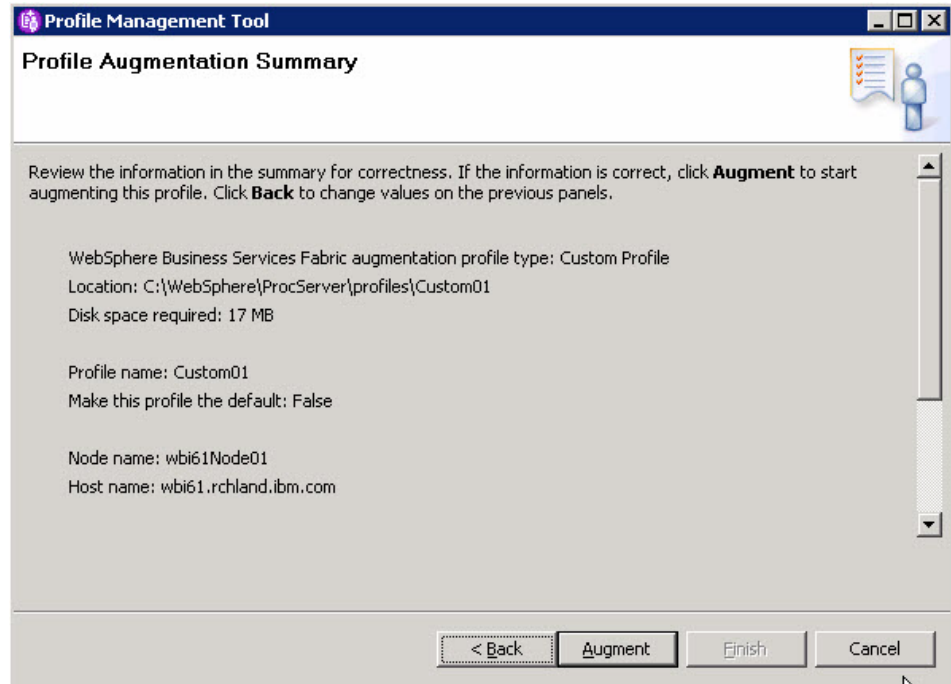


19. From the Database Configuration page, click **Next**.

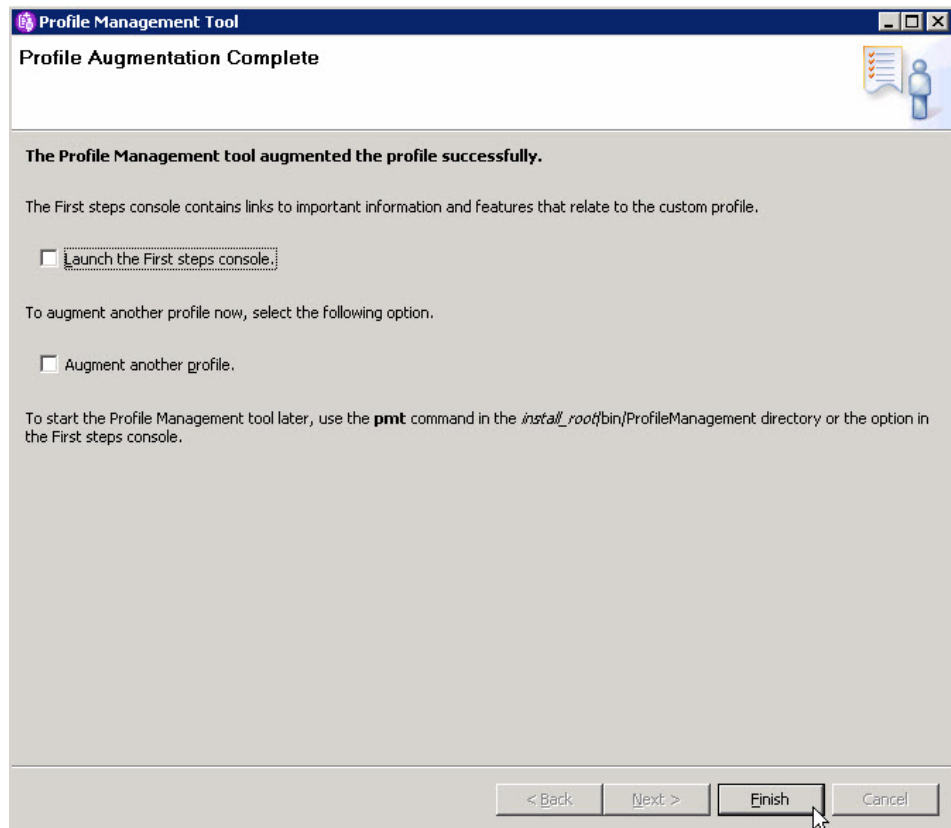


20. From the Profile Augmentation Summary page, click **Augment**.





21. From the Profile Augmentation Complete page, uncheck **Launch the first steps console** and click **Finish**.



Now you create the WebSphere Business Services Fabric database.

## Creating the WebSphere Business Services Fabric database

Use the script to create the WebSphere Business Services Fabric database.

Use this procedure to create the WebSphere Business Services Fabric database.

1. Copy the C:\WebSphere\Fabric\FoundationPack\configuration\database\db2 directory and files within from the Deployment Manager System to the Database system.
2. On the Database system in db2 directory, edit the file create\_fabric\_db\_windows.sql
3. Replace all \$DB\_NAME\$ with FABRICDB.
4. Change **CONNECT TO \$DB\_NAME\$;** to **CONNECT TO FABRICDB USER db2admin using yourpassword;**
5. Change **connect to \$DB\_NAME\$ user \$DBUSER\$ using '\$DBPASSWORD\$';** to **connect to FABRICDB user db2admin using yourpassword;**
6. Change **CONNECT TO \$DB\_NAME\$;** to in “connect to fabricdb user db2admin using yourpassword” in 2 places
7. Run the script to create fabricdb.

```
C:\dbscripts\fabricDB\db2\db2>db2 -tvf create_fabric_db_windows.sql
CREATE DATABASE fabricdb ON 'C:' USING CODESET UTF-8 TERRITORY US COLLATE USING
SYSTEM CATALOG TABLESPACE MANAGED BY SYSTEM USING ( 'C:\DB2\fabric\fabric-sys-au
to' ) EXTENTSIZE 16 PREFETCHSIZE 64 OVERHEAD 13.17 TRANSFERRATE 0.20 USER TABLE
SPACE MANAGED BY DATABASE USING ( FILE 'C:\DB2\fabric\fabric_USR_DATA\fabric-user
-4k-c1' 100000 ) EXTENTSIZE 16 PREFETCHSIZE 64 OVERHEAD 13.17 TRANSFERRATE 0.20 T
EMPORARY TABLESPACE MANAGED BY SYSTEM USING ( 'C:\DB2\fabric\fabric-temp-auto' )
EXTENTSIZE 16 PREFETCHSIZE 64 OVERHEAD 13.17 TRANSFERRATE 0.20
DB20000I The CREATE DATABASE command completed successfully.
```

```
CONNECT TO fabricdb user db2admin using
```

### Database Connection Information

```
Database server      = DB2/NT 9.5.2
SQL authorization ID = DB2ADMIN
Local database alias = FABRICDB
```

```
CREATE BUFFERPOOL fabric_4K_BP1 SIZE 1000 PAGESIZE 4 K
DB20000I The SQL command completed successfully.
```

```
CREATE BUFFERPOOL fabric_16K_BP1 SIZE 1000 PAGESIZE 16 K
DB20000I The SQL command completed successfully.
```

```
CREATE BUFFERPOOL fabric_16K_BP2 SIZE 1000 PAGESIZE 16 K
DB20000I The SQL command completed successfully.
```

```
CREATE REGULAR TABLESPACE fabric_TBSP_1 PAGESIZE 16 K MANAGED BY DATABASE USING
(FILE 'C:\DB2\fabric\fabric_USR_DATA\fabr
RATE 0.04 BUFFERPOOL fabric_16K_BP1 DROPPED TABLE RECOVERY OFF
DB20000I The SQL command completed successfully.
```

```
CREATE REGULAR TABLESPACE fabric_TBSP_2 PAGESIZE 16 K MANAGED BY DATABASE USING
(FILE 'C:\DB2\fabric\fabric_USR_DATA\fabr
RATE 0.04 BUFFERPOOL fabric_16K_BP2 DROPPED TABLE RECOVERY OFF
DB20000I The SQL command completed successfully.
```

```
ALTER TABLESPACE USERSPACE1 BUFFERPOOL fabric_4K_BP1
DB20000I The SQL command completed successfully.
```

```
ALTER TABLESPACE fabric_TBSP_1 BUFFERPOOL fabric_16K_BP1
DB20000I The SQL command completed successfully.
```

```
ALTER TABLESPACE fabric_TBSP_2 BUFFERPOOL fabric_16K_BP2
DB20000I The SQL command completed successfully.
```

```
CONNECT RESET
DB20000I The SQL command completed successfully.
```

connect to fabricdb user db2admin using

Database Connection Information

```
Database server      = DB2/NT 9.5.2
SQL authorization ID = DB2ADMIN
Local database alias = FABRICDB
```

```
update dbm cfg using DISCOVER_INST disable
DB20000I The UPDATE DATABASE MANAGER CONFIGURATION command completed
successfully.
```

```
update dbm cfg using BACKBUFSZ 2048
DB20000I The UPDATE DATABASE MANAGER CONFIGURATION command completed
successfully.
```

```
update dbm cfg using RESTBUFSZ 2048
DB20000I The UPDATE DATABASE MANAGER CONFIGURATION command completed
successfully.
```

```
update db cfg for fabricdb using DISCOVER_DB disable
DB20000I The UPDATE DATABASE CONFIGURATION command completed successfully.
```

```
update db cfg for fabricdb using BUFFPAGE 60000
DB20000I The UPDATE DATABASE CONFIGURATION command completed successfully.
SQL1363W One or more of the parameters submitted for immediate modification
were not changed dynamically. For these configuration parameters, all
applications must disconnect from this database before the changes become
effective.
```

```
update db cfg for fabricdb using SORTHEAP 1024
SQL5147N "sortheap" cannot be set to MANUAL if "sheaphres_shr" is AUTOMATIC.
```

```
update db cfg for fabricdb using LOGFILSIZ 2000
DB20000I The UPDATE DATABASE CONFIGURATION command completed successfully.
SQL1363W One or more of the parameters submitted for immediate modification
were not changed dynamically. For these configuration parameters, all
applications must disconnect from this database before the changes become
effective.
```

```
update db cfg for fabricdb using LOGPRIMARY 15
DB20000I The UPDATE DATABASE CONFIGURATION command completed successfully.
SQL1363W One or more of the parameters submitted for immediate modification
were not changed dynamically. For these configuration parameters, all
applications must disconnect from this database before the changes become
effective.
```

```
update db cfg for fabricdb using LOGSECOND 20
DB20000I The UPDATE DATABASE CONFIGURATION command completed successfully.
```

```
update db cfg for fabricdb using logbufsz 512
DB20000I The UPDATE DATABASE CONFIGURATION command completed successfully.
SQL1363W One or more of the parameters submitted for immediate modification
were not changed dynamically. For these configuration parameters, all
applications must disconnect from this database before the changes become
effective.
```

```
update db cfg for fabricdb using locklist 600
SQL5146W "MAXLOCKS" must be set to "MANUAL" when "LOCKLIST" is "MANUAL".
"MAXLOCKS" has been set to "MANUAL".
```

```
update db cfg for fabricdb using applheapsz 512
DB20000I The UPDATE DATABASE CONFIGURATION command completed successfully.
```

```
update db cfg for fabricdb using app_ctl_heap_sz 512
DB20000I The UPDATE DATABASE CONFIGURATION command completed successfully.
SQL1363W One or more of the parameters submitted for immediate modification
were not changed dynamically. For these configuration parameters, all
applications must disconnect from this database before the changes become
effective.
```

```
update db cfg for fabricdb using maxlocks 40
DB20000I The UPDATE DATABASE CONFIGURATION command completed successfully.
```

```
update dbm cfg using mon_heap_sz 512
DB20000I The UPDATE DATABASE MANAGER CONFIGURATION command completed
successfully.
```

```
force application all
DB20000I The FORCE APPLICATION command completed successfully.
DB21024I This command is asynchronous and may not be effective immediately.
```

```
db2stop
DB20000I The DB2STOP command completed successfully.
```

```
db2start
DB20000I The DB2START command completed successfully
```

8. On the Database system in db2\db2 directory edit the file create\_fabric\_schema.sql.
9. Change connect to \$DB\_NAME\$ user \$DBUSER\$ using '\$DBPASSWORD\$'; to connect to fabricdb user db2admin using yourpassword.
10. Run the script to create fabricdb tables.

```
C:\dbscripts\fabricDB\db2\db2>db2 -tvf create_fabric_schema.sql
connect to fabricdb user db2admin using
```

#### Database Connection Information

```
Database server      = DB2/NT 9.5.2
SQL authorization ID = DB2ADMIN
Local database alias = FABRICDB
```

```
CREATE TABLE SPM_INVOCATION ( ID INTEGER NOT NULL GENERATED BY DEFAULT AS IDENT
NULL , INVOKE_DATE TIMESTAMP , APP_ID INTEGER NOT NULL , SUITE_ID INTEGER NOT N
TEGER NOT NULL , BS_TYPE INTEGER NOT NULL , RESULT INTEGER NOT NULL , CONTEXT_ID
DB20000I The SQL command completed successfully.
```

```
ALTER TABLE SPM_INVOCATION ADD PRIMARY KEY (ID)
DB20000I The SQL command completed successfully.
```

```
CREATE INDEX IDX_BS_DT_TIME ON SPM_INVOCATION (BS_ID ASC, INVOKE_DATE ASC, SVC_T
DB20000I The SQL command completed successfully.
```

```
CREATE INDEX IDX_DT_RES ON SPM_INVOCATION (INVOKE_DATE ASC, RESULT DESC)
DB20000I The SQL command completed successfully.
```

```
CREATE INDEX IDX_DT_RES_TYP_ID ON SPM_INVOCATION (INVOKE_DATE ASC, RESULT ASC, B
DB20000I The SQL command completed successfully.
```

```
CREATE INDEX IDX_DT_TYP_RES ON SPM_INVOCATION (INVOKE_DATE ASC, BS_TYPE ASC, RES
DB20000I The SQL command completed successfully.
```

```
CREATE INDEX IDX_INVOKE_DATE ON SPM_INVOCATION (INVOKE_DATE ASC)
DB20000I The SQL command completed successfully.
```

```

CREATE TABLE SPM_URI ( ID INTEGER NOT NULL GENERATED BY DEFAULT AS IDENTITY ( S
IN USERSPACE1
DB20000I The SQL command completed successfully.

ALTER TABLE SPM_URI ADD PRIMARY KEY (ID)
DB20000I The SQL command completed successfully.

ALTER TABLE SPM_INVOCATION ADD CONSTRAINT FK_APP FOREIGN KEY (APP_ID) REFERENCES
DB20000I The SQL command completed successfully.

ALTER TABLE SPM_INVOCATION ADD CONSTRAINT FK_BS FOREIGN KEY (BS_ID) REFERENCES S
DB20000I The SQL command completed successfully.

ALTER TABLE SPM_INVOCATION ADD CONSTRAINT FK_CHANNEL FOREIGN KEY (CHANNEL_ID) RE
DB20000I The SQL command completed successfully.

ALTER TABLE SPM_INVOCATION ADD CONSTRAINT FK_EP FOREIGN KEY (EP_ID) REFERENCES S
DB20000I The SQL command completed successfully.

ALTER TABLE SPM_INVOCATION ADD CONSTRAINT FK_ORG FOREIGN KEY (ORG_ID) REFERENCES
DB20000I The SQL command completed successfully.

ALTER TABLE SPM_INVOCATION ADD CONSTRAINT FK_SUITE FOREIGN KEY (SUITE_ID) REFERE
DB20000I The SQL command completed successfully.

ALTER TABLE SPM_INVOCATION ADD CONSTRAINT FK_WS FOREIGN KEY (WS_ID) REFERENCES S
DB20000I The SQL command completed successfully.

CREATE TABLE W_DBVERSION ( SUBSYSTEM VARCHAR(8) NOT NULL , CUR_VERSION INTEGER
DB20000I The SQL command completed successfully.

ALTER TABLE W_DBVERSION ADD PRIMARY KEY (SUBSYSTEM)
DB20000I The SQL command completed successfully.

COMMIT WORK
DB20000I The SQL command completed successfully.

CONNECT RESET
DB20000I The SQL command completed successfully.

TERMINATE
DB20000I The TERMINATE command completed successfully.

```

Now you configure WebSphere Business Services Fabric.

## Configuring WebSphere Business Services Fabric

Before using WebSphere Business Services Fabric in a WebSphere Dynamic Process Edition clustered environment, you need to run a script that configures WebSphere Business Services Fabric.

You have installed WebSphere Business Services Fabric and have created the WebSphere Business Services Fabric database.

Use this procedure to configure WebSphere Business Services Fabric.

1. On the Deployment Manager system from the <WAS\_HOME>/profiles/Dmgr/bin directory, execute the command: C:\WebSphere\ProcServer\profiles\Dmgr01\bin>wsadmin.bat -user primaryAdmin -password bpmpwd -f C:\WebSphere\ProcServer\profileTemplates\dmgr.wbsfabric\actions\scripts\cluster\fabricAppDeploy.py

```

WASX7209I: Connected to process "dmgr" on node wps101CellManager01 using SOAP connector;
The type of process is: DeploymentManager
The following are clusters are configured

```

```

1->ApplicationCluster
2->MessagingCluster
3->Support2Cluster
4->SupportCluster
Select the Application cluster.Enter the number. 1
Enter the userid that would have access to Fabric Administration console. primaryAdmin
Enter the directory of the dmgr.fabric profile template. C:/WebSphere/ProcServer/profileTe
mplates/dmgr.wbsfabric
Deploying Fabric enterprise applications.
WASX7327I: Contents of was.policy file:
grant codeBase "file:${application}" {
    permission java.security.AllPermission;
};

ADMA5016I: Installation of Fabric_Catalog started.
ADMA5058I: Application and module versions are validated with versions of deployment targe
ts.
ADMA5005I: The application Fabric_Catalog is configured in the WebSphere Application Serve
r repository.
ADMA5053I: The library references for the installed optional package are created.
ADMA5005I: The application Fabric_Catalog is configured in the WebSphere Application Serve
r repository.
ADMA5001I: The application binaries are saved in C:\WebSphere\ProcServer\profiles\Dmgr01\w
stemp\Script11dfc5da979\workspace\cells\wps101Cell01\applications\Fabric_Catalog.ear\Fabri
c_Catalog.ear
ADMA5005I: The application Fabric_Catalog is configured in the WebSphere Application Serve
r repository.
SECJ0400I: Successfully updated the application Fabric_Catalog with the appContextIDForSecu
rity information.
ADMA5005I: The application Fabric_Catalog is configured in the WebSphere Application Serve
r repository.
ADMA5011I: The cleanup of the temp directory for application Fabric_Catalog is complete.
ADMA5013I: Application Fabric_Catalog installed successfully.
ADMA5016I: Installation of Fabric_Tools started.
ADMA5058I: Application and module versions are validated with versions of deployment targe
ts.
ADMA5018I: The EJBDeploy command is running on enterprise archive (EAR) file C:\tmp\1\app4
2057.ear.
Starting workbench.
EJB Deploy configuration directory: c:\WebSphere\ProcServer\deploytool\itp\configuration/
framework search path: c:\WebSphere\ProcServer\deploytool\itp\plugins
Debug options:
Creating the project.
Deploying jar fabric-pm-mdb
Generating deployment code
Invoking RMIC.
Dec 3, 2008 4:24:25 AM com.ibm.etools.ejbdeploy.logging.Logger logInfo
Writing output file
INFO: 0 class files
Shutting down workbench.
EJBDeploy complete.
0 Errors, 0 Warnings, 0 Informational Messages
ADMA5007I: The EJBDeploy command completed on C:\WebSphere\ProcServer\profiles\Dmgr01\wste
mp\wstemp\app_11dfc5fac7d\dp1\dp1_Fabric_Tools.ear
ADMA5005I: The application Fabric_Tools is configured in the WebSphere Application Server
repository.
ADMA5053I: The library references for the installed optional package are created.
ADMA5005I: The application Fabric_Tools is configured in the WebSphere Application Server
repository.
ADMA5001I: The application binaries are saved in C:\WebSphere\ProcServer\profiles\Dmgr01\w
stemp\Script11dfc5da979\workspace\cells\wps101Cell01\applications\Fabric_Tools.ear\Fabric_
Tools.ear
ADMA5005I: The application Fabric_Tools is configured in the WebSphere Application Server
repository.
SECJ0400I: Successfully updated the application Fabric_Tools with the appContextIDForSecuri
ty information.
ADMA5005I: The application Fabric_Tools is configured in the WebSphere Application Server

```

```

repository.
ADMA5011I: The cleanup of the temp directory for application Fabric_Tools is complete.
ADMA5013I: Application Fabric_Tools installed successfully.
ADMA5016I: Installation of Fabric_Engine started.
ADMA5058I: Application and module versions are validated with versions of deployment targets.
ADMA5005I: The application Fabric_Engine is configured in the WebSphere Application Server repository.
ADMA5053I: The library references for the installed optional package are created.
ADMA5005I: The application Fabric_Engine is configured in the WebSphere Application Server repository.
ADMA5001I: The application binaries are saved in C:\WebSphere\ProcServer\profiles\Dmgr01\workspace\Script11dfc5da979\workspace\cells\wps101Cell01\applications\Fabric_Engine.ear\Fabric_Engine.ear
ADMA5005I: The application Fabric_Engine is configured in the WebSphere Application Server repository.
SECJ0400I: Successfully updated the application Fabric_Engine with the appContextIDForSecurity information.
ADMA5005I: The application Fabric_Engine is configured in the WebSphere Application Server repository.
CWSCA3013I: Resources for the SCA application "Fabric_Engine" are being configured.
CWSCA3023I: The EAR file "app42343.ear" is being loaded for the SCA module.
CWSCA3017I: Installation task "Resource Task for SCA Messaging Binding and EIS Binding" is running.
CWSCA3017I: Installation task "Resource Task for SCA Messaging Binding and JMS Binding" is running.
CWSCA3017I: Installation task "SIBus Destination Resource Task for SCA Asynchronous Invocations" is running.
CWSCA3017I: Installation task "EJB NamespaceBinding Resource Task for SCAImportBinding" is running.
CWSCA3017I: Installation task "SIBus Destination Resource Task for SCA SOAP/JMS Invocations" is running.
CWSCA3017I: Installation task "PolicySet Task for JaxWsImportBinding and JaxWsExportBinding" is running.
CWSCA3014I: Resources for the SCA application "Fabric_Engine" have been configured successfully.
ADMA5011I: The cleanup of the temp directory for application Fabric_Engine is complete.
ADMA5013I: Application Fabric_Engine installed successfully.
ADMA5016I: Installation of Fabric_Tools_Help started.
ADMA5058I: Application and module versions are validated with versions of deployment targets.
ADMA5005I: The application Fabric_Tools_Help is configured in the WebSphere Application Server repository.
ADMA5053I: The library references for the installed optional package are created.
ADMA5005I: The application Fabric_Tools_Help is configured in the WebSphere Application Server repository.
ADMA5001I: The application binaries are saved in C:\WebSphere\ProcServer\profiles\Dmgr01\workspace\Script11dfc5da979\workspace\cells\wps101Cell01\applications\Fabric_Tools_Help.ear\Fabric_Tools_Help.ear
ADMA5005I: The application Fabric_Tools_Help is configured in the WebSphere Application Server repository.
SECJ0400I: Successfully updated the application Fabric_Tools_Help with the appContextIDForSecurity information.
ADMA5005I: The application Fabric_Tools_Help is configured in the WebSphere Application Server repository.
ADMA5011I: The cleanup of the temp directory for application Fabric_Tools_Help is complete.
ADMA5013I: Application Fabric_Tools_Help installed successfully.
WASX7327I: Contents of was.policy file:
grant codeBase "file:${application}" {
    permission java.security.AllPermission;
};

ADMA5016I: Installation of Fabric_REST_Services started.
ADMA5058I: Application and module versions are validated with versions of deployment targets.
ADMA5005I: The application Fabric_REST_Services is configured in the WebSphere Application

```

Server repository.  
ADMA5053I: The library references for the installed optional package are created.  
ADMA5005I: The application Fabric\_REST\_Services is configured in the WebSphere Application Server repository.  
ADMA5001I: The application binaries are saved in C:\WebSphere\ProcServer\profiles\Dmgr01\wstemp\Script11dfc5da979\workspace\cells\wps101Cell01\applications\Fabric\_REST\_Services.ear\Fabric\_REST\_Services.ear  
ADMA5005I: The application Fabric\_REST\_Services is configured in the WebSphere Application Server repository.  
SECJ0400I: Successfully updated the application Fabric\_REST\_Services with the appContextIDForSecurity information.  
ADMA5005I: The application Fabric\_REST\_Services is configured in the WebSphere Application Server repository.  
ADMA5011I: The cleanup of the temp directory for application Fabric\_REST\_Services is complete.  
ADMA5013I: Application Fabric\_REST\_Services installed successfully.  
Deployed Fabric enterprise applications.

2. On the Deployment Manager system from the <WAS\_HOME>/profiles/Dmgr/bin directory execute the command C:\WebSphere\ProcServer\profiles\Dmgr01\bin>wsadmin.bat -username primaryAdmin -password bpmpwd -f C:\WebSphere\ProcServer\profileTemplates\dmgr.wbsfabric\actions\scripts\cluster\fabricAppDeploy.py

WASX7209I: Connected to process "dmgr" on node wps101CellManager01 using SOAP connector;  
The type of process is: DeploymentManager  
The following are clusters are configured  
1->ApplicationCluster  
2->MessagingCluster  
3->Support2Cluster  
4->SupportCluster  
Select the Application cluster. Enter the number. 1  
Enter the userid that would have access to Fabric Administration console. primaryAdmin  
Enter the directory of the dmgr.fabric profile template. C:/WebSphere/ProcServer/profileTemplates/dmgr.wbsfabric  
Deploying Fabric enterprise applications.  
WASX7327I: Contents of was.policy file:  
grant codeBase "file:\${application}" {  
permission java.security.AllPermission;  
};

ADMA5016I: Installation of Fabric\_Catalog started.  
ADMA5058I: Application and module versions are validated with versions of deployment targets.  
ADMA5005I: The application Fabric\_Catalog is configured in the WebSphere Application Server repository.  
ADMA5053I: The library references for the installed optional package are created.  
ADMA5005I: The application Fabric\_Catalog is configured in the WebSphere Application Server repository.  
ADMA5001I: The application binaries are saved in C:\WebSphere\ProcServer\profiles\Dmgr01\wstemp\Script11dfc5da979\workspace\cells\wps101Cell01\applications\Fabric\_Catalog.ear\Fabric\_Catalog.ear  
ADMA5005I: The application Fabric\_Catalog is configured in the WebSphere Application Server repository.  
SECJ0400I: Successfully updated the application Fabric\_Catalog with the appContextIDForSecurity information.  
ADMA5005I: The application Fabric\_Catalog is configured in the WebSphere Application Server repository.  
ADMA5011I: The cleanup of the temp directory for application Fabric\_Catalog is complete.  
ADMA5013I: Application Fabric\_Catalog installed successfully.  
ADMA5016I: Installation of Fabric\_Tools started.  
ADMA5058I: Application and module versions are validated with versions of deployment targets.  
ADMA5018I: The EJBDeploy command is running on enterprise archive (EAR) file C:\tmp\1\app42057.ear.  
Starting workbench.  
EJB Deploy configuration directory: c:\WebSphere\ProcServer\deploytool\itp\configuration/



```

framework search path: c:\WebSphere\ProcServer\deploytool\itp\plugins
Debug options:
Creating the project.
Deploying jar fabric-pm-mdb
Generating deployment code
Invoking RMIC.
Dec 3, 2008 4:24:25 AM com.ibm.etools.ejbdeploy.logging.Logger logInfo
Writing output file
INFO: 0 class files
Shutting down workbench.
EJBDeploy complete.
0 Errors, 0 Warnings, 0 Informational Messages
ADMA5007I: The EJBDeploy command completed on C:\WebSphere\ProcServer\profiles\Dmgr01\wstemp\wstemp\app_11dfc5fac7d\dp1\dp1_Fabric_Tools.ear
ADMA5005I: The application Fabric_Tools is configured in the WebSphere Application Server repository.
ADMA5053I: The library references for the installed optional package are created.
ADMA5005I: The application Fabric_Tools is configured in the WebSphere Application Server repository.
ADMA5001I: The application binaries are saved in C:\WebSphere\ProcServer\profiles\Dmgr01\wstemp\Script11dfc5da979\workspace\cells\wps101Cell01\applications\Fabric_Tools.ear\Fabric_Tools.ear
ADMA5005I: The application Fabric_Tools is configured in the WebSphere Application Server repository.
SECJ0400I: Successfully updated the application Fabric_Tools with the appContextIDForSecurity information.
ADMA5005I: The application Fabric_Tools is configured in the WebSphere Application Server repository.
ADMA5011I: The cleanup of the temp directory for application Fabric_Tools is complete.
ADMA5013I: Application Fabric_Tools installed successfully.
ADMA5016I: Installation of Fabric_Engine started.
ADMA5058I: Application and module versions are validated with versions of deployment targets.
ADMA5005I: The application Fabric_Engine is configured in the WebSphere Application Server repository.
ADMA5053I: The library references for the installed optional package are created.
ADMA5005I: The application Fabric_Engine is configured in the WebSphere Application Server repository.
ADMA5001I: The application binaries are saved in C:\WebSphere\ProcServer\profiles\Dmgr01\wstemp\Script11dfc5da979\workspace\cells\wps101Cell01\applications\Fabric_Engine.ear\Fabric_Engine.ear
ADMA5005I: The application Fabric_Engine is configured in the WebSphere Application Server repository.
SECJ0400I: Successfully updated the application Fabric_Engine with the appContextIDForSecurity information.
ADMA5005I: The application Fabric_Engine is configured in the WebSphere Application Server repository.
CWSCA3013I: Resources for the SCA application "Fabric_Engine" are being configured.
CWSCA3023I: The EAR file "app42343.ear" is being loaded for the SCA module.
CWSCA3017I: Installation task "Resource Task for SCA Messaging Binding and EIS Binding" is running.
CWSCA3017I: Installation task "Resource Task for SCA Messaging Binding and JMS Binding" is running.
CWSCA3017I: Installation task "SIBus Destination Resource Task for SCA Asynchronous Invocations" is running.
CWSCA3017I: Installation task "EJB NamespaceBinding Resource Task for SCAImportBinding" is running.
CWSCA3017I: Installation task "SIBus Destination Resource Task for SCA SOAP/JMS Invocations" is running.
CWSCA3017I: Installation task "PolicySet Task for JaxWsImportBinding and JaxWsExportBinding" is running.
CWSCA3014I: Resources for the SCA application "Fabric_Engine" have been configured successfully.
ADMA5011I: The cleanup of the temp directory for application Fabric_Engine is complete.
ADMA5013I: Application Fabric_Engine installed successfully.
ADMA5016I: Installation of Fabric_Tools_Help started.
ADMA5058I: Application and module versions are validated with versions of deployment targets.

```

```

ts.
ADMA5005I: The application Fabric_Tools_Help is configured in the WebSphere Application Se
rver repository.
ADMA5053I: The library references for the installed optional package are created.
ADMA5005I: The application Fabric_Tools_Help is configured in the WebSphere Application Se
rver repository.
ADMA5001I: The application binaries are saved in C:\WebSphere\ProcServer\profiles\Dmgr01\w
stemp\Script11dfc5da979\workspace\cells\wps101Cell01\applications\Fabric_Tools_Help.ear\Fa
bric_Tools_Help.ear
ADMA5005I: The application Fabric_Tools_Help is configured in the WebSphere Application Se
rver repository.
SECJ0400I: Successfully updated the application Fabric_Tools_Help with the appContextIDForS
ecurity information.
ADMA5005I: The application Fabric_Tools_Help is configured in the WebSphere Application Se
rver repository.
ADMA5011I: The cleanup of the temp directory for application Fabric_Tools_Help is complete
.
ADMA5013I: Application Fabric_Tools_Help installed successfully.
WASX7327I: Contents of was.policy file:
grant codeBase "file:${application}" {
    permission java.security.AllPermission;
};

ADMA5016I: Installation of Fabric_REST_Services started.
ADMA5058I: Application and module versions are validated with versions of deployment targe
ts.
ADMA5005I: The application Fabric_REST_Services is configured in the WebSphere Application
Server repository.
ADMA5053I: The library references for the installed optional package are created.
ADMA5005I: The application Fabric_REST_Services is configured in the WebSphere Application
Server repository.
ADMA5001I: The application binaries are saved in C:\WebSphere\ProcServer\profiles\Dmgr01\w
stemp\Script11dfc5da979\workspace\cells\wps101Cell01\applications\Fabric_REST_Services.ear
\Fabric_REST_Services.ear
ADMA5005I: The application Fabric_REST_Services is configured in the WebSphere Application
Server repository.
SECJ0400I: Successfully updated the application Fabric_REST_Services with the appContextIDF
orSecurity information.
ADMA5005I: The application Fabric_REST_Services is configured in the WebSphere Application
Server repository.
ADMA5011I: The cleanup of the temp directory for application Fabric_REST_Services is compl
ete.
ADMA5013I: Application Fabric_REST_Services installed successfully.
Deployed Fabric enterprise applications.

```

3. Ensure proxyServer is not running.
4. Ensure clusters are not running.
5. Stop all Node Agents.
6. Stop the Deployment Manager
7. Start the Deployment Manager and verify the logs are clean.
8. Start the Node Agent(s) and verify the logs are clean.
9. Start the proxyServer and verify the logs are clean.
10. Start the MessagingCluster and verify the logs are clean.
11. Start the ApplicationCluster and verify the logs are clean (Server started clean after second stop/start).
12. Start the SupportCluster and verify the logs are clean.
13. Start the Support2Cluster and verify the logs are clean (Server started clean after second stop/start).

Verify the WebSphere Business Services Fabric Foundation installation and configuration.

## Verifying the installation of WebSphere Business Services Fabric 6.2

Check settings and behavior to ensure the software is running.

Verification step instructions provides quick understanding of what to check to make sure the software is running properly.

1. Start browser and enter WebSphere Application Server administrative console:`http://hostname:port/ibm/console`.

For example: `http://localhost:9060/ibm/console`

Four WebSphere Business Services Fabric applications are installed and all of them are started.

- Fabric Catalog
  - Fabric Engine
  - Fabric Tools
  - Fabric Tools Help
2. Verify that four WebSphere Business Services Fabric applications are installed.
  3. Open the Fabric console.  
`http://hostname:port/fabric/app`
  4. Stop the server.

## WebSphere Business Monitor

Business activity monitoring with WebSphere Business Monitor V6.2 offers real-time insight into your business processes.

WebSphere Business Monitor V6.2 provides new interfaces and capabilities for business users, and offers enhanced predictive capabilities allowing you to take advantage of market opportunities and prevent problems before they occur.

WebSphere Business Monitor V6.2 includes the following features and functionality:

- New business user interface - Business Space powered by WebSphere permits customers to easily integrate business activity monitoring capabilities along with other BPM applications for holistic process management.
- Predict key performance indicator (KPI) values for future periods – Predictive capabilities take business activity monitoring to the next level by enabling users to pre-empt potential problems and take advantage of potential opportunities.
- Comprehensive KPIs - WebSphere Business Monitor offers an embedded metrics library of over 800 open standard Key Performance Indicators (KPIs) based on the APQC Process Classification Frameworksm (PCF).
- Advanced problem detection - WebSphere Business Monitor can feed any KPI alerts to WebSphere Business Events to detect hidden patterns in the alerts and indicate a potential business problem that might otherwise go undetected

### Installing WebSphere Business Monitor 6.2 on system 1

Use the installation wizard to install the software. You can obtain the WebSphere Business Monitor 6.2 product files in two ways, from the disks in the product package or by downloading installation images from the Passport Advantage® site, if you are licensed to do so.

Use this procedure to install WebSphere Business Monitor 6.2 and create the deployment manager profile on system 1.

The screen captures are included to make it easier to follow the step instructions.

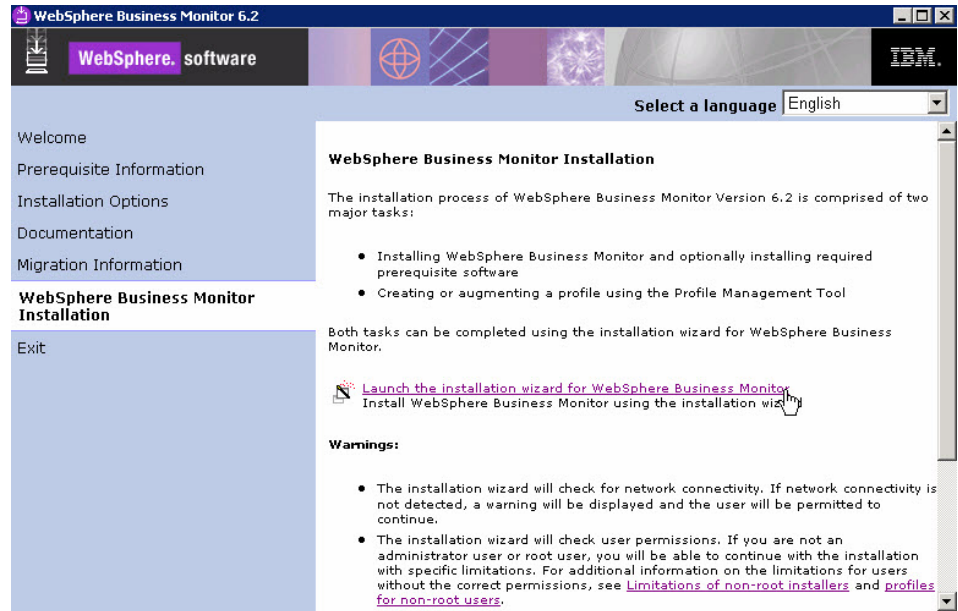
The step instructions are included to provide the specific task you need to perform and any information needed to perform the task (such as directory locations, parameters to enter, etc.).

Hints and tips are included to assist with difficult steps.

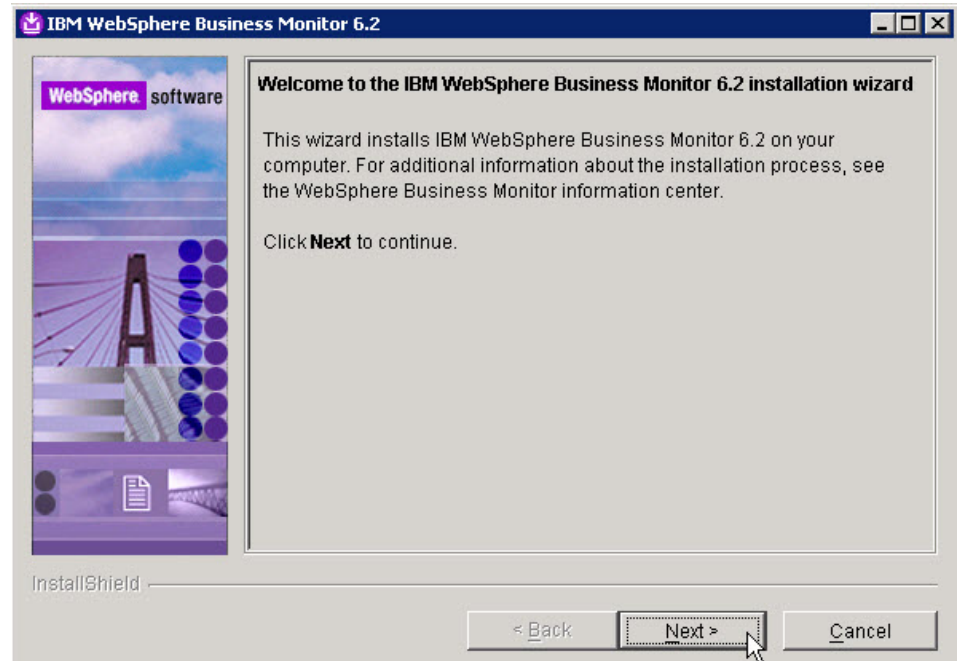
1. Stop proxyServer
2. Stop all clusters
3. Stop all Node Agents
4. Stop the Deployment Manager  
This is a good time save log files and start clean.
5. On the Deployment Manager system run launchpad.exe from the directory of Monitor driver.
6. From the Welcome to WebSphere Business Monitor Version 6.2 page, click **Install WebSphere Business Monitor**.



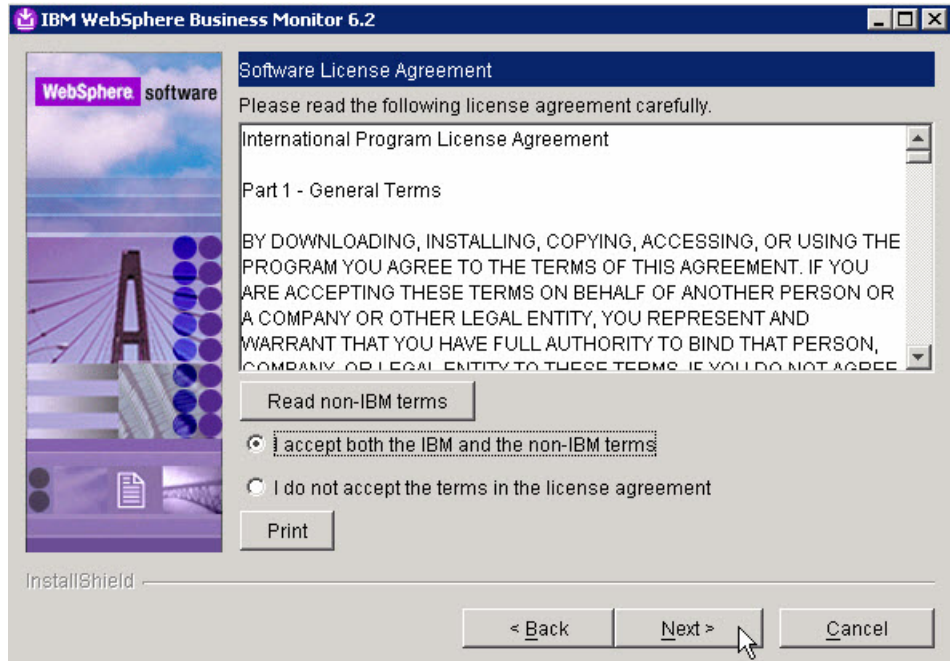
7. From the WebSphere Business Monitor Installation page, select **Launch the installation wizard for WebSphere Business Monitor**.



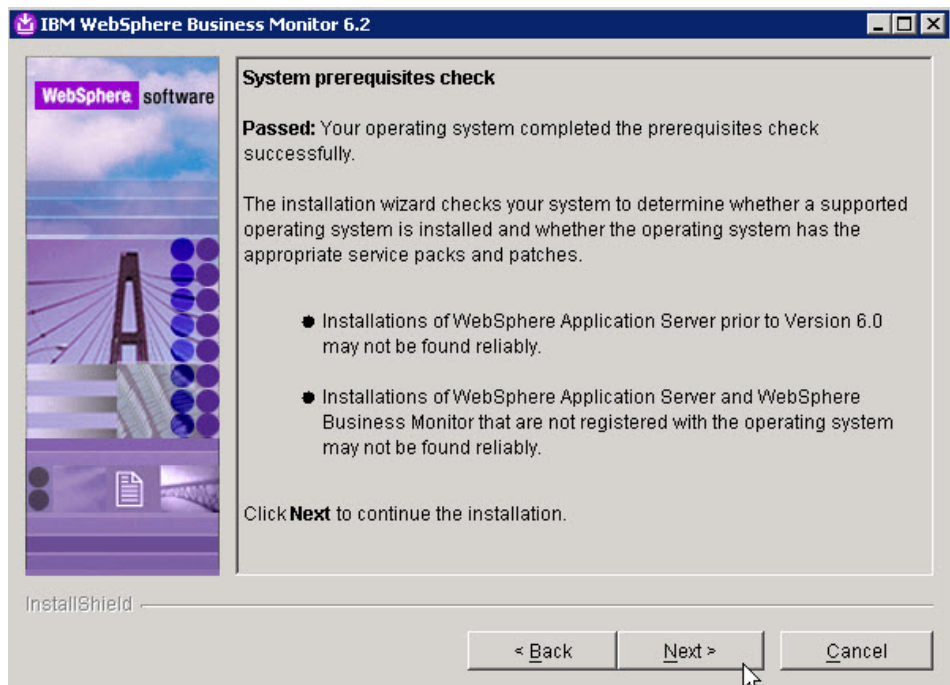
8. From the Welcome to the IBM WebSphere Business Monitor 6.2 Installation wizard page, click **Next** .



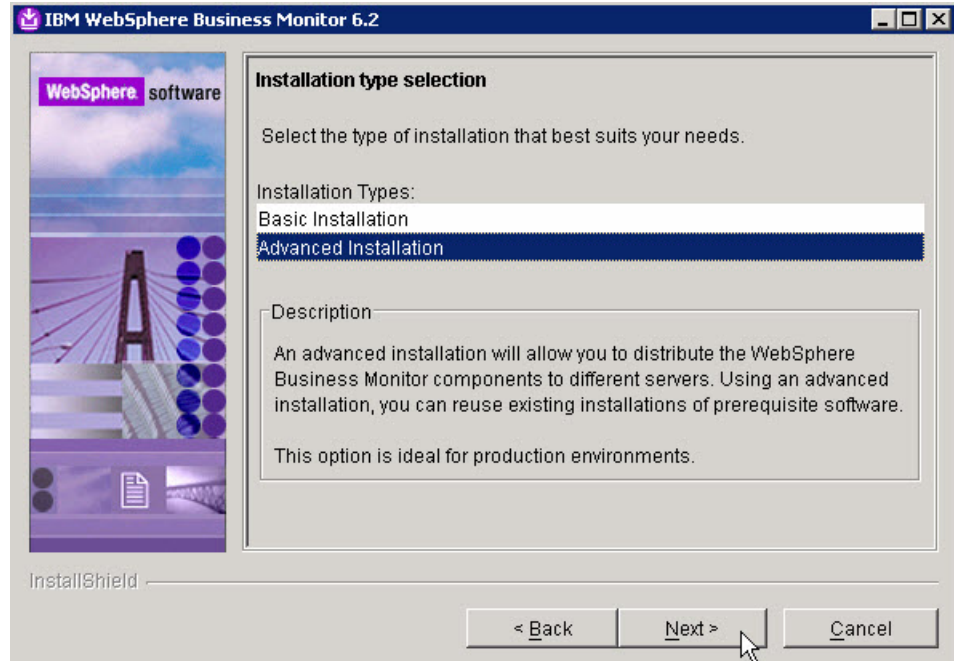
9. From the Software License Agreement page, accept the terms and click **Next**.



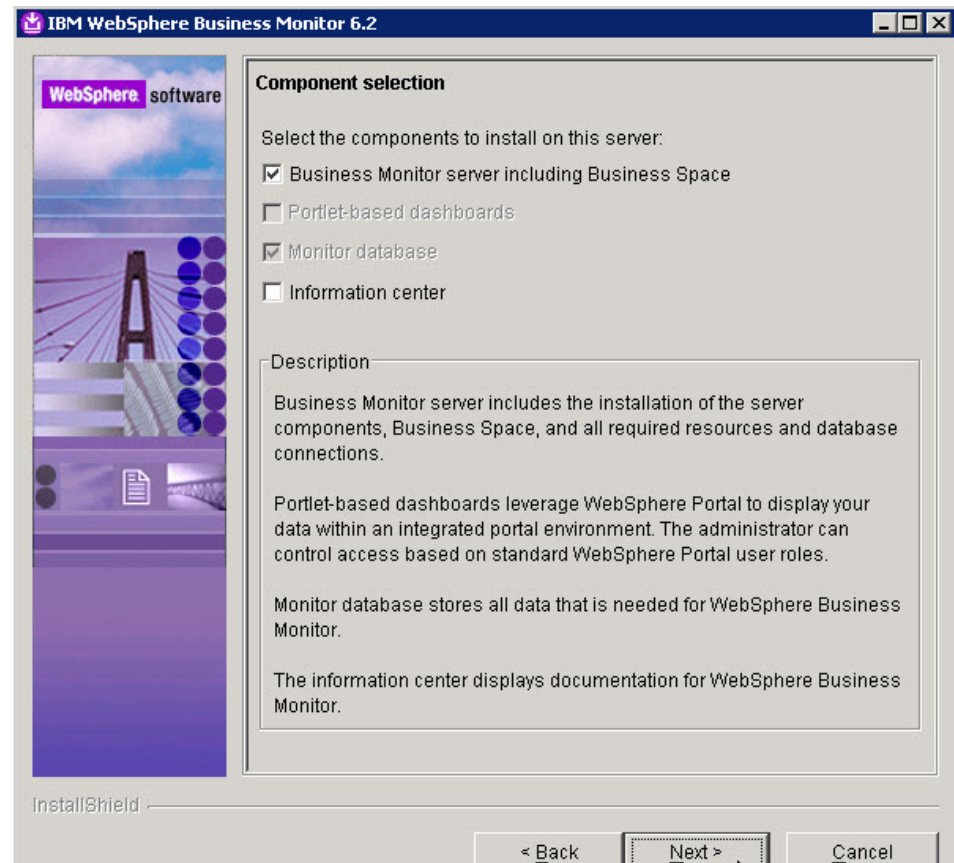
10. From the System prerequisites check page, click **Next**.



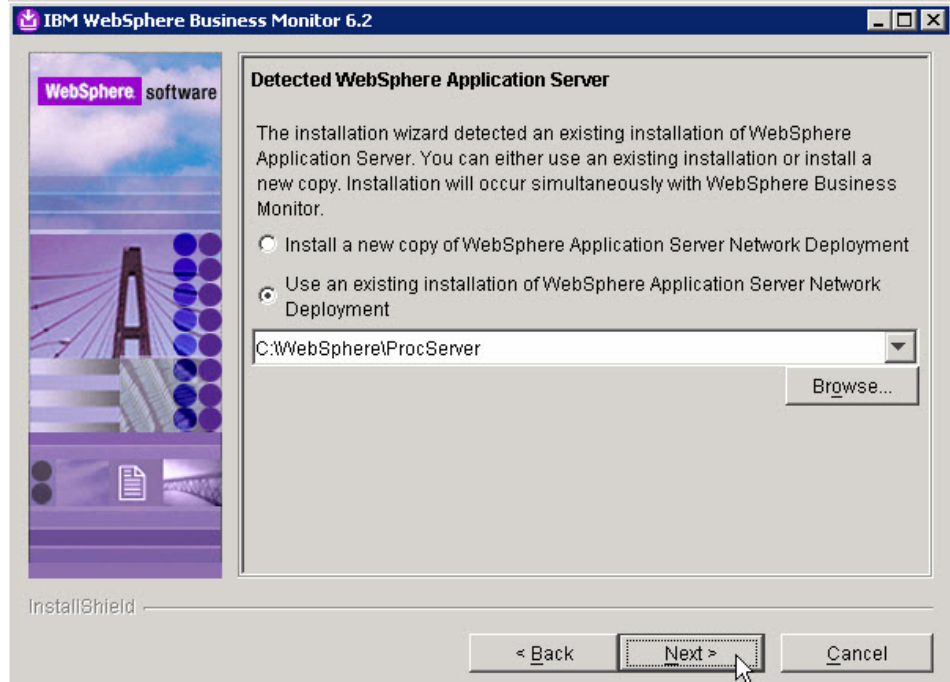
11. From the Installation type selection page, select **Advance Installation** and click **Next**.



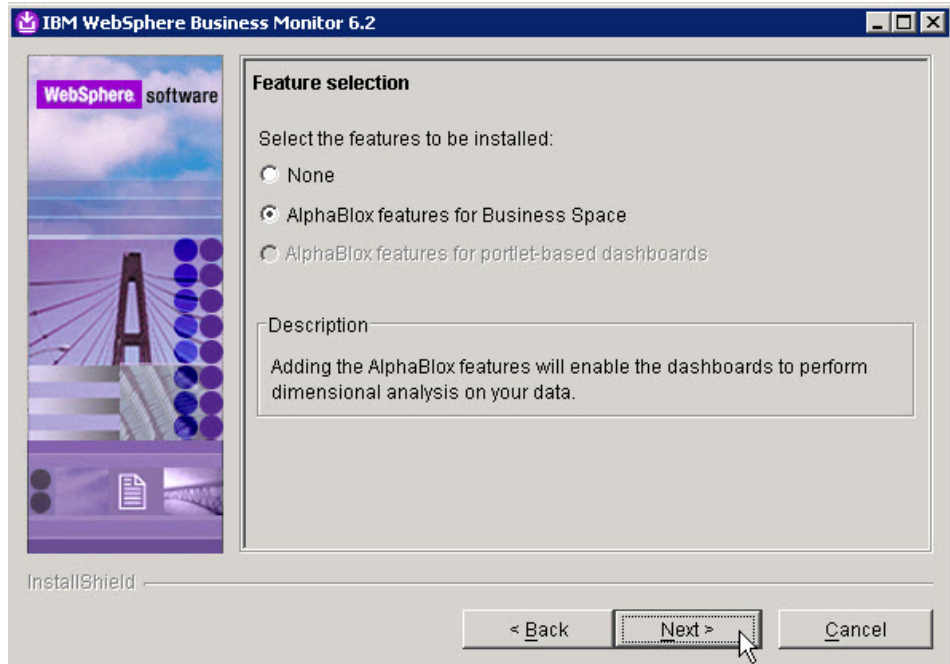
12. From the Component selection page, uncheck **Information center** and click **Next**.



13. From the Detected WebSphere Application Server page, select **Use an existing installation of WebSphere Application Server Network Deployment** and click **Next**.

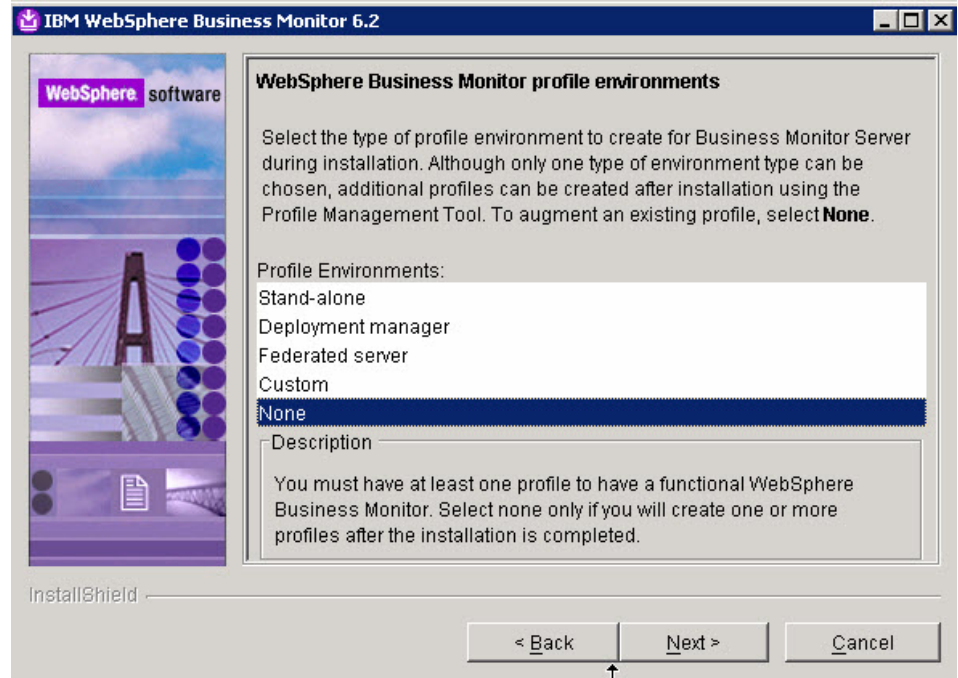


14. From the Features Selection page, click **Next** .

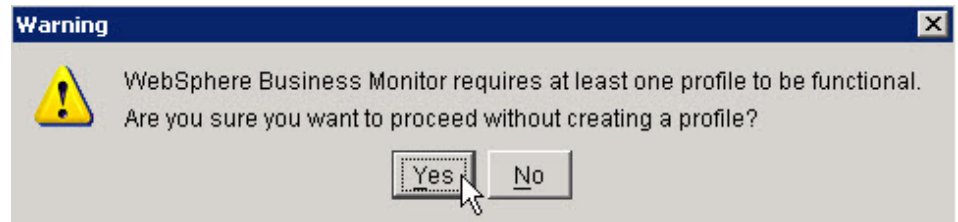


15. From the WebSphere Business Monitor profile environments page, select **None** and click **Next**.

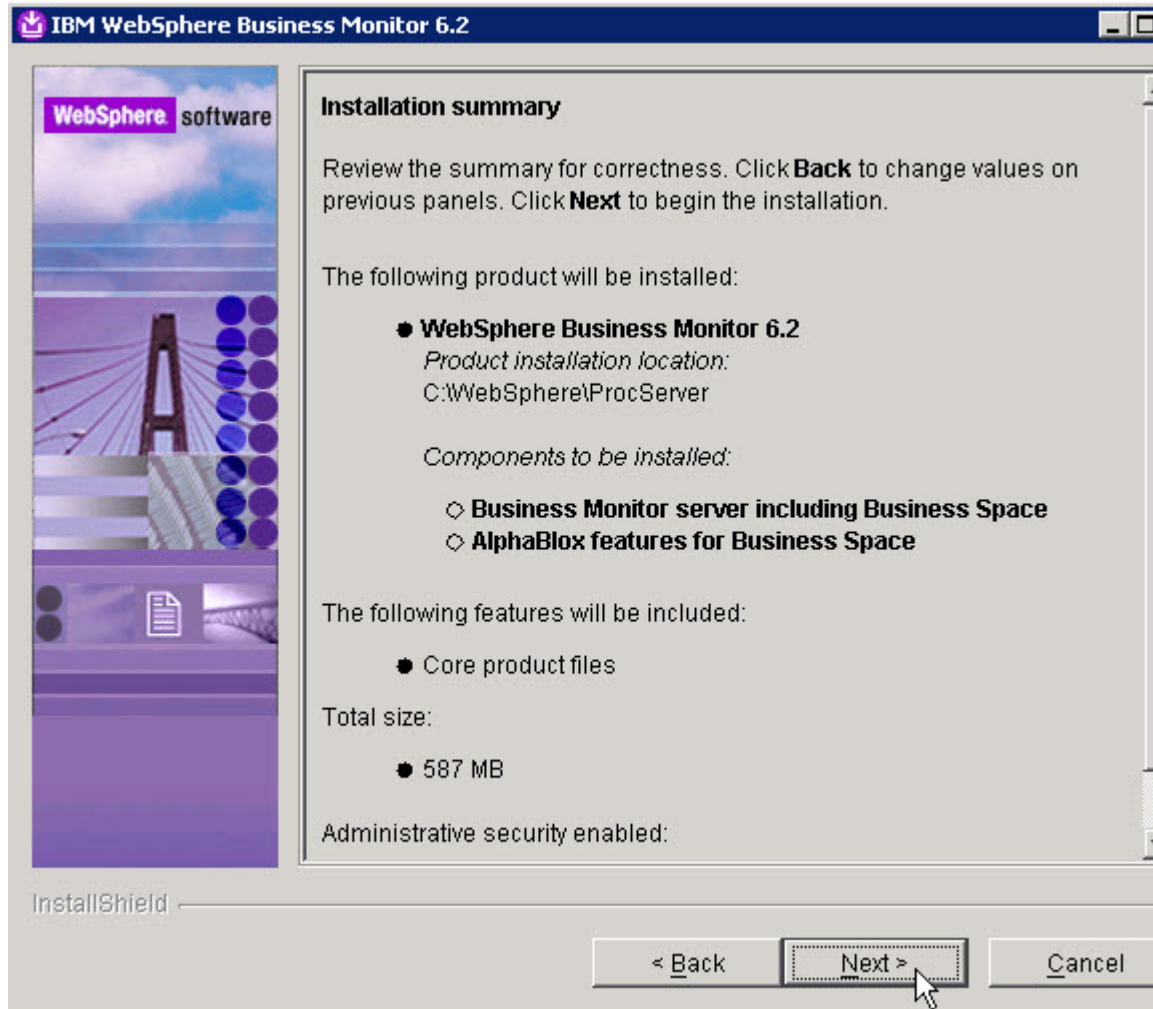




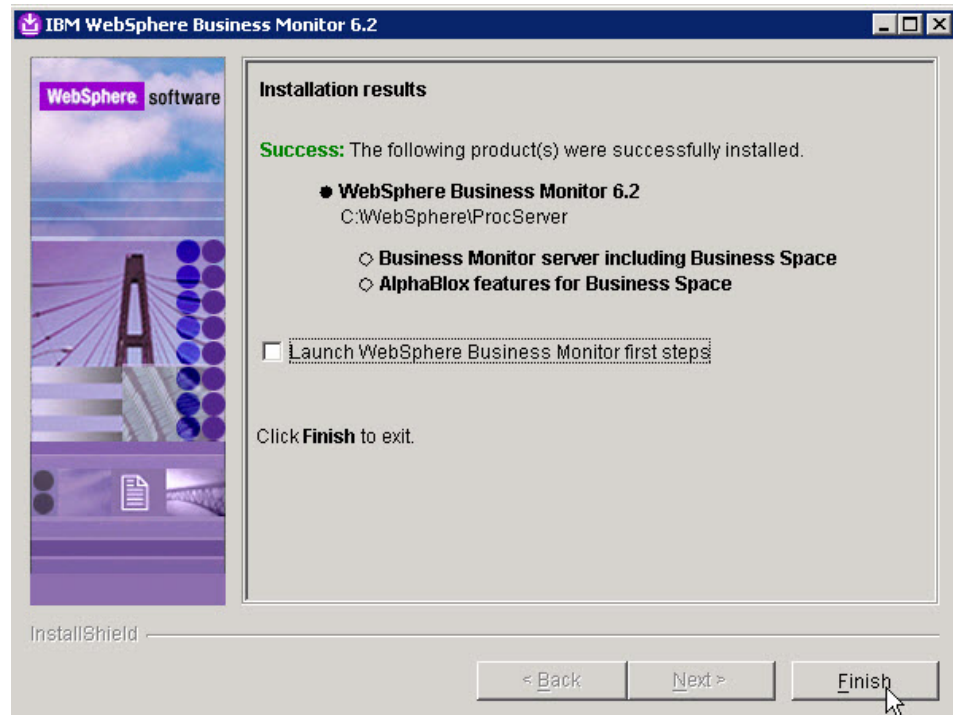
16. From the Warning dialog, click **Yes** .



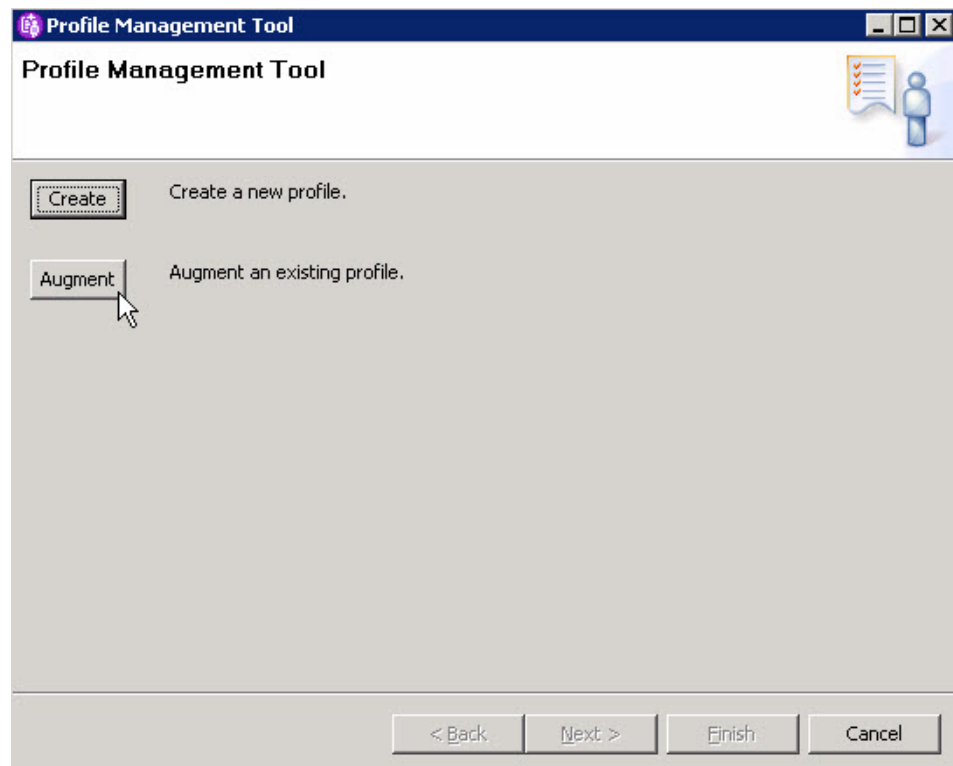
17. Review the information on the Installation Summary page and click **Next** .



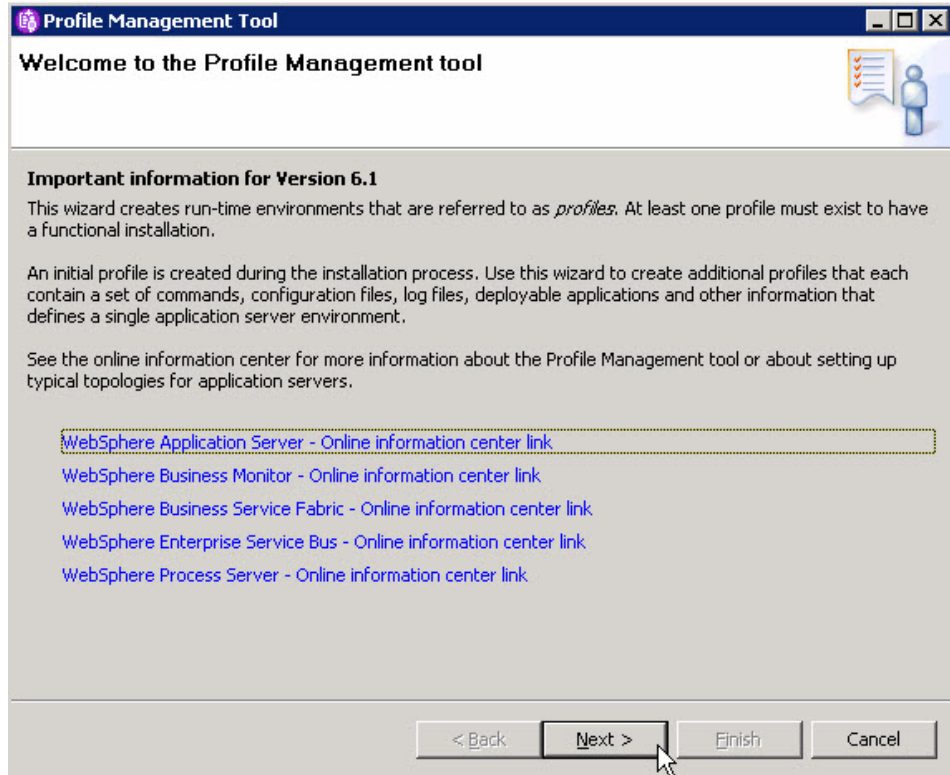
18. From the Installation Results page, uncheck **Launch the WebSphere Business Monitor First Steps console** and click **Finish** .



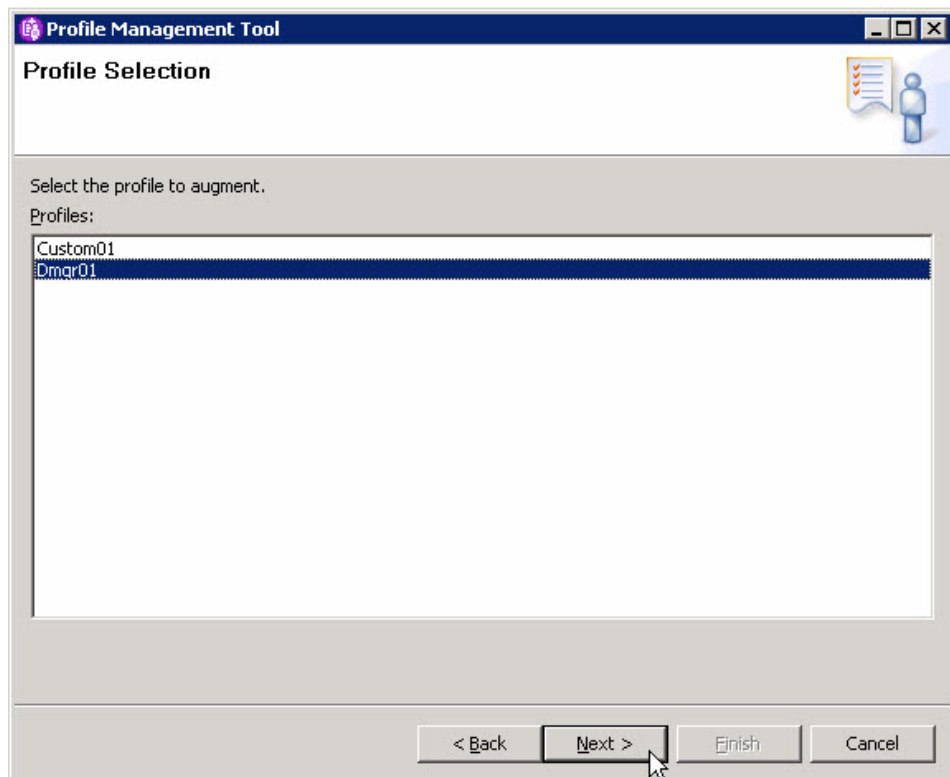
19. From the installation root bin directory launch the profile management tool (pmt):  
C:\WebSphere\ProcServer\bin\ProfileManagement>pmt.
20. From the Profile Management Tool page, click **Augment**.



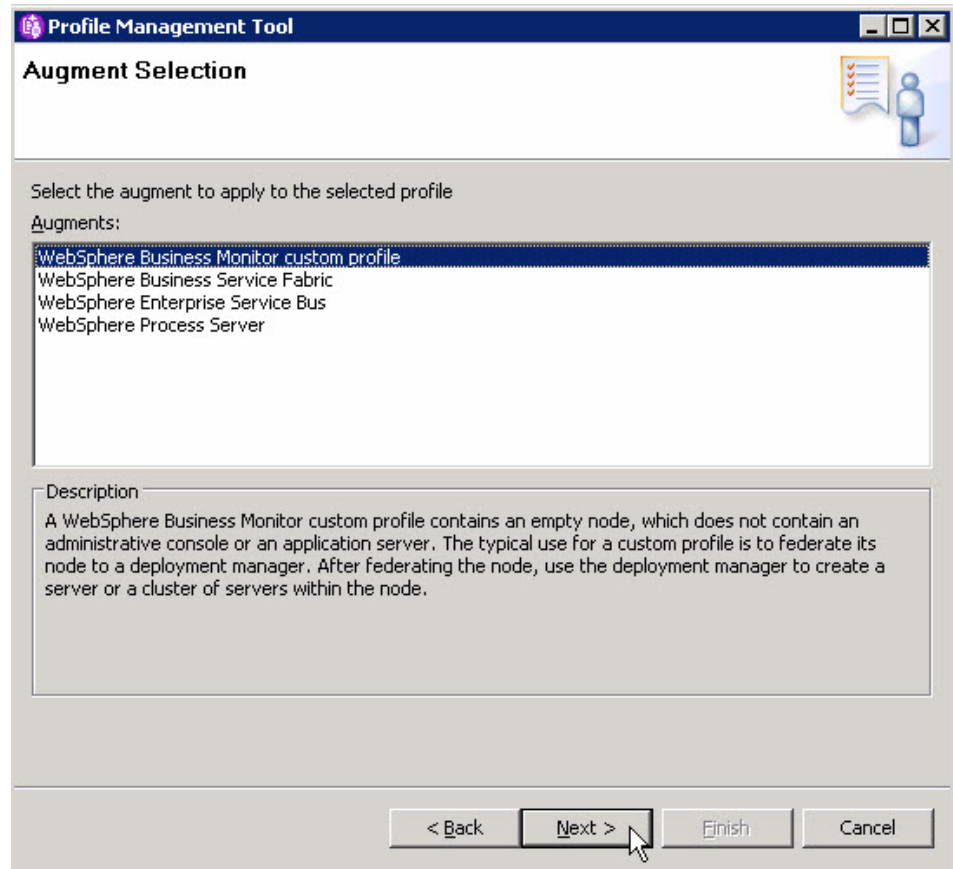
21. From the Welcome to the Profile Management tool page, click **Next**.



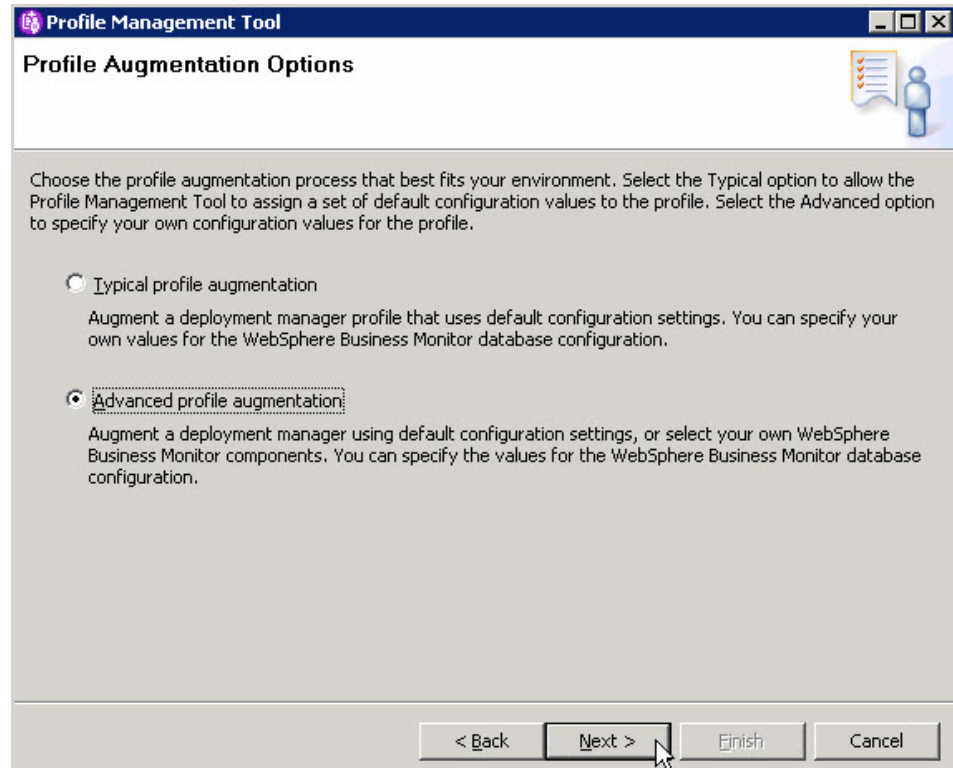
22. From the Profile Selection page, select **Dmgr** and click **Next**.



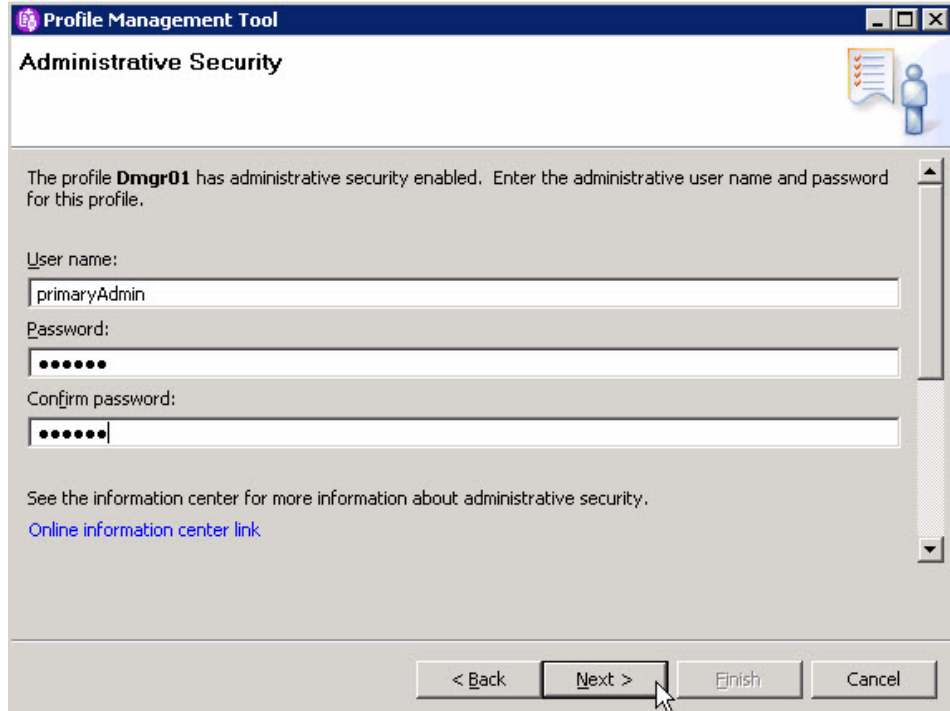
23. From the Augment Selection page, select **WebSphere Business Monitor deployment manager** and click **Next**.



24. From the Profile Augmentation Options page, select **Advanced profile augmentation** and click Next.



25. From the Administrative Security page, enter a user name and password and click Next.



The screenshot shows a window titled "Profile Management Tool" with a sub-header "Administrative Security". The main text reads: "The profile **Dmgr01** has administrative security enabled. Enter the administrative user name and password for this profile." Below this, there are three input fields: "User name:" containing "primaryAdmin", "Password:" containing six dots, and "Confirm password:" containing six dots. A blue link "Online information center link" is present. At the bottom, there are four buttons: "< Back", "Next >", "Finish", and "Cancel". A mouse cursor is pointing at the "Next >" button.

26. From the Database Configuration page, select **DB2 Universal Database**, select **Use an existing database** and click Next.

The screenshot shows the 'Profile Management Tool' window with the 'Database Configuration' tab selected. The window title bar includes standard Windows window controls. The main content area has a header with the title and a help icon. Below the header, there is a descriptive paragraph: 'WebSphere Business Monitor components use a common database. Choose a database product and enter the information based on that product.' The configuration fields include: a 'Database product' dropdown menu set to 'DB2 Universal Database'; an unchecked checkbox for 'Override the destination directory for generated scripts' with a corresponding text field containing 'C:\ProcServer62\profiles\Dmgr01\dbscripts.wbm' and a 'Browse...' button; radio buttons for 'Database creation options' where 'Use an existing database' is selected, with a note that 'The chosen database product must already be installed and configured on the local system.'; and text input fields for 'Database name' and 'Schema name', both containing the value 'MONITOR'.

27. From the Database Configuration (Part 2) page, select enter a user name and password, update the Database server host name and click **Next**.

User name:  
db2admin

Password:  
••••••••

Confirm password:  
••••••••

Location (directory) of JDBC driver classpath files:  
C:/ProcServer62/universalDriver.wbm/lib Browse...

JDBC driver type:  
 2  
 4

**Type 2:** Type 2 drivers require that you have a local installation of the database product. Type 2 drivers are commonly used if your database is created locally.

**Type 4:** Type 4 drivers use Java implementation to communicate with the actual database. Type 4 drivers do not require a database product on your local system.

Database server host name or IP address:  
wbi61.rchland.ibm.com

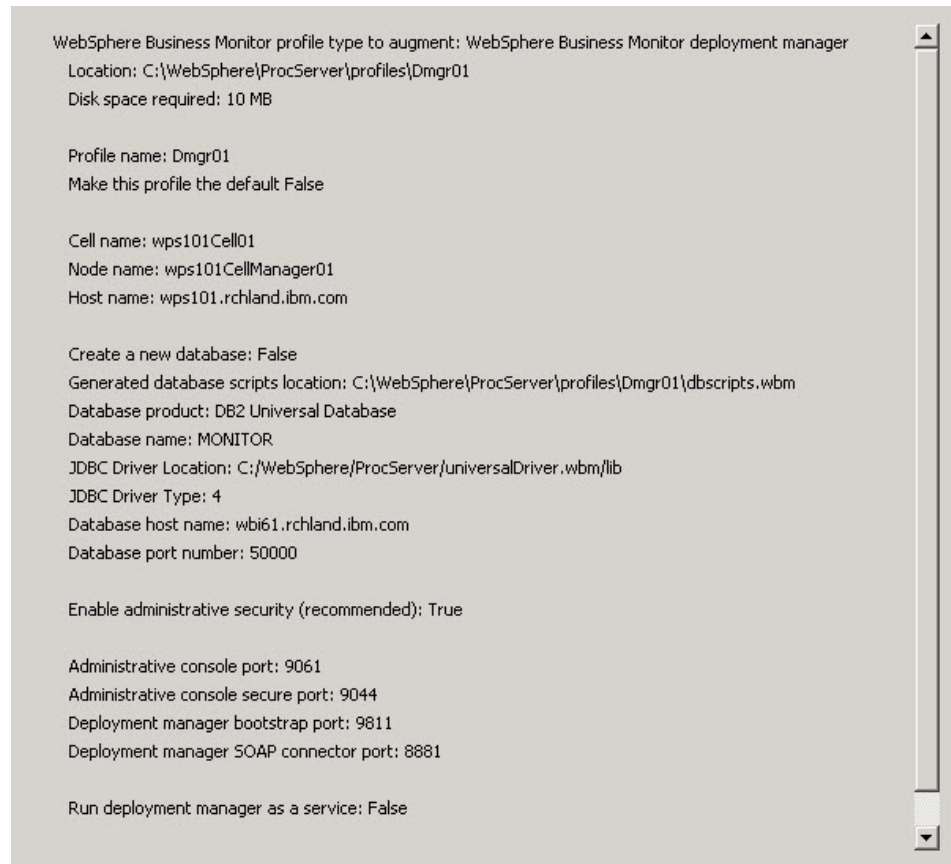
Database TCP/IP service port or listener port:  
50000

▼

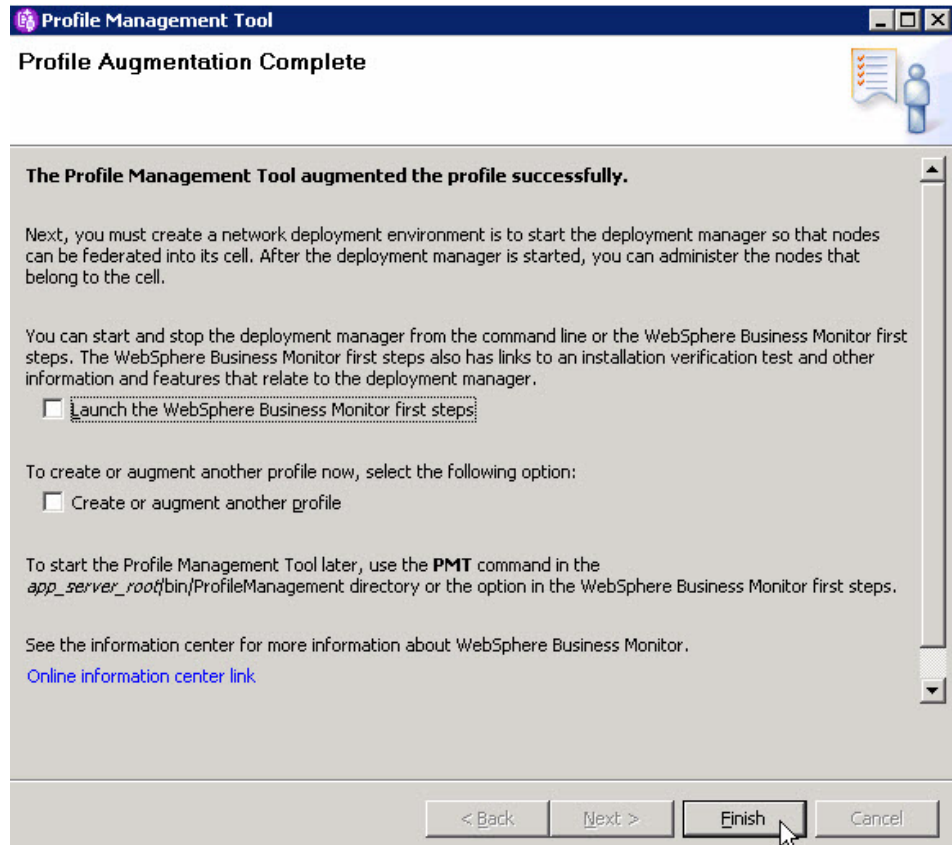
< Back Next > Finish Cancel

28. From the Profile Augmentation Summary page, click **Augment**.





29. From the Profile Augmentation Complete page, uncheck **Launch WebSphere Business Monitor first steps** and click **Finish**.



Create the monitor database.

## Creating the WebSphere Business Monitor database

This task describes how to create the WebSphere Business Monitor database.

You have installed WebSphere Business Monitor.

Use this procedure to create the WebSphere Business Monitor database.

1. Copy the C:\WebSphere\ProcServer\profiles\Dmgr01\dbscripts.wbm directory and files within from the Deployment Manager System to the Database system.
2. On the Database system in db2scripts.wbm directory edit the file createDatabaseDb2.dd1.
3. Change **CONNECT TO MONITOR;** to **CONNECT TO MONITOR USER DB2ADMIN USING YOURPASSWORD;**
4. Run the script to create the MONITOR database and tables.

```
C:\dbscripts\dbscripts.wbm>db2 -tf createDatabaseDb2.dd1
DB20000I The CREATE DATABASE command completed successfully.
```

### Database Connection Information

```
Database server      = DB2/NT 9.5.2
SQL authorization ID = HERNESS
Local database alias = MONITOR
```

```
DB20000I The SQL command completed successfully.
```

```
DB20000I The SQL command completed successfully.
...
SQL0347W The recursive common table expression "MONITOR.WBITIME" may contain
an infinite loop. SQLSTATE=01605
...
DB20000I The SQL command completed successfully.

DB20000I The SQL command completed successfully.

DB20000I The SQL command completed successfully.

DB20000I The SQL command completed successfully.

DB20000I The SQL command completed successfully.
```

##### 5. Start the Deployment Manager.

Now you can install WebSphere Business Monitor on system 2.

### **Installing WebSphere Business Monitor 6.2 on system 2**

Use the installation wizard to install the software on an additional system and create a custom profile.

You have installed WebSphere Business Monitor and created the Dmgr profile.

Use this procedure to install WebSphere Business Monitor 6.2 and create the custom profile.

The screen captures are included to make it easier to follow the step instructions.

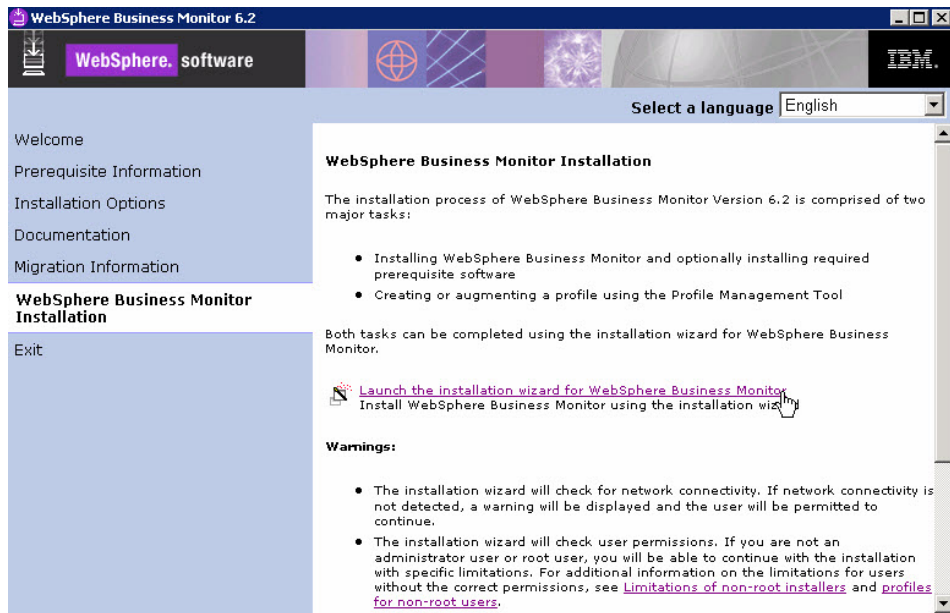
The step instructions are included to provide the specific task you need to perform and any information needed to perform the task (such as directory locations, parameters to enter, etc.)

Hints and tips are included to assist with difficult steps.

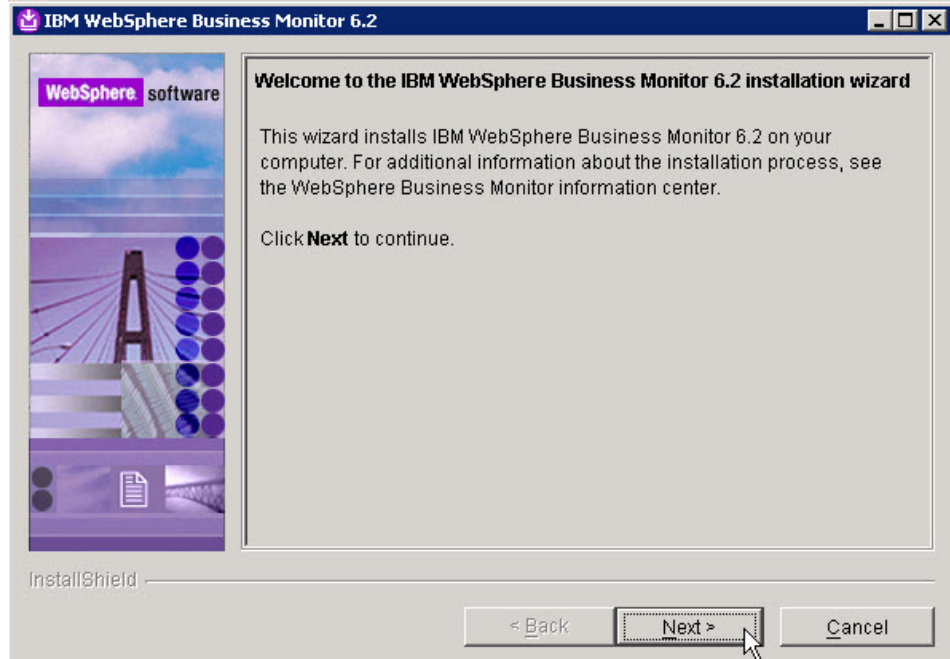
1. On the Deployment Manager system run launchpad.exe from the directory of the unzipped Monitor driver.
2. From the Welcome to WebSphere Business Monitor Version 6.2 page, click **Install WebSphere Business Monitor**.



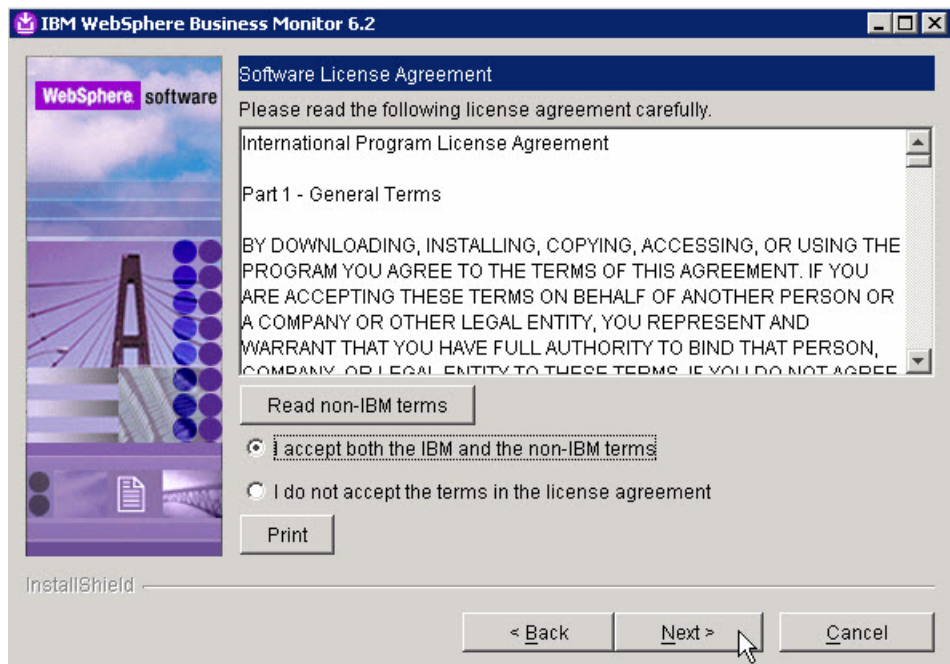
3. From the WebSphere Business Monitor Installation page, select **Launch the installation wizard for WebSphere Business Monitor**.



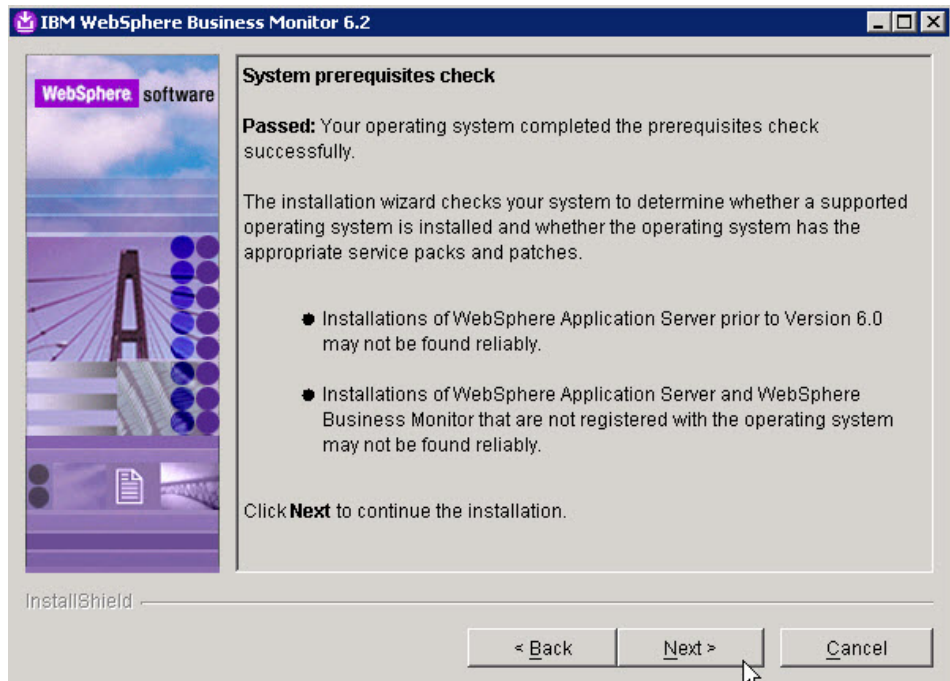
4. From the Welcome to the IBM WebSphere Business Monitor 6.2 Installation wizard page, click **Next**.



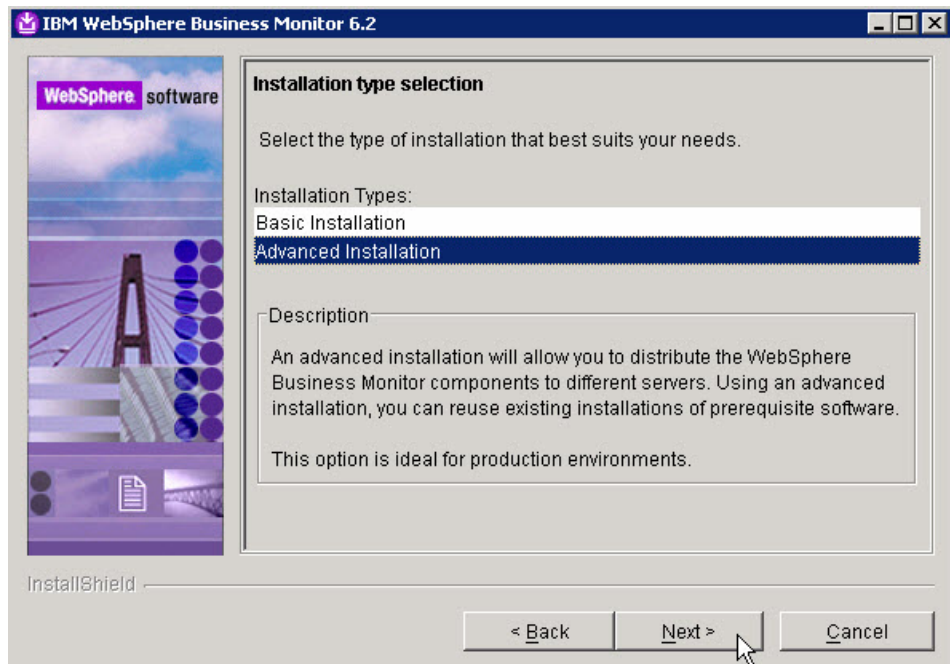
5. From the Software License Agreement page, accept the terms and click **Next**.



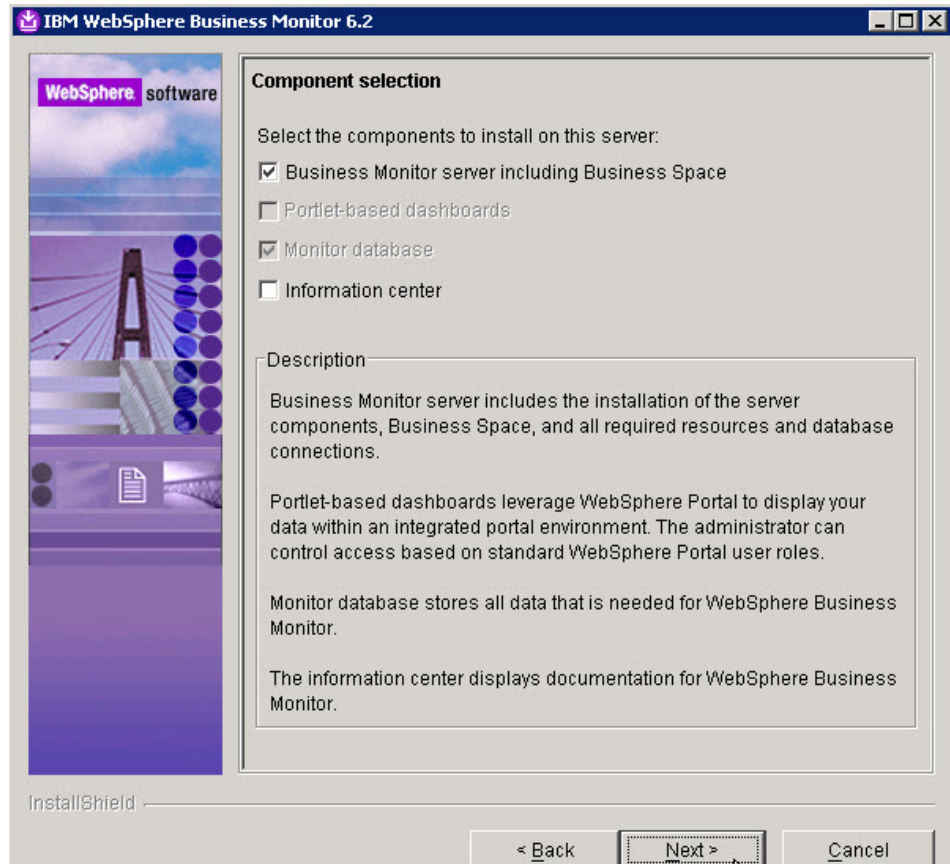
6. From the System prerequisites check page, click **Next**.



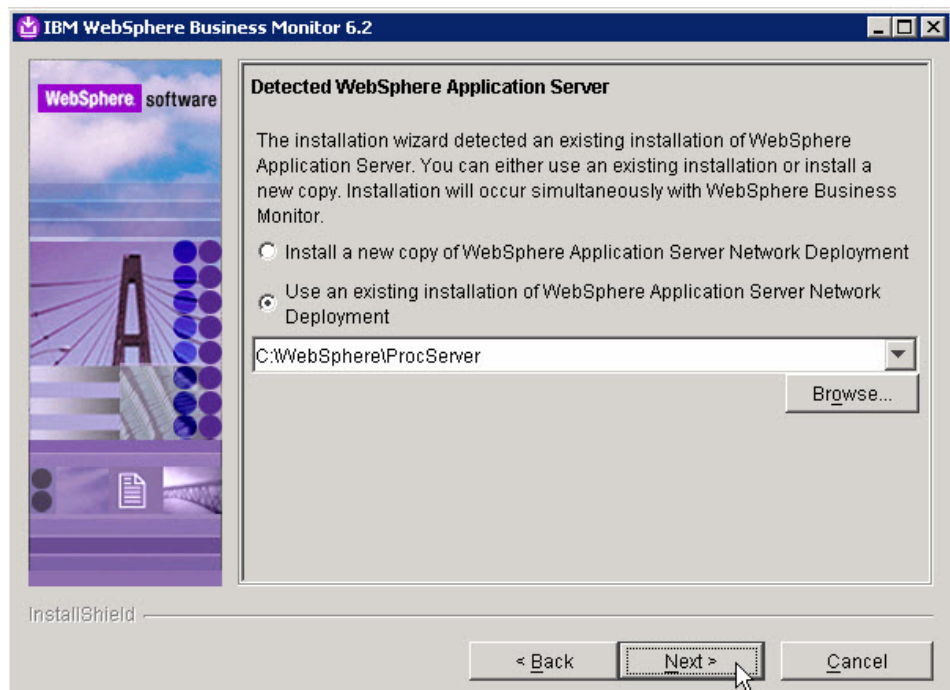
7. From the Installation type selection page, select **Advance Installation** and click **Next** .



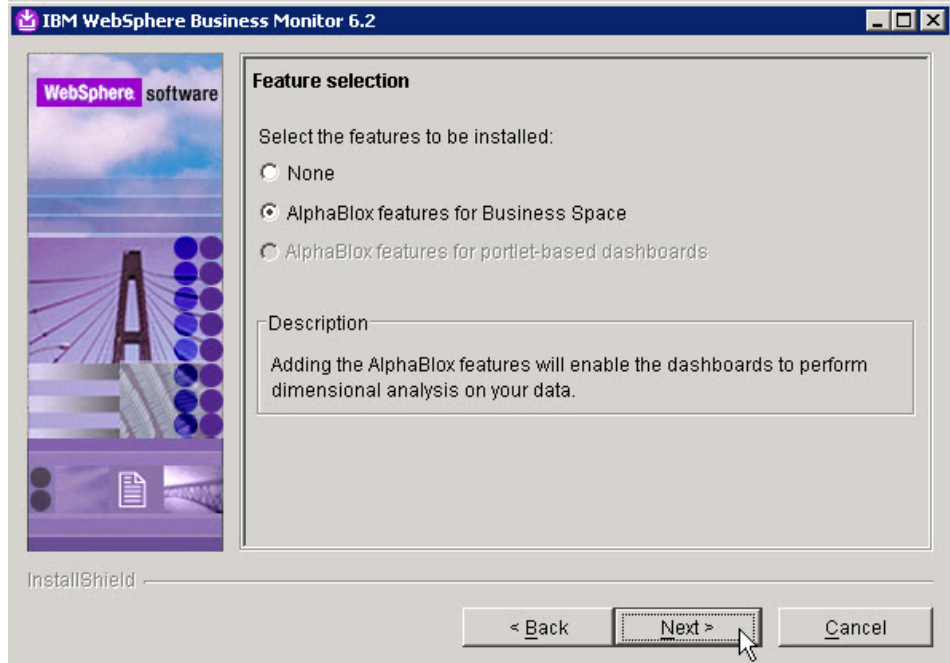
8. From the Component selection page, uncheck **Information center** and click **Next** .



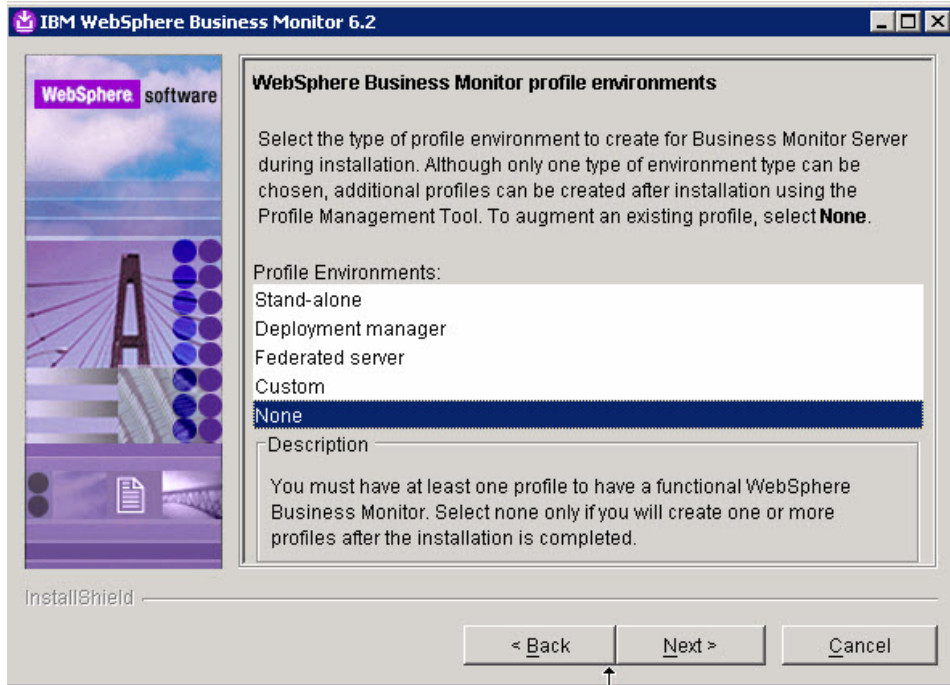
9. From the Detected WebSphere Application Server page, select **Use an existing installation of WebSphere Application Server Network Deployment** and click Next.



10. From the Features Selection page, click Next.

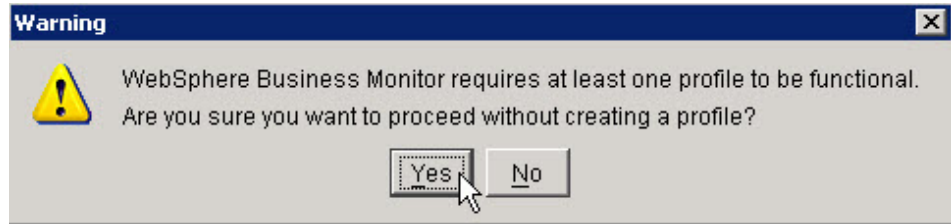


11. From the WebSphere Business Monitor profile environments page, select **None** and click **Next**.

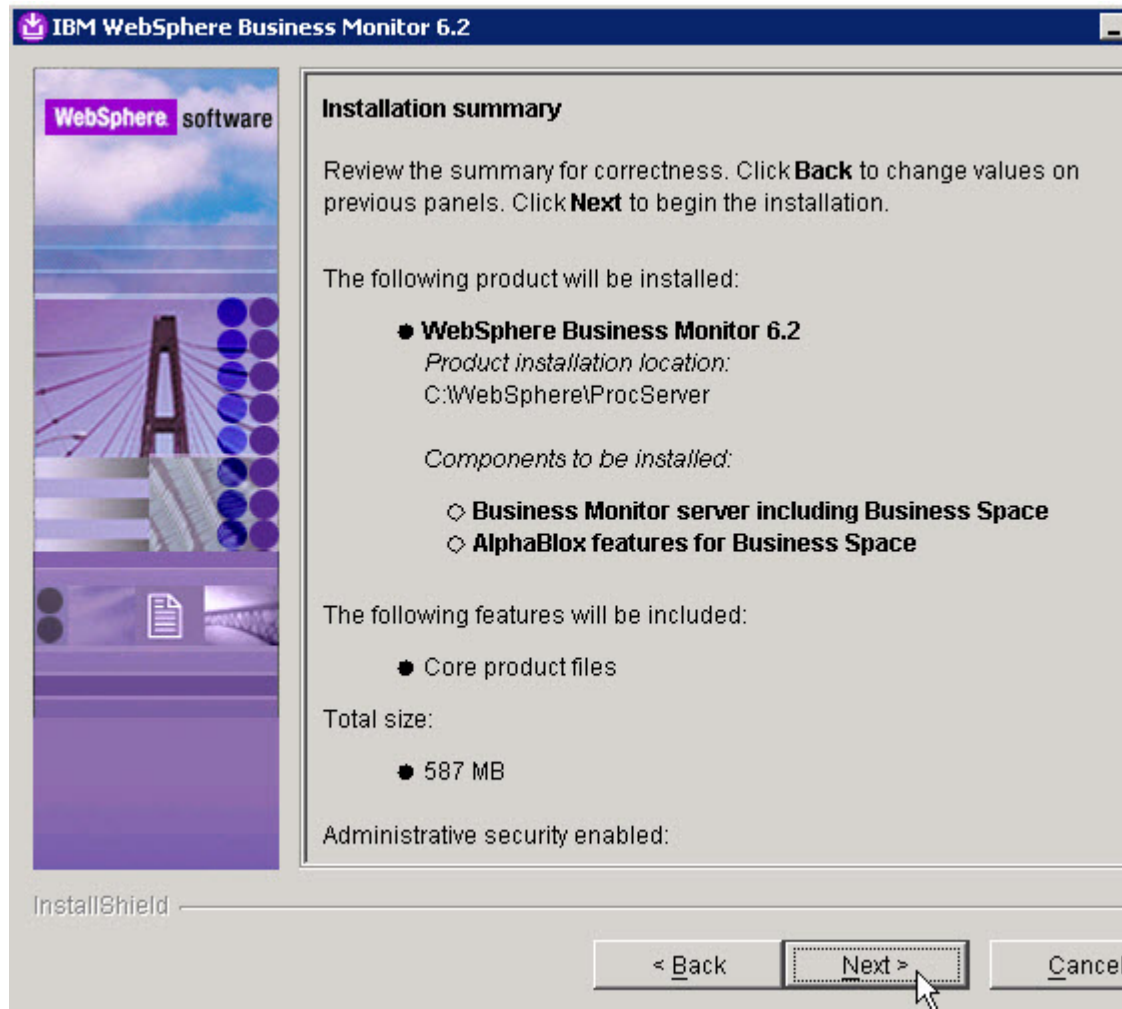


12. From the Warning dialog, click **Yes**.

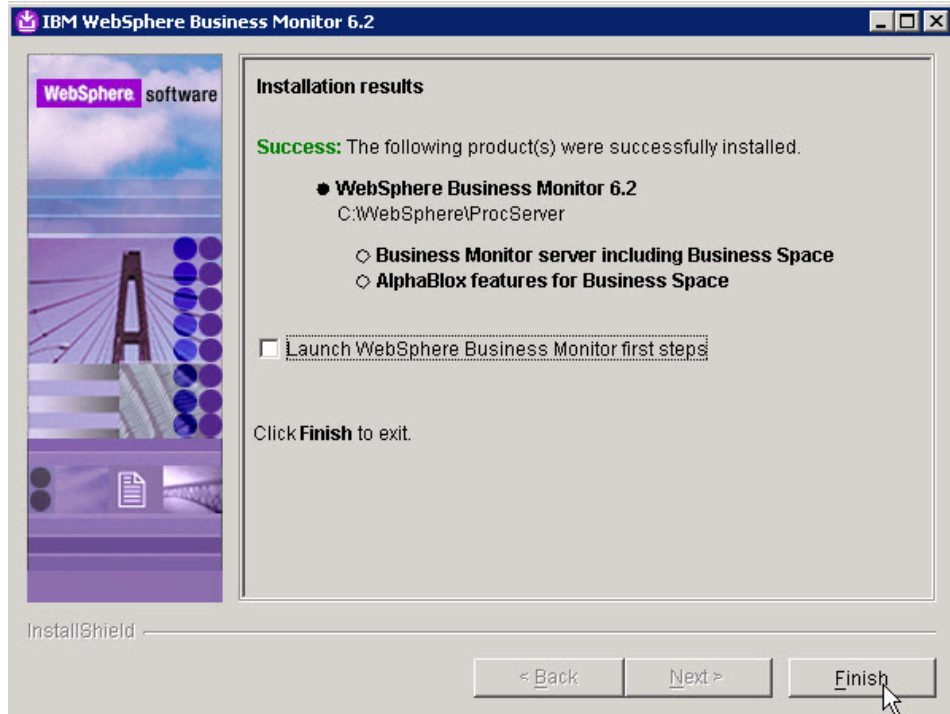




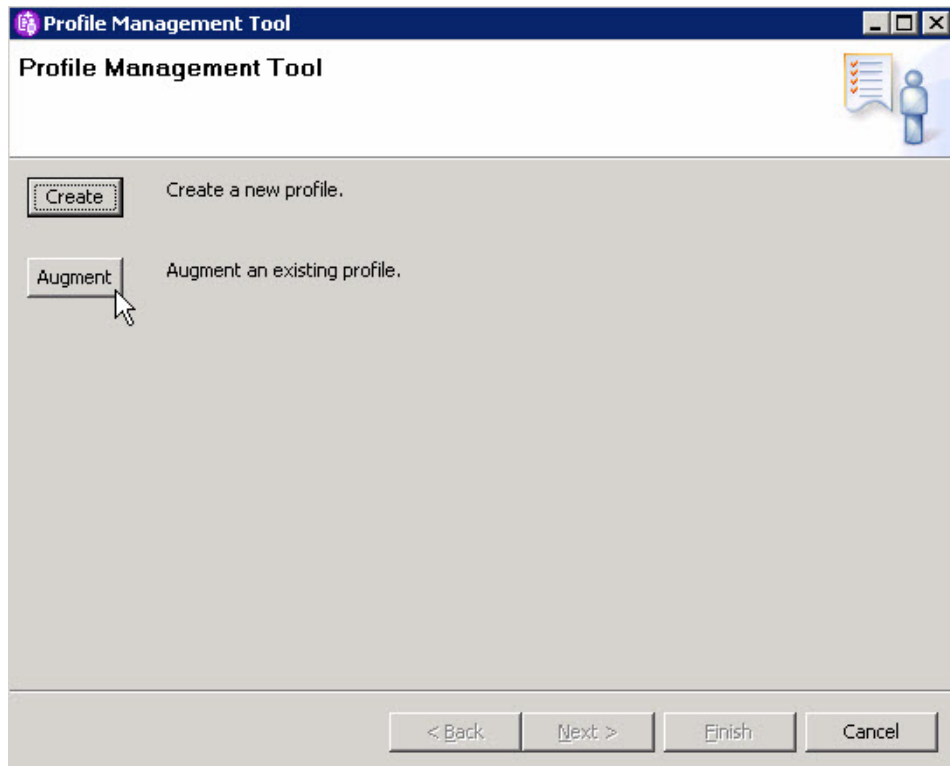
13. Review the information on the Installation Summary page and click **Next** .



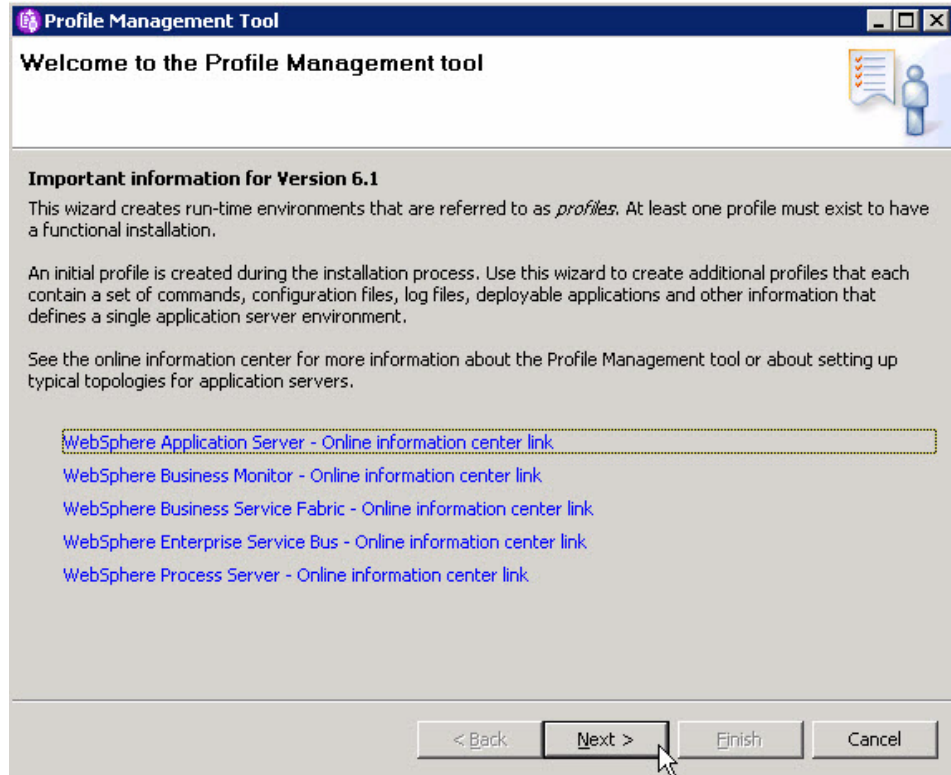
14. From the Installation Results page, uncheck **Launch the WebSphere Business Monitor First Steps console** and click **Finish** .



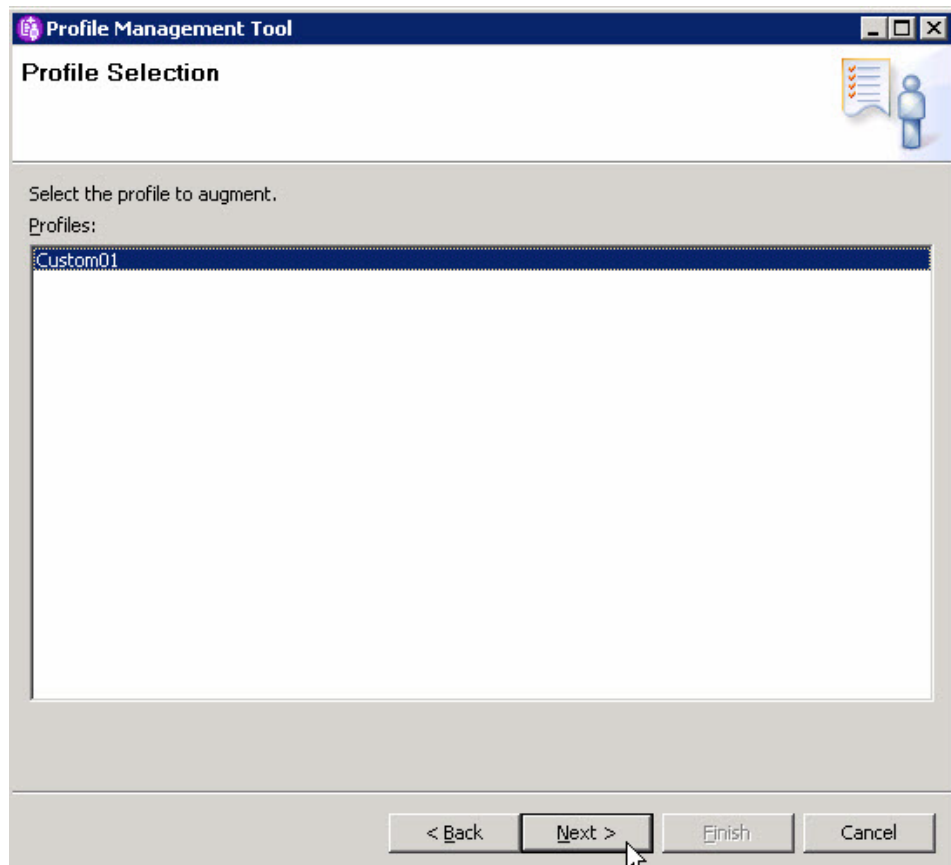
15. From the installation root bin directory launch the profile management tool (pmt):  
C:\WebSphere\ProcServer\bin\ProfileManagement>pmt
16. From the Profile Management Tool page, click **Augment**.



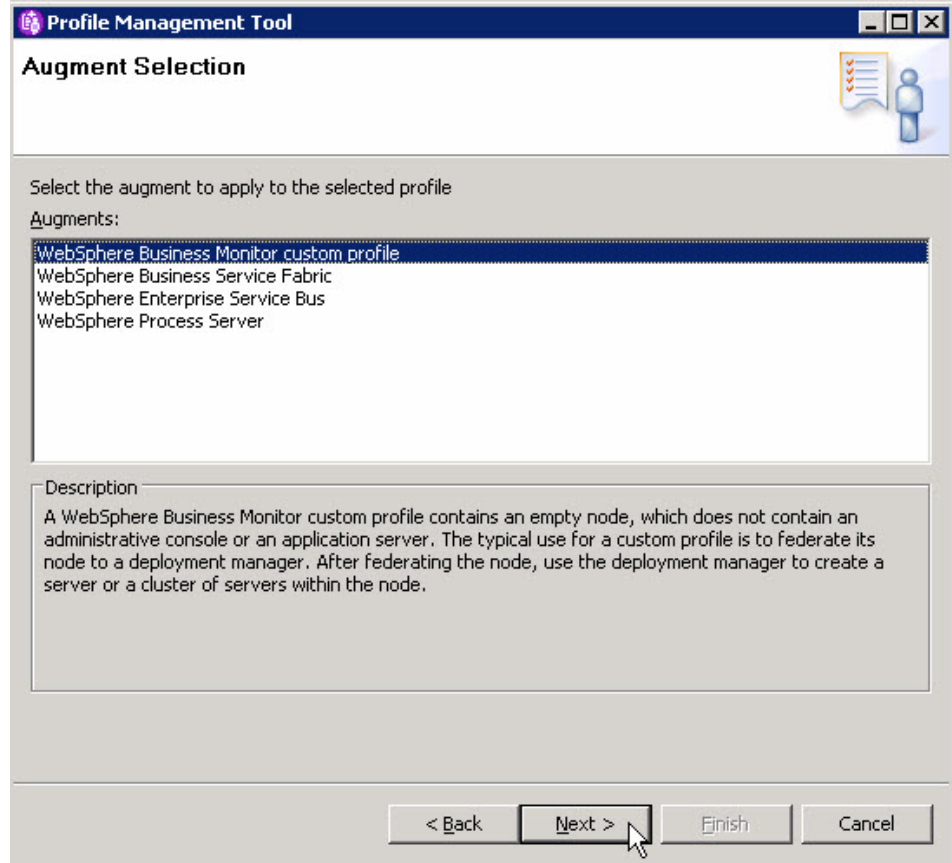
17. From the Welcome to the Profile Management tool page, click **Next**.



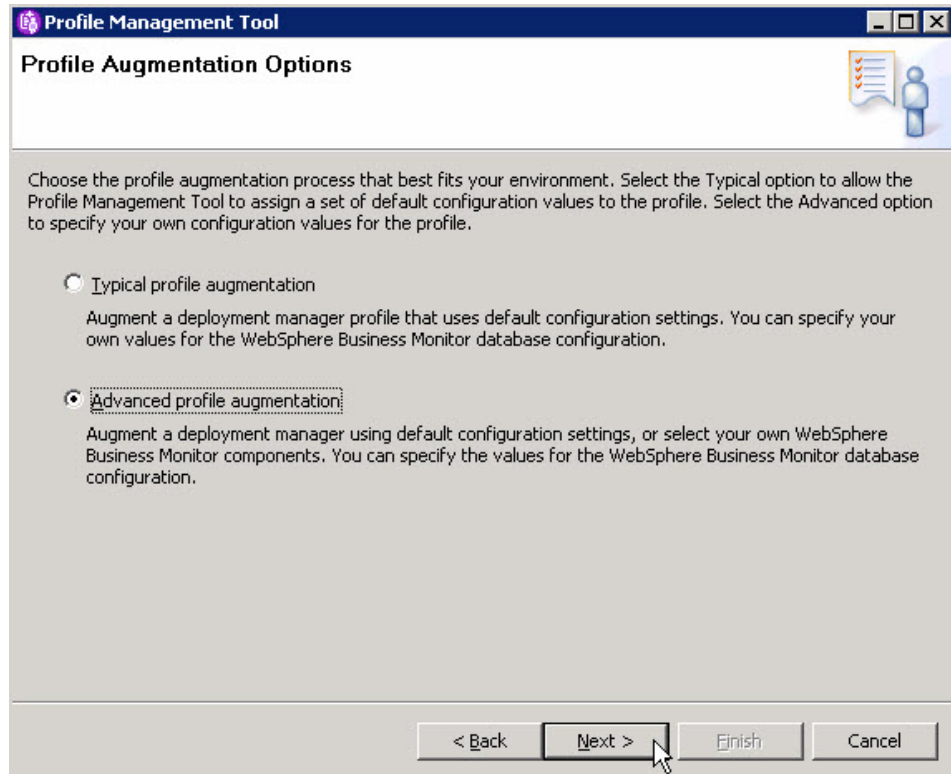
- From the Profile Selection page, select **Custom01** and click **Next**.



19. From the Augment Selection page, select **WebSphere Business Monitor custom profile** and click **Next**.



20. From the Profile Augmentation Options page, select **Advanced profile augmentation** and click **Next**.



21. From the Federation page, enter a value for **Deployment manager host name**, **User name**, **Password** and click **Next**.

**Profile Management Tool**

### Federation

Specify the host name or IP address and the SOAP port number for an existing deployment manager. Federation can occur only if the deployment manager is running. If security is enabled on the deployment manager, you must specify a user name and password.

Deployment manager host name or IP address:

Deployment manager SOAP port number (Default port number is 8879):

Deployment manager authentication  
If administrative security is enabled on the deployment manager, you must provide a user name and password to authenticate with the server.

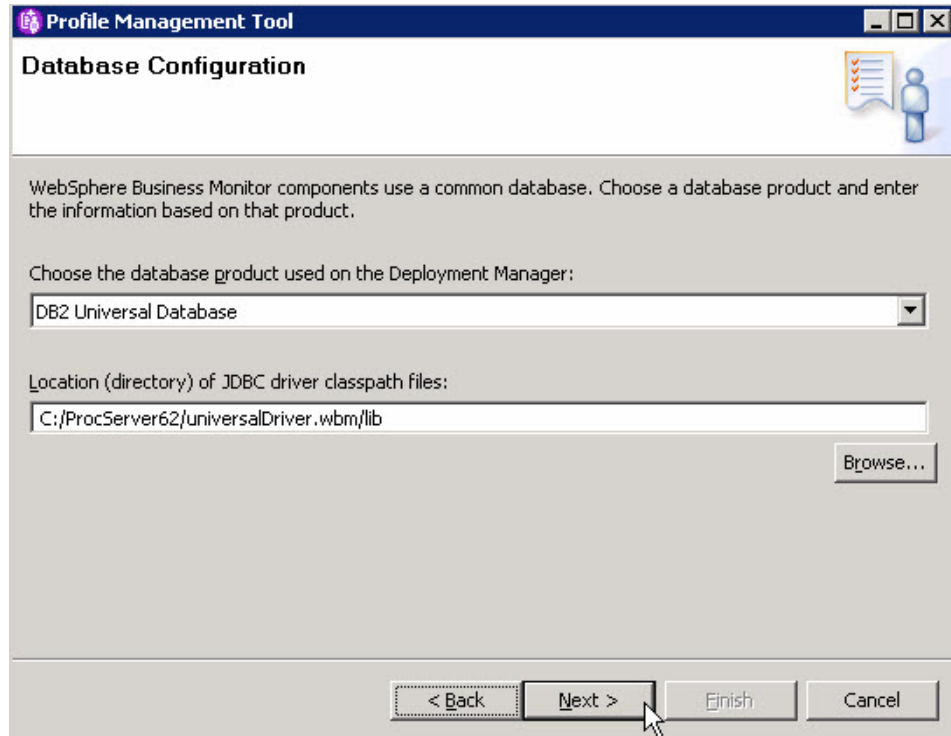
User name:

Password:

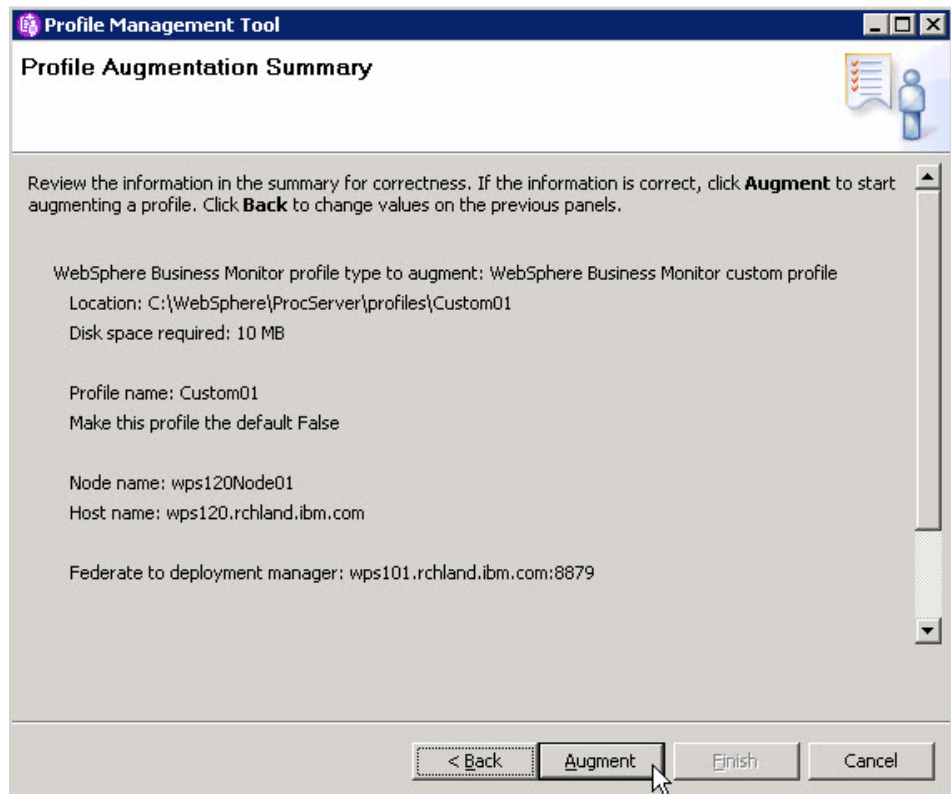
See the information center for more information about deployment manager profiles.  
[Online information center link](#)

< Back   Next >   Finish   Cancel

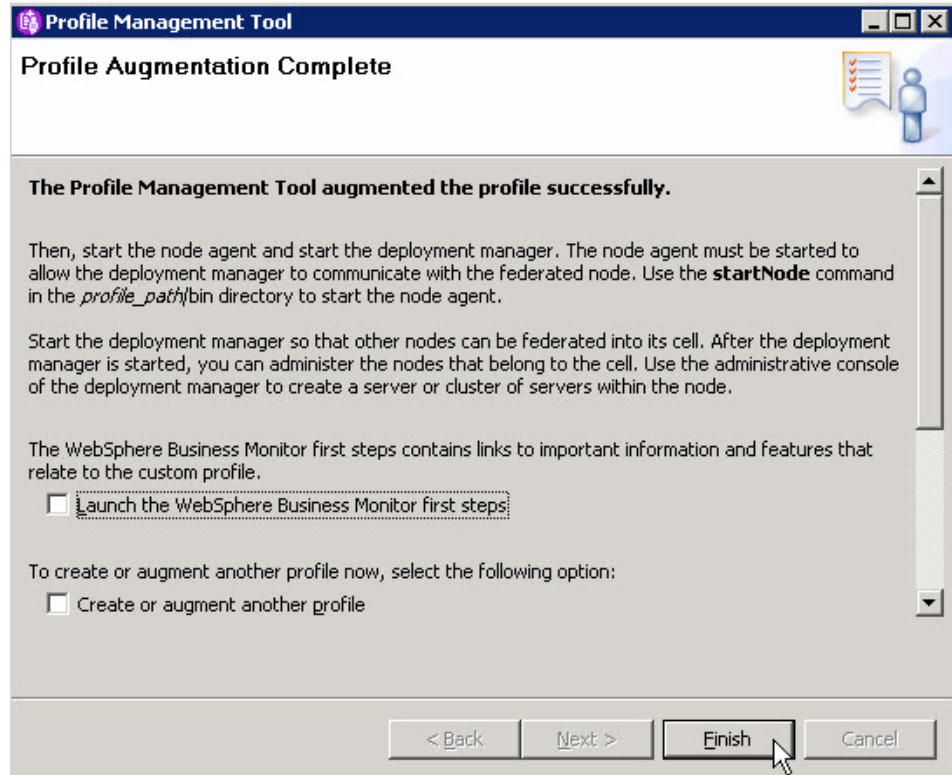
22. From the Database Configuration page, click **Next**.



23. From the Profile Augmentation Summary page, click **Augment**.



24. From the Profile Augmentation Complete page, uncheck **Launch WebSphere Business Monitor first steps** and click **Finish**.



Now, you install WebSphere Business Monitor 6.2 on another system and create a custom profile.

### Installing WebSphere Business Monitor 6.2 on system 3

Use the installation wizard to install the software on an additional system and create a custom profile.

You have installed WebSphere Business Monitor on system 1 and created the Dmgr profile and you have installed WebSphere Business Monitor on system 2.

Use this procedure to install WebSphere Business Monitor 6.2 and create the custom profile.

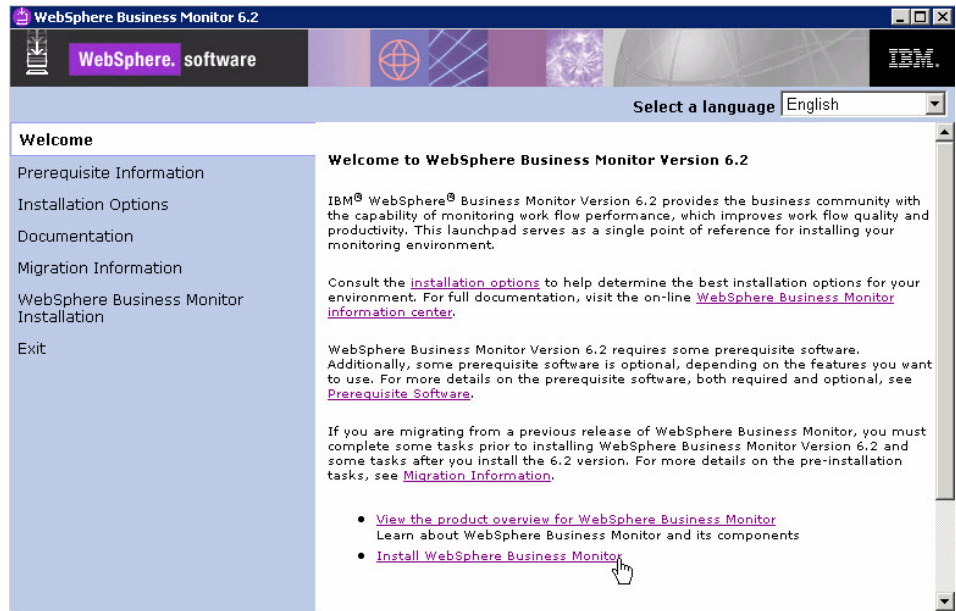
The screen captures are included to make it easier to follow the step instructions.

The step instructions are included to provide the specific task you need to perform and any information needed to perform the task (such as directory locations, parameters to enter, etc.)

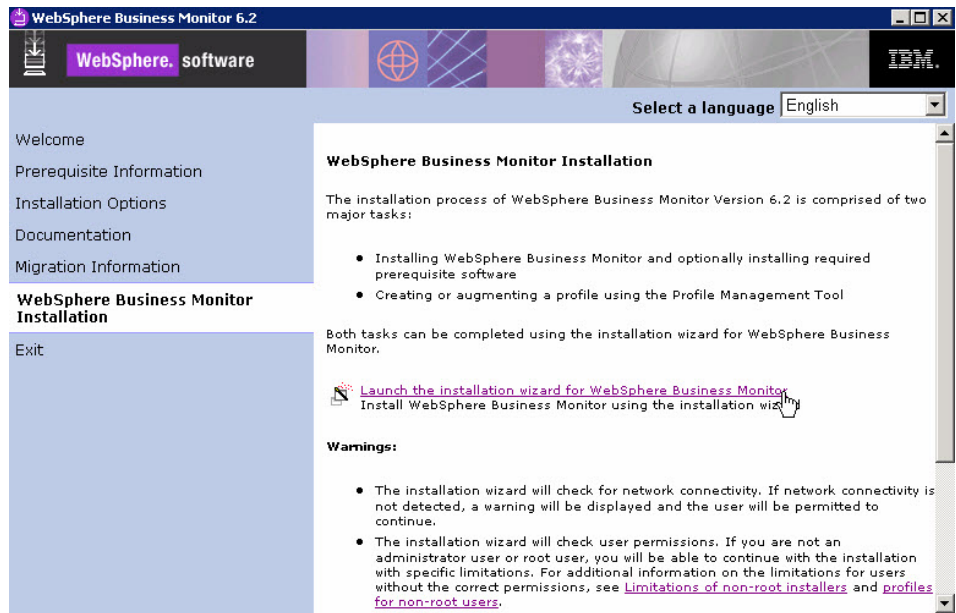
Hints and tips are included to assist with difficult steps.

1. On the Deployment Manager system run `launchpad.exe` from the directory of the unzipped Monitor driver.
2. From the Welcome to WebSphere Business Monitor Version 6.2 page, click **Install WebSphere Business Monitor**.

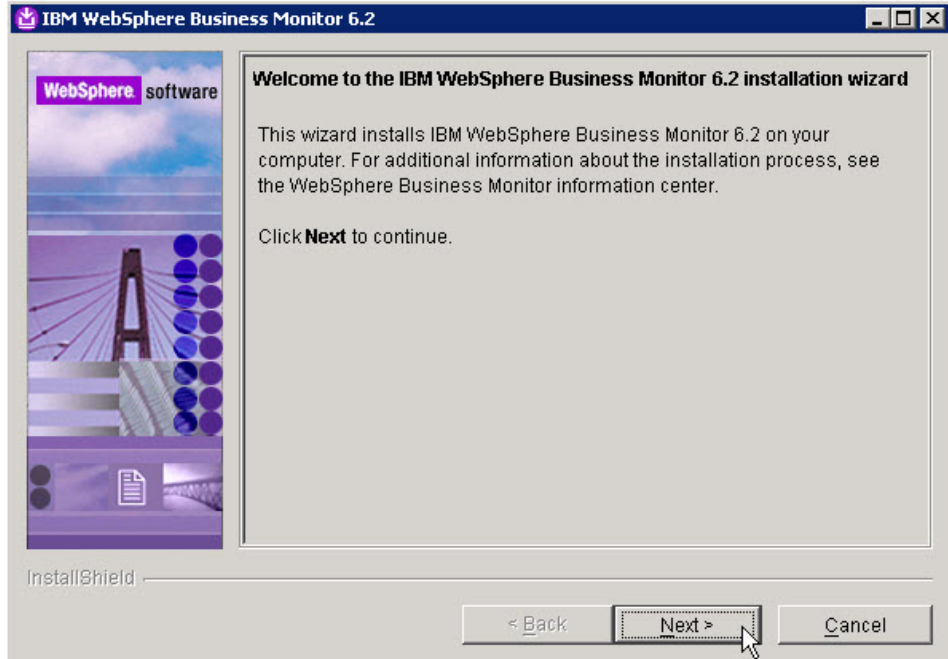




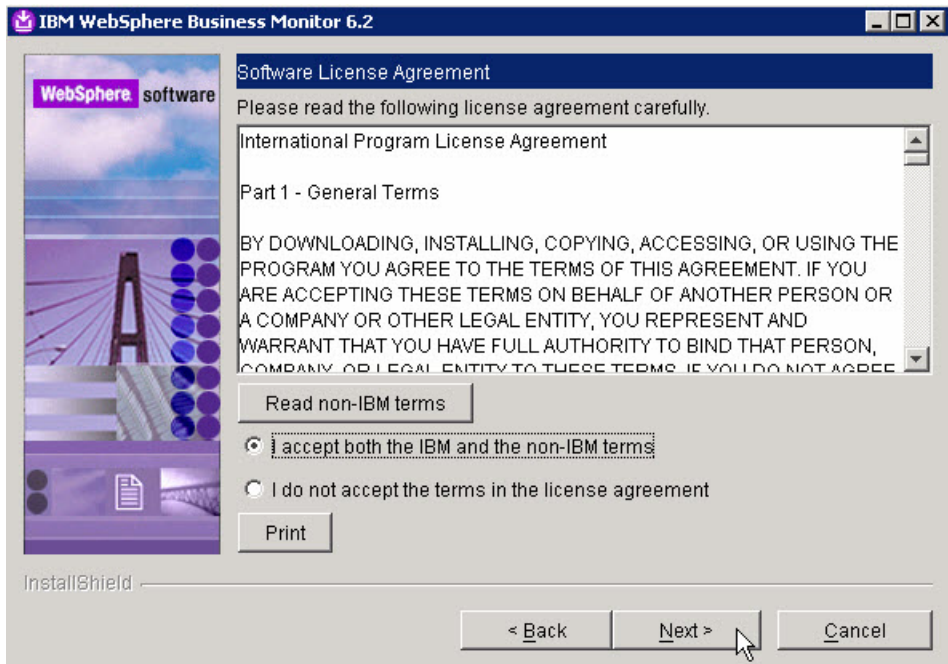
3. From the WebSphere Business Monitor Installation page, select **Launch the installation wizard for WebSphere Business Monitor**.



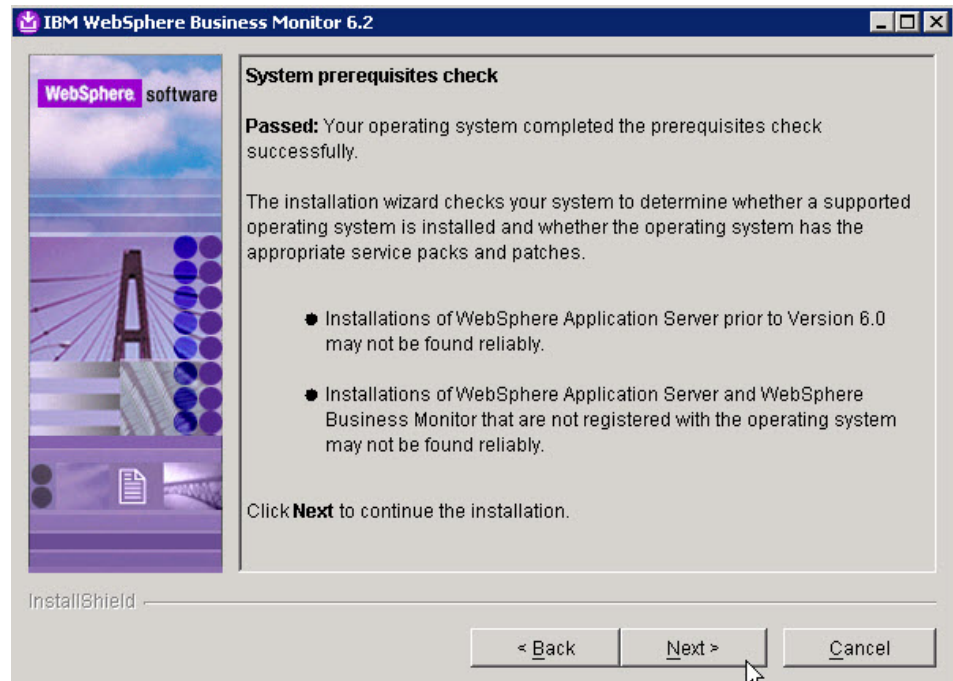
4. From the Welcome to the IBM WebSphere Business Monitor 6.2 Installation wizard page, click **Next** .



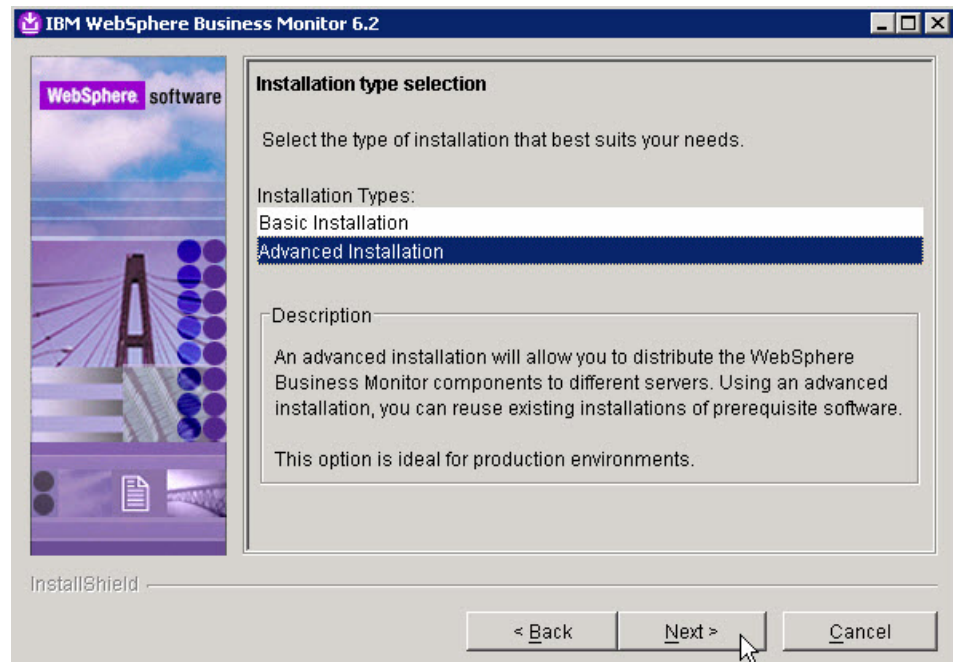
5. From the Software License Agreement page, accept the terms and click **Next**.



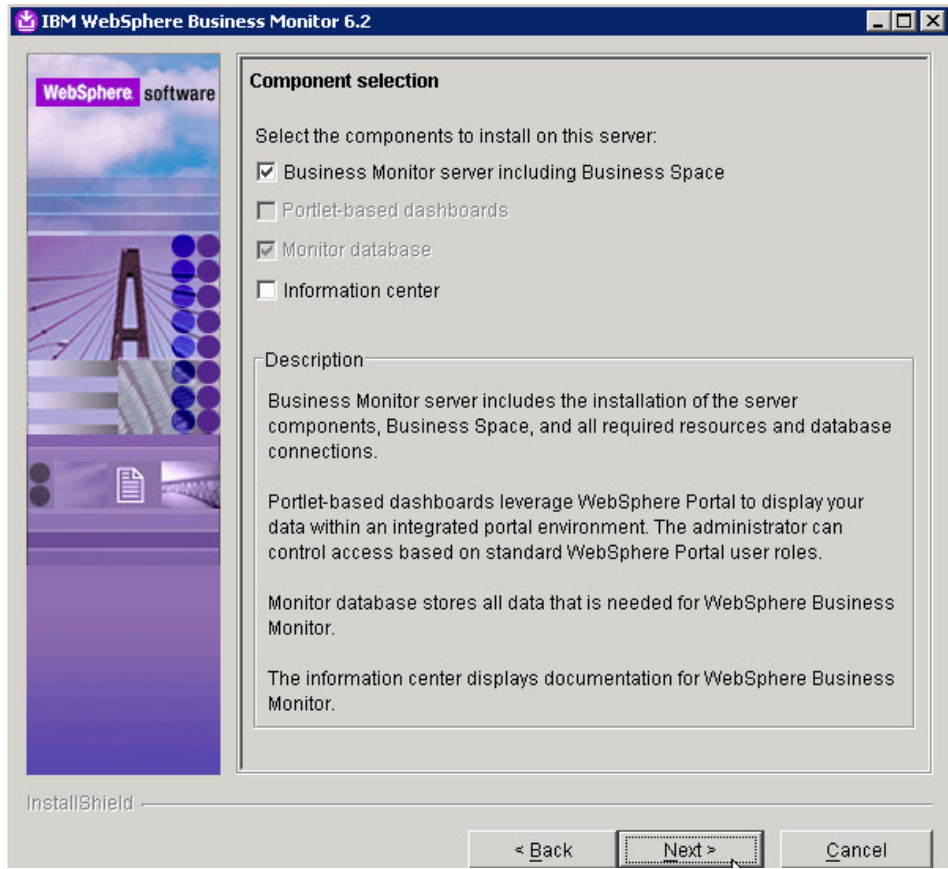
6. From the System prerequisites check page, click **Next**.



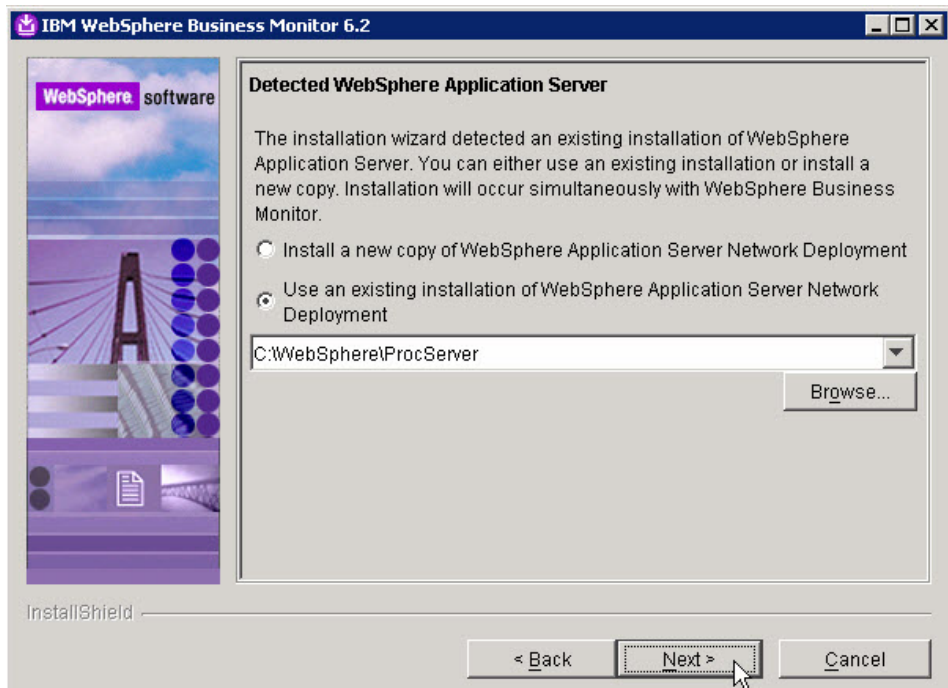
7. From the Installation type selection page, select **Advance Installation** and click **Next**.



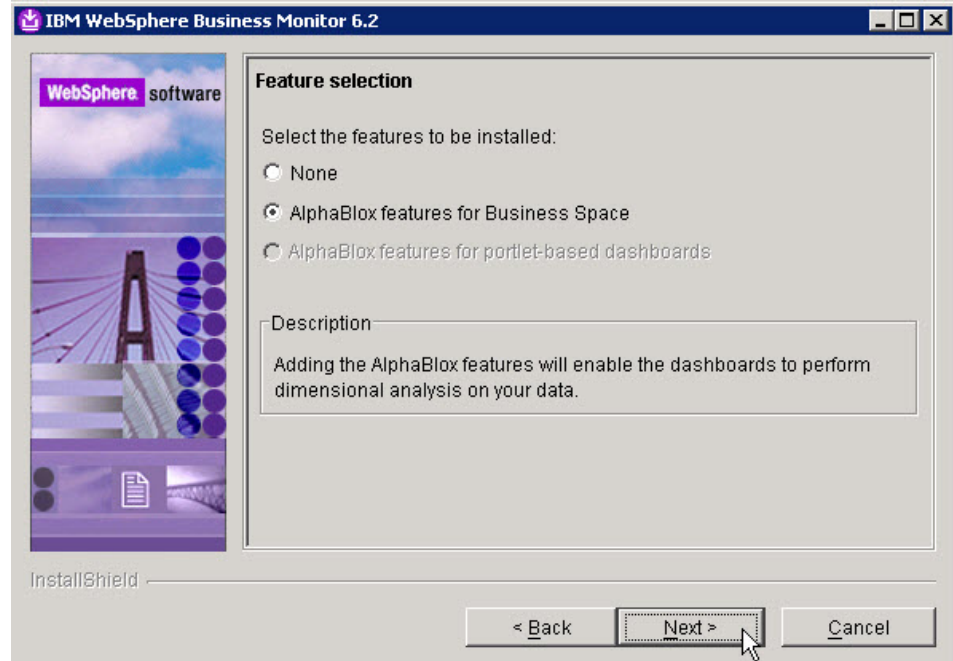
8. From the Component selection page, uncheck **Information center** and click **Next**.



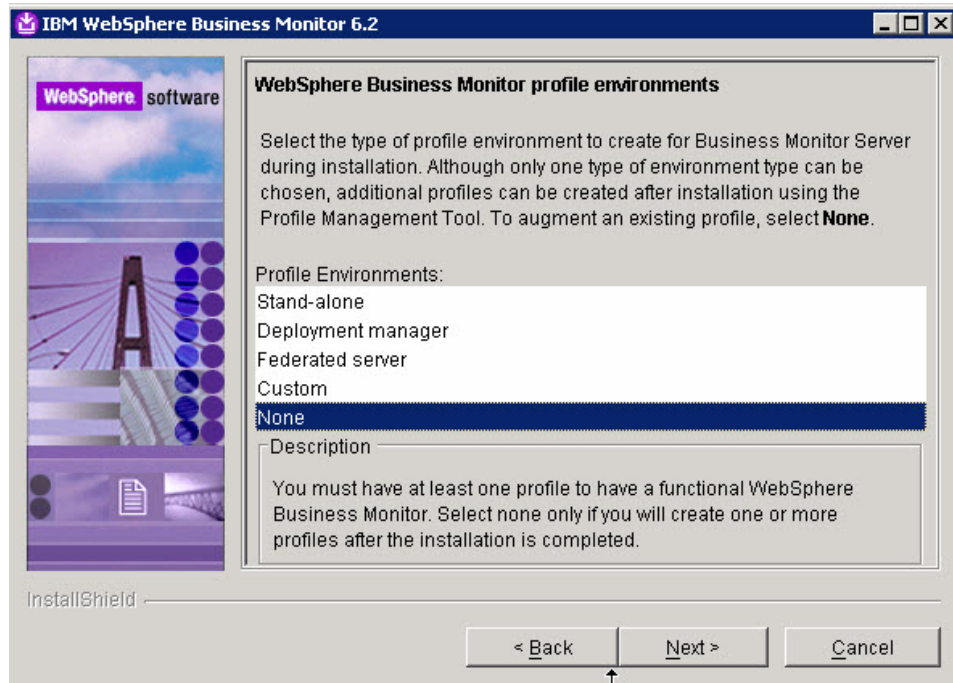
9. From the Detected WebSphere Application Server page, select **Use an existing installation of WebSphere Application Server Network Deployment** and click **Next**.



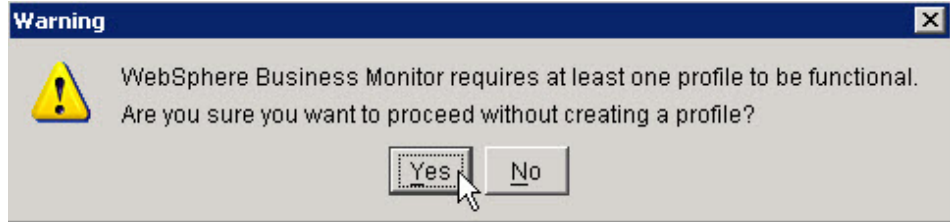
10. From the Features Selection page, click **Next**.



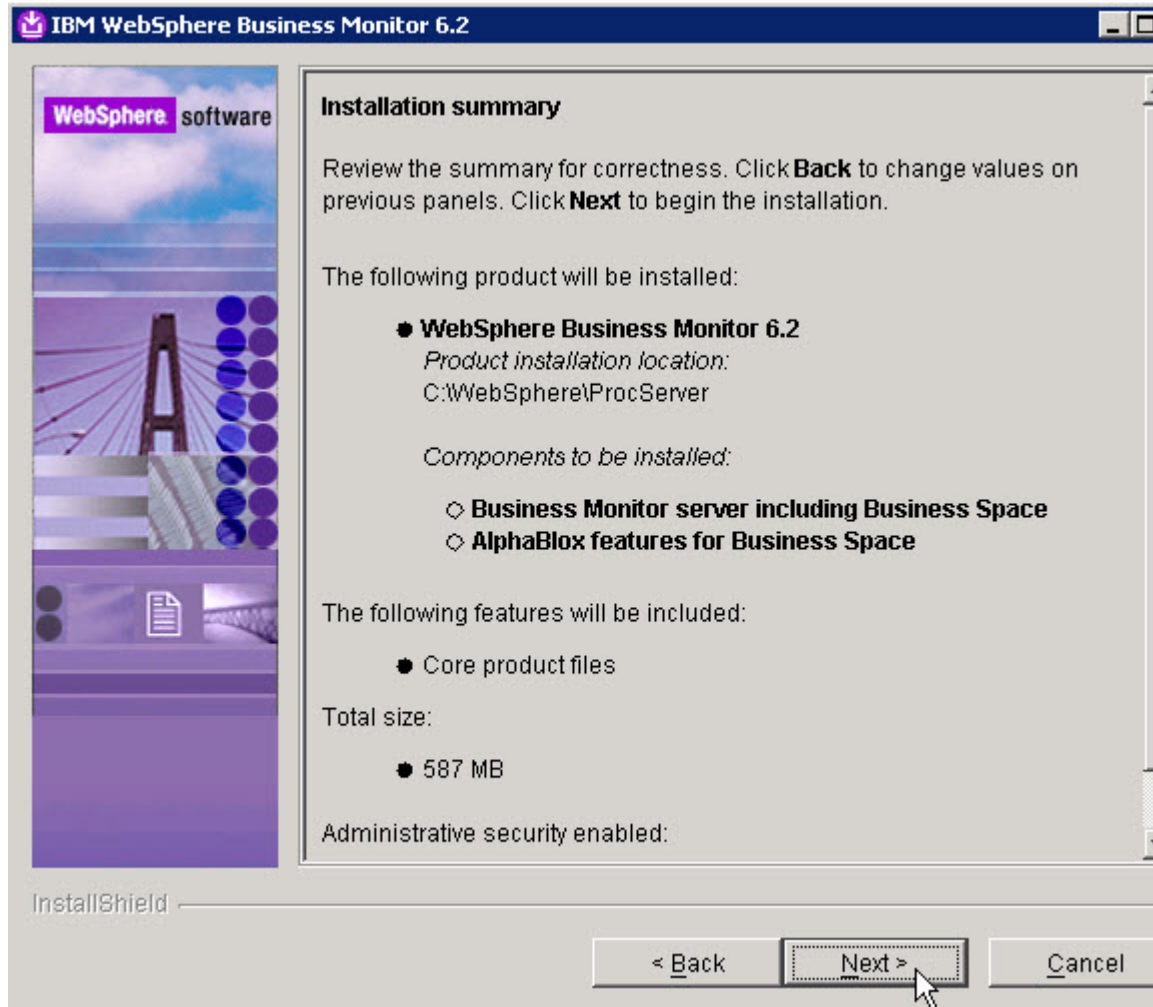
11. From the WebSphere Business Monitor profile environments page, select **None** and click **Next** .



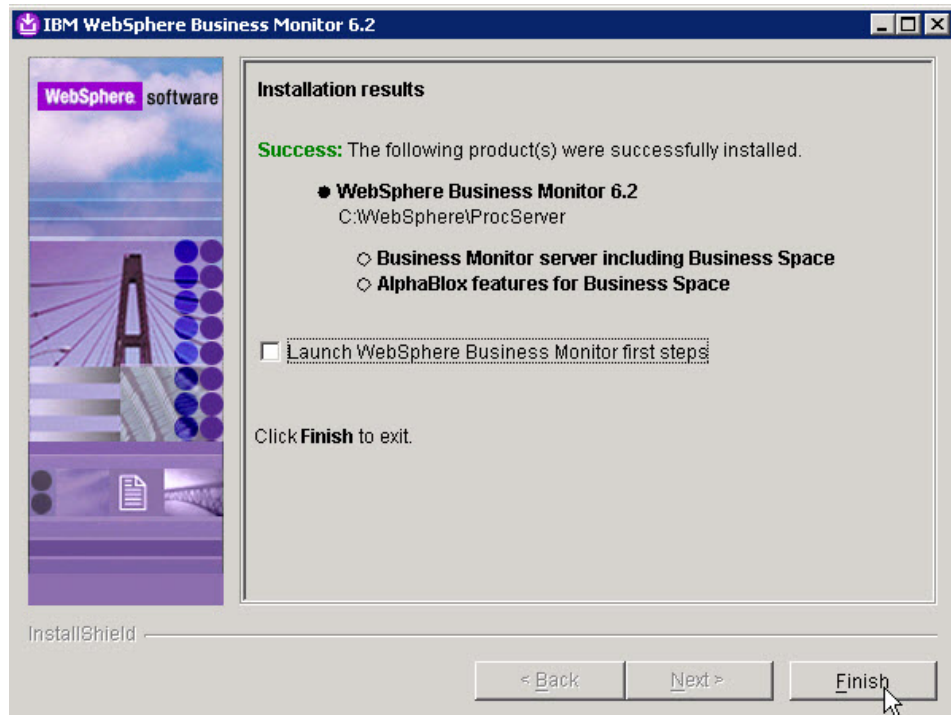
12. From the Warning dialog, click **Yes** .



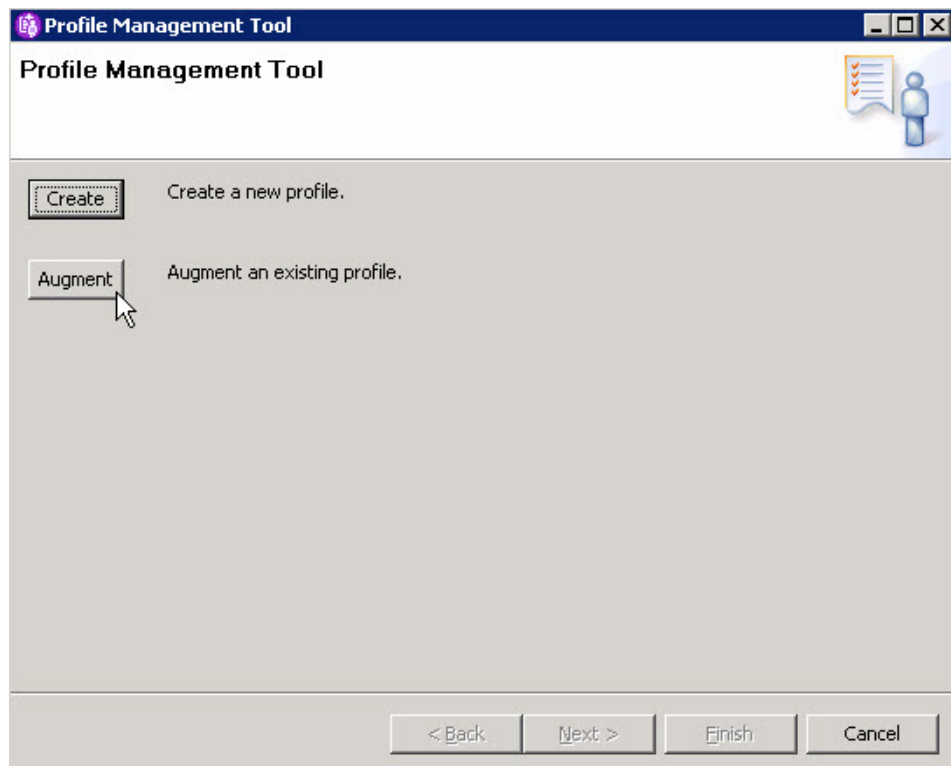
13. Review the information on the Installation Summary page and click **Next** .



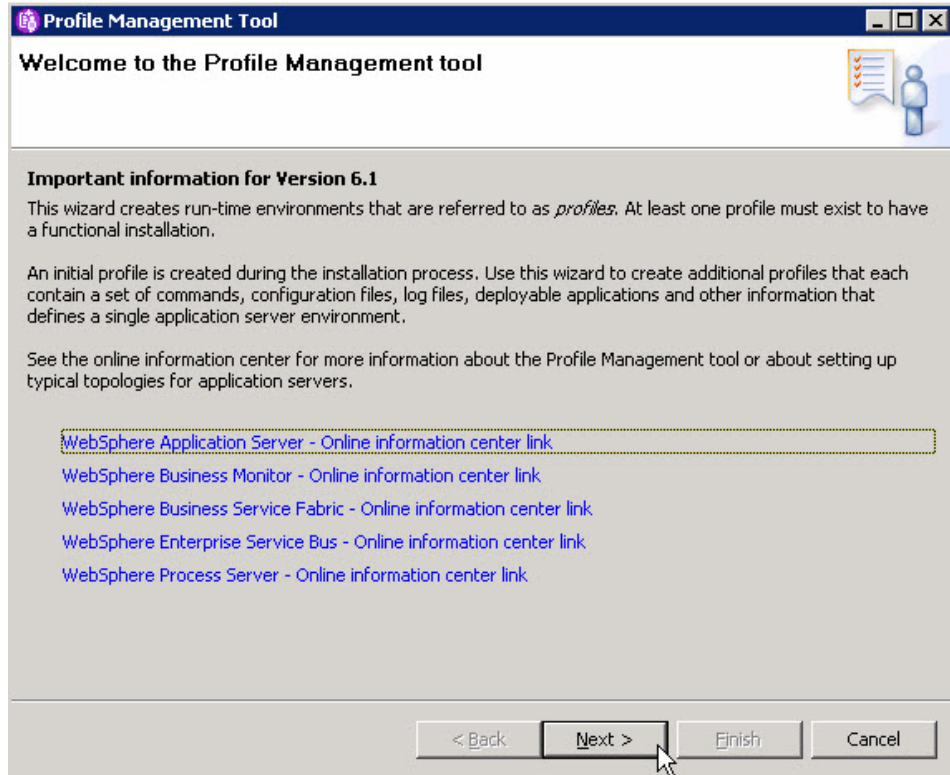
14. From the Installation Results page, uncheck **Launch the WebSphere Business Monitor First Steps console** and click **Finish** .



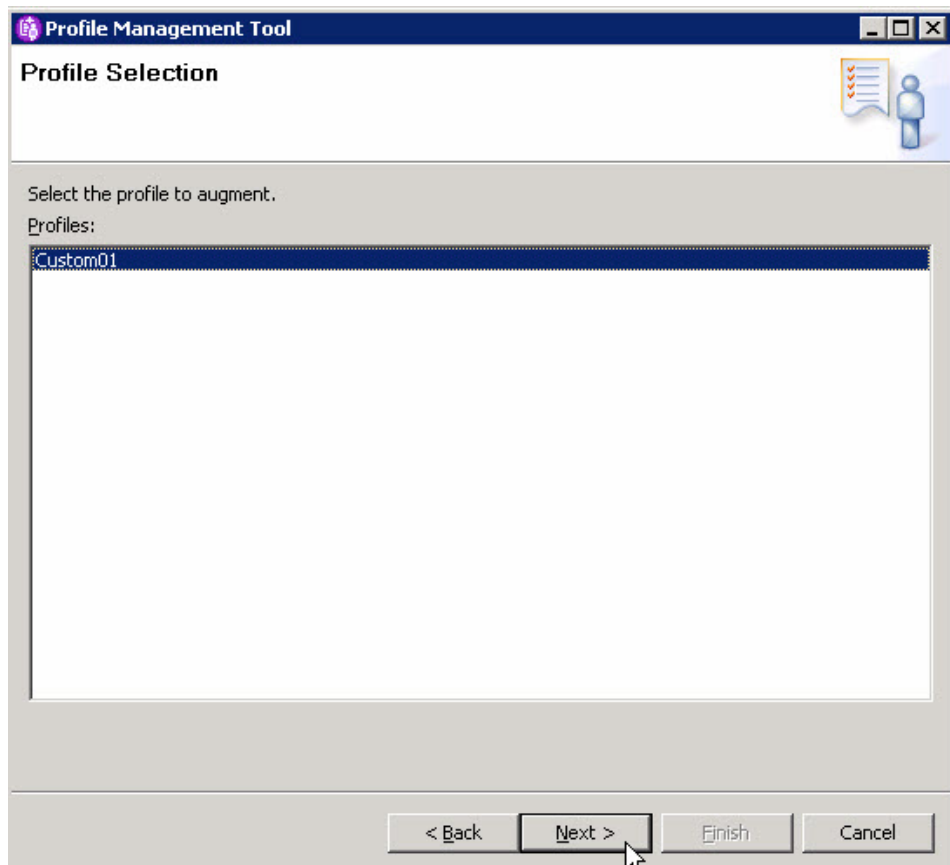
15. From the installation root bin directory launch the profile management tool (pmt):  
C:\WebSphere\ProcServer\bin\ProfileManagement>pmt.
16. From the Profile Management Tool page, click **Augment**.



17. From the Welcome to the Profile Management tool page, click **Next**.

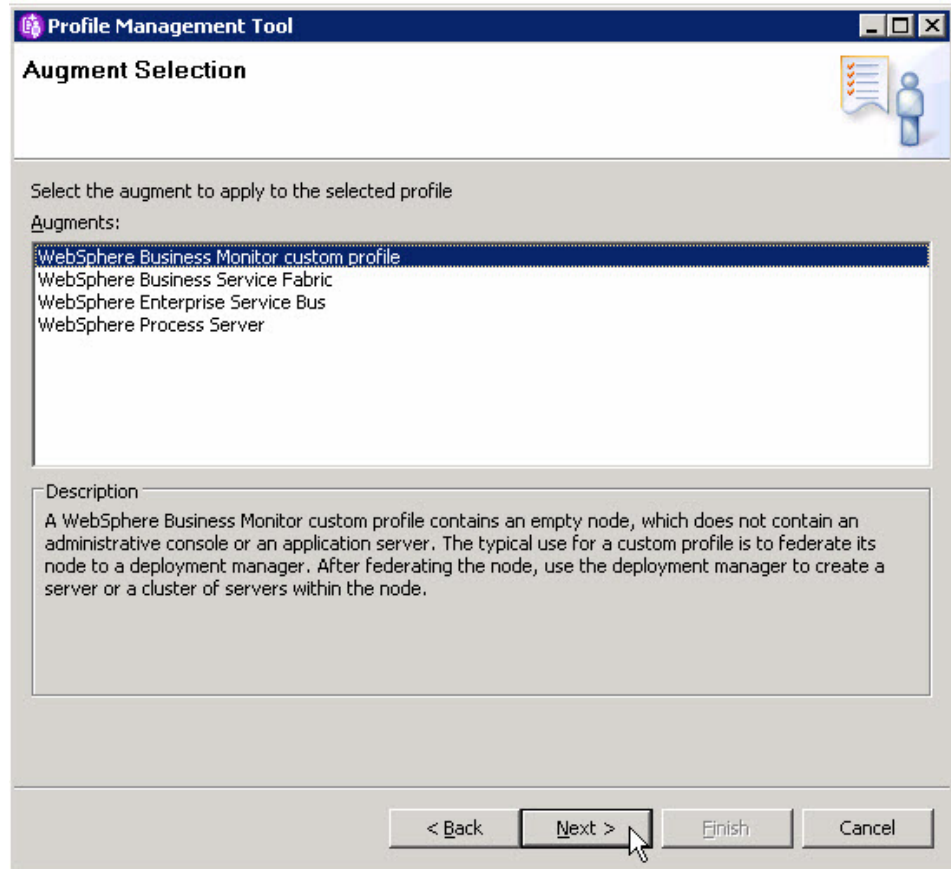


18. From the Profile Selection page, select **Custom01** and click **Next**.

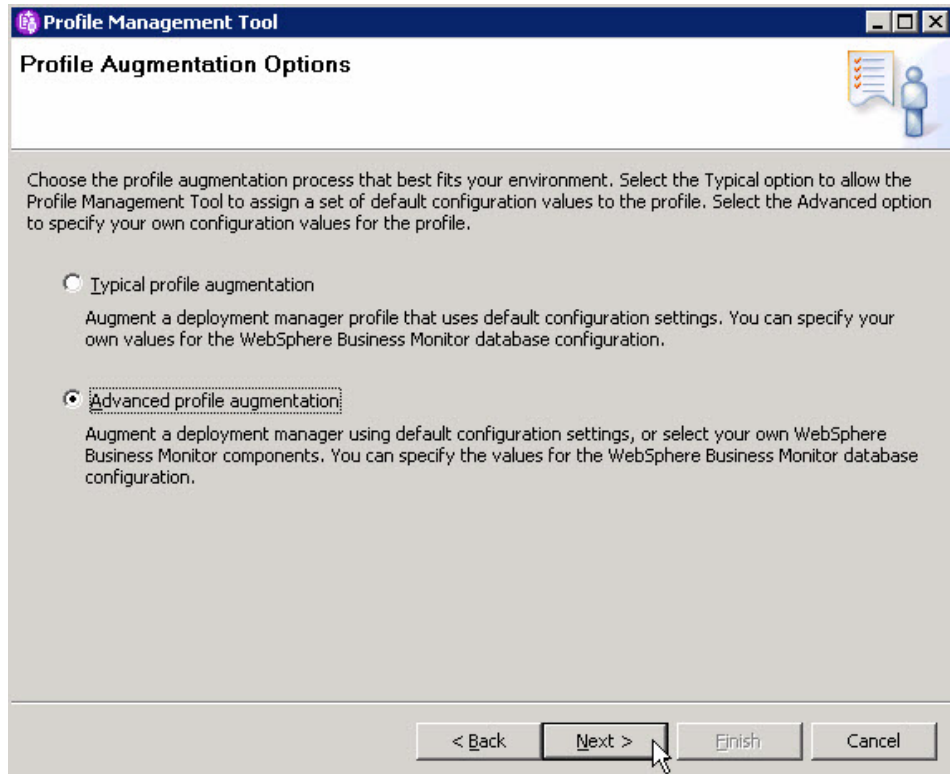




19. From the Augment Selection page, select **WebSphere Business Monitor deployment manager** and click **Next**.



20. From the Profile Augmentation Options page, select **Advanced profile augmentation** and click **Next**.



21. From the Federation page, enter a value for **Deployment manager host name**, **User name**, **Password** and click **Next**.

**Profile Management Tool**

### Federation

Specify the host name or IP address and the SOAP port number for an existing deployment manager. Federation can occur only if the deployment manager is running. If security is enabled on the deployment manager, you must specify a user name and password.

Deployment manager host name or IP address:

Deployment manager SOAP port number (Default port number is 8879):

Deployment manager authentication  
If administrative security is enabled on the deployment manager, you must provide a user name and password to authenticate with the server.

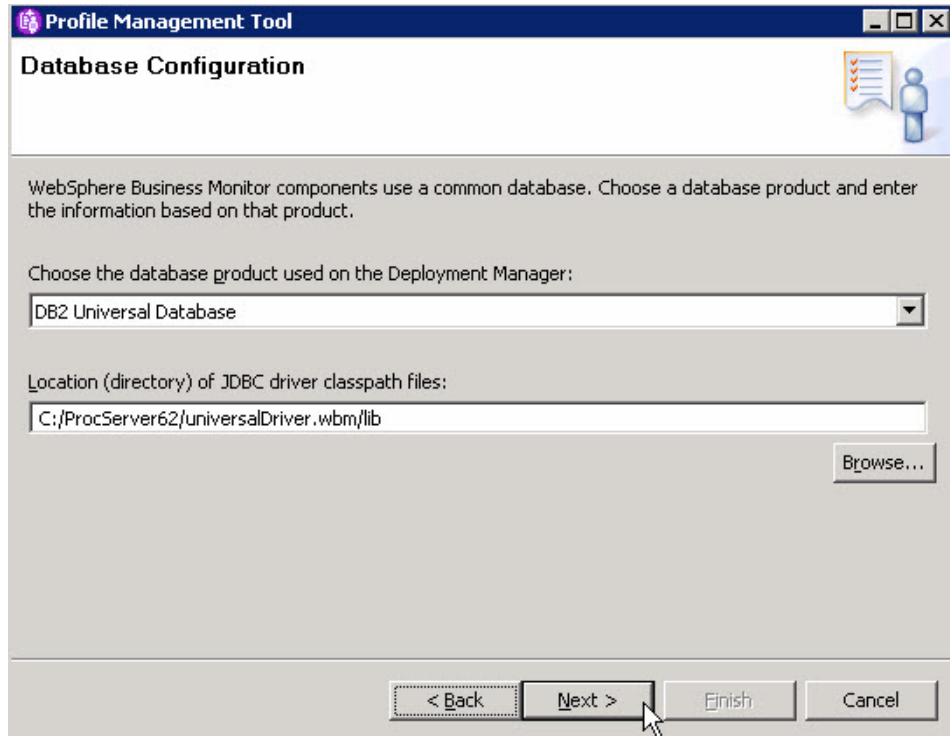
User name:

Password:

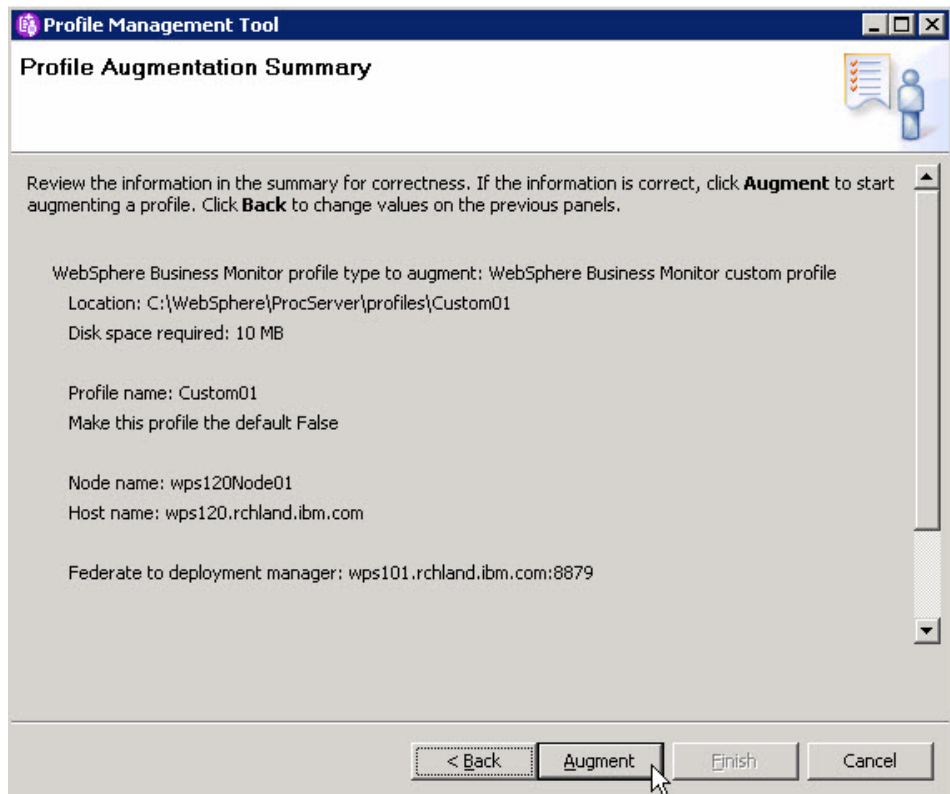
See the information center for more information about deployment manager profiles.  
[Online information center link](#)

< Back   **Next >**   Finish   Cancel

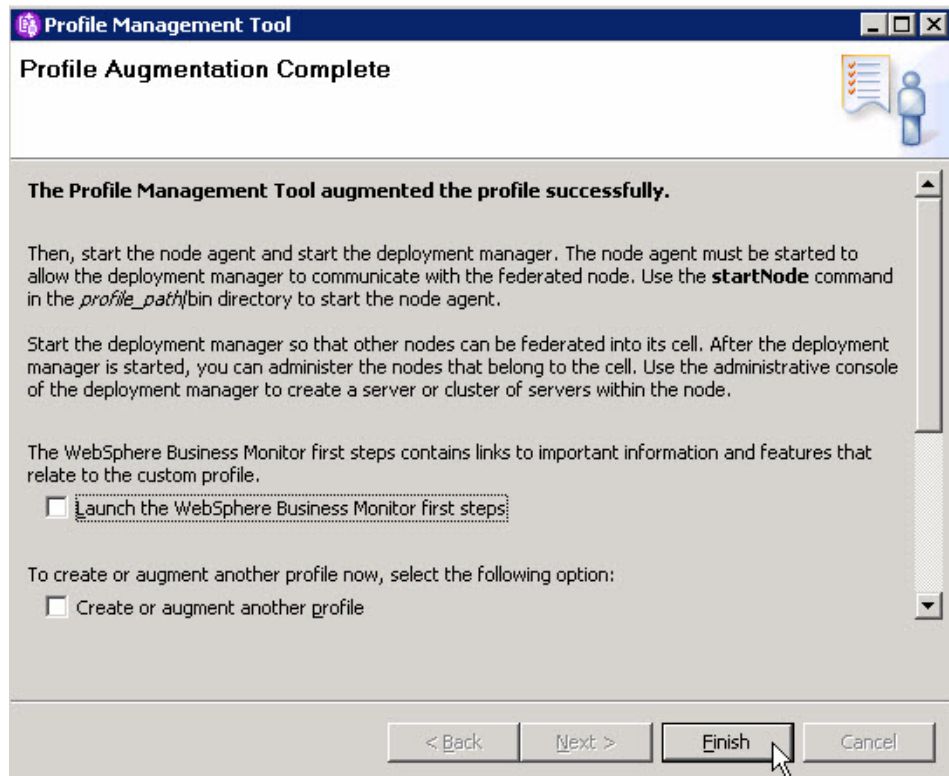
22. From the Database Configuration page, click **Next**.



23. From the Profile Augmentation Summary page, click **Augment**.



24. From the Profile Augmentation Complete page, uncheck **Launch WebSphere Business Monitor first steps** and click **Finish**.



25. Ensure proxyServer is not running.
26. Ensure Clusters are not running.
27. Stop all Node Agents.
28. Stop the Deployment Manager.  
This is a good time save log files and start clean.
29. Start the Deployment Manager and verify the logs are clean.
30. Start the Node Agent(s) and verify the logs are clean.
31. Start the proxyServer and verify the logs are clean.
32. Start the MessagingCluster and verify the logs are clean.
33. Start the ApplicationCluster and verify the logs are clean.
34. Start the SupportCluster and verify the logs are clean.
35. Start the Support2Cluster and verify the logs are clean.

Verify the installation.

## Verifying the installation of WebSphere Business Monitor 6.2

Check settings and behavior to ensure the software is running.

Verification step instructions provides quick understanding of what to check to make sure the software is running properly.

Start browser and enter WebSphere administrative console, like  
<http://hostname:port/ibm/console>

For example: <http://localhost:9060/ibm/console>.

Several WebSphere Business Monitor applications are installed, all have been started.



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