



Installing and Configuring WebSphere Process Server



Installing and Configuring WebSphere Process Server

Note

Before using this information, be sure to read the general information in the Notices section at the end of this document.

1 February 2008

This edition applies to version 6, release 1, modification 0 of WebSphere Process Server for Multiplatforms (product number 5724-L01) and to all subsequent releases and modifications until otherwise indicated in new editions.

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Chapter 1. How do I...? Install and configure the product

Follow these shortcuts to get started quickly with popular installation and configuration tasks.

- Understand prerequisites for installing
- Install the product interactively
- Install the product using the command line
-  Install the product from a System i™ server
-  Install the product from a Windows® workstation command line
- Create profiles using the Profile Management Tool
- Create profiles using the manageprofiles command
- Augment profiles using the Profile Management Tool
- Augment profiles using the manageprofiles command
- Delete profiles using the manageprofiles command
- Set up the Business Process Choreographer for the runtime environment
- Verify product installation and profile creation
- Verify a deployment environment
- Uninstall the product
- Use IBM® Installation Factory to customize product installation
- Install Installation Factory
- Start the Installation Factory
- Create a build definition file in Installation Factory
- Create a customized installation package in Installation Factory
- Install a customized installation package using Installation Factory

Chapter 2. Packaging for WebSphere Process Server

This topic explains how to acquire WebSphere Process Server and describes the contents of its media packs and downloadable electronic installation images.

How to acquire WebSphere Process Server

You can obtain the product code in any of the following ways:

- From the product media packs which include CD-ROM and DVD media.
- From the Passport Advantage® site, where licensed customers can download installation images. For more information about the images available for download, see the Passport Advantage download document.

To buy the software, contact your IBM representative or IBM reseller, or visit the WebSphere Process Server home page at <http://www.ibm.com/software/integration/wps> and select the *How to buy* link in the left column.

Software supplied with WebSphere Process Server

Each media pack includes software that you need to install WebSphere Process Server, to set up your WebSphere Process Server environment, and to assemble and deploy applications. Also included in each media pack are optional supplemental software programs that provide value and tool support for your production and development environments.

Table 1 lists the software that is provided with the WebSphere Process Server product. Not every software program is supplied on every platform.

Table 1. Software supplied with WebSphere Process Server

Software	Description
WebSphere Process Server	Based on service-oriented architecture (SOA) and as a single, simplified programming model, WebSphere Process Server is the next-generation business process server that delivers and supports all styles of integration based on open standards to automate business processes that span people, workflows, applications, systems, platforms, and architectures. Features new in this release of WebSphere Process Server can be found in the topic <i>What is new in this release</i> in the <i>WebSphere® Process Server for Multiplatforms, version 6.1 Product Overview</i> PDF. Or you can view the topic in the WebSphere Process Server for Multiplatforms, version 6.1 online information center at http://publib.boulder.ibm.com/infocenter/dmndhelp/v6r1mx/ .

Table 1. Software supplied with WebSphere Process Server (continued)

Software	Description
WebSphere Application Server Network Deployment	The industry's premier Java-based application platform, integrating enterprise data and transactions for the dynamic e-business world. The Network Deployment version, upon which WebSphere Process Server is built, delivers a rich application deployment environment with application services that provide enhanced capabilities for transaction management, as well as the security, performance, availability, connectivity, and scalability expected from the WebSphere family of products. This configuration also enables clustering, edge-of-network services, Web services enhancements, and high availability for distributed configurations. For more information about WebSphere Application Server Network Deployment, see the WebSphere Application Server Network Deployment, Version 6.1 information center.
IBM HTTP Server	The foundation of any e-business application is the Web server. IBM HTTP Server features include: <ul style="list-style-type: none"> • Easy installation • Support for SSL secure connections • Fast Response Cache Accelerator • IBM support as part of the WebSphere bundle • Hardware crypto support • Administration Server that helps to administer and configure IHS servers • Help information that uses the easy-to-navigate design that is common to all WebSphere products
Web server plug-ins	WebSphere Process Server supplies a unique binary plug-in module and an associated plug-in configuration file for each supported Web server. The Plug-ins Installation wizard installs required files and configures the Web server and the underlying application server of WebSphere Process Server to allow communication between the servers.
WebSphere Application Server Application Clients	An application client module is a Java™ Archive (JAR) file that contains a client for accessing a Java™ application. Running J2EE™ and Thin application clients that communicate with the underlying WebSphere Application Server product requires that elements of the Application Server are installed on the machine on which the client runs. However, if the system does not have the Application Server installed, you can install Application Clients, which provide a stand-alone client runtime environment for your client applications.
IBM User Interface Help System Built on Eclipse	Downloadable versions of the WebSphere Process Server documentation are packaged as Eclipse document plug-ins and must be viewed using the IBM User Interface Help System. The help system (or viewer) and document plug-in format are based on an open source approach developed by the Eclipse Project.

Table 1. Software supplied with WebSphere Process Server (continued)

Software	Description
IBM Message Service Clients	<p>Software that provides messaging and Web services capabilities in non-Java environments. Extend interaction between applications and WebSphere Process Server by using the provided clients:</p> <ul style="list-style-type: none"> • IBM Message Service Client for C/C++ extends the JMS model for messaging to C and C++ applications • IBM Message Service Client for .NET enables .NET applications to participate in JMS-based information flows
DataDirect Java Database Connectivity (JDBC) drivers	<p>Two JDBC drivers produced by DataDirect Technologies for enabling connectivity to Microsoft® SQL Server. These drivers are the SequeLink and Connect JDBC drivers.</p>
WebSphere Application Server Toolkit	<p>Provides basic assembly and deployment tooling for publishing to an application server, such as WebSphere Application Server Network Deployment. You can also use the tool to perform basic unit testing, debugging, and profiling functions.</p>
WebSphere Application Server Edge Components	<p>Address the needs of highly available, high-volume environments with the Edge components. The Edge components include sophisticated load balancing, caching, and centralized security capabilities. See the WebSphere Application Server Network Deployment Edge Components Web page for more information.</p>
DB2® Restricted Enterprise Edition	<p>DB2 Restricted Enterprise Edition includes portions of DB2 Enterprise Server Edition (DB2 Enterprise 9). DB2 Enterprise 9 is designed to meet the data server needs of mid- to large-size businesses. It can be deployed on Linux®, UNIX®, or Windows servers of any size, from one processor to hundreds of processors. DB2 Enterprise 9 is an ideal foundation for building on demand enterprise-wide solutions. A broad array of autonomic or self-managing capabilities can free more administrator time to focus on driving business value. The ease of use in DB2 and the self-managing characteristics might even eliminate the need for dedicated administrators in smaller implementations.</p> <p>DB2 provides the following clients:</p> <ul style="list-style-type: none"> • DB2 Runtime Client. This client is best suited for enabling applications to access DB2 servers. • DB2 Client. This client includes all the functionality found in the DB2 Runtime Client plus functionality for client-server configuration, database administration and application development.
IBM Tivoli® Directory Server	<p>The IBM Tivoli Directory Server product is a powerful Lightweight Directory Access Protocol (LDAP) infrastructure. Tivoli Directory Server provides a foundation for deploying comprehensive identity management applications and advanced software architectures. See the IBM Tivoli Directory Server for more information.</p>

Table 1. Software supplied with WebSphere Process Server (continued)

Software	Description
IBM Tivoli Access Manager Servers	IBM Tivoli Access Manager Servers integrates with e-business applications right out of the box, to deliver a secure, unified, and personalized e-business experience. By providing authentication and authorization APIs and integration, Tivoli Access Manager Servers helps you secure access to business-critical applications and data that might be spread across the extended enterprise. See IBM Tivoli Access Manager for e-business for more information.
WebSphere Partner Gateway Advanced Edition	WebSphere Partner Gateway offers a consolidated gateway solution to support EDI and Internet standards that can extend enterprise processes to external trading partners. It provides consolidated partner services for process integration with the WebSphere software platform. Business-to-business (B2B) gateway consolidation centralizes a company's B2B communications with trading partner communities, providing a central point of control for interactions among partners, and providing a security-rich environment at the edge of the enterprise. For more information on WebSphere Partner Gateway Advanced Edition, see WebSphere Partner Gateway Advanced Edition.
IBM Installation Factory	The Installation Factory creates turn-key installation packages for installing WebSphere products in a reliable and repeatable way, tailored to your specific needs. The installation packages are customized WebSphere Process Server installation images that can include one or more maintenance packages, scripts and other files that help customize the resulting installation.
Migration tools	The Migration tools allow you to perform migration from earlier versions of WebSphere Process Server or WebSphere Enterprise Service Bus. There is a Migration tool for WebSphere Process Server and for WebSphere Application Server. The Migration tools step you through the migration process.
Update Installer	The Update Installer is the tool used to install updates (interim fixes, fix packs and refresh packs) to WebSphere software, including WebSphere Enterprise Bus V6.1 releases, WebSphere Process Server V6.1 releases, WebSphere Application Server V6.1 releases, IBM HTTP Server, Web Server plug-ins, and WebSphere Application Clients.
IBM Rational® Agent Controller	IBM Rational Agent Controller is a daemon that allows client applications to launch and manage local or remote applications and provides information about running applications to other applications.

Table 1. Software supplied with WebSphere Process Server (continued)

Software	Description
IBM Support Assistant	<p>The IBM Support Assistant (ISA) is a tool that helps you use various IBM Support resources. The IBM Support Assistant offers four components to help you with software questions:</p> <ul style="list-style-type: none"> • a Search component, which helps you access pertinent Support information in multiple locations. • a Support Links component, which provides a convenient location to access various IBM Web resources such as IBM product sites, IBM support sites and links to IBM news groups. • an Education component, which provides guided access to IBM product education Web sites, including IBM Education Assistant modules. • a Service component, which helps you submit an enhanced problem report that includes key system data to IBM. <p>Using the IBM Support Assistant with WebSphere Process Server, requires installing IBM Support Assistant, version 3.0, and then installing plug-ins for WebSphere Process Server.</p>

Media packs supplied with WebSphere Process Server

Eight media packs are available for WebSphere Process Server. Each media pack contains CD-ROMs and a supplementary DVD applicable to a specific operating environment.

Note: Each media pack contains a WebSphere Process Server 6.1 Quick Start CD. This CD-ROM contains the WebSphere Process Server Quick Start Guide in all available translations.

See the following sections for detailed contents per platform:

- “AIX media pack”
- “HP-UX media pack” on page 10
- “i5/OS media pack” on page 13
- “Linux x86 media pack” on page 16
- “Linux POWER media pack” on page 19
- “Linux on System z media pack” on page 21
- “Solaris media pack” on page 24
- “Windows media pack” on page 27

AIX® media pack

The following table shows the 32-bit media included with WebSphere Process Server for AIX.

Table 2. Contents of AIX media pack (32-bit)

Media label	How supplied
WebSphere Process Server V6.1 Disk 1	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Process Server in the WBI directory • Installation Factory in the IF directory • Update Installer in the UpdateInstaller directory • IBM User Interface Help System in the IEHS directory • Messaging Client (Message Service Client for C/C++) in the MsgClients directory • Migration tool in the Migration directory <p>Use the Launchpad application in the root directory to install and view information about any of the installable components on <i>WebSphere Process Server V6.1 Disk 1</i>, <i>WebSphere Application Server Network Deployment Supplements V6.1 CD</i>, and <i>WebSphere Application Server Toolkit V6.1.1 Disk 1 CD</i>, except the IBM Installation Factory, which must be installed by following the procedure in “Installing the IBM Installation Factory” on page 231.</p>
WebSphere Process Server V6.1 Disk 2	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Application Server Network Deployment (version 6.1.0.13) in the WAS directory.
WebSphere Application Server Network Deployment iFix CD	One CD-ROM.
WebSphere Process Server V6.1 DVD	<p>One DVD.</p> <p>The <i>WebSphere Process Server V6.1 DVD</i> includes content equivalent to the <i>WebSphere Process Server V6.1 Disk 1 and Disk 2</i>.</p>
WebSphere Application Server Network Deployment Supplements V6.1 CD	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • Application Client for WebSphere Application Server • IBM HTTP Server • IBM Support Assistant • Web Server Plug-ins • Migration tool
WebSphere Application Server Network Deployment 6.1 CD	<p>One CD-ROM.</p> <p>Version 6.1</p>
Application Server Toolkit 6.1.1 for Windows CD	Two CD-ROMs.
Application Server Toolkit 6.1.1 for Linux on x86 CD	Two CD-ROMs.
Rational Agent Controller 6.1.5 CD	One CD-ROM.
Edge Components 6.1 CD	One CD-ROM.
Edge Components for IPv6 6.1 CD	One CD-ROM.
Tivoli Access Manager 6.0 CD	One CD-ROM.

Table 2. Contents of AIX media pack (32-bit) (continued)

Media label	How supplied
Tivoli Directory Server 6.0 CD	One CD-ROM.
WebSphere Partner Gateway Advanced Edition 6.1 CD	One CD-ROM.
Data Interchange Services 6.0 for Windows CD	One CD-ROM.

The following table shows the 64-bit media included with WebSphere Process Server for AIX.

Table 3. Contents of AIX media pack (64-bit)

Media label	How supplied
WebSphere Process Server V6.1 Disk 1	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Process Server in the WBI directory • Installation Factory in the IF directory • Update Installer in the UpdateInstaller directory • IBM User Interface Help System in the IEHS directory • Messaging Client (Message Service Client for C/C++) in the MsgClients directory • Migration tool in the Migration directory <p>Use the Launchpad application in the root directory to install and view information about any of the installable components on <i>WebSphere Process Server V6.1 Disk 1</i>, <i>WebSphere Application Server Network Deployment Supplements V6.1 CD</i>, and <i>WebSphere Application Server Toolkit V6.1.1 Disk 1 CD</i>, except the IBM Installation Factory, which must be installed by following the procedure in “Installing the IBM Installation Factory” on page 231.</p>
WebSphere Process Server V6.1 Disk 2	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Application Server Network Deployment (version 6.1.0.13) in the WAS directory.
WebSphere Application Server Network Deployment iFix CD	One CD-ROM.
WebSphere Process Server V6.1 DVD	<p>One DVD.</p> <p>The <i>WebSphere Process Server V6.1 DVD</i> includes content equivalent to the <i>WebSphere Process Server V6.1 Disk 1 and Disk 2</i>.</p>
WebSphere Application Server Network Deployment Supplements V6.1 CD	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • IBM HTTP Server • IBM Support Assistant • Web Server Plug-ins • Migration tool
WebSphere Application Server Network Deployment 6.1 CD	<p>One CD-ROM.</p> <p>Version 6.1</p>

Table 3. Contents of AIX media pack (64-bit) (continued)

Media label	How supplied
DB2 Restricted Enterprise Server Edition 9.1 CD	One CD-ROM.
DB2 National Language Pack 9.1 CD	One CD-ROM.
DB2 Runtime Client 9.1 CD	One CD-ROM.
DB2 Client 9.1 CD	One CD-ROM.

HP-UX media pack

The following table shows the 32-bit media included with WebSphere Process Server for HP-UX.

Table 4. Contents of HP-UX media pack (32-bit)

Media label	How supplied
WebSphere Process Server V6.1 Disk 1	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Process Server in the WBI directory • Installation Factory in the IF directory • Update Installer in the UpdateInstaller directory • IBM User Interface Help System in the IEHS directory • Messaging Client (Message Service Client for C/C++) in the MsgClients directory • Migration tool in the Migration directory <p>Use the Launchpad application in the root directory to install and view information about any of the installable components on <i>WebSphere Process Server V6.1 Disk 1</i>, <i>WebSphere Application Server Network Deployment Supplements V6.1 CD</i>, and <i>WebSphere Application Server Toolkit V6.1.1 Disk 1 CD</i>, except the IBM Installation Factory, which must be installed by following the procedure in “Installing the IBM Installation Factory” on page 231.</p>
WebSphere Process Server V6.1 Disk 2	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Application Server Network Deployment (6.1.0.13) in the WAS directory.
WebSphere Application Server Network Deployment iFix CD	One CD-ROM.
WebSphere Process Server V6.1 DVD	<p>One DVD.</p> <p>The <i>WebSphere Process Server V6.1 DVD</i> includes content equivalent to the <i>WebSphere Process Server V6.1 Disk 1 and Disk 2</i>.</p>

Table 4. Contents of HP-UX media pack (32-bit) (continued)

Media label	How supplied
WebSphere Application Server Network Deployment Supplements V6.1 CD	One CD-ROM contains the following installable components: <ul style="list-style-type: none"> • Application Client for WebSphere Application Server • IBM HTTP Server • IBM Support Assistant • Web Server Plug-ins • Migration tool
WebSphere Application Server Network Deployment 6.1 CD	One CD-ROM. Version 6.1
Application Server Toolkit 6.1.1 for Windows CD	Two CD-ROMs.
Application Server Toolkit 6.1.1 for Linux on x86 CD	Two CD-ROMs.
Rational Agent Controller 6.1.5 CD	One CD-ROM.
Edge Components 6.1 CD	One CD-ROM.
Edge Components for IPv6 6.1 CD	One CD-ROM.
Tivoli Access Manager 6.0 CD	One CD-ROM.
Tivoli Directory Server 6.0 CD	One CD-ROM.
DB2 Restricted Enterprise Server Edition 9.1 CD	One CD-ROM.
DB2 National Language Pack 9.1 CD	One CD-ROM.
DB2 Runtime Client 9.1 CD	One CD-ROM.
DB2 Client 9.1 CD	One CD-ROM.

The following table shows the 64-bit media included with WebSphere Process Server for HP-UX.

Table 5. Contents of HP-UX media pack (64-bit)

Media label	How supplied
WebSphere Process Server V6.1 Disk 1	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Process Server in the WBI directory • Installation Factory in the IF directory • Update Installer in the UpdateInstaller directory • IBM User Interface Help System in the IEHS directory • Messaging Client (Message Service Client for C/C++) in the MsgClients directory • Migration tool in the Migration directory <p>Use the Launchpad application in the root directory to install and view information about any of the installable components on <i>WebSphere Process Server V6.1 Disk 1</i>, <i>WebSphere Application Server Network Deployment Supplements V6.1 CD</i>, and <i>WebSphere Application Server Toolkit V6.1.1 Disk 1 CD</i>, except the IBM Installation Factory, which must be installed by following the procedure in “Installing the IBM Installation Factory” on page 231.</p>
WebSphere Process Server V6.1 Disk 2	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Application Server Network Deployment (6.1.0.13) in the WAS directory.
WebSphere Application Server Network Deployment iFix CD	One CD-ROM.
WebSphere Process Server V6.1 DVD	<p>One DVD.</p> <p>The <i>WebSphere Process Server V6.1 DVD</i> includes content equivalent to the <i>WebSphere Process Server V6.1 Disk 1 and Disk 2</i>.</p>
WebSphere Application Server Network Deployment Supplements V6.1 CD	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • IBM HTTP Server • IBM Support Assistant • Web Server Plug-ins • Migration tool
WebSphere Application Server Network Deployment 6.1 CD	<p>One CD-ROM.</p> <p>Version 6.1</p>
Edge Components 6.1 CD	One CD-ROM.
Edge Components for IPv6 6.1 CD	One CD-ROM.
DB2 Restricted Enterprise Server Edition 9.1 CD	One CD-ROM.
DB2 National Language Pack 9.1 CD	One CD-ROM.
DB2 Runtime Client 9.1 CD	One CD-ROM.
DB2 Client 9.1 CD	One CD-ROM.
WebSphere Partner Gateway Advanced Edition 6.1 CD	One CD-ROM.

Table 5. Contents of HP-UX media pack (64-bit) (continued)

Media label	How supplied
Data Interchange Services 6.0 for Windows CD	One CD-ROM.

i5/OS® media pack

The following table shows the media included with WebSphere Process Server for i5/OS.

Table 6. Contents of i5/OS media pack

Media label	How supplied
WebSphere Process Server V6.1 Disk 1	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Process Server in the WBI directory • Installation Factory in the IF directory • Update Installer in the UpdateInstaller directory • IBM User Interface Help System in the IEHS directory <p>Use the Launchpad application in the root directory to install and view information about any of the installable components on <i>WebSphere Process Server V6.1 Disk 1</i>, <i>WebSphere Application Server Network Deployment Supplements V6.1 CD</i>, and <i>WebSphere Application Server Toolkit V6.1.1 Disk 1 CD</i>, except the IBM Installation Factory, which must be installed by following the procedure in “Installing the IBM Installation Factory” on page 231.</p>
WebSphere Process Server V6.1 Disk 2	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Application Server Network Deployment (version 6.1.0.13) in the WAS directory.
WebSphere Application Server Network Deployment iFix CD	One CD-ROM.
WebSphere Process Server V6.1 DVD	<p>One DVD.</p> <p>The <i>WebSphere Process Server V6.1 DVD</i> includes content equivalent to the <i>WebSphere Process Server V6.1 Disk 1 and Disk 2</i>.</p>
WebSphere Application Server Network Deployment Supplements V6.1 CD	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • Application Client for WebSphere Application Server • IBM Support Assistant • Web Server Plug-ins • Migration tool
WebSphere Application Server Network Deployment 6.1 CD	<p>One CD-ROM.</p> <p>Version 6.1</p>
WebSphere Application Server Network Deployment 6.1 Supplements Windows CD (64-bit)	One CD-ROM.

Table 6. Contents of i5/OS media pack (continued)

Media label	How supplied
WebSphere Application Server Network Deployment 6.1 Supplements AIX CD (64-bit)	One CD-ROM.
WebSphere Application Server Network Deployment 6.1 Supplements HP IA64 CD (64-bit)	One CD-ROM.
WebSphere Application Server Network Deployment 6.1 Supplements Linux on Power CD (64-bit)	One CD-ROM.
WebSphere Application Server Network Deployment 6.1 Supplements Linux on System z CD (64-bit)	One CD-ROM.
Application Server Toolkit 6.1.1 for Windows CD	Two CD-ROMs.
Application Server Toolkit 6.1.1 for Linux on x86 CD	Two CD-ROMs.
Rational Agent Controller 6.1.5 CD	One CD-ROM.
WebSphere Application Server Network Deployment 6.1 Supplements for Windows CD	One CD-ROM.
WebSphere Application Server Network Deployment 6.1 Supplements for AIX CD	One CD-ROM.
WebSphere Application Server Network Deployment 6.1 Supplements for Solaris CD (32-bit)	One CD-ROM.
WebSphere Application Server Network Deployment 6.1 Supplements for Solaris on x86-64 CD (64-bit)	One CD-ROM.
WebSphere Application Server Network Deployment 6.1 Supplements for Solaris on SPARC CD (64-bit)	One CD-ROM.
WebSphere Application Server Network Deployment 6.1 Supplements for HP-UX CD	One CD-ROM.
WebSphere Application Server Network Deployment 6.1 Supplements for Linux on x86-32 CD (32-bit)	One CD-ROM.
WebSphere Application Server Network Deployment 6.1 Supplements for Linux on x86-64 CD (64-bit)	One CD-ROM.

Table 6. Contents of i5/OS media pack (continued)

Media label	How supplied
WebSphere Process Server Network Deployment 6.1 WorldType Fonts Supplements CD (32-bit)	One CD-ROM.
WebSphere Application Server Network Deployment 6.1 Supplements for Linux on POWER™ CD	One CD-ROM.
WebSphere Application Server Network Deployment 6.1 Supplements for Linux on System z CD	One CD-ROM.
Edge Components 6.1 for Windows CD (32-bit)	One CD-ROM.
Edge Components 6.1 for Windows CD (64-bit)	One CD-ROM.
Edge Components for IPV6 6.1 for Windows CD (32-bit)	One CD-ROM.
Edge Components for IPV6 6.1 for Windows CD (64-bit)	One CD-ROM.
Edge Components 6.1 for AIX CD (32-bit)	One CD-ROM.
Edge Components for IPV6 6.1 for AIX CD (32-bit)	One CD-ROM.
Edge Components 6.1 for Solaris CD (32-bit)	One CD-ROM.
Edge Components for IPV6 V6.1 for Solaris CD	One CD-ROM.
Edge Components 6.1 for Solaris on x86-64 CD (64-bit)	One CD-ROM.
Edge Components 6.1 for HP-UX CD	One CD-ROM.
Edge Components 6.1 for HP IA64 CD (64-bit)	One CD-ROM.
Edge Components IPV6 6.1 for HP-UX CD (32-bit)	One CD-ROM.
Edge Components IPV6 6.1 for HP-UX CD (64-bit)	One CD-ROM.
Edge Components 6.1 for Linux on x86-32 CD (32-bit)	One CD-ROM.
Edge Components for IPV6 6.1 for Linux on x86-32 CD (32-bit)	One CD-ROM.
Edge Components 6.1 for Linux on x86-64 CD (64-bit)	One CD-ROM.
Edge Components for IPV6 6.1 for Linux on x86-64 CD (64-bit)	One CD-ROM.
Edge Components 6.1 for Linux on POWER CD	One CD-ROM.

Table 6. Contents of i5/OS media pack (continued)

Media label	How supplied
Edge Components 6.1 for Linux on POWER CD (64-bit)	One CD-ROM.
Edge Components for IPV6 6.1 for Linux on POWER CD	One CD-ROM.
Edge Components for IPV6 6.1 for Linux on POWER CD (64-bit)	One CD-ROM.
Edge Components 6.1 for Linux on System z CD (31-bit)	One CD-ROM.
Edge Components 6.1 for IPV6 for Linux on System z CD (64-bit)	Two CD-ROMs.

Linux x86 media pack

The following table shows the 32-bit media included with WebSphere Process Server for Linux x86.

Table 7. Contents of Linux x86 media pack (32-bit)

Media label	How supplied
WebSphere Process Server V6.1 Disk 1	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Process Server in the WBI directory • Installation Factory in the IF directory • Update Installer in the UpdateInstaller directory • IBM User Interface Help System in the IEHS directory • Messaging Client (Message Service Client for C/C++) in the MsgClients directory • Migration tool in the Migration directory <p>Use the Launchpad application in the root directory to install and view information about any of the installable components on <i>WebSphere Process Server V6.1 Disk 1</i>, <i>WebSphere Application Server Network Deployment Supplements V6.1 CD</i>, and <i>WebSphere Application Server Toolkit V6.1.1 Disk 1 CD</i>, except the IBM Installation Factory, which must be installed by following the procedure in “Installing the IBM Installation Factory” on page 231.</p>
WebSphere Process Server V6.1 Disk 2	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Application Server Network Deployment (version 6.1.0.13) in the WAS directory.
WebSphere Application Server Network Deployment iFix CD	One CD-ROM.
WebSphere Process Server V6.1 DVD	<p>One DVD.</p> <p>The <i>WebSphere Process Server V6.1 DVD</i> includes content equivalent to the <i>WebSphere Process Server V6.1 Disk 1 and Disk 2</i>.</p>

Table 7. Contents of Linux x86 media pack (32-bit) (continued)

Media label	How supplied
WebSphere Application Server Network Deployment Supplements V6.1 CD	One CD-ROM contains the following installable components: <ul style="list-style-type: none"> • Application Client for WebSphere Application Server • IBM HTTP Server • IBM Support Assistant • Web Server Plug-ins • Migration tool
WebSphere Process Server 6.1 WorldType Fonts Supplements CD	One CD-ROM.
WebSphere Application Server Network Deployment 6.1 CD	One CD-ROM. Version 6.1
Application Server Toolkit 6.1.1 for Windows CD	Two CD-ROMs.
Application Server Toolkit 6.1.1 for Linux on x86 CD	Two CD-ROMs.
Rational Agent Controller 6.1.5 CD	One CD-ROM.
Edge Components 6.1 CD	One CD-ROM.
Edge Components for IPv6 6.1 CD	One CD-ROM.
Tivoli Access Manager 6.0 CD	One CD-ROM.
Tivoli Directory Server 6.0 CD	One CD-ROM.
DB2 Restricted Enterprise Server Edition 9.1 CD	One CD-ROM.
DB2 National Language Pack 9.1 CD	One CD-ROM.
DB2 Runtime Client 9.1 CD	One CD-ROM.
DB2 Client 9.1 CD	One CD-ROM.
WebSphere Partner Gateway Advanced Edition 6.1 CD	One CD-ROM.
Data Interchange Services 6.0 for Windows CD	One CD-ROM.

The following table shows the 64-bit media included with WebSphere Process Server for Linux x86.

Table 8. Contents of Linux x86 media pack (64-bit)

Media label	How supplied
WebSphere Process Server V6.1 Disk 1	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Process Server in the WBI directory • Installation Factory in the IF directory • Update Installer in the UpdateInstaller directory • IBM User Interface Help System in the IEHS directory • Messaging Client (Message Service Client for C/C++) in the MsgClients directory • Migration tool in the Migration directory <p>Use the Launchpad application in the root directory to install and view information about any of the installable components on <i>WebSphere Process Server V6.1 Disk 1</i>, <i>WebSphere Application Server Network Deployment Supplements V6.1 CD</i>, and <i>WebSphere Application Server Toolkit V6.1.1 Disk 1 CD</i>, except the IBM Installation Factory, which must be installed by following the procedure in “Installing the IBM Installation Factory” on page 231.</p>
WebSphere Process Server V6.1 Disk 2	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Application Server Network Deployment (version 6.1.0.13) in the WAS directory.
WebSphere Application Server Network Deployment iFix CD	One CD-ROM.
WebSphere Process Server V6.1 DVD	<p>One DVD.</p> <p>The <i>WebSphere Process Server V6.1 DVD</i> includes content equivalent to the <i>WebSphere Process Server V6.1 Disk 1 and Disk 2</i>.</p>
WebSphere Application Server Network Deployment Supplements V6.1 CD	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • IBM HTTP Server • IBM Support Assistant • Web Server Plug-ins • Migration tool
WebSphere Application Server Network Deployment 6.1 CD	<p>One CD-ROM.</p> <p>Version 6.1</p>
Edge Components 6.1 CD	One CD-ROM.
Edge Components for IPv6 6.1 CD	One CD-ROM.
DB2 Restricted Enterprise Server Edition 9.1 CD	One CD-ROM.
DB2 National Language Pack 9.1 CD	One CD-ROM.
DB2 Runtime Client 9.1 CD	One CD-ROM.
DB2 Client 9.1 CD	One CD-ROM.

Linux POWER media pack

The following table shows the 32-bit media included with WebSphere Process Server for Linux POWER.

Table 9. Contents of Linux POWER media pack (32-bit)

Media label	How supplied
WebSphere Process Server V6.1 Disk 1	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Process Server in the WBI directory • Installation Factory in the IF directory • Update Installer in the UpdateInstaller directory • IBM User Interface Help System in the IEHS directory • Messaging Client (Message Service Client for C/C++) in the MsgClients directory • Migration tool in the Migration directory <p>Use the Launchpad application in the root directory to install and view information about any of the installable components on <i>WebSphere Process Server V6.1 Disk 1</i>, <i>WebSphere Application Server Network Deployment Supplements V6.1 CD</i>, and <i>WebSphere Application Server Toolkit V6.1.1 Disk 1 CD</i>, except the IBM Installation Factory, which must be installed by following the procedure in “Installing the IBM Installation Factory” on page 231.</p>
WebSphere Process Server V6.1 Disk 2	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Application Server Network Deployment (version 6.1.0.13) in the WAS directory.
WebSphere Application Server Network Deployment iFix CD	One CD-ROM.
WebSphere Process Server V6.1 DVD	<p>One DVD.</p> <p>The <i>WebSphere Process Server V6.1 DVD</i> includes content equivalent to the <i>WebSphere Process Server V6.1 Disk 1 and Disk 2</i>.</p>
WebSphere Application Server Network Deployment Supplements V6.1 CD	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • Application Client for WebSphere Application Server • IBM HTTP Server • IBM Support Assistant • Web Server Plug-ins • Migration tool
WebSphere Process Server 6.1 WorldType Fonts Supplements CD	One CD-ROM.
WebSphere Application Server Network Deployment 6.1 CD	<p>One CD-ROM.</p> <p>Version 6.1</p>
Application Server Toolkit 6.1.1 for Windows CD	Two CD-ROMs.

Table 9. Contents of Linux POWER media pack (32-bit) (continued)

Media label	How supplied
Application Server Toolkit 6.1.1 for Linux on x86 CD	Two CD-ROMs.
Rational Agent Controller 6.1.5 CD	One CD-ROM.
Edge Components 6.1 CD	One CD-ROM.
Edge Components for IPv6 6.1 CD	One CD-ROM.
Tivoli Access Manager 6.0 CD	One CD-ROM.
Tivoli Directory Server 6.0 CD	One CD-ROM.
WebSphere Partner Gateway Advanced Edition 6.1 CD	One CD-ROM.
Data Interchange Services 6.0 for Windows CD	One CD-ROM.

The following table shows the 64-bit media included with WebSphere Process Server for Linux POWER.

Table 10. Contents of Linux POWER media pack (64-bit)

Media label	How supplied
WebSphere Process Server V6.1 Disk 1	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Process Server in the WBI directory • Installation Factory in the IF directory • Update Installer in the UpdateInstaller directory • IBM User Interface Help System in the IEHS directory • Messaging Client (Message Service Client for C/C++) in the MsgClients directory • Migration tool in the Migration directory <p>Use the Launchpad application in the root directory to install and view information about any of the installable components on <i>WebSphere Process Server V6.1 Disk 1</i>, <i>WebSphere Application Server Network Deployment Supplements V6.1 CD</i>, and <i>WebSphere Application Server Toolkit V6.1.1 Disk 1 CD</i>, except the IBM Installation Factory, which must be installed by following the procedure in “Installing the IBM Installation Factory” on page 231.</p>
WebSphere Process Server V6.1 Disk 2	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Application Server Network Deployment (version 6.1.0.13) in the WAS directory.
WebSphere Application Server Network Deployment iFix CD	One CD-ROM.
WebSphere Process Server V6.1 DVD	<p>One DVD.</p> <p>The <i>WebSphere Process Server V6.1 DVD</i> includes content equivalent to the <i>WebSphere Process Server V6.1 Disk 1 and Disk 2</i>.</p>

Table 10. Contents of Linux POWER media pack (64-bit) (continued)

Media label	How supplied
WebSphere Application Server Network Deployment Supplements V6.1 CD	One CD-ROM contains the following installable components: <ul style="list-style-type: none"> • IBM HTTP Server • IBM Support Assistant • Web Server Plug-ins • Migration tool
WebSphere Application Server Network Deployment 6.1 CD	One CD-ROM. Version 6.1
DB2 Restricted Enterprise Server Edition 9.1 CD	One CD-ROM.
DB2 National Language Pack 9.1 CD	One CD-ROM.
DB2 Runtime Client 9.1 CD	One CD-ROM.
DB2 Client 9.1 CD	One CD-ROM.
Edge Components 6.1 CD	One CD-ROM.
Edge Components for IPv6 6.1 CD	One CD-ROM.

Linux on System z™ media pack

The following table shows the 31-bit media included with WebSphere Process Server for Linux on System z.

Table 11. Contents of Linux on System z media pack (31-bit)

Media label	How supplied
WebSphere Process Server V6.1 Disk 1	One CD-ROM contains the following installable components: <ul style="list-style-type: none"> • WebSphere Process Server in the WBI directory • Installation Factory in the IF directory • Update Installer in the UpdateInstaller directory • IBM User Interface Help System in the IEHS directory • Messaging Client (Message Service Client for C/C++) in the MsgClients directory • Migration tool in the Migration directory <p>Use the Launchpad application in the root directory to install and view information about any of the installable components on <i>WebSphere Process Server V6.1 Disk 1</i>, <i>WebSphere Application Server Network Deployment Supplements V6.1 CD</i>, and <i>WebSphere Application Server Toolkit V6.1.1 Disk 1 CD</i>, except the IBM Installation Factory, which must be installed by following the procedure in “Installing the IBM Installation Factory” on page 231.</p>
WebSphere Process Server V6.1 Disk 2	One CD-ROM contains the following installable components: <ul style="list-style-type: none"> • WebSphere Application Server Network Deployment (version 6.1.0.13) in the WAS directory.

Table 11. Contents of Linux on System z media pack (31-bit) (continued)

Media label	How supplied
WebSphere Application Server Network Deployment iFix CD	One CD-ROM.
WebSphere Process Server V6.1 DVD	One DVD. The <i>WebSphere Process Server V6.1 DVD</i> includes content equivalent to the <i>WebSphere Process Server V6.1 Disk 1 and Disk 2</i> .
WebSphere Application Server Network Deployment Supplements V6.1 CD	One CD-ROM contains the following installable components: <ul style="list-style-type: none"> • IBM HTTP Server • IBM Support Assistant • Web Server Plug-ins • Migration tool
WebSphere Process Server 6.1 WorldType Fonts Supplements CD	One CD-ROM.
WebSphere Application Server Network Deployment 6.1 CD	One CD-ROM. Version 6.1
Application Server Toolkit 6.1.1 for Windows CD	Two CD-ROMs.
Application Server Toolkit 6.1.1 for Linux on x86 CD	Two CD-ROMs.
Rational Agent Controller 6.1.5 CD	One CD-ROM.
Edge Components 6.1 CD	One CD-ROM.
Tivoli Access Manager 6.0 CD	One CD-ROM.
Tivoli Directory Server 6.0 CD	One CD-ROM.

The following table shows the 64-bit media included with WebSphere Process Server for Linux on System z.

Table 12. Contents of Linux on System z media pack (64-bit)

Media label	How supplied
WebSphere Process Server V6.1 Disk 1	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Process Server in the WBI directory • Installation Factory in the IF directory • Update Installer in the UpdateInstaller directory • IBM User Interface Help System in the IEHS directory • Messaging Client (Message Service Client for C/C++) in the MsgClients directory • Migration tool in the Migration directory <p>Use the Launchpad application in the root directory to install and view information about any of the installable components on <i>WebSphere Process Server V6.1 Disk 1</i>, <i>WebSphere Application Server Network Deployment Supplements V6.1 CD</i>, and <i>WebSphere Application Server Toolkit V6.1.1 Disk 1 CD</i>, except the IBM Installation Factory, which must be installed by following the procedure in “Installing the IBM Installation Factory” on page 231.</p>
WebSphere Process Server V6.1 Disk 2	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Application Server Network Deployment (version 6.1.0.13) in the WAS directory.
WebSphere Application Server Network Deployment iFix CD	One CD-ROM.
WebSphere Process Server V6.1 DVD	<p>One DVD.</p> <p>The <i>WebSphere Process Server V6.1 DVD</i> includes content equivalent to the <i>WebSphere Process Server V6.1 Disk 1 and Disk 2</i>.</p>
WebSphere Application Server Network Deployment Supplements V6.1 CD	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • IBM HTTP Server • IBM Support Assistant • Web Server Plug-ins • Migration tool
WebSphere Application Server Network Deployment 6.1 CD	<p>One CD-ROM.</p> <p>Version 6.1</p>
DB2 Restricted Enterprise Server Edition 9.1 CD	One CD-ROM.
DB2 National Language Pack 9.1 CD	One CD-ROM.
DB2 Runtime Client 9.1 CD	One CD-ROM.
DB2 Client 9.1 CD	One CD-ROM.
Edge Components for IPv6 6.1 CD	One CD-ROM.

Solaris media pack

The following table shows the 32-bit media included with WebSphere Process Server for Solaris.

Table 13. Contents of Solaris media pack (32-bit)

Media label	How supplied
WebSphere Process Server V6.1 Disk 1	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Process Server in the WBI directory • Installation Factory in the IF directory • Update Installer in the UpdateInstaller directory • IBM User Interface Help System in the IEHS directory • Messaging Client (Message Service Client for C/C++) in the MsgClients directory • Migration tool in the Migration directory <p>Use the Launchpad application in the root directory to install and view information about any of the installable components on <i>WebSphere Process Server V6.1 Disk 1</i>, <i>WebSphere Application Server Network Deployment Supplements V6.1 CD</i>, and <i>WebSphere Application Server Toolkit V6.1.1 Disk 1 CD</i>, except the IBM Installation Factory, which must be installed by following the procedure in “Installing the IBM Installation Factory” on page 231.</p>
WebSphere Process Server V6.1 Disk 2	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Application Server Network Deployment (version 6.1.0.13) in the WAS directory.
WebSphere Application Server Network Deployment iFix CD	One CD-ROM.
WebSphere Process Server V6.1 DVD	<p>One DVD.</p> <p>The <i>WebSphere Process Server V6.1 DVD</i> includes content equivalent to the <i>WebSphere Process Server V6.1 Disk 1 and Disk 2</i>.</p>
WebSphere Application Server Network Deployment Supplements V6.1 CD	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • Application Client for WebSphere Application Server • IBM HTTP Server • IBM Support Assistant • Web Server Plug-ins • Migration tool
WebSphere Application Server Network Deployment 6.1 CD	<p>One CD-ROM.</p> <p>Version 6.1</p>
Application Server Toolkit 6.1.1 for Windows CD	Two CD-ROMs.
Application Server Toolkit 6.1.1 for Linux on x86 CD	Two CD-ROMs.
Rational Agent Controller 6.1.5 CD	One CD-ROM.

Table 13. Contents of Solaris media pack (32-bit) (continued)

Media label	How supplied
Edge Components 6.1 CD	One CD-ROM.
Edge Components for IPV6 6.1 CD	One CD-ROM.
Tivoli Access Manager 6.0 CD	One CD-ROM.
Tivoli Directory Server 6.0 CD	One CD-ROM.
WebSphere Partner Gateway Advanced Edition 6.1 CD	One CD-ROM.
Data Interchange Services 6.0 for Windows CD	One CD-ROM.

The following table shows the 64-bit media included with WebSphere Process Server for Solaris SPARC.

Table 14. Contents of Solaris SPARC media pack (64-bit)

Media label	How supplied
WebSphere Process Server V6.1 Disk 1	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Process Server in the WBI directory • Installation Factory in the IF directory • Update Installer in the UpdateInstaller directory • IBM User Interface Help System in the IEHS directory • Messaging Client (Message Service Client for C/C++) in the MsgClients directory • Migration tool in the Migration directory <p>Use the Launchpad application in the root directory to install and view information about any of the installable components on <i>WebSphere Process Server V6.1 Disk 1</i>, <i>WebSphere Application Server Network Deployment Supplements V6.1 CD</i>, and <i>WebSphere Application Server Toolkit V6.1.1 Disk 1 CD</i>, except the IBM Installation Factory, which must be installed by following the procedure in “Installing the IBM Installation Factory” on page 231.</p>
WebSphere Process Server V6.1 Disk 2	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Application Server Network Deployment (version 6.1.0.13) in the WAS directory.
WebSphere Process Server V6.1 DVD	<p>One DVD.</p> <p>The <i>WebSphere Process Server V6.1 DVD</i> includes content equivalent to the <i>WebSphere Process Server V6.1 Disk 1 and Disk 2</i>.</p>
WebSphere Application Server Network Deployment Supplements V6.1 CD	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • IBM HTTP Server • IBM Support Assistant • Web Server Plug-ins • Migration tool

Table 14. Contents of Solaris SPARC media pack (64-bit) (continued)

Media label	How supplied
WebSphere Application Server Network Deployment 6.1 CD	One CD-ROM. Version 6.1
DB2 Restricted Enterprise Server Edition 9.1 CD	One CD-ROM.
DB2 National Language Pack 9.1 CD	One CD-ROM.
DB2 Runtime Client 9.1 CD	One CD-ROM.
DB2 Client 9.1 CD	One CD-ROM.

The following table shows the 64-bit media included with WebSphere Process Server for Solaris x86.

Table 15. Contents of Solaris x86 media pack (64-bit)

Media label	How supplied
WebSphere Process Server V6.1 Disk 1	One CD-ROM contains the following installable components: <ul style="list-style-type: none"> • WebSphere Process Server in the WBI directory • Installation Factory in the IF directory • Update Installer in the UpdateInstaller directory • IBM User Interface Help System in the IEHS directory • Messaging Client (Message Service Client for C/C++) in the MsgClients directory • Migration tool in the Migration directory <p>Use the Launchpad application in the root directory to install and view information about any of the installable components on <i>WebSphere Process Server V6.1 Disk 1</i>, <i>WebSphere Application Server Network Deployment Supplements V6.1 CD</i>, and <i>WebSphere Application Server Toolkit V6.1.1 Disk 1 CD</i>, except the IBM Installation Factory, which must be installed by following the procedure in “Installing the IBM Installation Factory” on page 231.</p>
WebSphere Process Server V6.1 Disk 2	One CD-ROM contains the following installable components: <ul style="list-style-type: none"> • WebSphere Application Server Network Deployment (version 6.1.0.13) in the WAS directory.
WebSphere Application Server Network Deployment iFix CD	One CD-ROM.
WebSphere Process Server V6.1 DVD	One DVD. The <i>WebSphere Process Server V6.1 DVD</i> includes content equivalent to the <i>WebSphere Process Server V6.1 Disk 1 and Disk 2</i> .

Table 15. Contents of Solaris x86 media pack (64-bit) (continued)

Media label	How supplied
WebSphere Application Server Network Deployment Supplements V6.1 CD	One CD-ROM contains the following installable components: <ul style="list-style-type: none"> • IBM HTTP Server • IBM Support Assistant • Web Server Plug-ins • Migration tool
WebSphere Application Server Network Deployment 6.1 CD	One CD-ROM. Version 6.1
Edge Components 6.1 CD	One CD-ROM.
DB2 Restricted Enterprise Server Edition 9.1 CD	One CD-ROM.
DB2 National Language Pack 9.1 CD	One CD-ROM.
DB2 Runtime Client 9.1 CD	One CD-ROM.
DB2 Client 9.1 CD	One CD-ROM.

Windows media pack

The following table shows the 32-bit media included with WebSphere Process Server for Windows.

Table 16. Contents of Windows media pack (32-bit)

Media label	How supplied
WebSphere Process Server V6.1 Disk 1	One CD-ROM contains the following installable components: <ul style="list-style-type: none"> • WebSphere Process Server in the WBI directory • Installation Factory in the IF directory • Update Installer in the UpdateInstaller directory • IBM User Interface Help System in the IEHS directory • Messaging Client (Message Service Client for C/C++ and Message Service Client for .NET) in the MsgClients directory • Migration tool in the Migration directory <p>Use the Launchpad application in the root directory to install and view information about any of the installable components on <i>WebSphere Process Server V6.1 Disk 1</i>, <i>WebSphere Application Server Network Deployment Supplements V6.1 CD</i>, and <i>WebSphere Application Server Toolkit V6.1.1 Disk 1 CD</i>, except the IBM Installation Factory, which must be installed by following the procedure in “Installing the IBM Installation Factory” on page 231.</p>
WebSphere Process Server V6.1 Disk 2	One CD-ROM contains the following installable components: <ul style="list-style-type: none"> • WebSphere Application Server Network Deployment (version 6.1.0.13) in the WAS directory.

Table 16. Contents of Windows media pack (32-bit) (continued)

Media label	How supplied
WebSphere Application Server Network Deployment iFix CD	One CD-ROM.
WebSphere Process Server V6.1 DVD	One DVD. The <i>WebSphere Process Server V6.1 DVD</i> includes content equivalent to the <i>WebSphere Process Server V6.1 Disk 1 and Disk 2</i> .
WebSphere Application Server Network Deployment Supplements V6.1 CD	One CD-ROM contains the following installable components: <ul style="list-style-type: none"> • Application Client for WebSphere Application Server • IBM HTTP Server • IBM Support Assistant • Web Server Plug-ins • Migration tool
WebSphere Application Server Network Deployment 6.1 CD	One CD-ROM. Version 6.1
Application Server Toolkit 6.1.1 for Windows CD	Two CD-ROMs.
Application Server Toolkit 6.1.1 for Linux on x86 CD	Two CD-ROMs.
Rational Agent Controller 6.1.5 CD	One CD-ROM.
Edge Components 6.1 CD	One CD-ROM.
Edge Components for IPv6 6.1 CD	One CD-ROM.
Tivoli Access Manager 6.0 CD	One CD-ROM.
Tivoli Directory Server 6.0 CD	One CD-ROM.
DB2 Restricted Enterprise Server Edition 9.1 CD	One CD-ROM.
DB2 Runtime Client 9.1 CD	Three CD-ROMs.
DB2 Client 9.1 CD	One CD-ROM.
WebSphere Partner Gateway Advanced Edition 6.1 CD	One CD-ROM.
Data Interchange Services 6.0 for Windows CD	One CD-ROM.

The following table shows the 64-bit media included with WebSphere Process Server for Windows.

Table 17. Contents of Windows media pack (64-bit)

Media label	How supplied
WebSphere Process Server V6.1 Disk 1	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Process Server in the WBI directory • Installation Factory in the IF directory • Update Installer in the UpdateInstaller directory • IBM User Interface Help System in the IEHS directory • Migration tool in the Migration directory <p>Use the Launchpad application in the root directory to install and view information about any of the installable components on <i>WebSphere Process Server V6.1 Disk 1</i>, <i>WebSphere Application Server Network Deployment Supplements V6.1 CD</i>, and <i>WebSphere Application Server Toolkit V6.1.1 Disk 1 CD</i>, except the IBM Installation Factory, which must be installed by following the procedure in “Installing the IBM Installation Factory” on page 231.</p>
WebSphere Process Server V6.1 Disk 2	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • WebSphere Application Server Network Deployment (version 6.1.0.13) in the WAS directory.
WebSphere Application Server Network Deployment iFix CD	One CD-ROM.
WebSphere Process Server V6.1 DVD	<p>One DVD.</p> <p>The <i>WebSphere Process Server V6.1 DVD</i> includes content equivalent to the <i>WebSphere Process Server V6.1 Disk 1 and Disk 2</i>.</p>
WebSphere Application Server Network Deployment Supplements V6.1 CD	<p>One CD-ROM contains the following installable components:</p> <ul style="list-style-type: none"> • IBM HTTP Server • IBM Support Assistant • Web Server Plug-ins • Migration tool
WebSphere Application Server Network Deployment 6.1 CD	<p>One CD-ROM.</p> <p>Version 6.1</p>
Edge Components 6.1 CD	One CD-ROM.
Edge Components for IPv6 6.1 CD	One CD-ROM.
DB2 Restricted Enterprise Server Edition 9.1 CD	One CD-ROM.
DB2 Runtime Client 9.1 CD	Three CD-ROMs.
DB2 Client 9.1 CD	One CD-ROM.

Chapter 3. Installing the documentation

You can install the IBM WebSphere Process Server Help System on your system from the product installation launchpad.

Before you begin

Note: i5/OS **On i5/OS platforms:** The WebSphere Process Server Help System must be installed on a Windows client.

The installation wizard for the IBM WebSphere Process Server Help System requires a working Internet connection to download documentation. Without an Internet connection, the installation wizard stops and asks you to connect your computer and restart the installation process.

About this task

Product documentation is available in the IBM WebSphere Process Server Help System, which you can install from the product installation launchpad. The IBM WebSphere Process Server Help System installation wizard guides you through the installation of documentation into an existing help system, if you have one, and can also install a new help system.

Procedure

1. Start the installation wizard by clicking **IBM WebSphere Process Server Help System** on the WebSphere Process Server launchpad welcome page and then clicking **Launch the installation wizard for IBM WebSphere Process Server Help System** on the IBM WebSphere Process Server Help System Installation panel.
2. On the IBM WebSphere Process Server Help System Installation Wizard welcome panel, click **Next**.
3. At the installation wizard panel that asks if you want to install the documentation into an existing help system, select one of the following options and click **Next**.

Option	Description
Create a new installation	If you have not installed the IBM WebSphere Process Server Help System, follow the instructions in "Installing a new help system" on page 32.
Search for an existing installation	If you have already installed the IBM WebSphere Process Server Help System, you can install the documentation into that help system as a set of document plug-ins. <ul style="list-style-type: none">• Accept the default directory for the installation wizard to search for existing documentation, and click Next.• If existing documentation is found, follow the instructions in "Installing the documentation in an existing help system" on page 33 to use the update function to install new documentation.

What to do next

After you have installed the IBM WebSphere Process Server Help System, you can open that help system to view product documentation.

Installing a new help system

If you have not installed the IBM WebSphere Process Server Help System before, you can install it from the WebSphere Process Server launchpad.

Before you begin

Follow the steps in Chapter 3, “Installing the documentation,” on page 31 to start the IBM WebSphere Process Server Help System Installation Wizard.

Procedure

1. Choose the root directory for the IBM WebSphere Process Server Help System in the Installation location panel.

Option	Description
Click Next to confirm the default location.	The default installation location for an installation by a root user is: <ul style="list-style-type: none">• AIX On AIX platforms: /user/IBM/WebSphere/ProcServerDocs• HP-UX Solaris On HP-UX and Solaris platforms: /opt/IBM/WebSphere/ProcServerDocs• Linux On Linux platforms: /opt/ibm/WebSphere/ProcServerDocs• Windows On Windows platforms:C:\Program Files\IBM\WebSphere\ProcServerDocs
Click Browse to specify a different directory.	The installation wizard displays a file browser with which you can select an alternative directory in which to install the help system.

The IBM WebSphere Process Server Help System Installation Wizard installs the IBM User Interface Help System Built on Eclipse help viewer and displays a list of available documentation from the server.

2. Select the check box for the documentation that you want to install and click **Next**.
3. Click **Next** to confirm the list of items to be installed. The Installation Summary panel lists the help system as the product and the sets of English and translated documentation as features. Documentation in English is always installed by default, in addition to whatever other language sets you choose. The installation wizard installs the help system.
4. Click **Finish** to complete the installation.

What to do next

You can view the documentation by starting the help system.

Installing the documentation in an existing help system

If you have already installed the IBM WebSphere Process Server Help System, you can use the update function in the help system itself to install into and view product documentation within that help system.

Before you begin

Installing documentation into the IBM WebSphere Process Server Help System requires a working Internet connection to download documentation. Also, the IBM WebSphere Process Server Help System installation wizard must have found a compatible help system on your system. See *Installing the documentation in other Eclipse-based help viewers* for information about installing documentation in help viewers that are not the WebSphere Process Server Help System.

About this task

Only previously installed copies of the IBM WebSphere Process Server Help System can be used. Earlier versions of the IBM User Interface Help System Built on Eclipse and Eclipse-based help viewers do not have the update function that initiates installation of the product documentation and will not be found by the installation wizard in its search.

Procedure

1. Cancel the IBM WebSphere Process Server Help System installation wizard if you haven't already and follow the instructions here to install product documentation from within the help system itself.
2. Follow instructions in *Starting the help system viewer* to start the IBM WebSphere Process Server help system.
3. Click the **Update** icon in the help system toolbar and click **Find Updates** at the bottom of the Installed documentation list. The help system goes to the IBM Help System server and returns a list of documentation sets to install. These sets include product documentation in different languages and can also include documentation sets for different products.
4. Select the check box for the documentation that you want to install.
5. Click **Install Updates** to confirm the documentation to be installed. The IBM WebSphere Process Server Help System installs the selected documentation.

What to do next

You can view the newly installed documentation by stopping and then restarting the help system.

Installing the documentation in other Eclipse-based help viewers

If you are using an Eclipse-based help viewer and want to make WebSphere Process Server documentation available for viewing there, you can configure your viewer to view the documentation.

Before you begin

Installing documentation into an Eclipse-based help viewer requires a working Internet connection to download documentation. Your Eclipse-based help viewer must also be version 3.1.0 or higher.

About this task


The IBM WebSphere Process Server Help System is specially configured to documentation from the IBM Help System server. But you can configure other Eclipse-based help viewer to work with the server as well.

Procedure

1. Go to the plugins directory of your Eclipse-based help viewer.
2. Within that plugins directory, find the Eclipse "webapp" plugin directory, which is typically named org.eclipse.help.webapp_<version>. For example, the 3.1.0 version of the Eclipse webapp plugin folder is named org.eclipse.help.webapp_3.1.0.
3. In that plugin folder, open the file bookmarks.xml for editing.
4. Add or change the values of the site element attributes:

Option	Description
name (optional)	IBM Help System server
url	http://publib.boulder.ibm.com/dmndhelp/downloads/

```
<?xml version="1.0" encoding="UTF-8"?>
<bookmarks>
  <site name="IBM Help System server"
    url="http://publib.boulder.ibm.com/dmndhelp/downloads/" />
</bookmarks>
```

5. Start the help system in stand-alone mode. (If the help system is already running, you need to stop it before restarting.)
6. Click the Update button () in the toolbar at the upper right of the browsing window. The help viewer displays a list of currently installed documentation. For example:

Installed documentation

- + IEHS information center document version 3.1.1
- + IEHS help system document version 3.1.1

[Find Updates]

7. Click Find Updates to access the IBM Help System server. The help viewer displays a list of available updates. For example:

Select updates you want to install

Updates for existing documentation

No updates for existing documentation

New documentation

- + WebSphere Process Server, English documentation version 6.1.0
- + WebSphere Enterprise Service Bus, English documentation version 6.1.0
- + WebSphere Integration Developer documentation in English version 6.1.0

[Install Updates]

8. Select the documentation you want to install. If you have not already installed WebSphere Process Server documentation, that documentation set will be listed in the New documentation section.

9. Click **Install Updates**. The help viewer displays its progress as it downloads the documentation set from the server. The help viewer displays a list of the successfully installed documentation.
10. Click **Finish** to complete the installation process and restart the help viewer.

What to do next

You can view the newly installed documentation in your help system.

Starting the help system viewer

Use command files on your computer to start the help system and display its contents in your Web browser.

Procedure

1. Go to the directory into which you installed the WebSphere Help System.
2. Start the appropriate script in that directory:
 - **Linux** **UNIX** **On Linux and UNIX platforms:** help_start.sh
 - **Windows** **On Windows platforms:** help_start.bat

It might take a few minutes for the system to start and the document plug-ins to be displayed the first time you start it.

Results

The help system displays the product documentation in your Web browser.

Stopping the help system viewer

Use command files on your computer to start and stop the help system and display its contents in your Web browser.

Procedure

1. Go to the directory into which you installed the WebSphere Help System.
2. Start the appropriate script in that directory:
 - **Linux** **UNIX** **On Linux and UNIX platforms:** help_end.sh
 - **Windows** **On Windows platforms:** help_end.bat

It might take a minute for the system to end.

Uninstalling the documentation

You can use the uninstallation wizard for the IBM WebSphere Process Server Help System to completely uninstall the Help System and all of the documentation within it from your local system.

Before you begin

The uninstallation wizard for the IBM WebSphere Process Server Help System requires a working Internet connection.

Procedure

1. Go to the directory into which you installed the help system, open the uninstall subdirectory, and start the uninstaller script.
2. On the welcome panel for the uninstallation wizard, click **Next**.
3. On the summary panel, click **Next** to verify that the displayed help system is the one that you want to remove. The wizard displays a progress panel while it removes the help system.
4. On the Uninstallation complete panel, click **Finish** to verify the uninstallation and exit the wizard.

Chapter 4. Prerequisites for installing WebSphere Process Server

Before installing WebSphere Process Server or the WebSphere Process Server Client, you must ensure that a series of prerequisites have been met.

The prerequisites are:

- Plan your installation.
For more information about planning your installation and on the databases required by WebSphere Process Server, see the topics under Planning for WebSphere Process Server.
- Ensure that your system meets all hardware and software requirements, and that you have enough space (including temporary space) for your installation. See <http://www.ibm.com/support/docview.wss?uid=swg27006205> for more information.

Note: While installing on top of WebSphere Application Server customized installation package (CIP) or WebSphere Application Server Network Deployment CIP at maintenance level 6.1.0.13 an error message will be displayed (or be logged to the log file during silent installations) if the 6.1.0.13-WS-WAS-IFPK56164 interim fix has not been installed.

To resolve this problem, use the IBM Update Installer for WebSphere Software that can be found on CD 1, the DVD or the ESD image of this product to install the 6.1.0.13-WS-WAS-IFPK56164 interim fix on your WebSphere Application Server V6.1.0.13 or WebSphere Application Server Network Deployment V6.1.0.13 installation. The 6.1.0.13-WS-WAS-IFPK56164 interim fix is available on an additional CD or ESD image of this product.

Once the interim fix has been applied, you can install WebSphere Process Server or WebSphere Process Server Client on the existing WebSphere Application Server or WebSphere Application Network Deployment installation.

If your WebSphere Application Server or WebSphere Application Server Network Deployment installation is at any other fix level this additional step is not necessary.

- Prepare your operating system for installation. See Chapter 5, “Preparing the operating system for installation,” on page 41 for links to platform-specific information.
- If you plan to install from images obtained from Passport Advantage, see “Special considerations when installing from Passport Advantage” on page 334 for guidelines concerning user permissions and directory setup.
- If you plan to use DB2 Universal Database™, you must perform the following steps before installing:
 - Ensure you have the DB2 license file that is on the installation disk. You must register the DB2 product license key. For instructions on registering this key, see “Registering the DB2 product license key using the db2licm command” on page 38.
 - If you are configuring a DB2 database on a DB2 client with the server on a remote system, make sure the client system is configured to communicate

with the server and that the DB2 node is cataloged. For more information, refer to the DB2 Universal Database documentation.

- **Linux** **UNIX** **On Linux and UNIX platforms:** If you are configuring a DB2 database on a Linux or UNIX system, source the database environment by performing the following steps:
 1. Modify `/etc/group` and make sure the user ID that installed the product is in the same group as the `db2instance`.
 2. Source the database environment by running the `db2instance/sqllib/db2profile` script (replace `db2instance` with the name of your database instance).
- Stop all server, deployment manager, and node agent processes on any products for which you intend to add features, or that you plan to extend. For instructions on how to perform these tasks, see Chapter 6, “Stopping servers and nodes,” on page 65.
- Uninstall all maintenance packages on products you intend to add features to or that you plan to extend. Start the Update Installer program with the `updi_root/update` command to search for and uninstall all maintenance packages. Do this because features and components necessary to convert the products have not had any maintenance applied to them. If you remove all maintenance packages, your entire product will be at the same release level. You can then reapply the maintenance packages.
- **Linux** **On Linux platforms:** Ensure that your WebSphere Process Server installation has the following items:
 - Kernel and C runtime library
 - Current® and all compatibility versions of the C++ runtime library
 - X Window libraries and runtime
 - GTK runtime libraries

If the prerequisites are satisfied, you are ready to install the product.

Registering the DB2 product license key using the `db2licm` command

The DB2 product supplied with WebSphere Process Server uses license key information contained in the `nodelock` file. The `nodelock` file is created or updated by running the `db2licm` command and specifying the license file for the DB2 product. Creating or updating the `nodelock` file is referred to as registering the DB2 product license key. You must register the DB2 product license key by running the `db2licm` command on each computer where DB2 is installed.

About this task

Important: **i5/OS** **On i5/OS platforms:** If you plan to use the DB2 product (not DB2 UDB for iSeries®) as a remote database on an i5/OS system, you must register the DB2 product license key on the system where the remote database resides.

The license file is named `db2ese_o.lic` and is located in the `/db2/license` directory on *WebSphere Process Server V6.1 Disk 1* or *WebSphere Process Server V6.1 DVD*, and on downloaded installation images. If you want the product license key added automatically during the installation of DB2, you need to copy the license key to the `/db2/license` directory of the installation image before launching the DB2 Setup wizard.

Linux **UNIX** **On Linux and UNIX platforms:** The instance owner must have read and write privileges on the directory where the license files are located.

To register a DB2 product license key as the instance owner, perform the following steps:

Procedure

1. Create the instance environment and become the instance owner.
2. Register the DB2 license with the appropriate command. The variable *db2instance_path* is where the DB2 instance was created and *fullpath* is the full path of the license file:
 - **Linux** **UNIX** **On Linux and UNIX platforms:** *db2instance_path/adm/db2licm -a full path/db2ese_o.lic*
 - **Windows** **On Windows platforms:** *db2instance_path\bin\db2licm -a full path\db2ese_o.lic*

Results

The DB2 product license key information is contained in the nodelock file in the following directories:

- **AIX** **On AIX platforms:** */var/ifor*
- **HP-UX** **Linux** **Solaris** **On HP-UX, Linux, and Solaris platforms:** */var/lum*
- **Windows** **On Windows platforms:** *DB2PATH/sql/lib/license*

Chapter 5. Preparing the operating system for installation

The installation requirements for WebSphere Process Server vary depending on the operating system. You must prepare your operating system before installing WebSphere Process Server.

Preparing the operating system involves such changes as allocating disk space and installing patches to the operating system. IBM tests products on each operating system platform. Such tests verify whether an operating system change is required for the product to run correctly. Without the required changes the products do not run correctly.

Before preparing your installation environment, review the topics in Planning for WebSphere Process Server to determine how to set up your system. Then see the specific instructions for your operating system in this section.

Preparing AIX systems for installation

Learn how to prepare an AIX system for the installation of WebSphere Process Server.

Before you begin

The installation uses an InstallShield MultiPlatform (ISMP) wizard. You can also install the product silently. Silent mode is invoked at a command line with a parameter that identifies a response file, which you edit before installing.

Restriction: The Profile Management Tool is an Eclipse-based application and there are known issues with using Cygwin/X to run Eclipse-based applications on remote AIX machines. This affects your use of the Profile Management Tool and the Installation Factory. With Cygwin/X on remote AIX, for example, a splash screen for the Profile Management Tool appears but the Profile Management Tool never actually comes up. For details of existing Bugzilla reports on these issues, see the information at https://bugs.eclipse.org/bugs/show_bug.cgi?id=36806. If a different X server (such as Hummingbird Exceed) is used, these problems do not occur.

About this task

Use the following procedure to prepare the operating system for installation of WebSphere Process Server.

Procedure

1. Optional: Install the Mozilla browser if it is not already installed. The Mozilla browser supports the launchpad console. Use SMIT to identify whether the Mozilla 1.4 or 1.7 or later package is already installed. If it is not already installed, complete the following procedure:
 - a. Download two prerequisites from the AIX Toolbox for Linux Applications: `glib-1.2.10-2.aix4.3.ppc.rpm` and `gtkplus-1.2.10-4.aix5.1.ppc.rpm`. Download the packages from the following locations:
 - `glib-1.2.10-2.aix4.3.ppc.rpm`
 - `gtkplus-1.2.10-4.aix5.1.ppc.rpm`

- b. Install the packages after downloading them. Use the following command:

```
rpm -Uvh glib-1.2.10-2.aix4.3.ppc.rpm gtkplus-1.2.10-4.aix5.1.ppc.rpm
```
- c. Download the latest supported version of Mozilla (1.7.13 or later) for AIX. Download Mozilla for AIX from the following location:
<http://www.ibm.com/servers/aix/browsers/>.
Download the installp image and install it from SMIT.

Important: IBM has not tested and does not support the Mozilla images distributed on the <http://www.mozilla.org> Web site. Download the Mozilla images from the downloads Web site at <http://www14.software.ibm.com/webapp/download/search.jsp?go=y&rs=mozilla> to ensure that the version that you download is tested and supported. Using Mozilla 1.7.5 or earlier can result in ISMP failing to initialize during installation. The launchpad link might seem to fail, for example. See V6.0.2: The WebSphere Application Server launchpad fails with Mozilla 1.7.5 (and earlier) on 64-bit AIX 5.2 or 5.3 for more information.

2. Optional: Export the location of the supported browser.
Export the location of the supported browser using a command that identifies the location of the browser.
For example, if the Mozilla package is in the `/usr/bin/mozilla` directory, use the following command:

```
export BROWSER=/usr/bin/mozilla
```
3. Optional: **For silent installation only:** Allow for a known ISMP problem that causes a call to the X Window service during a silent installation.
The `DISPLAY` environment variable on your AIX workstation might point to an X Server that is not logged in. Two common scenarios can cause this to occur:
 - Your AIX workstation has an X Server running, but the X Server is stuck at the graphical login screen because you have not yet logged in.
 - Your AIX workstation is configured to display X Window applications on a remote X Server that is not logged in.A silent installation can hang in either case as ISMP calls X Window services. Two solutions exist:
 - Log in to the local X Server through the graphical user interface before beginning the silent installation.
 - Export the `DISPLAY` environment variable to point to null or blank, as shown in the following example:

```
export DISPLAY=null
```
4. Log on to the system. Your user ID does not have to have root privileges.
5. Select a `umask` that allows the owner to read and write to the files, and allows others to access them according to the prevailing system policy. For root users, a `umask` of `022` is recommended. For non-root users, a `umask` of `002` or `022` can be used, depending on whether the users share the group.
To verify the `umask` setting, issue the following command:

```
umask
```


To set the `umask` setting to `022`, issue the following command:

```
umask 022
```

6. Stop all Java processes that are related to WebSphere Application Server, WebSphere Application Server Network Deployment, WebSphere Process Server or WebSphere Enterprise Service Bus, on the workstation on which you are installing the product.
7. Stop any Web server process such as the IBM HTTP Server.
8. Use the System Management Interface Tool (SMIT) to display packages that are installed to determine whether you must update packages that are described in the following steps.
9. Download the most current version of the Info-ZIP product to avoid problems with zipped files. Download a current version of the Info-ZIP package from the <http://www.info-zip.org> Web site.
10. Install the prerequisite xLC.rte 6.0 runtime code on AIX 5.2 maintenance level 10. You must install the xLC.rte 6.0 runtime code before you install the Global Security Kit (GSKit). The GSKit is installed as part of the installation of the IBM HTTP Server or as part of the installation of Web server plug-ins for WebSphere Application Server. Download the xLC.rte runtime code as a fix from the AIX Support site at AIX Support site. If you have AIX 5.2, you can install the xLC.rte 6.0 runtime code from the AIX 5.2 CD.
11. Provide adequate disk space. For the space required to install WebSphere Process Server and related products, see WebSphere Process Server detailed system requirements at <http://www.ibm.com/support/docview.wss?uid=swg27006205> and select the link to your version of the product.

With the JFS file system on AIX, you can allocate expansion space for directories. If the installation wizard does not have enough space, ISMP issues a system call for more space that increases the space allocation dynamically. The message you might see when this occurs for the /usr directory is similar to the following example:

NOTE: The following file systems will be expanded during the installation:
/usr

Manually verify that the required space for creating a profile is available on AIX. A known problem in the underlying ISMP code prevents proper space checking on AIX systems.

12. Unmount file systems with broken links to avoid java.lang.NullPointerException errors.

Installation can fail with the following error when broken links to file systems exist:

```
An error occurred during wizard bean change notification:
java.lang.NullPointerException
  at com.ibm.wizard.platform.aix.AixFileUtils.
    getFileSystemData(AixFileUtils.java:388)
  at com.ibm.wizard.platform.aix.AixFileUtils.
    getPartitionDataWithExecs(AixFileUtils.java:172)
  at com.ibm.wizard.platform.aix.AixFileUtils.
    getPartitionData(AixFileUtils.java:104)
  at com.ibm.wizard.platform.aix.AixFileServiceImpl.
    getPartitionNames(AixFileServiceImpl.java:397)
...
```

Use the following procedure to identify and unmount problematic file systems:

- a. Use the **df -k** command to check for broken links to file systems. Look for file systems that list blank values in the 1024-blocks column. Entries with a value of "-" (dash) are not a problem. The following example shows that

problems exist with the `iw031864:/cdrom/db2_v91_aix53` file system and possibly with the `/dev/lv00` file system. The `/proc` file system is not a problem.

```
> df -k
Filesystem      1024-blocks      Free %Used    Iused %Iused Mounted on
/dev/hd4         1048576         447924  58%      2497    1% /
/dev/hd3         4259840        2835816  34%       484    1% /tmp
/proc            -                -        -         -      - /proc
/dev/lv01        2097152         229276  90%      3982    1% /storage
/dev/lv00
/dev/hd2         2097152         458632  79%     42910    9% /usr
iw031864:/cdrom/db2_v91_aix53
```

- b. First, unmount any file systems that show definite problems, such as the `iw031864:/cdrom/db2_v91_aix53` file system in the example. To do this, use one of the following commands:

```
> umount /cdrom/db2_v91_aix53
> umount /cdrom
```

- c. Start the installation again.
- d. If the problem continues, unmount any file systems that have blank values, such as the `/dev/lv00` file system in the example.
- e. If you cannot solve the problem by unmounting file systems with broken links, reboot the workstation and start the installation again.

13. Verify that prerequisites and corequisites are at the required release levels.

Although the installation wizard checks for prerequisite operating system patches, review the prerequisite supported hardware and software for WebSphere Process Server if you have not already done so. To access this information, see WebSphere Process Server detailed system requirements at <http://www.ibm.com/support/docview.wss?uid=swg27006205> and select the link to your version of WebSphere Process Server.

Refer to the documentation for non-IBM prerequisite and corequisite products to learn how to migrate to their supported versions.

14. Verify that the system `cp` command is used, rather than the `cp` command provided by emacs or other freeware.

If you install the product using a `cp` command that is part of a freeware package, rather than with the system `cp` command, the installation might appear to complete successfully, but the Java 2 SDK that the product installs might have missing files in the `install_root/java` directory (where `install_root` represents the installation directory of WebSphere Process Server).

Missing files can destroy required symbolic links. You must remove the freeware `cp` command from the `PATH` in order to install the WebSphere Process Server product successfully.

If you have emacs or other freeware installed on your operating system, perform the following steps to identify which `cp` command is being used by the system, and to deactivate the freeware `cp` command if it is being used:

- a. Type `which cp` at the command prompt before running the installation program for the WebSphere Process Server product.
- b. If the resulting directory output includes freeware, remove the freeware directory from your `PATH`. For example, if the output is similar to `.../freeware/bin/cp`, remove the directory from the `PATH`.
- c. After you install WebSphere Process Server, add the freeware directory back to the `PATH`.

15. Verify that the Java 2 SDK on your copies of the product discs is functioning correctly.

If you created your own product CDs by copying the product CDs or DVD, or if you created your own DVD from the electronic download image, perform the following steps to verify that the Java 2 SDK is working correctly:

- a. On your created product disc for *WebSphere Process Server V6.1 Disk 1* or *WebSphere Process Server V6.1 DVD*, navigate to the `/JDK/jre.pak/repository/package.java.jre/java/jre/bin` directory. To do this, issue the following command:

```
cd /JDK/jre.pak/repository/package.java.jre/java/jre/bin
```

- b. Verify the Java 2 SDK version. To do this, issue the following command:
`./java -version`

The command completes successfully with no errors when the Java 2 SDK is intact.

- c. Repeat this procedure on all other created product discs.

Results

This procedure prepares the operating system for installation of WebSphere Process Server.

What to do next

After preparing the operating system, you can install WebSphere Process Server. See Chapter 7, “Installing the software,” on page 67 for descriptions of the various installation alternatives available.

Preparing HP-UX systems for installation

Learn how to prepare an HP-UX system for the installation of WebSphere Process Server.

Before you begin

The installation uses an InstallShield MultiPlatform (ISMP) wizard. You can also install the product silently. Silent mode is invoked at a command line with a parameter that identifies a response file, which you edit before installing.

Restriction: The Profile Management Tool is an Eclipse-based application and there are known issues with using Cygwin/X to run Eclipse-based applications on remote HP-UX machines. This affects your use of the Profile Management Tool and the Installation Factory. For details of existing Bugzilla reports on these issues, see the information at https://bugs.eclipse.org/bugs/show_bug.cgi?id=36806. If a different X server (such as Hummingbird Exceed) is used, these problems do not occur.

About this task

Use the following procedure to prepare the operating system for installation of WebSphere Process Server.

Procedure

1. Log on to the system. Your user ID does not have to have root privileges.

2. Select a umask that allows the owner to read and write to the files, and allows others to access them according to the prevailing system policy. For root users, a umask of 022 is recommended. For non-root users, a umask of 002 or 022 can be used, depending on whether the users share the group.

To verify the umask setting, issue the following command:

```
umask
```

To set the umask setting to 022, issue the following command:

```
umask 022
```

3. Optional: Install the Mozilla browser if it is not already installed. The Mozilla browser supports the launchpad console.
Download and install the Mozilla browser from <http://www.mozilla.org>.
4. Optional: Export the location of the supported browser.
Export the location of the supported browser using a command that identifies the location of the browser.
For example, if the Mozilla package is in the `/usr/bin/mozilla` directory, use the following command:

```
export BROWSER=/usr/bin/mozilla
```
5. Stop all Java processes related to WebSphere Application Server, WebSphere Application Server Network Deployment, WebSphere Process Server, or WebSphere Enterprise Service Bus on the workstation on which you are installing the product.
6. Stop any Web server process such as the IBM HTTP Server.
7. Provide adequate disk space. For the space required to install WebSphere Process Server and related products, see WebSphere Process Server detailed system requirements at <http://www.ibm.com/support/docview.wss?uid=swg27006205> and select the link to your version of the product.
8. Set kernel values to support WebSphere Process Server.
Several HP-UX kernel values are typically too small for the product. See “Setting kernel values on HP-UX systems” on page 47 for instructions on how to set kernel values.
9. Verify that prerequisites and corequisites are at the required release levels.
Although the installation wizard checks for prerequisite operating system patches, review the prerequisite supported hardware and software for WebSphere Process Server if you have not already done so. To access this information, see WebSphere Process Server detailed system requirements at <http://www.ibm.com/support/docview.wss?uid=swg27006205> and select the link to your version of WebSphere Process Server.
Refer to the documentation for non-IBM prerequisite and corequisite products to learn how to migrate to their supported versions.
10. Verify that the system `cp` command is used, rather than the `cp` command provided by emacs or other freeware.
If you install the product using a `cp` command that is part of a freeware package, rather than with the system `cp` command, the installation might appear to complete successfully, but the Java 2 SDK that the product installs might have missing files in the `install_root/java` directory (where `install_root` represents the installation directory of WebSphere Process Server).
Missing files can destroy required symbolic links. You must remove the freeware `cp` command from the `PATH` in order to install the WebSphere Process Server product successfully.

If you have emacs or other freeware installed on your operating system, perform the following steps to identify which **cp** command is being used by the system, and to deactivate the freeware **cp** command if it is being used:

- a. Type which cp at the command prompt before running the installation program for the WebSphere Process Server product.
 - b. If the resulting directory output includes freeware, remove the freeware directory from your PATH. For example, if the output is similar to `.../freeware/bin/cp`, remove the directory from the PATH.
 - c. After you install WebSphere Process Server, add the freeware directory back to the PATH.
11. Verify that the Java 2 SDK on your copies of the product discs is functioning correctly.

If you created your own product CDs by copying the product CDs or DVD, or if you created your own DVD from the electronic download image, perform the following steps to verify that the Java 2 SDK is working correctly:

- a. On your created product disc for *WebSphere Process Server V6.1 Disk 1* or *WebSphere Process Server V6.1 DVD*, navigate to the `/JDK/jre.pak/repository/package.java.jre/java/jre/bin` directory. To do this, issue the following command:

```
cd /JDK/jre.pak/repository/package.java.jre/java/jre/bin
```

- b. Verify the Java 2 SDK version. To do this, issue the following command:
`./java -version`

The command completes successfully with no errors when the Java 2 SDK is intact.

- c. Repeat this procedure on all other created product discs.

Results

This procedure prepares the operating system for installation of WebSphere Process Server.

What to do next

After preparing the operating system, you can install WebSphere Process Server. See Chapter 7, "Installing the software," on page 67 for descriptions of the various installation alternatives available.

Setting kernel values on HP-UX systems

Several HP-UX kernel values are typically too small for a WebSphere Process Server installation. You must set selected kernel parameters to higher values.

About this task

Use the following procedure to set kernel parameters:

Procedure

1. If you are not already logged into the host workstation as root, do so.
2. Determine the physical memory, which you must know to avoid setting certain kernel parameters above the physical capacity. To determine the physical memory, perform the following steps:

- a. Start the HP-UX System Administration Manager (SAM) utility with the `/usr/sbin/sam` command.
 - b. Select **Performance Monitors > System Properties > Memory**.
 - c. Note the value for Physical Memory and select **OK**.
 - d. Exit from the SAM utility.
3. Because you need to set certain parameters such as `maxfiles` and `maxfiles_lim` to values higher than 4096, you must first edit the `/usr/conf/master.d/core-hpux` file, so that the SAM utility can set values greater than 2048. To edit this file, perform the following steps:
 - a. Open the `/usr/conf/master.d/core-hpux` file in a text editor.
 - b. Change the line `*range maxfiles<=2048` to `*range maxfiles<=60000`.
 - c. Change the line `*range maxfiles_lim<=2048` to `*range maxfiles_lim<=60000`.
 - d. Save and close the file.
 4. Because old values might be stored in the `/var/sam/boot.config` file, you must force the SAM utility to create a new `boot.config` file by performing the following steps:
 - a. Move the existing version of the `/var/sam/boot.config` file to another location, such as the `/tmp` directory.
 - b. Start the SAM utility.
 - c. Select **Kernel Configuration > Configurable Parameters**. When the Kernel Configuration window opens, a new `boot.config` file exists. Alternatively, rebuild the `boot.config` file with the following command:


```
# /usr/sam/sbin/getkinfo -b
```
 5. Set the new kernel parameter values by doing the following:
 - a. Start the SAM utility with the `/usr/sbin/sam` command.
 - b. In the SAM utility, select **Kernel Configuration > Configurable Parameters**.
 - c. For each of the parameters in the following table, perform this procedure:
 - 1) Highlight the parameter to change.
 - 2) Select **Actions > Modify Configurable Parameter**.
 - 3) Type the new value in the **Formula/Value** field.
 - 4) Select **OK**.
 Change typical kernel settings for running WebSphere Process Server in the order shown in Table 18.

Table 18. Recommended kernel settings for WebSphere Process Server

Parameter	Value
STRMSGSZ	65535
dbc_max_pct	25
maxdsiz	805306358 (0x30000000) 2048000000 (when running multiple profiles on the same system)
maxfiles_lim	8196 (Change this one before maxfiles.)
maxfiles	8000
maxssiz	8388608

Table 18. Recommended kernel settings for WebSphere Process Server (continued)

Parameter	Value
maxswapchunks	8192
maxusers	512
nkthread	7219
max_thread_proc	3000
nproc	4116 (Change this one before maxuprc.)
maxuprc	512
msgtql	2046
msgmap	2048
msgssz	32 (Change this one before msgmax.)
msgseg	32767 (Change this one before msgmax.)
msgmnb	65535 (0x10000) (Change this one before msgmax.) 131070 (when running multiple profiles on the same system)
msgmax	65535 (0x10000) 131070 (when running multiple profiles on the same system)
msgmni	50
nfile	58145
nflocks	3000
ninode	60000
npty	2024
nstrpty	1024
nstrtel	60
sema	1
semaem	16384 (0x4000)
semmns	16384 (0x4000) (Change this one before semmap.)
semmni	2048 (Change this one before semmap.)
semmap	514
semmnu	1024
semume	200

Table 18. Recommended kernel settings for WebSphere Process Server (continued)

Parameter	Value
semvmx	32767
shmem	1
shmmax	2147483647 (0x7FFFFFFF)
shmmni	1024
shmseg	1024

When WebSphere Process Server and IBM DB2 are on the same workstation, some kernel values are higher than those shown in Table 18 on page 48.

See the recommended HP-UX kernel configuration parameters for DB2 Universal Database, version 8.x, in the DB2 information center:
<http://publib.boulder.ibm.com/infocenter/db2help/index.jsp>.

6. Select **Actions > Process New Kernel**.
7. Select **Yes** on the information window to confirm your decision to restart the workstation.
 Follow the on-screen instructions to restart your workstation and to enable the new settings.
8. If you plan to redirect displays to non-HP workstations, perform the following steps before running the WebSphere Process Server installation wizard:
 - a. Issue the following command to obtain information on all the public locales that are accessible to your application:


```
# locale -a
```
 - b. Choose a value for your system from the output that is displayed and set the LANG environment variable to this value. Here is an example command that sets the value of LANG to en_US.iso88591:


```
# export LANG=en_US.iso88591
```

Preparing i5/OS systems for installation

Learn how to prepare an i5/OS system for installation of WebSphere Process Server.

Before you begin

The installation uses an InstallShield Multiplatform (ISMP) wizard. The installation on i5/OS can be performed in one of three ways:

- Interactively on a Windows client, which is connected to the i5/OS system
- Non-interactively with a silent installation running on a Windows client, which is connected to the i5/OS system
- Non-interactively with a silent installation running on the i5/OS system

Silent mode is invoked at a command line with a parameter that identifies a response file, which you edit before installing.

About this task

Use the following procedure to prepare the operating system for installation of WebSphere Process Server.

Procedure

1. Stop all server activity on WebSphere Application Server, WebSphere Application Server Network Deployment, WebSphere Process Server, or WebSphere Enterprise Service Bus using the stopServer script in the bin directory.
2. Verify that the QWAS61 subsystem is ended by using the wrksbs command. If the subsystem is still active, end it using the endsbs command.
3. Provide adequate disk space. For the space required to install WebSphere Process Server and related products, see WebSphere Process Server detailed system requirements at <http://www.ibm.com/support/docview.wss?uid=swg27006205> and select the link to your version of the product.
4. Verify that your system meets all hardware and software prerequisites, and install prerequisite software if necessary. See WebSphere Process Server detailed system requirements at <http://www.ibm.com/support/docview.wss?uid=swg27006205> and select the link to your version of the product.
If you are running a System i server with i5/OS that does not meet the minimum recommended hardware requirements for WebSphere Process Server, you can still install and run the product. However, the WebSphere Process Server environment might run slowly, and your applications might not run successfully.
5. Obtain and install the correct i5/OS cumulative PTF package. See Cumulative PTFs for System i for more information.

Results

This procedure prepares the operating system for installation of WebSphere Process Server.

What to do next

After preparing the operating system, you can install WebSphere Process Server. See Chapter 7, "Installing the software," on page 67 for descriptions of the various installation alternatives available.

Product library, directories, subsystem, job queue, job description, and output queues

An i5/OS platform uses different configurations than installations of WebSphere Process Server on other platforms. This topic describes the product library, directories, subsystems, job queue, job description, and output queues that WebSphere Process Server uses on the i5/OS platform.

Product library and directories

In a default installation, WebSphere Process Server for i5/OS uses the following library and directories:

QWBI61

The product library.

/QIBM/ProdData/WebSphere/ProcServer

The default root directory; it contains product data shared by all WebSphere Process Server profiles.

/QIBM/UserData/WebSphere/ProcServer

The default WebSphere Process Server user data root directory; all WebSphere Process Server profiles and profileRegistry subdirectories are created under this directory.

Subsystem

Installations of WebSphere Process Server for i5/OS can use one of the following subsystems:

QWAS61

The subsystem provided and configured by WebSphere Application Server. By default, the server runs in this subsystem.

QWBI61

A subsystem specific to WebSphere Process Server. In order to run your server in the QWBI61 subsystem, you must modify the startServer script and then restart the server.

Execute the startServer script with the following parameters:

- **-sbs** QWBI61/QWBI61
- **-jobq** QWBI61/QWBIJOBQ
- **-jobd** QWBI61/QWBIJOBQ
- **-outq** QWBI61/QWBIJOBQ

For more information, see Configuring subsystems on i5/OS.

Job queue

WebSphere Process Server for i5/OS uses one of the following job queues for server, node agent, and deployment manager processes, depending on which subsystem is used:

- The QWASJOBQ queue is used with the QWAS61 subsystem.
- The QWBIJOBQ queue is used with the QWBI61 subsystem.

Job description

WebSphere Process Server for i5/OS uses one of the following job descriptions for server, node agent, and deployment manager processes, depending on which subsystem is used:

- The QWASJOBQ description is used with the QWAS61 subsystem.
- The QWBIJOBQ description is used with the QWBI61 subsystem.

Output queue

WebSphere Process Server for i5/OS uses one of the following output queues for server, node agent, and deployment manager processes, depending on which subsystem is used:

- The QWASOUTQ queue is used with the QWAS61 subsystem.
- The QWBIOUTQ queue is used with the QWBI61 subsystem.

Configuring subsystems on i5/OS

You can use the `startServer` command to change the default WebSphere Application Server subsystem and native objects to the WebSphere Business Integration (WBI) subsystem and native objects.

About this task

By default, WebSphere Process Server runs in a subsystem that is provided by WebSphere Application Server. That subsystem is named `QWAS61` and is already provided and configured by WebSphere Application Server. In addition the WBI native objects are `QWBIJOBQ`, `QWBIOUTQ`, `QWBIJOB`, and `QWBI61`. By default WebSphere Process Server will not configure the WebSphere Process Server server to use them.

However, if desired, the server can be switched to use the `QWBI61` subsystem. For example, these steps will allow you to start the WebSphere Business Integration application server in the WebSphere Business Integration subsystem using WebSphere Business Integration native objects.

Procedure

1. Go to i5/OS command line and start Qshell.
2. From Qshell, enter the following command:

```
startServer - profileName ProcSrv01 -jobd QWBI61/QWBIJOB -jobq  
/QWBI61/QWBIJOBQ -outq /QWBI61/QWBIOUTQ -sbs /QWBI61/QWBI61
```

Preparing Linux systems for installation

Learn how to prepare a Linux system for installation of WebSphere Process Server.

Before you begin

The installation uses an InstallShield MultiPlatform (ISMP) wizard. You can also install the product silently. Silent mode is invoked at a command line with a parameter that identifies a response file, which you edit before installing.

About this task

While this topic lists many steps that are common to all Linux distributions, specific Linux distributions might require additional steps. Complete all common steps, as well as any additional steps that are required for your distribution. If your distribution is not listed in this topic, but is supported by WebSphere Process Server, check for any post-release technical notes that are available for your operating system at the product support site at <http://www.ibm.com/software/integration/wps/support/>. If a technical note is not available for your distribution, additional steps might not be required. When additional steps are required, it is typically because a default installation of the distribution does not provide required libraries or operating system features. If you install WebSphere Process Server on a customized Linux installation that has installed packages which differ significantly from the packages provided by a default installation of the distribution, ensure that your customized installation has the packages required for WebSphere Process Server to run. WebSphere Process Server does not maintain lists of the packages required for each Linux distribution or for updates to each distribution.

Use the following procedure to prepare the operating system for installation of WebSphere Process Server.

Procedure

1. Log on to the system. Your user ID does not have to have root privileges.
2. Select a umask that allows the owner to read and write to the files, and allows others to access them according to the prevailing system policy. For root users, a umask of 022 is recommended. For non-root users, a umask of 002 or 022 can be used, depending on whether the users share the group.

To verify the umask setting, issue the following command:

```
umask
```

To set the umask setting to 022, issue the following command:

```
umask 022
```

3. Optional: Download and install the Mozilla Firefox Web browser so that you can use the launchpad application on the product disk. If you do not have the Firefox browser, download and install the browser from <http://www.mozilla.com/en-US/firefox/>.

Important: You might have to start ">firefoxURL" from directories other than the one where Firefox is installed, so make sure Firefox is in the path. You can add a symbolic link to the /opt/bin directory by typing ">ln -s /locationToFirefox/firefox firefox".

4. Optional: Export the location of the supported browser.
Export the location of the supported browser using a command that identifies the location of the browser.
For example, if the Firefox package is in the /opt/bin/firefox directory, use the following command:

```
export BROWSER=/opt/bin/firefox
```
5. Stop all Java processes related to WebSphere Application Server, WebSphere Application Server Network Deployment, WebSphere Process Server, or WebSphere Enterprise Service Bus on the workstation on which you are installing the product.
6. Stop any Web server process such as the IBM HTTP Server.
7. Provide adequate disk space. For the space required to install WebSphere Process Server and related products, see WebSphere Process Server detailed system requirements at <http://www.ibm.com/support/docview.wss?uid=swg27006205> and select the link to your version of the product.
8. Verify that prerequisites and corequisites are at the required release levels.
Although the installation wizard checks for prerequisite operating system patches, review the prerequisite supported hardware and software for WebSphere Process Server if you have not already done so. To access this information, see WebSphere Process Server detailed system requirements at <http://www.ibm.com/support/docview.wss?uid=swg27006205> and select the link to your version of WebSphere Process Server.
Refer to the documentation for non-IBM prerequisite and corequisite products to learn how to migrate to their supported versions.
9. Increase the ulimit setting in the bash command shell profile to prevent problems with the **addNode** and **importWasprofile** commands. The **addNode** command script can fail when adding a node, or the **importWasprofile** command can fail when importing a configuration archive. Set a higher ulimit setting for the kernel in the bash shell profile script, which is loaded at login

time for the session. Set the ulimit on your Linux command shells by adding the command to your shell profile script. The shell profile script is usually found under your home directory. To set the ulimit to 8192, issue the following commands:

- a. `cd ~`
- b. `vi .bashrc`
- c. `ulimit -n 8192`

Note: You need to have root privileges in order to run the ulimit command. For more addNode command information, see <http://www.ibm.com/support/docview.wss?uid=swg21223909>.

10. Restore the original copy of the `etc/issue` file if the file is modified. The `prereqChecker` program in the installation wizard uses the file to verify the version of the operating system. If you cannot restore the original version, ignore the Operating System Level Check message about the operating system being unsupported. The installation can continue successfully despite the warning.

11. Verify that the system `cp` command is used, rather than the `cp` command provided by emacs or other freeware.

If you install the product using a `cp` command that is part of a freeware package, rather than with the system `cp` command, the installation might appear to complete successfully, but the Java 2 SDK that the product installs might have missing files in the `install_root/java` directory (where `install_root` represents the installation directory of WebSphere Process Server).

Missing files can destroy required symbolic links. You must remove the freeware `cp` command from the `PATH` in order to install the WebSphere Process Server product successfully.

If you have emacs or other freeware installed on your operating system, perform the following steps to identify which `cp` command is being used by the system, and to deactivate the freeware `cp` command if it is being used:

- a. Type which `cp` at the command prompt before running the installation program for the WebSphere Process Server product.
 - b. If the resulting directory output includes freeware, remove the freeware directory from your `PATH`. For example, if the output is similar to `.../freeware/bin/cp`, remove the directory from the `PATH`.
 - c. After you install WebSphere Process Server, add the freeware directory back to the `PATH`.
12. Complete any distribution-specific set up.

Complete the steps for your distribution: For more information, see the following WebSphere Application Server specific topics:

- Red Hat Enterprise Linux 5
- Red Hat Enterprise Linux 4
- SuSE Linux Enterprise Server 9.0 SP2 or 3

If you are using a supported distribution other than those listed above, examine the WebSphere Application Server support site for any technical notes that are published for your distribution. If technical notes have been published, apply the fixes.

13. Verify that the Java 2 SDK on your copies of the product discs is functioning correctly.

If you created your own product CDs by copying the product CDs or DVD, or if you created your own DVD from the electronic download image, perform the following steps to verify that the Java 2 SDK is working correctly:

- a. On your created product disc for *WebSphere Process Server V6.1 Disk 1* or *WebSphere Process Server V6.1 DVD*, navigate to the `/JDK/jre.pak/repository/package.java.jre/java/jre/bin` directory. To do this, issue the following command:

```
cd /JDK/jre.pak/repository/package.java.jre/java/jre/bin
```

- b. Verify the Java 2 SDK version. To do this, issue the following command:
`./java -version`

The command completes successfully with no errors when the Java 2 SDK is intact.

- c. Repeat this procedure on all other created product discs.

Results

This procedure prepares the operating system for installation of WebSphere Process Server.

What to do next

After preparing the operating system, you can install WebSphere Process Server. See Chapter 7, “Installing the software,” on page 67 for descriptions of the various installation alternatives available.

Installing and verifying Linux packages

Learn how to install and verify prerequisite libraries (packages) that WebSphere Process Server products require on Linux systems.

Before you begin

Install the Linux operating system before using this procedure.

About this task

Assume that your Linux operating system requires the `compat-libstdc++-33-3.2.3-47.3` package and that there are two versions of the package. One version is for 32-bit platforms and the other is for 64-bit platforms. This procedure shows how to query the operating system to see if the packages are installed, find the missing packages on the operating system disk, and install the packages.

This example uses Red Hat Enterprise Linux (RHEL) on a PowerPC® 64-bit hardware platform. The example assumes that RHEL requires both the 32-bit version and the 64-bit version of the `compat-libstdc++-33-3.2.3-47.3` package.

Procedure

1. Query the operating system to determine if the packages are already installed by issuing the following command:

```
rpm -qa | grep compat-libstdc++-33-3.2.3-
```

In this example, the operating system did not find any matching packages so a blank line is displayed.

You can also search without the `grep` argument to see an explicit message about the file by issuing the following command:

```
rpm -q compat-libstdc++-33-3.2.3-
```

The operating system returns the following message:

```
package compat-libstdc++-33-3.2.3- is not installed
```

2. Find all related packages on the operating system media to get the fully qualified locations.

This example assumes that the operating system media is a CD mounted at `/media/cdrom`. Your CD-ROM device might be at a different location, such as `/media/cdrecorder`, for example.

```
find /media/cdrom -name compat-libstdc++-33-3.2.3-*
```

In this example, the operating system finds two matching package names. One package is the 32-bit version and the other is the 64-bit version.

```
/media/cdrom/RedHat/RPMS/compat-libstdc++-33-3.2.3-47.3.ppc.rpm  
/media/cdrom/RedHat/RPMS/compat-libstdc++-33-3.2.3-47.3.ppc64.rpm
```

3. Install the first missing package by issuing the following command:

```
rpm -ivh /media/cdrom/RedHat/RPMS/compat-libstdc++-33-3.2.3-47.3.ppc.rpm
```
4. Install the second missing package by issuing the following command:

```
rpm -ivh /media/cdrom/RedHat/RPMS/compat-libstdc++-33-3.2.3-47.3.ppc64.rpm
```
5. Optional: **Alternative method to find and install packages in one command:** Use the following command to find packages and to install all packages that are found.

Find the packages as described in the earlier step to verify that the following command installs only the packages that you intend to install.

```
find /media/cdrom -name compat-libstdc++-33-3.2.3-* | xargs rpm -ivh
```

This single command installs both packages.

6. Optional: **Alternative command to update existing packages:** Use the following command to find and install missing packages or to find and update existing packages:

```
find /media/cdrom -name compat-libstdc++-33-3.2.3-* | xargs rpm -Uvh
```

This single command installs a package when the package is not installed. This command updates a package to a newer version when the package is installed.

What to do next

Required packages vary per operating system. See “Preparing Linux systems for installation” on page 53 for a list of required packages for each Linux operating system.

Preparing Solaris systems for installation

Learn how to prepare a Solaris system for installation of WebSphere Process Server.

Before you begin

The installation uses an InstallShield MultiPlatform (ISMP) wizard. You can also install the product silently. Silent mode is invoked at a command line with a parameter that identifies a response file, which you edit before installing.

About this task

Use the following procedure to prepare the operating system for installation of WebSphere Process Server.

Procedure

1. Log on to the system. Your user ID does not have to have root privileges.
2. Select a umask that allows the owner to read and write to the files, and allows others to access them according to the prevailing system policy. For root users, a umask of 022 is recommended. For non-root users, a umask of 002 or 022 can be used, depending on whether the users share the group.

To verify the umask setting, issue the following command:

```
umask
```

To set the umask setting to 022, issue the following command:

```
umask 022
```

3. Select the **Entire Group** option on the Select Solaris Software Group panel.
4. Optional: Install the Mozilla browser if it is not already installed. The Mozilla browser supports the launchpad console. Download and install the Mozilla browser from <http://www.mozilla.org>.
5. Optional: Export the location of the supported browser.

Export the location of the supported browser using a command that identifies the location of the browser.

For example, if the Mozilla package is in the /usr/bin/mozilla directory, use the following commands:

```
BROWSER=/usr/bin/mozilla  
export BROWSER
```

6. Optional: Configure Exceed to disable Automatic Font Substitution. When you use the Hummingbird Exceed package to connect to a workstation running the Solaris operating system, and then invoke the Profile Management Tool, some font sizes and styles display differently than they would when performing the same operation from the native Solaris display. The font sizes and style changes are based on the font selections in the bundled Java Runtime Environment (JRE). To prevent the various font changes, configure Hummingbird Exceed to disable Automatic Font Substitution:
 - a. From the Hummingbird Exceed user interface, select **Xconfig > Font > Font Database > Disable (Automatic Font Substitution)**.
 - b. Select **OK**.
 - c. Restart the Hummingbird Exceed package.
7. Stop all Java processes related to WebSphere Application Server, WebSphere Application Server Network Deployment, WebSphere Process Server, or WebSphere Enterprise Service Bus on the workstation on which you are installing the product.
8. Stop any Web server process such as the IBM HTTP Server.
9. Provide adequate disk space. For the space required to install WebSphere Process Server and related products, see WebSphere Process Server detailed system requirements at <http://www.ibm.com/support/docview.wss?uid=swg27006205> and select the link to your version of the product.
10. Set kernel values to support WebSphere Process Server.

Several Solaris kernel values are typically too small for the product. See "Setting kernel values on Solaris systems" on page 60 for instructions on how to set kernel values.
11. Verify that prerequisites and corequisites are at the required release levels.

Although the installation wizard checks for prerequisite operating system patches, review the prerequisite supported hardware and software for WebSphere Process Server if you have not already done so. To access this information, see WebSphere Process Server detailed system requirements at <http://www.ibm.com/support/docview.wss?uid=swg27006205> and select the link to your version of WebSphere Process Server.

Refer to the documentation for non-IBM prerequisite and corequisite products to learn how to migrate to their supported versions.

12. Verify that the system **cp** command is used, rather than the **cp** command provided by emacs or other freeware.

If you install the product using a **cp** command that is part of a freeware package, rather than with the system **cp** command, the installation might appear to complete successfully, but the Java 2 SDK that the product installs might have missing files in the *install_root*/java directory (where *install_root* represents the installation directory of WebSphere Process Server).

Missing files can destroy required symbolic links. You must remove the freeware **cp** command from the PATH in order to install the WebSphere Process Server product successfully.

If you have emacs or other freeware installed on your operating system, perform the following steps to identify which **cp** command is being used by the system, and to deactivate the freeware **cp** command if it is being used:

- a. Type which cp at the command prompt before running the installation program for the WebSphere Process Server product.
 - b. If the resulting directory output includes freeware, remove the freeware directory from your PATH. For example, if the output is similar to `.../freeware/bin/cp`, remove the directory from the PATH.
 - c. After you install WebSphere Process Server, add the freeware directory back to the PATH.
13. Verify that the Java 2 SDK on your copies of the product discs is functioning correctly.

If you created your own product CDs by copying the product CDs or DVD, or if you created your own DVD from the electronic download image, perform the following steps to verify that the Java 2 SDK is working correctly:

- a. On your created product disc for *WebSphere Process Server V6.1 Disk 1* or *WebSphere Process Server V6.1 DVD*, navigate to the `/JDK/jre.pak/repository/package.java.jre/java/jre/bin` directory. To do this, issue the following command:

```
cd /JDK/jre.pak/repository/package.java.jre/java/jre/bin
```
- b. Verify the Java 2 SDK version. To do this, issue the following command:

```
./java -version
```

The command completes successfully with no errors when the Java 2 SDK is intact.

- c. Repeat this procedure on all other created product discs.

Results

This procedure prepares the operating system for installation of WebSphere Process Server.

What to do next

After preparing the operating system, you can install WebSphere Process Server. See Chapter 7, "Installing the software," on page 67 for descriptions of the various installation alternatives available.

Setting kernel values on Solaris systems

Some Solaris kernel values are typically too small for a WebSphere Process Server installation. Learn how to set selected kernel parameters to higher values.

About this task

Use the following procedure to set kernel parameters.

Procedure

1. If you are not already logged into the host workstation as root, do so.
2. Review the workstation configuration.
Do this by entering the following command:

```
sysdef -i
```
3. Set the kernel values. The kernel parameters you must change and the way you do so differ depending on which version on Solaris you have installed.
 - If you have Solaris 9 installed, do the following:
 - a. Edit the `/etc/system` file. Use the values shown in the following example:

```
set shmsys:shminfo_shmmax = 4294967295
set shmsys:shminfo_shmseg = 1024
set shmsys:shminfo_shmmni = 1024
set semsys:seminfo_semaem = 16384
set semsys:seminfo_semni = 1024
set semsys:seminfo_semmap = 1026
set semsys:seminfo_semmsl = 16384
set semsys:seminfo_semmsl = 100
set semsys:seminfo_semopm = 100
set semsys:seminfo_semmnu = 2048
set semsys:seminfo_semume = 256
set msgsys:msginfo_msgmap = 1026
set msgsys:msginfo_msgmax = 65535
set rlim_fd_cur = 1024
```
 - b. Reboot the operating system.
 - If you have Solaris 10 installed, do the following:
 - a. Alter the value of `shmmax` in the `etc/project` file by using the `projmod` command, as follows:

```
# projmod -a -K "project.max-shm-memory=(priv,4G,deny)" default
```
 - b. Reboot the operating system.

What to do next

For more information about setting up the Solaris system, see the administration documentation on the Sun Web site at <http://docs.sun.com>.

Preparing Windows systems for installation

Learn how to prepare a Windows system for installation of WebSphere Process Server.

Before you begin

The installation uses an InstallShield MultiPlatform (ISMP) wizard. You can also install the product silently. Silent mode is invoked at a command line with a parameter that identifies a response file, which you edit before installing.

Installing WebSphere Process Server from an unmapped network drive (such as `\\hostname\sharename` in Windows Explorer) or a virtual drive is not supported. You must first map the network drive to a Windows drive letter (for example, Z:) before attempting to install WebSphere Process Server.

About this task

Use the following procedure to prepare the operating system for installation of WebSphere Process Server.

Procedure

1. Log on to the system.

Your user ID need not have Administrator privileges. However, installing the product as non-Administrator does create some restrictions. For example, you will not be able to create a Windows service for WebSphere Process Server. Also, the program will not register with the operating system. For more details on restrictions, see the following topic in the WebSphere Application Server Network Deployment, version 6.1.x information center:
http://publib.boulder.ibm.com/infocenter/wasinfo/v6r1/topic/com.ibm.websphere.nd.multiplatform.doc/info/ae/ae/rins_nonroot.html.

i5/OS **On i5/OS platforms:** If you plan to use the launchpad to install WebSphere Process Server on an i5/OS system, sign onto a Windows system. You use the Windows system as a client machine to connect to the System i server while performing the interactive installation. The launchpad runs on the Windows client. To install on an i5/OS system, you must use a valid i5/OS user profile for that system. The user profile must have *ALLOBJ and *SECADM authorities. Without these authorities, the installation will fail.

The installation wizard grants your Windows user ID the advanced user rights if the user ID belongs to the Administrator group. The silent installation does not grant these rights. If you create a new user ID on a Windows platform to perform a silent installation, you must restart the system to activate the proper authorizations for the user ID before you can perform a successful silent installation.

When installing WebSphere Process Server as a Windows service, do not use a user ID that contains spaces. A user ID with spaces cannot be validated and the installation cannot continue.

Tip: Windows service creation can be disabled by launching the graphical interface from the command line with the following additional option:
`install.bat -OPT PROF_winserviceCheck="false"`

2. Optional: Download the latest supported version of Internet Explorer from the following location, so that you can use the Launchpad.
<http://www.microsoft.com/windows/ie/ie6/downloads/critical/ie6sp1/default.mspx>
3. Optional: Download and install Mozilla 1.7.13 or later.
4. Stop all Java processes related to WebSphere Application Server, WebSphere Application Server Network Deployment, WebSphere Process Server, or WebSphere Enterprise Service Bus on the workstation on which you are installing the product.

5. Stop any Web server process such as the IBM HTTP Server.
6. Stop all instances of the `process_spawner.exe` program.
7. Provide adequate disk space. For the space required to install WebSphere Process Server and related products, see WebSphere Process Server detailed system requirements at <http://www.ibm.com/support/docview.wss?uid=swg27006205> and select the link to your version of the product.
8. Verify that prerequisites and corequisites are at the required release levels. Although the installation wizard checks for prerequisite operating system patches, review the prerequisite supported hardware and software for WebSphere Process Server if you have not already done so. To access this information, see WebSphere Process Server detailed system requirements at <http://www.ibm.com/support/docview.wss?uid=swg27006205> and select the link to your version of WebSphere Process Server.
Refer to the documentation for non-IBM prerequisite and corequisite products to learn how to migrate to their supported versions.
9. If needed, download Microsoft Windows Script Host version 5.6 to create Start menu items correctly on Windows operating systems.
To check if you have this component already installed and to install it if you do not, open a command window and type `cscript`.
 - If the component is installed, the usage and options information for it appear. Proceed to step 10.
 - If the component is not installed, you must download and install it from one of the following Microsoft Web pages:
 - For Windows XP <http://www.microsoft.com/downloads/details.aspx?FamilyID=c717d943-7e4b-4622-86eb-95a22b832caa&DisplayLang=en>
 - For Windows Server 2003: <http://www.microsoft.com/downloads/details.aspx?FamilyID=887fce82-e3f5-4289-a5e3-6cbb818623aa&DisplayLang=en>
10. Verify that the Java 2 SDK on your copies of the product discs is functioning correctly.
If you created your own product CDs by copying the product CDs or DVD, or if you created your own DVD from the electronic download image, perform the following steps to verify that the Java 2 SDK is working correctly:
 - a. On your created product disc for *WebSphere Process Server V6.1 Disk 1* or *WebSphere Process Server V6.1 DVD*, navigate to the `\JDK\jre.pak\repository\package.java.jre\java\jre\bin` directory. To do this, issue the following command:


```
cd \JDK\jre.pak\repository\package.java.jre\java\jre\bin
```
 - b. Verify the Java 2 SDK version. To do this, issue the following command:


```
java -version
```

The command completes successfully with no errors when the Java 2 SDK is intact.
 - c. Repeat this procedure on all other created product discs.

Results

This procedure prepares the operating system for installation of WebSphere Process Server.

What to do next

After preparing the operating system, you can install WebSphere Process Server. See Chapter 7, “Installing the software,” on page 67 for descriptions of the various installation alternatives available.

Chapter 6. Stopping servers and nodes

You must stop all server, deployment manager, and node agent processes on any products for which you intend to add features, or that you plan to extend or uninstall.

About this task

Perform the following steps:

Procedure

1. If you have one or more deployment managers installed, stop each *dmgr* process with the **stopManager** command. For example, issue one of the following commands, depending on your platform (where *profile_root* represents the installation directory of the deployment manager profile):

- **i5/OS** On i5/OS platforms: *profile_root/bin/stopManager*
- **Linux** **UNIX** On Linux and UNIX platforms: *profile_root/bin/stopManager.sh*
- **Windows** On Windows platforms: *profile_root\bin\stopManager.bat*

If security is enabled, use one of the following commands instead:

- **i5/OS** On i5/OS platforms: *profile_root/bin/stopManager -user user_ID -password password*
 - **Linux** **UNIX** On Linux and UNIX platforms: *profile_root/bin/stopManager.sh -user user_ID -password password*
 - **Windows** On Windows platforms: *profile_root\bin\stopManager.bat -user user_ID -password password*
2. Stop node agent processes with the **stopNode** command. If you have nodes federated to deployment managers on your system, stop each node agent process that might be running on each server with a federated node. For example, issue one of the following commands to stop the node agent process, depending on your platform (where *profile_root* represents the installation directory of the federated node):

- **i5/OS** On i5/OS platforms: *profile_root/bin/stopNode*
- **Linux** **UNIX** On Linux and UNIX platforms: *profile_root/bin/stopNode.sh*
- **Windows** On Windows platforms: *profile_root\bin\stopNode.bat*

If servers are running and security is enabled, use one of the following commands instead:

- **i5/OS** On i5/OS platforms: *profile_root/bin/stopNode -user user_ID -password password*
- **Linux** **UNIX** On Linux and UNIX platforms: *profile_root/bin/stopNode.sh -user user_ID -password password*
- **Windows** On Windows platforms: *profile_root\bin\stopNode.bat -user user_ID -password password*

3. Stop each running stand-alone server with the **stopServer** command. Stop all server processes in all profiles on the server. For example, issue one of the following commands to stop the server in the profile, depending on your platform. In this example, *profile_root* represents the installation location of the profile:

- **i5/OS** On i5/OS platforms: *profile_root/bin/stopServer serverName*
- **Linux** **UNIX** On Linux and UNIX platforms: *profile_root/bin/stopServer.sh server1*
- **Windows** On Windows platforms: *profile_root\bin\stopServer.bat server1*

If servers are running and security is enabled, use one of the following commands instead:

- **i5/OS** On i5/OS platforms: *profile_root/bin/stopServer serverName -user user_ID -password password*
- **Linux** **UNIX** On Linux and UNIX platforms: *profile_root/bin/stopServer.sh server1 -user user_ID -password password*
- **Windows** On Windows platforms: *profile_root\bin\stopServer.bat server1 -user user_ID -password password*

What to do next

You can now add features to, extend, or uninstall the WebSphere product.

Chapter 7. Installing the software

You can obtain WebSphere Process Server 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 install the software using the installation wizard in graphical interface mode or in silent mode. In silent mode, the installation wizard does not display a graphical interface, but reads your responses from a response file.

Before installing the software for WebSphere Process Server, assess your current environment and your business requirements to ensure that the system you implement meets your needs. Middleware, such as WebSphere Process Server, requires that you evaluate many aspects of your enterprise information system (EIS), such as capacity and security.

For more information about planning your installation and on the databases required by WebSphere Process Server, see the topics under Planning for WebSphere Process Server.

Then review installation prerequisites in Chapter 4, “Prerequisites for installing WebSphere Process Server,” on page 37.

After planning your installation and reviewing prerequisites, install the software from the appropriate disk or distribution media. You can choose to install the software silently using a response file or interactively using the installation wizard.

To install interactively on all platforms, see “Installing WebSphere Process Server interactively” on page 79.

- **Linux** **UNIX** **Windows** To install silently on Linux, UNIX, and Windows platforms, see “Installing silently on Linux, UNIX, and Windows” on page 108.
- **i5/OS** To install silently on i5/OS platforms from a Windows workstation command line, see “Installing silently on i5/OS from a Windows workstation command line” on page 114.
- **i5/OS** To install silently on i5/OS platforms from a System i server, see “Installing silently on i5/OS from a System i server” on page 112.

Installing the software creates a set of core product files on the workstation. These files are needed for you to configure stand-alone servers and deployment environments.

During installation your choices will include the following options:

- If you already have WebSphere Application Server or WebSphere Application Server Network Deployment installed, you can choose one of the following options:
 - Install WebSphere Process Server or the WebSphere Process Server Client as a separate installation that will coexist with the WebSphere Application Server installation on the same workstation. This is the most suitable option if you are installing WebSphere Process Server for the first time.
 - Extend WebSphere Application Server or WebSphere Application Server Network Deployment version 6.1.x, to have WebSphere Process Server capability.

- If you already have version 6.1.x of WebSphere Process Server, the WebSphere Process Server Client, or WebSphere Enterprise Service Bus installed, you can choose one of the following options:
 - Install WebSphere Process Server or the WebSphere Process Server Client as a separate installation that will coexist with the existing installation on the same workstation.
 - Convert an existing WebSphere Enterprise Service Bus or WebSphere Process Server Client installation to a WebSphere Process Server installation.
 - Install additional features on an existing installation of WebSphere Process Server.

Restriction: Linux UNIX Windows **On Linux, UNIX, and Windows platforms:** You cannot install version 6.1.x of WebSphere Process Server or the WebSphere Process Server Client over an existing version 6.0.x installation of WebSphere Process Server, the WebSphere Process Server Client, or WebSphere Enterprise Service Bus. You must migrate the existing installation to version 6.1.

See Migrating to WebSphere Process Server for more information.

- You can choose the type of installation you want to perform from the following options:
 - **Typical installation** (the default), which if required installs WebSphere Process Server and also installs WebSphere Application Server Network Deployment using default installation selections and configurations. You can optionally install the WebSphere Process Server Samples. You can also create a stand-alone server, deployment manager, or custom profile, or bypass this option and later use the Profile Management Tool to create profiles.
 - **Deployment environment installation**, which if required installs WebSphere Process Server and also installs WebSphere Application Server Network Deployment, and guides you through setting up a deployment environment. You can create a deployment manager and choose a deployment environment pattern for it or choose a cluster or clusters to apply to a managed node.
 - **Client installation**, which installs the WebSphere Process Server Client and optionally installs WebSphere Application Server Network Deployment using default installation selections and configurations. It allows you to run client applications that interact with WebSphere Process Server.

After installing the software from the appropriate disk or distribution media, install the most recent fix pack on top. For information about installing fix packs on WebSphere Process Server, see the instructions under *Recommended fixes* on the support pages at <http://www.ibm.com/software/integration/wps/support/>.

After performing either a Typical or Deployment environment installation, you can create a stand-alone server, a deployment manager, a custom profile, or a deployment environment configuration using the Profile Management Tool. You can also use the First steps console to validate that a stand-alone server or deployment manager profile was created successfully, to start and stop the server, and to perform other tasks.

Starting the launchpad

The launchpad for WebSphere Process Server is the single point of reference for installing the entire server environment, which can include WebSphere Process Server or the WebSphere Process Server Client, WebSphere Application Server Network Deployment, a set of Web development tools, a Web server, message service clients, and additional supporting software and documentation.

Before you begin

The launchpad application is available on *WebSphere Process Server V6.1 Disk 1* or *WebSphere Process Server V6.1 DVD*, and on downloaded installation images. Do the following before starting it:

- Review the list of prerequisites for installing the product in the topic Chapter 4, “Prerequisites for installing WebSphere Process Server,” on page 37.
- Because the launchpad is a Web application, ensure you have a supported version of a Web browser installed.

Linux **UNIX** **Windows** **On Linux, UNIX, and Windows platforms:** The platform-specific topics under Chapter 5, “Preparing the operating system for installation,” on page 41 contain detailed instructions for installing supported Web browsers on all platforms.

About this task

Perform the following procedure to use the launchpad.

Procedure

1. If you have not done so already, log on to the system.

Linux **UNIX** **Windows** **On Linux, UNIX, and Windows platforms:** Your user ID need not have root or Administrator privileges. However, installing the product as a non-root or non-Administrator user does create some restrictions. For example, you will not be able to create a Windows or Linux service for WebSphere Process Server. Also, the program will not register with the operating system. For more details on restrictions of non-root installers, see the following topic in the WebSphere Application Server Network Deployment, version 6.1.x information center: Limitations of non-root installers.

i5/OS **On i5/OS platforms:** If you plan to use the launchpad to install WebSphere Process Server on an i5/OS system, sign onto a Windows system. You use the Windows system as a client machine to connect to the System i server while performing the interactive installation. The launchpad runs on the Windows client. To install on an i5/OS system, you must use a valid i5/OS user profile for that system. The user profile must have *ALLOBJ and *SECADM authorities. Without these authorities, the installation will fail.

2. If you have not done so already, access the media in one of the following ways, depending on whether you are installing from the product CDs or DVD, or from images downloaded from Passport Advantage.
 - If you are installing from the product CDs or DVD, insert the product disk labeled *WebSphere Process Server V6.1 Disk 1* or *WebSphere Process Server V6.1 DVD* into the disk drive. Mount the disk drive if necessary, as described in “Mounting disk drives on Linux and UNIX operating systems” on page 320.
 - If you are installing from images downloaded from Passport Advantage, navigate to the directory into which you extracted the images.

3. Start the launchpad in one of the following ways, depending on whether you are installing from the product CDs or DVD, or from images downloaded from Passport Advantage.
 - If you are installing from the product CDs or DVD:
 - **i5/OS** **On i5/OS platforms:** (You use a Windows system client machine to connect to the i5/OS system.) From a command line in the root directory of the disc drive, enter the command `launchpad.exe`.
 - **Linux** **UNIX** **On Linux and UNIX platforms:** Enter the command `mount_point/launchpad.sh` where *mount_point* represents the mount point on the Linux or UNIX system.
 - **Windows** **On Windows platforms:** From a command line in the root directory of the disc drive, enter the command `launchpad.exe`.
 - If you are installing from images downloaded from Passport Advantage, enter the following command, where *extract_directory* represents the directory into which you extracted the electronic image:
 - **i5/OS** **On i5/OS platforms:** (You use a Windows system client machine to connect to the i5/OS system.) From a command line, `extract_directory\launchpad.exe`.
 - **Linux** **UNIX** **On Linux and UNIX platforms:** `extract_directory/launchpad.sh`.
 - **Windows** **On Windows platforms:** From a command line, `extract_directory\launchpad.exe`.
- The launchpad is displayed. If you have a problem starting the launchpad, use the troubleshooting information in “Troubleshooting the launchpad application” on page 290 to correct the problem.
4. Optional: If the launchpad did not initialize in the language used on your system, select your language in the **Language selection** field.

Results

You can use the launchpad to start the installation of WebSphere Process Server and related products. See “Options on the launchpad” for descriptions of the components you can install with the launchpad.

What to do next

Return to the installation procedure from which you accessed this topic to continue.

Options on the launchpad

The launchpad for WebSphere Process Server provides several options you can select to install the entire server environment. This environment can include WebSphere Process Server or the WebSphere Process Server Client, WebSphere Application Server Network Deployment, a set of Web development tools, a Web server, message service clients, and additional supporting software and documentation.

Important: **i5/OS** **On i5/OS platforms:** If you plan to use the launchpad to install WebSphere Process Server on an i5/OS system, sign onto a Windows system. You use the Windows system as a client machine to connect to the System i server while performing the interactive installation. The launchpad runs on the

Windows client and you will use all the Windows commands listed for the Launchpad options.

The launchpad contains a link for each installable component from the *WebSphere Process Server V6.1 Disk 1 CD* or *WebSphere Process Server V6.1 DVD*, the *WebSphere Application Server Network Deployment Supplements V6.1 CD*, and the *WebSphere Application Server Toolkit V6.1.1 Disk 1 CD* (supplied on Linux IA32 and Windows IA32 media only).

The following sections within this topic describe the various launchpad panels in more detail.

- “Welcome panel”
- “WebSphere Process Server for Multiplatforms installation panel ”
- **i5/OS** “IBM WebSphere Profile Management Tool Client for i5/OS installation panel” on page 72
- **AIX** **Linux** **Solaris** **Windows** “Message service clients installation panel” on page 72
- **AIX** **Linux** **Solaris** **Windows** “Message Service Client for C/C++ installation panel” on page 73
- **Windows** “Message Service Client for .NET installation panel” on page 73
- “Additional software installation panel” on page 74
- **Linux** **UNIX** **Windows** “IBM HTTP Server installation panel” on page 74
- “Web Server plug-ins installation panel” on page 75
- “Application Clients installation panel” on page 76
- **Linux** **Windows** “Application Server Toolkit installation panel” on page 76
- “IBM Update Installer for WebSphere Software installation panel” on page 77
- “IBM Installation Factory for WebSphere Process Server panel” on page 77
- “IBM WebSphere Process Server Help System installation panel” on page 78
- **Linux** **UNIX** **Windows** “IBM Support Assistant installation panel” on page 78

Welcome panel

The Welcome panel is the first panel that is displayed when the launchpad is started. Selecting an entry in either the right or the left pane causes an individual launchpad panel to be displayed, which includes links to the installation program for the component and (for most components) to documentation that describes the product, how to install it, and how to configure it for use.

WebSphere Process Server for Multiplatforms installation panel

If you select **WebSphere Process Server installation** from the left pane of the launchpad Welcome panel, the following options are presented in the right pane:

Launch the installation wizard for WebSphere Process Server for Multiplatforms

Starts the installation wizard to install WebSphere Process Server for Multiplatforms. This program exists on *WebSphere Process Server V6.1 Disk 1* or *WebSphere Process Server V6.1 DVD*, in the following location:

- **Linux** **UNIX** **On Linux, and UNIX platforms:** /WBI/install
- **Windows** **On Windows platforms:** \WBI\install.bat

Open the information center

Links to complete technical product information, available online, in PDF book format, or as Eclipse document plug-ins, which you can download and install on a local system.

Read product overview and installation information

Provides overview information about WebSphere Process Server for Multiplatforms and its components and step-by-step instructions for installing the product. This link accesses the WebSphere Process Server library Web site at <http://www.ibm.com/software/integration/wps/library/infocenter/doc>.

View critical information

Provides links to the latest critical fixes for and information about this release.

IBM WebSphere Profile Management Tool Client for i5/OS installation panel

Restriction:  This selection appears only on launchpads for i5/OS platforms.

If you select **IBM WebSphere Profile Management Tool Client for i5/OS installation** from the left pane of the launchpad Welcome panel, the following option is presented in the right pane:

Launch the installation wizard for the IBM Profile Management Tool Client for i5/OS Installs IBM WebSphere Profile Management Tool Client for i5/OS using the installation wizard. This tool is used to create and augment profiles in a WebSphere Process Server installation on an i5/OS system.

Message service clients installation panel

Restriction:     This selection appears only on launchpads for AIX PPC32, AIX PPC64, Linux IA32, Linux IA64, Solaris SPARC, Solaris SPARC64, and Windows IA32 platforms.

The Message service clients extend the messaging capabilities of WebSphere Process Server to non-Java environments. These capabilities can exploit TCP/IP, SSL, HTTP, and HTTPS to support interoperation with the WebSphere family, including WebSphere Application Server, WebSphere MQ, and WebSphere Message Broker. You can use a broad range of interaction models such as request/reply, point-to-point, and publish/subscribe. To use these clients, you must install them on the systems where the related applications are running. This software is not required for using WebSphere Process Server.

If you select **Message service clients installation** from the left pane of the launchpad Welcome panel, the following options are presented in the right pane:

Open the information center

Links to complete technical product information, available online, in PDF book format, or as Eclipse document plug-ins, which you can download and install on a local system.

IBM Message Service Client for C/C++

Opens the launchpad panel used to start the installation wizard for the IBM Message Service Client for C/C++. For more information on this panel, see "Message Service Client for C/C++ installation panel" on page 73.

IBM Message Service Client for .NET

Opens the launchpad panel used to start the installation wizard for the IBM Message Service Client for .NET. For more information on this panel, see “Message Service Client for .NET installation panel.”

Message Service Client for C/C++ installation panel

Restriction: AIX Linux Solaris Windows This selection appears only on launchpads for AIX PPC32, AIX PPC64, Linux IA32, Linux IA64, Solaris SPARC, Solaris SPARC64, and Windows IA32 platforms.

If you select IBM Message Service Client for C/C++ from the Message service clients installation panel, the following options are presented in the right pane:

Launch the installation wizard for IBM Message Service Client for C/C++

Starts the installation wizard to install the IBM Message Service Client for C/C++. This program exists on *WebSphere Process Server V6.1 Disk 1* or *WebSphere Process Server V6.1 DVD*, in the following location:

- AIX **On AIX platforms:** /MsgClients/XMSCC/setupAix.bin
- Linux **On Linux IA32 platforms:** /MsgClients/XMSCC/setuplinuxia32
- Linux **On Linux IA64 platforms:** /MsgClients/XMSCC/setuplinux-86_64
- Solaris **On Solaris platforms:** /MsgClients/XMSCC/setupsolaris
- Windows **On Windows platforms:** \MsgClients\XMSCC\setup.exe

Open the information center

Links to complete technical product information, available online, in PDF book format, or as Eclipse document plug-ins, which you can download and install on a local system.

Message Service Client for .NET installation panel

Restriction: Windows This selection appears only on the launchpad for the Windows IA32 platform.

This client supports .NET messaging applications.

If you select IBM Message Service Client for .NET from the Message service clients installation panel, the following options are presented in the right pane:

Launch the installation wizard for IBM Message Service Client for .NET

Starts the installation wizard to install the IBM Message Service Client for .NET. This program exists on *WebSphere Process Server V6.1 Disk 1* or *WebSphere Process Server V6.1 DVD*, in the following location:

- Windows **On Windows platforms:** \MsgClients\XMSNET\dotNETClientsetup.exe

Open the information center

Links to complete technical product information, available online, in PDF book format, or as Eclipse document plug-ins, which you can download and install on a local system.

Additional software installation panel

In addition to WebSphere Process Server and WebSphere Application Server Network Deployment, the product package also includes additional software to support the runtime environment: Web development tools, a Web server, and additional supporting software and documentation. This software is not required for using WebSphere Process Server.

If you select **Additional software installation** from the left pane of the launchpad Welcome panel, the following options are presented in the right pane:

IBM HTTP Server

Opens the launchpad panel used to start the installation wizard for the IBM HTTP Server. For more information on this panel, see “IBM HTTP Server installation panel.”

Web server plug-ins

Opens the launchpad panel used to start the installation wizard for the Web Server Plug-ins. For more information on this panel, see “Web Server plug-ins installation panel” on page 75.

Application clients

Opens the launchpad panel used to start the installation wizard for the Application Clients. For more information on this panel, see “Application Clients installation panel” on page 76.

Application Server Toolkit

Opens the launchpad panel used to start the installation wizard for the Application Server Toolkit. For more information on this panel, see “Application Server Toolkit installation panel” on page 76.

IBM HTTP Server installation panel

Restriction: i5/OS This selection does not appear on the launchpad for i5/OS platforms.

IBM HTTP Server is a Web server based on the Apache™ HTTP server.

If you select **IBM HTTP Server** from the Additional software installation panel, the following options are presented in the right pane:

Launch the installation wizard for IBM HTTP Server

Starts the installation wizard to install IBM HTTP Server. This program exists on the *WebSphere Application Server Network Deployment Supplements V6.1* CD, in the following location:

- Linux UNIX **On Linux and UNIX platforms:** /IHS/install
- Windows **On Windows platforms:** \IHS\install.exe

View the installation guide for IBM HTTP Server

Provides a direct link to installation documentation for IBM HTTP Server. This file exists on the *WebSphere Application Server Network Deployment Supplements V6.1* CD, in the following location:

- Linux UNIX **On Linux and UNIX platforms:**
/IHS/docs/InstallGuide_en.html
- Windows **On Windows platforms:** \IHS\docs\InstallGuide_en.html

View the readme file for IBM HTTP Server

Provides a direct link to the readme file for IBM HTTP Server. This file exists on the *WebSphere Application Server Network Deployment Supplements V6.1* CD, in the following location:

- **Linux** **UNIX** **On Linux and UNIX platforms:**
/IHS/readme/readme_en.html
- **Windows** **On Windows platforms:** \IHS\readme\readme_en.html

Web Server plug-ins installation panel

Web Server Plug-ins provide software that forwards HTTP requests from your Web server to your application server.

If you select **Web server plug-ins** from the Additional software installation panel, the following options are presented in the right pane:

Launch the installation wizard for Web server plug-ins

Starts the installation wizard to install and configure one or more Web server plug-ins. This program exists on the *WebSphere Application Server Network Deployment Supplements V6.1* CD, in the following location:

- **Linux** **UNIX** **On Linux and UNIX platforms:** /plugin/install
- **i5/OS** **Windows** **On i5/OS and Windows platforms:**
\plugin\install.exe

View the installation roadmaps for Web server plug-ins

Provides a direct link to instructions for installing and configuring Web server plug-ins. This file exists on the *WebSphere Application Server Network Deployment Supplements V6.1* CD, in the following location:

- **Linux** **UNIX** **On Linux and UNIX platforms:**
/plugin/index_roadmap_en.html
- **i5/OS** **Windows** **On i5/OS and Windows platforms:**
\plugin\index_roadmap_en.html

View the installation guide for Web server plug-ins

Provides a direct link to installation documentation for the Web server plug-ins. This file exists on the *WebSphere Application Server Network Deployment Supplements V6.1* CD, in the following location:

- **Linux** **UNIX** **On Linux, and UNIX platforms:**
/plugin/docs/InstallGuide_en.html
- **i5/OS** **Windows** **On i5/OS and Windows platforms:**
\plugin\docs\InstallGuide_en.html

View the readme file for Web server plug-ins

Provides a direct link to the readme file for the Web server plug-ins. This file exists on the *WebSphere Application Server Network Deployment Supplements V6.1* CD, in the following location:

- **Linux** **UNIX** **On Linux, and UNIX platforms:**
/plugin/readme/readme_en.html
- **i5/OS** **Windows** **On i5/OS and Windows platforms:**
\plugin\readme\readme_en.html

Application Clients installation panel

Restriction: Application Clients are not supplied for Linux on System z or 64-bit platforms (except i5/OS).

Application Clients provide various application programming models for your application server.

If you select **Application clients** from the Additional software installation panel, the following options are presented in the right pane:

Launch the installation wizard for Application Clients

Starts the installation wizard to install the WebSphere Application Server Application Clients. The Application Clients installation wizard installs environments for running client applications on the client system. A client application processes on a distributed client system and a host WebSphere Application Server system. A client might provide the GUI, but process data on the host, for example. Some environments perform all necessary handshaking and protocol. *Thin* client environments require client applications to have their own protocols for such things as JNDI lookups. This program exists on the *WebSphere Application Server Network Deployment Supplements V6.1* CD, in the following location:

- Linux UNIX **On Linux and UNIX platforms:** /AppClient/install
- i5/OS Windows **On iSeries and Windows platforms:**
 \AppClient\install.exe

View the installation guide for the Application Clients

Provides a direct link to installation documentation for the WebSphere Application Server Application Clients. This file exists on the *WebSphere Application Server Network Deployment Supplements V6.1* CD, in the following location:

- Linux UNIX **On Linux and UNIX platforms:**
 /AppClient/docs/InstallGuide_en.html
- i5/OS Windows **On i5/OS and Windows platforms:**
 \AppClient\docs\InstallGuide_en.html

View the readme file for the Application Clients

Provides a direct link to the readme file for the WebSphere Application Server Application Clients. This file exists on the *WebSphere Application Server Network Deployment Supplements V6.1* CD, in the following location:

- Linux UNIX **On Linux and UNIX platforms:**
 /AppClient/readme/readme_en.html
- i5/OS Windows **On i5/OS and Windows platforms:**
 \AppClient\readme\readme_en.html

Application Server Toolkit installation panel

Restriction: This selection appears only on launchpads for Linux IA32 and Windows IA32 platforms.

Application Server Toolkit provides basic assembly and deployment tooling for publishing to your application server.

If you select **Application Server Toolkit** from the Additional software installation panel, the following options are presented in the right pane:

Launch the installation wizard for the Application Server Toolkit

Starts the installation wizard to install the WebSphere Application Server Toolkit on Windows and Linux (Intel®) systems only. This program exists on *WebSphere Application Server Toolkit V6.1.1 Disk 1*, in the following location:

- **Linux** On Linux platforms: /install
- **Windows** On Windows platforms: \install.exe

View the installation guide for the Application Server Toolkit

Provides a direct link to installation documentation for the WebSphere Application Server Toolkit. This file exists on *WebSphere Application Server Toolkit V6.1.1 Disk 1*, in the following location:

- **Linux** On Linux platforms: /readme/readme_install_ast.html
- **Windows** On Windows platforms: \readme\readme_install_ast.html

View the readme file for the Application Server Toolkit

Provides a direct link to the readme file for the WebSphere Application Server Toolkit. This file exists on *WebSphere Application Server Toolkit V6.1.1 Disk 1*, in the following location:

- **Linux** On Linux platforms: /readme/readme_ast.html
- **Windows** On Windows platforms: \readme\readme_ast.html

IBM Update Installer for WebSphere Software installation panel

Use this tool to install updates (interim fixes, fix packs and refresh packs) to WebSphere software, including WebSphere Enterprise Service Bus releases, WebSphere Process Server releases, WebSphere Application Server releases, IBM HTTP Server, Web Server plug-ins, and WebSphere Application Clients.

If you select **IBM Update Installer for WebSphere Software installation** from the left pane of the launchpad Welcome panel, the following option is presented in the right pane:

Launch the installation wizard for IBM Update Installer

Starts the installation wizard to install IBM Update Installer. This program exists on *WebSphere Process Server V6.1 Disk 1* or *WebSphere Process Server V6.1 DVD*, in the following location:

- **Linux** **UNIX** On Linux and UNIX platforms:
/UpdateInstaller/install
- **i5/OS** **Windows** On i5/OS and Windows platforms:
\UpdateInstaller\install.exe

IBM Installation Factory for WebSphere Process Server panel

Use this tool to create a customized WebSphere Process Server installation package. Installation packages can be customized to include updates (interim fixes, fix packs and refresh packs), profile customizations, run scripts, or to install other user-defined files.

If you select **IBM Installation Factory for WebSphere Process Server** from the left pane of the launchpad Welcome panel, the following option is presented in the right pane:

View the readme file for IBM Installation Factory for WebSphere Process Server

Provides a direct link to the readme file for IBM Installation Factory for WebSphere Process Server. This file exists on *WebSphere Process Server V6.1 Disk 1* or *WebSphere Process Server V6.1 DVD*, in the following location:

- **Linux** **UNIX** **On Linux and UNIX platforms:**
/IF/readme/readme_en.html
- **i5/OS** **Windows** **On i5/OS and Windows platforms:**
\IF\readme\readme_en.html

IBM WebSphere Process Server Help System installation panel

Use this tool to install an Eclipse viewer and allow the information center for WebSphere Process Server to reside on the local computer.

If you select **IBM WebSphere Process Server Help System installation** from the left pane of the launchpad Welcome panel, the following options are presented in the right pane:

Launch the installation wizard for IBM WebSphere Process Server Help System

Starts the installation wizard to install the IBM WebSphere Process Server Help System. This program exists on *WebSphere Process Server V6.1 Disk 1* or *WebSphere Process Server V6.1 DVD*, in the following location:

- **Linux** **UNIX** **On Linux and UNIX platforms:** /IEHS/install
- **i5/OS** **Windows** **On i5/OS and Windows platforms:**
\IEHS\install.exe

View the readme file for the IBM WebSphere Process Server Help System

Provides a direct link to the readme file for the IBM WebSphere Process Server Help System. This file exists on *WebSphere Process Server V6.1 Disk 1* or *WebSphere Process Server V6.1 DVD*, in the following location:

- **Linux** **UNIX** **On Linux and UNIX platforms:**
/IEHS/readme/readme_en.html
- **i5/OS** **Windows** **On i5/OS and Windows platforms:**
\IEHS\readme\readme_en.html

IBM Support Assistant installation panel

Restriction: This selection does not appear on launchpads for i5/OS, Linux PPC32, Linux on System z, or 64-bit platforms.

Use this tool to resolve questions and problems with IBM software products. It includes searches across multiple sources, access to critical product information, troubleshooting and diagnostic tools, and automated data gathering and problem submission tools. After the ISA is installed, you can install product-specific plug-ins for WebSphere Process Server and other IBM products by starting the ISA and clicking the **Updater** icon on the Welcome screen.

If you select **IBM Support Assistant installation** from the left pane of the launchpad Welcome panel, the following options are presented in the right pane:

Launch the installation wizard for the IBM Support Assistant

Starts the installation wizard to install the IBM Support Assistant. This program exists on the *WebSphere Application Server Network Deployment Supplements V6.1* CD, in the following location:

- **Linux** **UNIX** On Linux and UNIX platforms: `/ISA/install.bin`
- **Windows** On Windows platforms: `\ISA\install.exe`

View the readme file for the IBM Support Assistant

Provides a direct link to the readme file for the IBM Support Assistant. This file exists on the *WebSphere Application Server Network Deployment Supplements V6.1* CD, in the following location:

- **Linux** **UNIX** On Linux and UNIX platforms: `/ISA/readme.txt`
- **Windows** On Windows platforms: `\ISA\readme.txt`

IBM Support Assistant Website

Links to additional information about the IBM Support Assistant.

Installing WebSphere Process Server interactively

You can install WebSphere Process Server or the WebSphere Process Server Client using the installation wizard. A Typical installation installs WebSphere Process Server, optionally installs WebSphere Application Server Network Deployment, version 6.1, and optionally creates a stand-alone server, a deployment manager, or a custom profile. A Deployment environment installation guides you through setting up a new deployment environment or refining an existing one. A Client installation installs the WebSphere Process Server Client.

Before you begin

Ensure that you have reviewed the list of prerequisites for installing the product at Chapter 4, “Prerequisites for installing WebSphere Process Server,” on page 37.

About this task

If you plan to install from images downloaded from Passport Advantage, see “Special considerations when installing from Passport Advantage” on page 334 for important information.

The language of the installation wizard is determined by the default language on the system. If the default language on the system is not one of the supported languages, English is used. You can override the system’s default language by starting the installation wizard from the command line and using the `java user.language` setting to replace the default language. Use the following command, which can be run from the WBI directory on the *WebSphere Process Server V6.1 Disk 1* CD, the *WebSphere Process Server V6.1 DVD*, or from an electronic installation image. In this example, the variable `lang` represents the language.

- **Linux** **UNIX** On Linux and UNIX platforms: `../JDK/jre.pak/repository/package.java.jre/java/jre/bin/java -Duser.language=lang -cp setup.jar run`
- **Windows** On Windows platforms: `..\JDK\jre.pak\repository\package.java.jre\java\jre\bin\java -Duser.language=lang -cp setup.jar run`

Note: **i5/OS** When you are using a Windows client to install WebSphere Process Server remotely on an i5/OS platform, use the `-os400was` parameter.

For example, to start the installation wizard in the German language on a Windows system, type the following command:

```
..\JDK\jre.pak\repository\package.java.jre\java\jre\bin\java  
-Duser.language=de -cp setup.jar run
```

Restriction: Do not run two instances of the installation wizard concurrently. If you do so, you will receive a warning about an installation already being in progress.

The installer program does not support console-mode installation.

Important: If you do not have WebSphere Application Server Network Deployment already installed, you might be prompted to specify the location of this product image during installation if you are installing from the *WebSphere Process Server V6.1 Disk 1 CD*. If prompted, indicate the directory location of the WebSphere Application Server Network Deployment installation or insert *WebSphere Process Server V6.1 Disk 2 CD*, and click **Next**.

To install WebSphere Process Server using the installation wizard, complete the following steps.

Procedure

1. Log on to the system.

Linux **UNIX** **Windows** **On Linux, UNIX, and Windows platforms:** Your user ID need not have root or Administrator privileges. However, installing the product as a non-root or non-Administrator user does create some restrictions. For example, you will not be able to create a Windows or Linux service for WebSphere Process Server. Also, the program will not register with the operating system. For more details on restrictions of non-root installers, see the following topic in the WebSphere Application Server Network Deployment, version 6.1.x information center: Limitations of non-root installers.

i5/OS **On i5/OS platforms:** If you plan to use the launchpad to install WebSphere Process Server on an i5/OS system, sign onto a Windows system. You use the Windows system as a client machine to connect to the System i server while performing the interactive installation. The launchpad runs on the Windows client. To install on an i5/OS system, you must use a valid i5/OS user profile for that system. The user profile must have *ALLOBJ and *SECADM authorities. Without these authorities, the installation will fail.

2. Access the media in one of the following ways, depending on whether you are installing from the product CDs or DVD, or from images downloaded from Passport Advantage.
 - If you are installing from the product CDs or DVD, insert the product disk labeled *WebSphere Process Server V6.1 Disk 1* or *WebSphere Process Server V6.1 DVD* into the disk drive. Mount the disk drive if necessary, as described in “Mounting disk drives on Linux and UNIX operating systems” on page 320.
 - If you are installing from images downloaded from Passport Advantage, navigate to the directory into which you extracted the images.
3. Start the installation wizard from the launchpad or a command line.
 - To start the installation from the launchpad:
 - a. Start the launchpad by following the procedure in “Starting the launchpad” on page 69.
 - b. Click **WebSphere Process Server installation**.

c. Click **Launch the installation wizard for WebSphere Process Server for Multiplatforms**.

- To start the installation from a command line, issue the install command as follows, depending on whether you are installing from the product CDs or DVD, or from images downloaded from Passport Advantage:

When installing from the product CDs or DVD, enter the following command:

- i5/OS** **On i5/OS platforms:** (You use a Windows system client machine to connect to the i5/OS system.) From the root directory of the disk drive, \WBI\install.bat
- Linux** **UNIX** **On Linux and UNIX platforms:** *mount_point*/WBI/install, where *mount_point* is the mount point on the Linux or UNIX system.
- Windows** **On Windows platforms:** From the root directory of the disk drive, \WBI\install.bat

When installing from images downloaded from Passport Advantage, enter the following command, where *extract_directory* represents the directory into which you extracted the electronic image:

- i5/OS** **On i5/OS platforms:** (You use a Windows system client machine to connect to the i5/OS system.) *extract_directory*\WBI\install.bat
- Linux** **UNIX** **On Linux and UNIX platforms:** *extract_directory*/WBI/install
- Windows** **On Windows platforms:** *extract_directory*\WBI\install.bat

The next step depends on which platform you are using:

Platform you are installing on	Next step
i5/OS	The i5/OS signon panel is displayed. Go to step 4.
Linux and UNIX	The Welcome panel is displayed. Go to step 5.

- i5/OS** **On i5/OS platforms:** On the i5/OS signon panel, enter the following information:
 - The target i5/OS system name or IP address.
 - An i5/OS user profile that is valid on the target system. This profile must have *ALLOBJ and *SECADM special authorities.
 - The password for the i5/OS user profile.

Click **Next**. The Welcome panel is displayed.

- On the Welcome panel, click **Next**. The License Agreement panel is displayed.
- In the License agreement panel, review the IBM and non-IBM licensing terms and, if you agree, select **I accept both the IBM and the non-IBM terms**, and click **Next**.

The installation wizard checks for a supported operating system with prerequisite patches. At the end of the process, the System prerequisites check panel is displayed and indicates whether your system passed the check.

If your system did not pass, cancel the installation, make the required changes, and restart the installation.

Important: A warning message might appear when you try to install a later version of the product, or install the product on a later version of a supported operating system. You can ignore the warning and proceed with installation, but doing so can result in an installation that is not supported.

7. In the System prerequisites check panel, click **Next**.

Restriction: If your user ID does not have root or Administrator privileges, a warning panel is displayed, which describes the restrictions you will encounter during product installation. For example, you will not be able to create a Windows or Linux service for WebSphere Process Server. Also, the program will not register with the operating system. To continue the installation, click **Next**.

The installation wizard checks for existing installations of the following products:

- WebSphere Application Server, Version 6.1.x
- WebSphere Application Server Network Deployment, Version 6.1.x
- WebSphere Process Server, Version 6.1.x
- WebSphere Process Server Client, Version 6.1.x
- WebSphere Enterprise Service Bus, Version 6.1.x

Important: The installation wizard also detects unregistered instances of WebSphere Application Server or WebSphere Application Server Network Deployment if they have entries in the .nifregistry file. See “.nifregistry and vpd.properties files” on page 310 for the location of this file based on platform for root, Administrator, or non-root users. Using an unregistered installation of one of these products with your WebSphere Process Server installation is not supported.

If the installation wizard finds existing installations of any WebSphere products, the wizard reports which product or products it found. You must then make choices for your new installation. Do one of the following depending on whether you have existing installations of WebSphere products on your system:

- If you have no existing installations of any WebSphere products on your system, the Installation type panel is displayed. Go to step 9 on page 83.
- If you have existing installations of any WebSphere products on your system, go to step 8.

8. The panel that is displayed and your next step depend on which WebSphere products the installer found on your system. Choose the next step from Table 19 based on which panel is displayed on your system.

Table 19. Next step based on existing installations of WebSphere products

Panel that is displayed	Product found and next step
Detected IBM WebSphere Process Server	An existing installation of WebSphere Process Server by itself or together with installations of other WebSphere products. Go to the topic “Installing with existing WebSphere Process Server installations” on page 312 for instructions to complete your installation.

Table 19. Next step based on existing installations of WebSphere products (continued)

Panel that is displayed	Product found and next step
Detected an installation of an existing product or component	An existing installation of WebSphere Enterprise Service Bus or the WebSphere Process Server Client and no existing installations of WebSphere Process Server. Go to the topic "Installing with existing WebSphere Enterprise Service Bus or WebSphere Process Server Client installations" on page 315 for instructions to complete your installation.
Detected WebSphere Application Server	An existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment, and no existing installations of WebSphere Process Server, WebSphere Process Server Client, or WebSphere Enterprise Service Bus. Go to the topic "Installing with existing WebSphere Application Server or WebSphere Application Server Network Deployment installations" on page 318 for instructions to complete your installation.

- On the Installation type panel, select the type of installation you want to perform and click **Next**.

The installation wizard provides a choice of installation paths (not all might appear based on selections you made on previous panels). The next step depends on the type of installation you want.

Installation type	Next step
<p>Typical Installation (the default): installs WebSphere Process Server and optionally installs WebSphere Application Server Network Deployment using default installation selections and configurations. You can optionally install the WebSphere Process Server Samples. You can also create a stand-alone server, deployment manager, or custom profile, or bypass this option and later use the Profile Management Tool to create profiles.</p> <p>Important: If you select to create a stand-alone server profile during a Typical installation and enable security, the installer creates a sample Business Process Choreographer configuration for the profile. If you do not enable security, the sample configuration is not created. If you plan to federate the stand-alone server to a deployment manager, you will first have to delete this sample configuration.</p>	The Features selection panel is displayed. Go to the topic "Installing WebSphere Process Server and creating a profile interactively" on page 84.

Installation type	Next step
<p>Deployment Environment Installation: installs WebSphere Process Server and optionally installs WebSphere Application Server Network Deployment, and guides you through setting up a deployment environment. You can create a deployment manager and choose a deployment environment pattern for it or choose a cluster or clusters to apply to a managed node.</p>	<p>The Features selection panel is displayed. Go to the topic “Installing WebSphere Process Server with a deployment environment interactively” on page 90.</p>
<p>Client Installation: installs the WebSphere Process Server Client and optionally installs WebSphere Application Server Network Deployment using default installation selections and configurations. It allows you to run client applications that interact with WebSphere Process Server.</p>	<p>The Installation location panel is displayed. Go to the topic “Installing the WebSphere Process Server Client interactively” on page 101.</p>

Results

You have started the installation wizard, accepted the licensing agreement, checked prerequisites, and identified any existing installations of WebSphere products that could impact your installation. You have also chosen the type of installation you want to perform (Typical, Deployment environment, or Client).

What to do next

Continue your installation by following the instructions from the appropriate link depending on the choices you have made.

Installing WebSphere Process Server and creating a profile interactively

Use this procedure to install WebSphere Process Server and create a profile using the installation wizard graphical user interface (GUI). You can install WebSphere Application Server Network Deployment as part of your installation. You can also install WebSphere Process Server over an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment, version 6.1.x.

About this task

Perform the following procedure to make those choices. This topic assumes that you have started the installation wizard, checked for prerequisites and existing WebSphere installations, and chosen to perform a Typical installation, by following the procedure in “Installing WebSphere Process Server interactively” on page 79. The Features selection panel is displayed.

Procedure

1. From the Features selection panel, select the features you want to install and click **Next**.
See “Product components” on page 328 for descriptions of the features you can select from this panel.

The next step depends on whether or not you are installing over an existing WebSphere Application Server or WebSphere Application Server Network Deployment installation.

Installation status	Next step
You <i>are</i> installing over an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment.	The WebSphere Process Server environments panel is displayed. Proceed to step 3.
You <i>are not</i> installing over an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment.	The Installation location panel is displayed. Proceed to step 2.

- In the Installation location panel, accept the default installation root directory for the products, or specify a different directory, and click **Next**.

i5/OS **On i5/OS platforms:** The Installation location panel on i5/OS systems also lets you specify the profile installation directory.

Linux **UNIX** **Windows** **On Linux, UNIX, and Windows platforms:** The installation wizard presents a system-owned, default installation root directory for root or Administrator users. It presents a different user-owned, default installation root directory for non-root users.

See “Default installation directories for the product, profiles, and tools” on page 322 for information on default installation directories and how they are determined by the installation wizard.

The installation wizard verifies that the installation location is fully qualified, formed correctly, can be written to by the user ID performing the installation, and has sufficient disk space (including any required temporary space) to complete the installation successfully. If you do not have enough space, stop the installation program, free space by deleting unused files and emptying the recycle bin, and restart the installation.

Important:

- You must provide a value for the installation root directory to continue.
- i5/OS** **On i5/OS platforms:** The maximum length of each component in the path name is 255 characters. The maximum length of the path name is 16 MB.
- i5/OS** **Linux** **UNIX** **On i5/OS, Linux, and UNIX platforms:** Do not use symbolic links as the installation root directory; they are not supported. Also, do not use spaces in the directory path.
- Windows** **On Windows platforms:** Do not use a semicolon in the directory name on Windows systems (a semicolon is the character used to construct the class path on Windows systems). WebSphere Process Server cannot install properly on a Windows platform if the target directory includes a semicolon.

On completion of this step the WebSphere Process Server environments panel is displayed.

- In the WebSphere Process Server environments panel, choose the type of profile you want to create (or **None** if you do not want to create a profile at this time), and then click **Next**. The next step depends on your selection.

Profile type	Next step
Stand-alone server or Deployment manager	The Administrative security panel is displayed. Proceed to step 5 on page 87.
Custom	The Federation panel is displayed. (A custom profile has an empty node that you must federate to use it.) Proceed to step 4.
None	A warning panel alerts you that your installation cannot function without at least one profile. Do one of the following: <ul style="list-style-type: none"> • Click Yes to continue without creating a profile. The Installation summary panel is displayed. Proceed to step 6 on page 88. After you complete your installation, the final panel of the installation wizard will provide you with a link to open the Profile Management Tool, which provides several options for creating or augmenting new profiles. • Click No to return to the WebSphere Process Server environments panel.

4. **For custom profiles only:** In the Federation panel, choose to federate the node into the deployment manager now as part of the profile creation, or at a later time and apart from profile creation.

Important: Federate the custom node at this time only if all of the following are true:

- No other node is being federated at the same time. (Node federation must be serialized.)
- The deployment manager is running.
- The deployment manager is a WebSphere Process Server deployment manager at the same version level or higher as the custom profile you are creating. WebSphere Process Server profiles cannot use a WebSphere Enterprise Service Bus deployment manager, but WebSphere Enterprise Service Bus profiles can use a WebSphere Process Server deployment manager.
- The deployment manager has a JMX administrative port enabled. The default protocol is SOAP.
- You do not plan to use this custom node as a migration target.

Do *not* federate the custom node at this time if any one of the following is true:

- Another profile is being federated. (Node federation must be serialized.)
- The deployment manager is not running or you are not sure if it is running.
- The deployment manager has not yet been augmented into a WebSphere Process Server deployment manager.
- The deployment manager does not have a JMX administrative port enabled.
- The deployment manager is reconfigured to use the non-default remote method invocation (RMI) as the preferred Java Management Extensions (JMX) connector. (Select **System administration > Deployment manager > Administration services** in the administrative console of the deployment manager to verify the preferred connector type.)
- You plan to use the profile as a migration target profile.

To federate the node now as part of the profile creation, perform the following steps:

- a. Specify the host name or IP address and SOAP port of the deployment manager, and an authentication user ID and password if administrative security is enabled on the deployment manager. To find the SOAP port number, open the AboutThisProfile.txt file for the deployment manager located in *profile_root/logs/*, and review the value for "SOAP connector port."
- b. Leave the **Federate this managed node later using the addNode command** check box unselected.
- c. Click **Next**. The installation wizard verifies that the deployment manager exists, can be contacted, and that the authentication user ID and password are valid for that deployment manager (if it is secured). The Installation summary panel is displayed.
- d. Proceed to step 6 on page 88.

If you attempt to federate a custom node when the deployment manager is not running or is not available for other reasons, a warning panel prevents you from continuing. If this warning panel appears, click **OK** to exit from it, and then make different selections on the Federation panel.

To federate the node at a later time and apart from profile creation, perform the following steps:

- a. Select the **Federate this managed node later using the addNode command** check box.
- b. Click **Next**. The Installation summary panel is displayed.
- c. Proceed to step 6 on page 88.

See "Federating custom nodes to a deployment manager" on page 428 for more information on how to federate a node by using the addNode command. Read more about this command in the addNode command topic in the WebSphere Application Server Network Deployment, version 6.1, information center.

5. **For WebSphere Process Server stand-alone server and deployment manager profiles only:** In the Administrative security panel, configure administrative security for your installation. Leave the **Enable administrative security** check box selected and supply an administrative ID and password to enable security, or clear the check box to disable security. Then click **Next**.

For WebSphere Process Server stand-alone profiles only: If you chose to install the WebSphere Application Server sample application, you must supply a password for the user account. Also, if you enable security, the installer creates a sample Business Process Choreographer configuration for the profile. If you do not enable security, the sample configuration is not created. If you plan to federate the stand-alone server to a deployment manager, you will first have to delete this sample configuration.

Tip: Record the administrative ID and password and store in a secured area. You cannot log onto the administrative console or use WebSphere Process Server unless you know these values.

In environments where you plan to have multiple stand-alone servers, the security policy of each server profile is independent of the others. Changes to the security policies in one server profile are not synchronized with the other profiles.

The Installation summary panel is displayed.

6. In the Installation summary panel, review the components that will be installed, the amount of space they will consume, and where they will be located on the system, and click **Next** to install or **Back** to change your specifications.

The installation wizard creates the uninstaller program and shows a progress panel to indicate that components are being installed.

If you chose to install WebSphere Process Server over an existing version of WebSphere Application Server or WebSphere Application Server Network Deployment, the installation wizard examines it and takes one of the following actions:

- If the installation is at the correct service level, the installation wizard does nothing.
- If the installation is at an earlier service level, the installation wizard applies the necessary fixes to bring the installation up to the appropriate level and also applies any necessary interim fixes.
- If you selected the WebSphere Process Server Samples feature, and you are installing over an installation of WebSphere Application Server Network Deployment that does not have its Samples gallery feature installed, the installation wizard adds the Samples gallery feature silently to the WebSphere Application Server Network Deployment installation.

Restriction: The WebSphere Process Server Samples feature can be incrementally installed only over a WebSphere Application Server Network Deployment installation, not over a WebSphere Application Server installation. Thus, if you select the WebSphere Process Server Samples feature, and you are installing WebSphere Process Server over an installation of WebSphere Application Server that does not have its Samples gallery feature installed, the Sample applications gallery feature is *not* added silently to the WebSphere Application Server installation.

Restriction: i5/OS **On i5/OS platforms:** If the WebSphere Application Server Network Deployment installation is at an earlier service level and the WebSphere Process Server installation is being performed remotely from a Windows client, then WebSphere Application Server Network Deployment must be updated using a local silent installation from the i5/OS system before continuing with this installation. If you selected the WebSphere Process Server Samples feature and you are installing over an installation of WebSphere Application Server Network Deployment that does not have its Samples gallery feature installed, then the Samples Gallery feature must be added to WebSphere Application Server Network Deployment using a local silent installation from the i5/OS system before continuing with this installation.

At the end of the installation, the Installation results panel is displayed with a **Success** indication.

Attention:

If errors are detected during installation, other messages might appear in place of **Success**, for example:

- **Partial success**, which indicates that the installation completed but errors were generated.
- **Failed**, which indicates that the installation failed completely.

If an installation is not completely successful, the Installation results panel identifies the log file required to troubleshoot the problems. See the descriptions of relevant log files in “Log files” on page 299.

You can review other useful troubleshooting information in the following topics:

- Chapter 15, “Troubleshooting installation and configuration,” on page 287
 - “Troubleshooting the launchpad application” on page 290
 - “Troubleshooting a silent installation” on page 291
 - “Diagnosing a failing Ant configuration script” on page 293
 - **i5/OS** “i5/OS installation troubleshooting tips” on page 292
 - “Messages: installation and profile creation” on page 294
 - “Recovering from profile creation or augmentation failure” on page 304
7. Complete the installation. The actions you take to complete the installation differ depending on whether you created a profile during installation. On the Installation results panel, take one of the following actions depending on whether you created a profile during installation:

Profile status	Next step
You created a profile	Ensure the check box to launch the First steps console is selected, and click Finish to close the installation wizard and start the First steps console.

Profile status	Next step
You did <i>not</i> create a profile	<p>The next step depends on whether you want to create a new profile now:</p> <ul style="list-style-type: none"> • If you want to create a new profile, leave the check box beside Create a new WebSphere Process Server profile using the Profile Management Tool selected and click Finish. The installation wizard closes and the Profile Management Tool starts. See “Creating profiles using the Profile Management Tool” on page 165 or “Augmenting profiles using the Profile Management Tool” on page 172 for instructions on how to use this tool to create new WebSphere Process Server profiles or augment existing profiles into WebSphere Process Server profiles. • If you do <i>not</i> want to create a new profile, clear the check box beside Create a new WebSphere Process Server profile using the Profile Management Tool and click Finish. <p>Attention: To have an operational environment, a WebSphere Process Server stand-alone server profile or deployment manager profile with managed nodes must exist.</p>

Results

If the Installation results panel indicates **Success**, the components you selected were installed successfully, and if you created a profile, it was created successfully.

Install the most recent WebSphere Process Server fix pack on top of the installation (if any fix packs exist at the time of installation). For information about installing fix packs on WebSphere Process Server, see the instructions under *Recommended Fixes* on the support pages at <http://www.ibm.com/software/integration/wps/support/>.

Start the WebSphere Process Server stand-alone server or deployment manager profile from its First steps console to verify that your installation is operating properly. See “Options on the First steps console” on page 119 for more details.

You can also use the installation verification tools to verify your installation. See Chapter 8, “Verifying the product installation,” on page 125 for more information.

Installing WebSphere Process Server with a deployment environment interactively

Use this procedure to install WebSphere Process Server using the installation wizard graphical user interface (GUI). In addition to installing the product, this procedure guides you through setting up a deployment environment. You can create a deployment manager and choose a deployment environment pattern or create a custom profile and choose the cluster members within the deployment environment. You can install WebSphere Application Server Network Deployment

as part of your installation. You can also install WebSphere Process Server over an existing installation of WebSphere Application Server Network Deployment, version 6.1.x.

About this task

Perform the following procedure to make those choices. This topic assumes that you have started the installation wizard, checked for prerequisites and existing WebSphere installations, and chosen to perform a Deployment environment installation, by following the procedure in “Installing WebSphere Process Server interactively” on page 79. The Features selection panel is displayed.

Procedure

1. From the Features selection panel, select the features you want to install and click **Next**.

See “Product components” on page 328 for descriptions of the features you can select from this panel.

The next step depends on whether or not you are installing over an existing WebSphere Application Server Network Deployment installation.

Installation status	Next step
You <i>are</i> installing over an existing installation of WebSphere Application Server Network Deployment.	The Deployment environment installation panel is displayed. Proceed to step 3 on page 92.
You are <i>not</i> installing over an existing installation of WebSphere Application Server Network Deployment.	The Installation location panel is displayed. Proceed to step 2.

2. In the Installation location panel, accept the default installation root directory for the products, or specify a different directory, and click **Next**.

i5/OS **On i5/OS platforms:** The Installation location panel on i5/OS systems also lets you specify the profile installation directory.

Linux **UNIX** **Windows** **On Linux, UNIX, and Windows platforms:** The installation wizard presents a system-owned, default installation root directory for root or Administrator users. It presents a different user-owned, default installation root directory for non-root users.

See “Default installation directories for the product, profiles, and tools” on page 322 for information on default installation directories and how they are determined by the installation wizard.

The installation wizard verifies that the installation location is fully qualified, formed correctly, can be written to by the user ID performing the installation, and has sufficient disk space (including any required temporary space) to complete the installation successfully. If you do not have enough space, stop the installation program, free space by deleting unused files and emptying the recycle bin, and restart the installation.

Important:

- You must provide a value for the installation root directory to continue.
- **i5/OS** **On i5/OS platforms:** The maximum length of each component in the path name is 255 characters. The maximum length of the path name is 16 MB.

- **i5/OS** **Linux** **UNIX** **On i5/OS, Linux, and UNIX platforms:** Do not use symbolic links as the installation root directory; they are not supported. Also, do not use spaces in the directory path.
- **Windows** **On Windows platforms:** Do not use a semicolon in the directory name on Windows systems (a semicolon is the character used to construct the class path on Windows systems). WebSphere Process Server cannot install properly on a Windows platform if the target directory includes a semicolon.

On completion of this step the Deployment environment installation panel is displayed.

3. In the Deployment environment installation panel, decide whether to create a deployment manager and choose a deployment environment pattern or create a custom profile and choose the cluster members within the deployment environment. Then click **Next**. If you do not have an existing deployment manager and deployment environment pattern, be sure to choose the option **Create a deployment manager and choose a deployment environment pattern** when installing on your first workstation. Choose the **Create a custom profile and choose the cluster members within the deployment environment** option when you install on subsequent workstations and want those installations to be part of a deployment environment that already has a deployment manager. The next step depends on your selection.

Selected profile type	Next step
Create a deployment manager and choose a deployment environment pattern: the wizard guides you through creating a new deployment environment based on the deployment environment pattern you choose later in the installation.	The Administrative security panel is displayed. Proceed to the topic “Creating a deployment manager and choosing a deployment environment pattern” on page 93.
Create a custom profile and choose the cluster members within the deployment environment: the wizard guides you through creating a custom profile on a deployment environment that you have already defined. You choose the cluster members to create for this custom profile. You must be able to connect to the running deployment manager on that deployment environment.	The Deployment manager connection panel is displayed. Proceed to the topic “Creating a custom profile and choosing cluster members in a deployment environment” on page 98.

Results

You have selected the features to install, specified the installation directory if you are not installing over an existing installation of WebSphere Application Server Network Deployment, and selected whether to create a deployment manager and choose a deployment environment pattern or create a custom profile and choose the cluster members within an existing deployment environment.

What to do next

Continue your installation by following instructions from the appropriate link depending on the choices you have made.

Creating a deployment manager and choosing a deployment environment pattern

Learn how to create a new deployment manager and choose a deployment environment pattern.

About this task

This procedure assumes that you want to create a new deployment manager and choose a deployment environment pattern. As a result of following the procedure in “Installing WebSphere Process Server with a deployment environment interactively” on page 90, you are viewing the Administrative security panel. Perform the following steps to complete your installation.

Procedure

1. In the Administrative security panel, configure administrative security for your installation. You must use administrative security for a Deployment environment installation. Supply an administrative ID and password to log into the administrative tools and click **Next**. The administrative user is created in a repository within WebSphere Process Server. After installation completes, you can add more users, groups, or external repositories.

The “Deployment manager and deployment environment pattern” panel is displayed.

2. On the “Deployment manager and deployment environment pattern” panel, choose the deployment environment pattern to use with your installation.

Perform the following steps:

- a. Select the radio button beside the deployment environment pattern you want for your installation:
 - **Remote Messaging and Remote Support:** defines one cluster for the application deployment, one remote cluster for the messaging infrastructure, and one remote cluster for the Common Event Infrastructure and other support applications. This pattern configures a setup that performs well for most of your business integration needs. When in doubt, select this pattern.
 - **Remote Messaging:** defines one cluster for the application deployment and one remote cluster for the messaging infrastructure. The Common Event Infrastructure and other support applications are configured on the application deployment cluster.
 - **Single Cluster:** defines one cluster for the application deployment. Both messaging infrastructure and Common Event Infrastructure with support applications are also configured on the application deployment target cluster.

See the following topics for more information:

- Deployment environment patterns – A deployment environment pattern specifies the constraints and requirements of the components and resources involved in a deployment environment. The patterns are designed to meet the needs of most business requirements and are intended to help you create a deployment environment in the most straightforward way.
- Deployment environment functions within deployment patterns – To design a robust deployment environment, you need to understand the functionality each cluster can provide in a particular IBM-supplied deployment environment pattern or a custom deployment environment.

This knowledge can help you make the correct decisions as to which deployment environment pattern best meets your needs.

- b. Click **Next**. The Deployment manager database configuration pattern panel is displayed.
3. On the Deployment manager database configuration pattern panel, choose the database to use with your installation.

Perform the following steps:

- a. Select or clear the check box beside **Create new database** depending on the database product you select in step 3c.
 - If you plan to use Derby Network Server, you must create a new local database. In this case, the check box is selected by default and cannot be cleared.
 - If you plan to use DB2 Universal Database, selecting the check box creates and configures a new local database during installation. Clearing it delays database creation and configuration until after installation.

Restriction: i5/OS **On i5/OS platforms:** i5/OS systems cannot use databases created with the DB2 Universal Database product on local i5/OS systems. The DB2 Universal Database product can be used *only* on remote servers that reside on non-i5/OS systems. This requires a JDBC driver type 4.

- If you plan to use Oracle 9i or 10, you cannot create a new local database. In this case, the check box is cleared by default and cannot be selected.
- b. For databases other than Derby Network Server, select the check box beside **Delay execution of database scripts** to delay database creation and configuration until after installation. The installation wizard produces scripts you or your database administrator can use to create and configure the database. It copies these scripts to the following directory, where *db_type* is the name of the database product and *db_name* is the name of the Common database:

- i5/OS Linux UNIX **On i5/OS, Linux, and UNIX platforms:**
profile_root/dbscripts/CommonDB/db_type/db_name
- Windows **On Windows platforms:** *profile_root\dbscripts\CommonDB\
db_type\db_name*

- c. Select the database product to use with your installation from the drop-down list.

Important: When you perform a Deployment environment installation with the installation wizard, you are limited to using only the following subset of the total supported database products for WebSphere Process Server:

- Derby Network Server
- DB2 Universal Database
- Oracle 9i or 10g

You can use other supported database products not in this list (with the exception of Informix® and Microsoft SQL Server – these are not supported in deployment environment configurations). However, to use other database products, you must create your deployment manager using the Profile Management Tool. See “Creating profiles” on page 164 for more information.

- d. In the **Database name** field, accept the default value of WPRCSDB or enter the name of the Common database to be used with your installation.

- e. Click **Next**. The Additional database configuration panel is displayed with fields specific to the database product you selected.
 - f. Review the topic “Additional database configuration panel” on page 96 for information on how to complete this panel. When you’ve completed entering information on the Additional database configuration panel, click **Next**. The Installation summary panel is displayed.
4. In the Installation summary panel, review the components that will be installed, the amount of space they will consume, and where they will be located on the system, and click **Next** to install or **Back** to change your specifications.

The installation wizard creates the uninstaller program and shows a progress panel to indicate that components are being installed.

If you chose to install WebSphere Process Server over an existing version of WebSphere Application Server Network Deployment, the installation wizard examines it and takes one of the following actions:

- If the installation is at the correct service level, the installation wizard does nothing.
- If the installation is at an earlier service level, the installation wizard applies the necessary fixes to bring the installation up to the appropriate level and also applies any necessary interim fixes.

Restriction: i5/OS **On i5/OS platforms:** If the WebSphere Application Server Network Deployment installation is at an earlier service level and the WebSphere Process Server installation is being done remotely from a Windows client, then the WebSphere Application Server Network Deployment must be updated using a local silent install from the i5/OS system before continuing with this installation.

- If you selected the WebSphere Process Server Samples feature, and you are installing over an installation of WebSphere Application Server Network Deployment that does not have its Samples gallery feature installed, the installation wizard adds the Samples gallery feature silently to the WebSphere Application Server Network Deployment installation.

Restriction: i5/OS **On i5/OS platforms:** If you selected the WebSphere Process Server Samples feature and you are installing over an installation of WebSphere Application Server Network Deployment that does not have the Samples gallery feature installed, then the Samples Gallery feature must be added to WebSphere Application Server Network Deployment using a local silent installation from the i5/OS system before continuing with this installation.

At the end of the installation, the Installation results panel is displayed with a **Success** indication.

Attention:

If errors are detected during installation, other messages might appear in place of **Success**, for example:

- **Partial success**, which indicates that the installation completed but errors were generated.
- **Failed**, which indicates that the installation failed completely.

If an installation is not completely successful, the Installation results panel identifies the log file required to troubleshoot the problems. See the descriptions of relevant log files in “Log files” on page 299.

You can review other useful troubleshooting information in the following topics:

- Chapter 15, “Troubleshooting installation and configuration,” on page 287
 - “Troubleshooting the launchpad application” on page 290
 - “Troubleshooting a silent installation” on page 291
 - “Diagnosing a failing Ant configuration script” on page 293
 - **i5/OS** “i5/OS installation troubleshooting tips” on page 292
 - “Messages: installation and profile creation” on page 294
 - “Recovering from profile creation or augmentation failure” on page 304
5. Ensure that the check box to launch the First steps console is selected, and click **Finish** to close the installation wizard and start the First steps console.

Results

If the Installation results panel indicates **Success**, the components you selected were installed successfully, and your deployment environment was created successfully.

Install the most recent WebSphere Process Server fix pack on top of the installation (if any fix packs exist at the time of installation). For information about installing fix packs on WebSphere Process Server, see the instructions under *Recommended Fixes* on the support pages at <http://www.ibm.com/software/integration/wps/support/>.

Start your database if it is not already active. Then start the WebSphere Process Server deployment manager from its First steps console to verify that your installation is operating properly. See “Options on the First steps console” on page 119 for more details. The First steps console also includes links to perform verification tests and to start the Profile Management Tool, with which you can create WebSphere Process Server custom profiles to define additional cluster members in the deployment environment.

Additional database configuration panel:

When you select your database product on the Deployment manager database configuration panel in the installation wizard, a follow-up panel asks you for database-specific information. This panel, called the Additional database configuration panel, contains slightly different fields and default values, depending on your database product selection.

When you have completed entering the information on the Additional database configuration panel, return to “Creating a deployment manager and choosing a deployment environment pattern” on page 93.

Derby Network Server

Enter values for the fields **Database server host name (for example, IP address)** and **Server port** (or accept the default values of localhost and 1527, respectively).

DB2 Universal Database

Note: i5/OS **On i5/OS platforms:** i5/OS systems cannot use databases created with the DB2 Universal Database product on local i5/OS systems. The DB2 Universal Database product can be used *only* on remote servers that reside on non-i5/OS systems. This requires a JDBC driver type 4.

Enter values for the fields **User name to authenticate with the database**, **Password for database authentication**, **Confirm password**, and **Location (directory) of the JDBC driver classpath**.

The **Location (directory) of the JDBC driver classpath** field must point to the location on your system that contains the following files:

- db2jcc.jar
- db2jcc_license_cu.jar or db2jcc_license_cisuz.jar
- i5/OS jt400.jar

An error message is displayed if the files cannot be found at the specified location.

Select the radio button beside **2** or **4**, depending on your JDBC driver type.

Enter values for the fields **Database server host name (for example, IP address)** and **Server port** (or accept the default values of localhost and 50000, respectively).

Oracle 9i and 10g

Note: i5/OS **On i5/OS platforms:** i5/OS systems cannot use databases created with the Oracle database product on local i5/OS systems. The Oracle database product can be used on a remote server, but only with the thin JDBC driver. The Oracle Call Interface (oci) JDBC driver is only for local servers and i5/OS cannot use Oracle locally.

Enter values for the fields **User name to authenticate with the database** (this ID must have SYSDBA privileges and permission to create schemas in the Oracle database), **Password for database authentication**, **Confirm password**, and **Location (directory) of the JDBC driver classpath**.

The **Location (directory) of the JDBC driver classpath** field must point to the directory that contains the file ojdbc14.jar. An error message is displayed if the file cannot be found at the specified location.

Select the radio button beside **oci** or **thin**, depending on your JDBC driver type.

Enter values for the fields **Database server host name (for example, IP address)** and **Server port**. For **Database server host name (for example, IP address)**, use the value configured on the Oracle instance even when running Oracle locally. For

Server port, accept the default value of 1521 or indicate your port number if different.

Creating a custom profile and choosing cluster members in a deployment environment

Learn how to create a custom profile and choose cluster members within an existing deployment environment.

About this task

This topic assumes that you want to create a custom profile and choose cluster members within an existing deployment environment. As a result of following the procedure in “Installing WebSphere Process Server with a deployment environment interactively” on page 90, you are viewing the Deployment manager connection panel. Perform the following steps to complete your installation.

Procedure

1. On the Deployment manager connection panel, specify the host name or IP address and SOAP port of the deployment manager that has the deployment environment to which you want to add clusters. Also supply an authentication user ID and password (administrative security is always enabled on the deployment manager of a deployment environment). Then click **Next**. The deployment manager must be a WebSphere Process Server deployment manager at the same version level or higher as the custom profile you are creating.

WebSphere Process Server profiles cannot use a WebSphere Enterprise Service Bus deployment manager, but WebSphere Enterprise Service Bus profiles can use a WebSphere Process Server deployment manager.

To find the SOAP port number of the deployment manager, open the `AboutThisProfile.txt` file for the deployment manager located in `profile_root/logs/`, and review the value for “SOAP connector port.”

The installation wizard verifies that the deployment manager exists, can be contacted, that the authentication user ID and password are valid for that deployment manager, and that it has a deployment environment defined.

The Cluster and database configuration (part 1) panel is displayed, which identifies the deployment environment pattern of the deployment manager.

2. On the Cluster and database configuration panel (part 1), select at least one cluster to assign this node to on the deployment environment pattern and click **Next**. The panel offers one to three clusters based on the deployment environment pattern the installation wizard identified on the deployment manager:

Table 20. Clusters offered per deployment environment pattern on existing deployment manager

Deployment environment pattern on deployment manager	Clusters offered
Remote messaging and remote support	<ul style="list-style-type: none"> • Application deployment target: consists of a cluster to which user applications need to be deployed. • Messaging infrastructure: consists of a cluster where messaging engines are located. • Support infrastructure: consists of a cluster that hosts the Common Event Infrastructure server and other infrastructure services that are used to manage your system.
Remote messaging	<ul style="list-style-type: none"> • Application deployment target: consists of a cluster to which user applications need to be deployed. With a remote messaging deployment environment pattern, the application deployment target cluster also assumes the functionality of the supporting infrastructure cluster. • Messaging infrastructure: consists of a cluster where messaging engines are located.
Single cluster	<ul style="list-style-type: none"> • Application deployment target: consists of a cluster to which user applications need to be deployed. With a single cluster deployment environment pattern, the application deployment target cluster also assumes the functionality of the messaging and the supporting infrastructure clusters.

See the following topics for more information:

The Cluster and database configuration (part 2) panel is displayed, which identifies the database used by the deployment manager.

3. On the Cluster and database configuration (part 2) panel, indicate the location of the JDBC driver classpath files (or accept the default), and click **Next**.

The Installation summary panel is displayed.

4. In the Installation summary panel, review the components that will be installed, the amount of space they will consume, and where they will be located on the system, and click **Next** to install or **Back** to change your specifications.

The installation wizard creates the uninstaller program and shows a progress panel to indicate that components are being installed.

If you chose to install WebSphere Process Server over an existing version of WebSphere Application Server Network Deployment, the installation wizard examines it and takes one of the following actions:

- If the installation is at the correct service level, the installation wizard does nothing.
- If the installation is at an earlier service level, the installation wizard applies the necessary fixes to bring the installation up to the appropriate level and also applies any necessary interim fixes.

Restriction:  If the WebSphere Application Server Network Deployment installation is at an earlier service level and the WebSphere

Process Server installation is being done remotely from a Windows client, then the WebSphere Application Server Network Deployment needs to be updated using a local silent install from the i5/OS system before continuing with this installation.

- If you selected the WebSphere Process Server Samples feature, and you are installing over an installation of WebSphere Application Server Network Deployment that does not have its Samples gallery feature installed, the installation wizard adds the Samples gallery feature silently to the WebSphere Application Server Network Deployment installation.

Restriction: i5/OS **On i5/OS platforms:** If you selected the WebSphere Process Server Samples feature and you are installing over an installation of WebSphere Application Server Network Deployment that does not have the Samples gallery feature installed, then the Samples Gallery feature needs to be added to WebSphere Application Server Network Deployment using a local silent installation from the i5/OS system before continuing with this installation.

At the end of the installation, the Installation results panel is displayed with a **Success** indication.

Attention:

If errors are detected during installation, other messages might appear in place of **Success**, for example:

- **Partial success**, which indicates that the installation completed but errors were generated.
- **Failed**, which indicates that the installation failed completely.

If an installation is not completely successful, the Installation results panel identifies the log file required to troubleshoot the problems. See the descriptions of relevant log files in “Log files” on page 299.

You can review other useful troubleshooting information in the following topics:

- Chapter 15, “Troubleshooting installation and configuration,” on page 287
 - “Troubleshooting the launchpad application” on page 290
 - “Troubleshooting a silent installation” on page 291
 - “Diagnosing a failing Ant configuration script” on page 293
 - i5/OS “i5/OS installation troubleshooting tips” on page 292
 - “Messages: installation and profile creation” on page 294
 - “Recovering from profile creation or augmentation failure” on page 304
5. Ensure that the check box to launch the First steps console is selected, and click **Finish** to close the installation wizard and start the First steps console.

Results

If the Installation results panel indicates **Success**, the components you selected were installed successfully, and your deployment environment was updated successfully. The custom profile was federated to the running deployment manager of the deployment environment.

Install the most recent WebSphere Process Server fix pack on top of the installation (if any fix packs exist at the time of installation). For information about installing

fix packs on WebSphere Process Server, see the instructions under *Recommended Fixes* on the support pages at <http://www.ibm.com/software/integration/wps/support/>.

If the WebSphere Process Server deployment manager is not already running, start it from its First steps console so you can add additional clusters to the deployment environment. After the deployment manager is started, you can administer the nodes that belong to that cell.

Installing the WebSphere Process Server Client interactively

Use this procedure to install the WebSphere Process Server Client using the installation wizard graphical user interface (GUI). You can install WebSphere Application Server Network Deployment as part of your installation. You can also install the WebSphere Process Server Client over an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment, version 6.1.x.

About this task

This topic assumes that you have started the installation wizard, checked for prerequisites and existing WebSphere installations, and chosen to perform a Client installation, by following the procedure in “Installing WebSphere Process Server interactively” on page 79. Either the Installation summary panel or the Installation location panel is displayed, depending on whether or not you are installing the WebSphere Process Server Client over an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment.

Procedure

1. Complete the installation. The next step depends on whether or not you are installing the WebSphere Process Server Client over an existing WebSphere Application Server or WebSphere Application Server Network Deployment installation.

Installation status	Next step
You <i>are</i> installing over an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment. Important: The user who installs WebSphere Process Server must be the same user who installed WebSphere Application Server or WebSphere Application Server Network Deployment.	The Installation summary panel is displayed. Go to step 3 on page 102.
You are <i>not</i> installing over an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment.	The Installation location panel is displayed. Go to step 2.

2. In the Installation location panel, accept the default installation root directory for the products, or specify a different directory, and click **Next**.

i5/OS **On i5/OS platforms:** The Installation location panel on i5/OS systems also lets you specify the profile installation directory.

Linux **UNIX** **Windows** **On Linux, UNIX, and Windows platforms:** The installation wizard presents a system-owned, default installation root directory

for root or Administrator users. It presents a different user-owned, default installation root directory for non-root users.

See “Default installation directories for the product, profiles, and tools” on page 322 for information on default installation directories and how they are determined by the installation wizard.

The installation wizard verifies that the installation location is fully qualified, formed correctly, can be written to by the user ID performing the installation, and has sufficient disk space (including any required temporary space) to complete the installation successfully. If you do not have enough space, stop the installation program, free space by deleting unused files and emptying the recycle bin, and restart the installation.

Important:

- You must provide a value for the installation root directory to continue.
- **i5/OS** **On i5/OS platforms:** The maximum length of each component in the path name is 255 characters. The maximum length of the path name is 16 MB.
- **i5/OS** **Linux** **UNIX** **On i5/OS, Linux, and UNIX platforms:** Do not use symbolic links as the installation root directory; they are not supported. Also, do not use spaces in the directory path.
- **Windows** **On Windows platforms:** Do not use a semicolon in the directory name on Windows systems (a semicolon is the character used to construct the class path on Windows systems). WebSphere Process Server cannot install properly on a Windows platform if the target directory includes a semicolon.

On completion of this step, the Installation summary panel is displayed.

3. In the Installation summary panel, review the components that will be installed, the amount of space they will consume, and where they will be located on the system, and select **Next** to install or **Back** to change your specifications.

The installation wizard creates the uninstaller program and shows a progress panel to indicate that components are being installed.

If you elected to install the WebSphere Process Server Client over an existing version of WebSphere Application Server or WebSphere Application Server Network Deployment, the installation wizard examines it and takes one of the following actions:

- If the installation is at the correct service level, the installation wizard does nothing.
- If the installation is at an earlier service level, the installation wizard applies the necessary fixes to bring the installation up to the appropriate level and also applies any necessary interim fixes.

Restriction: **i5/OS** **On i5/OS platforms:** If the WebSphere Application Server Network Deployment installation is at an earlier service level and the WebSphere Process Server installation is being done remotely from a Windows client, then the WebSphere Application Server Network Deployment must be updated using a local silent installation from the i5/OS system before continuing with this installation.

At the end of the installation, the Installation results panel is displayed with a **Success** indication.


Attention:

If errors are detected during installation, other messages might appear in place of **Success**, for example:

- **Partial success**, which indicates that the installation completed but errors were generated.
- **Failed**, which indicates that the installation failed completely.

If an installation is not completely successful, the Installation results panel identifies the log file required to troubleshoot the problems. See the descriptions of relevant log files in “Log files” on page 299.

You can review other useful troubleshooting information in the following topics:

- Chapter 15, “Troubleshooting installation and configuration,” on page 287
 - “Troubleshooting the launchpad application” on page 290
 - “Troubleshooting a silent installation” on page 291
 - “Diagnosing a failing Ant configuration script” on page 293
 -  “i5/OS installation troubleshooting tips” on page 292
 - “Messages: installation and profile creation” on page 294
 - “Recovering from profile creation or augmentation failure” on page 304
4. Select **Finish** to close the installation wizard.

Results

If the Installation results panel indicates **Success**, the WebSphere Process Server Client was installed successfully.

Install the most recent WebSphere Process Server fix pack on top of the installation (if any exist at the time of installation). For information about installing fix packs on WebSphere Process Server, see the instructions under *Recommended Fixes* on the support pages at <http://www.ibm.com/software/integration/wps/support/>.

Run the `installver_wbi` command to verify that all WebSphere Process Server Client files are correctly installed. For more information, see “Verifying checksums of installed files” on page 126.

Installing additional features on an existing installation

Use this procedure to install additional features on an existing installation of WebSphere Process Server using the installation wizard graphical user interface (GUI).

About this task

This topic assumes that you have started the installation wizard and checked for prerequisites and existing WebSphere installations, by following the procedure in “Installing WebSphere Process Server interactively” on page 79. You have an installation of WebSphere Process Server on your system and you want to add features to it using an interactive interface. You do not have to have an existing WebSphere Process Server profile. Following this procedure does not modify features or profiles that are already installed, or affect any updates made to the original installation. The Features selection panel is displayed.

Procedure

1. From the Features selection panel, select the features you want to install and click **Next**. Features that are already installed are not available for selection. See “Product components” on page 328 for descriptions of the features you can select from this panel.

Tip: Adding the WebSphere Process Server Samples feature does not automatically deploy the samples to existing profiles. You must create a new profile to deploy the samples.

The Installation summary panel is displayed.

2. In the Installation summary panel, review the components that will be installed, the amount of space they will consume, and where they will be located on the system, and click **Next** to install or **Back** to change your specifications.

The installation wizard creates the uninstaller program and shows a progress panel to indicate that components are being installed.

The installation wizard examines the underlying WebSphere Application Server or WebSphere Application Server Network Deployment installation and takes one of the following actions:

- If the installation is at the correct service level, the installation wizard does nothing.
- If the installation is at an earlier service level, the installation wizard applies the necessary fixes to bring the installation up to the appropriate level and also applies any necessary interim fixes.

Restriction: i5/OS If the WebSphere Application Server Network Deployment installation is at an earlier service level and the WebSphere Process Server installation is being done remotely from a Windows client, then WebSphere Application Server Network Deployment must be updated using a local silent install from the i5/OS system before continuing with this installation.

- If you selected the WebSphere Process Server Samples feature, and you are installing over an installation of WebSphere Application Server Network Deployment that does not have its Samples gallery feature installed, the installation wizard adds the Samples gallery feature silently to the WebSphere Application Server Network Deployment installation.

Restriction: You can install the WebSphere Process Server Samples incrementally only over a WebSphere Application Server Network Deployment installation, not a WebSphere Application Server installation. Thus, if you select the WebSphere Process Server Samples feature, and you are installing WebSphere Process Server over an installation of WebSphere Application Server that does not have its Samples gallery feature installed, the Sample applications gallery feature is *not* added silently to the WebSphere Application Server installation.

Restriction: i5/OS **On i5/OS platforms:** If you selected the WebSphere Process Server Samples feature and you are installing over an installation of WebSphere Application Server Network Deployment that does not have the Samples gallery feature installed, then the Samples gallery feature must be added to WebSphere Application Server Network Deployment using a local silent installation from the i5/OS system before continuing with this installation.

At the end of the installation, the Installation results panel is displayed with a **Success** indication.

Attention:

If errors are detected during installation, other messages might appear in place of **Success**, for example:

- **Partial success**, which indicates that the installation completed but errors were generated.
- **Failed**, which indicates that the installation failed completely.

If an installation is not completely successful, the Installation results panel identifies the log file required to troubleshoot the problems. See the descriptions of relevant log files in “Log files” on page 299.

You can review other useful troubleshooting information in the following topics:

- Chapter 15, “Troubleshooting installation and configuration,” on page 287
 - “Troubleshooting the launchpad application” on page 290
 - “Troubleshooting a silent installation” on page 291
 - “Diagnosing a failing Ant configuration script” on page 293
 - **i5/OS** “i5/OS installation troubleshooting tips” on page 292
 - “Messages: installation and profile creation” on page 294
 - “Recovering from profile creation or augmentation failure” on page 304
3. In the Installation results panel, take one of the following actions, depending on whether you want to create a new profile now:

Profile status	Next step
You want to create a profile	Leave the check box beside Create a new WebSphere Process Server profile using the Profile Management Tool selected and click Finish . The installation wizard closes and the Profile Management Tool starts. See “Creating profiles using the Profile Management Tool” on page 165 and “Augmenting profiles using the Profile Management Tool” on page 172 for instructions on how to use this tool to create new WebSphere Process Server profiles or augment existing application server or WebSphere Enterprise Service Bus profiles into WebSphere Process Server profiles.
You do <i>not</i> want to create a profile	Clear the check box beside Create a new WebSphere Process Server profile using the Profile Management Tool and click Finish to close the installation wizard. Attention: To have an operational environment, a WebSphere Process Server stand-alone server profile or deployment manager profile with managed nodes must exist.

Results

If the Installation results panel indicates **Success**, the additional features were installed successfully.

Install the most recent WebSphere Process Server fix pack on top of the installation (if any fix packs exist at the time of installation). For information about installing fix packs on WebSphere Process Server, see the instructions under *Recommended Fixes* on the support pages at <http://www.ibm.com/software/integration/wps/support/>.

If you have not created a profile, see “Creating profiles using the Profile Management Tool” on page 165 or “Augmenting profiles using the Profile Management Tool” on page 172 for instructions on how to use the Profile Management Tool to create new WebSphere Process Server profiles or augment existing application server or WebSphere Enterprise Service Bus profiles into WebSphere Process Server profiles.

For more information on the WebSphere Process Server Samples gallery, see *Accessing the Samples (Samples Gallery)*.

Converting a WebSphere Enterprise Service Bus or WebSphere Process Server Client installation into a WebSphere Process Server installation

Use this procedure to convert a WebSphere Enterprise Service Bus or WebSphere Process Server Client version 6.1.x installation into a WebSphere Process Server version 6.1.x installation, using the installation wizard graphical user interface (GUI).

About this task

This topic assumes that you have started the installation wizard and checked for prerequisites and existing WebSphere installations, by following the procedure in “Installing WebSphere Process Server interactively” on page 79. You want to install WebSphere Process Server interactively over an existing installation of WebSphere Enterprise Service Bus or WebSphere Process Server Client. The Features selection panel is displayed.

Procedure

1. In the Features selection panel, select the features you want to install and select **Next**. Features that are already installed are not available for selection.

See “Product components” on page 328 for descriptions of the features you can select from this panel. The Installation summary panel is displayed.

2. In the Installation summary panel, review the components that will be installed, the amount of space they will consume, and where they will be located on the system, and select **Next** to install or **Back** to change your specifications.

The installation wizard creates the uninstaller program and shows a progress panel to indicate that components are being installed.

The installation wizard examines the underlying WebSphere Application Server or WebSphere Application Server Network Deployment installation and takes one of the following actions:

- If the installation is at the correct service level, the installation wizard does nothing.

- If the installation is at an earlier service level, the installation wizard applies the necessary fixes to bring the installation up to the appropriate level and also applies any necessary interim fixes.

Restriction: **i5/OS** If the WebSphere Application Server Network Deployment installation is at an earlier service level and the WebSphere Process Server installation is being done remotely from a Windows client, then WebSphere Application Server Network Deployment needs to be updated using a local silent install from the i5/OS system before continuing with this installation.

- If you selected the WebSphere Process Server Samples feature, and you are installing over an installation of WebSphere Application Server Network Deployment that does not have its Samples gallery feature installed, the installation wizard adds the Samples gallery feature silently to the WebSphere Application Server Network Deployment installation.

Restriction: The WebSphere Process Server Samples feature can be incrementally installed only over a WebSphere Application Server Network Deployment installation, not over a WebSphere Application Server installation. Thus, if you select the WebSphere Process Server Samples feature, and you are installing WebSphere Process Server over an installation of WebSphere Application Server that does not have its Samples gallery feature installed, the Sample applications gallery feature is *not* added silently to the WebSphere Application Server installation.

Restriction: **i5/OS** **On i5/OS platforms:** If you selected the WebSphere Process Server Samples feature and you are installing over an installation of WebSphere Application Server Network Deployment that does not have the Samples gallery feature installed, then the Samples gallery feature must be added to WebSphere Application Server Network Deployment using a local silent installation from the i5/OS system before continuing with this installation.

At the end of the installation, the Installation results panel is displayed with a **Success** indication.

Attention:

If errors are detected during installation, other messages might appear in place of **Success**, for example:

- **Partial success**, which indicates that the installation completed but errors were generated.
- **Failed**, which indicates that the installation failed completely.

If an installation is not completely successful, the Installation results panel identifies the log file required to troubleshoot the problems. See the descriptions of relevant log files in “Log files” on page 299.

You can review other useful troubleshooting information in the following topics:

- Chapter 15, “Troubleshooting installation and configuration,” on page 287
- “Troubleshooting the launchpad application” on page 290
- “Troubleshooting a silent installation” on page 291
- “Diagnosing a failing Ant configuration script” on page 293
- **i5/OS** “i5/OS installation troubleshooting tips” on page 292
- “Messages: installation and profile creation” on page 294
- “Recovering from profile creation or augmentation failure” on page 304

3. Click **Finish** to close the installation wizard.

Results

If the Installation results panel indicates **Success**, the product was installed successfully.

Install the most recent WebSphere Process Server fix pack on top of the installation (if any exist at the time of installation). For information about installing fix packs on WebSphere Process Server, see the instructions under *Recommended Fixes* on the support pages at <http://www.ibm.com/software/integration/wps/support/>.

If you have not created a profile, see “Creating profiles using the Profile Management Tool” on page 165 or “Augmenting profiles using the Profile Management Tool” on page 172 for instructions on how to use the Profile Management Tool to create new WebSphere Process Server profiles or augment existing application server or WebSphere Enterprise Service Bus profiles into WebSphere Process Server profiles.

You can then start the server or deployment manager you create from its First steps console to verify that your installation is operating properly. See “Options on the First steps console” on page 119 for more details.

Installing silently on Linux, UNIX, and Windows

If you do not want to use the graphical user interface to install WebSphere Process Server, you can perform a silent, or background, installation on a distributed system by using files called response files. Instead of displaying a graphical user interface, or a “wizard,” the silent installation causes the installation program to read all of your responses from a file that you provide. An example response file, `responsefile.wbis.txt`, is shipped with default values and can be used to silently install WebSphere Process Server.

Response files, also called options files, are used to pass command-line options to the installation program.

Before you begin

- Make sure that you have reviewed the list of prerequisites for installing the product at Chapter 4, “Prerequisites for installing WebSphere Process Server,” on page 37.
- Make sure that you are logged in as an administrator when security and role-based authorization are enabled. Security is enabled by default during silent installation. To disable security change the **PROF_enableAdminSecurity** value in the response file to “false”.

Note: If you select to create a stand-alone server profile during a Typical installation and enable security, the installer creates a sample Business Process Choreographer configuration for the profile. If you do not enable security, the sample configuration is not created. If you plan to federate the stand-alone server to a deployment manager, you will first have to delete this sample configuration.

Important: **AIX** **On AIX platforms:** To prepare the file for a silent installation on AIX, use UNIX line-end characters (0x0D0A) to end each line of the response file. The safest method of preparing the file is to edit the file on the target operating system.

Note: You cannot install from the product installation CDs using a response file, because the installation files are included on more than one CD. If you want to install silently, you can do one of the following:

- Save the contents of the electronic image from Passport Advantage to a temporary location on your system and run the silent installation from there.
- Install silently using the *WebSphere Process Server V6.1 DVD*.
- Copy the contents of both *WebSphere Process Server V6.1 Disk 1* and *WebSphere Process Server V6.1 Disk 2* into a temporary location on your system and run the silent installation from there.

For more information about installing from the command line, see the WebSphere Process Server Technote Additional Information for Silent Installation of WebSphere Process Server.

Procedure

To install silently using the response file, perform the following steps.

1. Log on to the operating system.
2. **Linux** **UNIX** **On Linux and UNIX platforms:** After inserting a DVD into a drive, some Linux and UNIX operating systems require you to mount the drive.
3. Copy the sample response file `responsefile.wbis.txt` from the WBI directory on the disc labelled *WebSphere Process Server V6.1 Disk 1* or *WebSphere Process Server V6.1 DVD* to a place that you can easily identify on your system, and save it with a new name, such as `myoptionsfile.txt`.
4. Edit the file using a flat file editor of your choice on the target operating system, customizing it with the parameters for your system. Read the directions in the response file to choose appropriate values for all of the options you must set for your specific silent installation.

You can modify all of the parameters in the response file, but pay attention to the following options and values:

- - Important:** Make sure that you change the License Acceptance statement in the file to a value of "true". Leaving it with a value of "false" causes the installation to fail.
For example, the License Acceptance should be: `-OPT silentInstallLicenseAcceptance="true"`
 - Change the value of the `wpsInstallType` option to designate one of the following types of installation:
 - "typical" - a full installation of WebSphere Process Server that allows you to define an initial WebSphere Process Server environment of stand-alone server, deployment manager, custom or none.
By default, the Installation Type Settings in `responsefile.wbis.txt` are set for a typical installation: `-OPT wpsInstallType="typical"`
 - "client" - a partial installation of WebSphere Process Server that allows you to run client applications that interact with a process server within the same cell.
To create an operational WebSphere Process Server Client environment, don't select any optional features (such as samples) and don't create a profile as part of the installation. Doing so will cause the installation to fail. For an example of how to create a client installation, see the sample response file.
 - "ndGuided" - a full installation of WebSphere Process Server that guides you through setting up a deployment environment, creating a deployment manager based on a deployment environment pattern or defining a deployment environment that you have previously created.
 - For a typical installation you must have a profile to create an operational WebSphere Process Server environment. You can create a profile silently by specifying certain values in your response file that will create a profile during the installation process. Change the value of the option `profileType` to one of the following values:
 - `deploymentManager` - creates a profile with a deployment manager. For example:
`-OPT profileType="deploymentManager"`
 - `standAlone` - creates a profile with a stand-alone server. For example:
`-OPT profileType="standAlone"`
 - `custom` - creates a profile with an empty node, which you can configure after installation.
`-OPT profileType="custom"`
 - `none` - does not create a profile during installation. Use this value if you do not want to create a profile during the silent installation process. After installation, you will need to run the Profile Management Tool in order to create a profile.
`-OPT profileType="none"`

Note: If you want to create a new profile for an existing installation, comment out the `-OPT installType="installNew"` section of your response file, remove the comments from the `-OPT createProfile` section of the response file, and change the value of the option `-createProfile` to true. For example:


```
#-OPT installType="installNew"  
-OPT createProfile="true"
```

For more information about creating profiles silently, see “Creating profiles using the manageprofiles command” on page 168.

- If you designated a deployment environment installation (-OPT wpsInstallType="ndGuided"), you must designate additional options to define that installation. Change the value of the ndGuidedInstallType option to one of the following values:
 - deploymentManager - guides you through the creation of a deployment manager in order to create a new deployment environment based on the pattern that you choose. For example:
-OPT ndGuidedInstallType="deploymentManager"

If you use the deploymentManager value, you must change several other values in the response file to further define the creation of the deployment manager server during the silent installation.

- additionalRoles - guides you through the creation of a custom profile for a deployment environment that you have already defined. You must be able to connect to the running deployment manager on that deployment environment. For example:
-OPT ndGuidedInstallType="additionalRoles"

For more information about the deployment environment, see Planning for WebSphere Process Server and Implementing a deployment environment.

Note: You can always go back to the *WebSphere Process Server V6.1 Disk 1 CD* or *WebSphere Process Server V6.1 DVD* in the WBI directory to view the example response file responsefile.wbis.txt and review the default options and values.

5. Save your changes in your copy of the response file.
6. Run the command to install WebSphere Process Server using your custom response file. The commands shown assume that you have copied your response file into a temporary directory and renamed it as myoptions.txt before customizing the file.

Run the following command from either the *WebSphere Process Server V6.1 DVD* or from the temporary location where you have saved the contents of the electronic image from Passport Advantage or *WebSphere Process Server V6.1 Disk 1* and *WebSphere Process Server V6.1 Disk 2*.

- **Linux** **UNIX** **On Linux and UNIX platforms:** install -options /tmp/WBI/myoptions.txt -silent
- **Windows** **On Windows platforms:** install.bat -options "C:\temp\WBI\myoptions.txt" -silent

What to do next

Verify the success of the installation by examining the log.txt log file. The log file is located as follows, where *install_root* represents the location of the WebSphere Process Server or WebSphere Process Server Client installation:

- **Linux** **UNIX** **On Linux and UNIX platforms:** *install_root*/logs/wbi/install/log.txt
- **Windows** **On Windows platforms:** *install_root*\logs\wbi\install\log.txt

If this log file contains the string INSTCONFSUCCESS on the last line, then the installation was successful. Note that other terms such as INSTCONFPARTIALSUCCESS

or `INSTCONFFAILED` can occur on other lines within the file, or even on the last line, but if `INSTCONFSUCCESS` is included in the last line, the installation was successful.

If the installation was unsuccessful, examine other log files to determine why. See the descriptions of relevant log files listed in Log files, of error messages in Error messages: installation and profile creation and augmentation, and examine Troubleshooting a silent installation. For tips on troubleshooting your installation, see Troubleshooting installation and configuration. If the profile was not created successfully, see Recovering from profile creation or augmentation failure.

If the installation was successful, and you chose to create a stand-alone profile or deployment manager profile, you can start the server or deployment manager from its First Steps console to verify that your installation is operational. See Options on the First Steps console for more details. You can also use the installation verification tools to verify your installation. For more information, see Verifying the installation.

Installing silently on i5/OS from a System i server

If you do not want to use the graphical user interface to install WebSphere Process Server, you can perform a silent, or background, installation on a System i server by using a file called a response file. Instead of displaying a graphical user interface, or a "wizard," the silent installation causes the installation program to read all of your responses from a file that you provide. An example response file, `responsefile.wbis.txt`, is shipped with default values and can be used to silently install WebSphere Process Server.

Before you begin

Prepare for the installation before using this procedure. See "Preparing i5/OS systems for installation" on page 50 for more information.

Before you install WebSphere Process Server, ensure that your user profile has `*ALLOBJ` and `*SECADM` special authorities.

About this task

You can install WebSphere Process Server from Qshell using the `INSTALL` command. You can also use the `RUNJVA` command to invoke the installation wizard.

Response files, also called options files, are used to pass command-line options to an installation or uninstallation program.

Procedure

1. Sign on to the System i server with a user profile that has `*ALLOBJ` and `*SECADM` special authorities.
2. Place the WebSphere Process Server for i5/OS disk in the disk drive of your System i server.

Do not use the WebSphere Process Server, Version 6.1 for Windows disk or any other operating system disk other than the disk for i5/OS.

3. Use the Copy (CPY) command to create a copy of the `responsefile.wbis.txt` file from the disk.

For example:

```
CPY OBJ('/QOPT/WEBSHERE') TOOBJ('/my_dir/new_dir') SUBTREE(*ALL) REPLACE(*YES)
```

QOPT is the disk mount point.

WEBSHERE is the disk volume label.

/WBI is the product directory on the disk. This will be referred to in later steps.

4. If you have not already done so, read the IBM International Program License Agreement located in the /WBI/lafiles directory.
If you agree to the terms of the agreement, continue with the installation process.
5. Edit the /MYDIR/responsefile.base.txt file.
 - a. Change the value for -OPT silentInstallLicenseAcceptance from false to true.
A value of true indicates that you have read and accept the terms of the license agreement. This change is required to run the installation.
 - b. By default, the PROF_enableAdminSecurity option is set to true. If you want to enable administrative security for the default profile created during install, you must specify values for the PROF_adminUserName and PROF_adminPassword options.
The user ID and password do not need to be a system user ID and password or an LDAP user ID and password. The ID-and-password pair specified are stored in the user registry and used for administrative security for the default profile. Write down the user ID and password.
If you do not want to enable administrative security for the default profile, change the value for the PROF_enableAdminSecurity option from true to false.

Note: The Samples feature is not installed with the product by default. If you want to use the samples, perform the following actions:

- Specify sampleSelected for the -OPT addFeature option.
 - Specify a value for the -OPT samplesPassword option if you are enabling security.
6. Invoke the installation program for WebSphere Process Server for i5/OS.
To invoke the installation program for WebSphere Process Server for i5/OS, run the **INSTALL** command from Qshell or use the **RUNJVA** command from the CL command line.

In the following example commands, *pathresponsefile* represents the fully qualified path of the responsefile.wbis.txt file that you edited.

- Run the **INSTALL** command from Qshell.
 - a. On a CL command line, issue the STRQSH command to start the Qshell command shell.
 - b. Issue the **INSTALL** command from the /WBI directory to start the installation program.

```
INSTALL -options path/responsefile -silent
```

Important: Do not exit the Qshell session (PF3) until the installation has completed. Doing so might cause the installation to stop prematurely.

- Issue the **RUNJVA** command from the CL command line:
At the CL command line, change back to the /my_dir/new_dir/WBI/install directory before issuing the following commands. Enter the **RUNJVA** command on one line. The command is shown on more lines for formatting clarity.

```

RUNJAVA
CLASS(run) PARM('-options' 'path/responsefile')
CLASSPATH('setup.jar')
PROP(
('Xbootclasspath/p' '../JDK/jre.pak/repository/package.java.jre/
java/jre/lib/xml.jar')
(java.version 1.5)
(is.debug 1)
)

```

Results

After you invoke the installation, messages are displayed that indicate the progress of the installation process. When the setup program completes, press **F3** to exit.

What to do next

Installing silently on i5/OS from a Windows workstation command line

One installation alternative is to install WebSphere Process Server for i5/OS from a Windows workstation command line.

About this task

The remote silent mode allows you to install the product with a single command from a remote Windows workstation. Installation options must be specified in a response file. During the installation, you are unable to change the installation options. The parameters and default values are described in responsefile.wbis.txt for command-line installation.

Procedure

1. If TCP/IP is not started on your System i server, enter the Start TCP/IP (STRTCP) command on the Control Language (CL) command line.
2. Verify that the host server jobs are started on your System i server. The host server jobs allow the installation code to run on i5/OS.
On a CL command line, enter the following command:
STRHOSTSVR SERVER(*ALL)
3. Verify that your user profile has the *ALLOBJ and *SECADM special authorities.
4. Place the WebSphere Process Server for i5/OS disk in the disk drive of your Windows workstation. The autorun feature brings up the GUI. Click Cancel to exit the GUI.
Do not use the WebSphere Process Server, Version 6.1 for Windows disk or any other operating system disk other than the disk for i5/OS.
5. On your Windows workstation, open a command prompt.
6. Access the disk drive of your Windows workstation by switching to the disk drive. For example, enter e: where e: is the letter assigned to your DVD drive.
7. Copy the response file from the disk directory to a directory on your Windows workstation, such as the C:\temp directory.
For example:
copy responsefile.wbis.txt C:\temp\RESPONSEFILE
8. If you have not already done so, read the IBM International Program License Agreement located in the \LICENSES directory.

If you agree to the terms of the agreement, continue with the installation process.

9. Edit the RESPONSEFILE file.

- a. Change the value for `-OPT silentInstallLicenseAcceptance` from `false` to `true`.

A value of `true` indicates that you have read and accept the terms of the license agreement. This change is required to run the installation.

- b. By default, the `PROF_enableAdminSecurity` option is set to `true`. If you want to enable administrative security for the default profile created during install, you must specify values for the `PROF_adminUserName` and `PROF_adminPassword` options.

The user ID and password do not need to be a system user ID and password or an LDAP user ID and password. The ID-and-password pair specified are stored in the user registry and used for administrative security for the default profile. If you specify WebSphere local security, the `userid` must be a valid user profile. If you specify an LDAP registry, the `userid` must be a member of that registry. Write down the user ID and password.

If you do not want to enable administrative security for the default profile, change the value for the `PROF_enableAdminSecurity` option from `true` to `false`.

Note: The Samples feature is not installed with the product by default. If you want to use the samples, perform the following actions:

- Specify `sampleSelected` for the `-OPT addFeature` option.
- Specify a value for the `-OPT samplesPassword` option if you are enabling security.

10. Run the `install.bat` command. Specify the response file to use during the installation. Specify the i5/OS system name and a valid i5/OS user profile and password when you run this command.

Your user profile must have `*ALLOBJ` and `*SECADM` special authorities for this step.

```
install.bat system_name user_name password -options response_file -silent
```

The `system_name` variable is the name of your System i server. The `user_name` variable and the `password` variable are your user profile login credentials, and the `response_file` variable is the name of your response file.

The password used in this command is displayed in clear text on the command line. For example:

```
install.bat MYISERIES myUserName myPassword  
-options C:\temp\RESPONSEFILE -silent
```

After you issue the command, control returns to the command prompt while the installation process runs.

11. Check the `install_root/logs/install/log.txt` log file to verify that the installation is complete.

Results

This procedure results in installing WebSphere Process Server from a Windows workstation command line.

Running scripts on i5/OS

On an i5/OS platform, scripts are run in the *Qshell* command environment.

Before you begin

Many of the scripts shipped with i5/OS require the user profile to have *ALLOBJ special authority or explicit authority. This is akin to root authority on a UNIX platform.

About this task

To run a script on i5/OS, follow these steps:

Procedure

1. Go to the i5/OS command line.
2. On the command line, start the Qshell. Enter: STRQSH
3. Once in Qshell, change the directory to the location where the script resides and then run the appropriate script. Example, `cd /QIBM/ProdData/WebSphere/ProcServer/bin`

Starting the First steps console

After installing WebSphere Process Server, use the First steps console to start product tooling, access product documentation, or direct elements such as servers and administrative consoles related to individual profiles. A generic version of the console, plus a version for each profile in your installation are available.

Options on each console are displayed dynamically, depending on features you install and the availability of certain elements on particular operating systems. Options include verifying your installation, starting or stopping the server or deployment manager, accessing the administrative console, starting the Profile Management Tool, accessing the Samples gallery, accessing the product documentation, or starting the migration wizard. Methods for starting the First steps console differ depending on whether it is a generic or profile-specific version.

The following sections provide detailed information on starting a First steps console based on its version and the platform used on the system:

- “Starting the generic version of the First steps console” on page 117
- “Starting a First steps console associated with a profile on i5/OS platforms” on page 117
- “Starting a First steps console associated with a profile on Linux, UNIX, and Windows platforms” on page 118

Restrictions:

- **i5/OS** **On i5/OS platforms:** The i5/OS version of the First steps console does not have a migration wizard option.
- The WebSphere Process Server Client does not have an associated First steps console. The underlying WebSphere Application Server or WebSphere Application Server Network Deployment installation has its own First steps console.

- **Windows** **On Windows platforms:** The First steps console might not start if you use Mozilla 2.x as your default browser and it is installed in a location containing a space in the path name. To rectify this problem, perform one of the following actions:
 - Install Mozilla into a location without a space in the path name.
 - Alter the registry key to remove the space.
 - Temporarily set Internet Explorer as the default browser and then set Mozilla as the default browser. This automatically removes the space from the registry key.

Starting the generic version of the First steps console

Start the generic version of the First steps console by performing the following steps. Because an i5/OS system does not have a graphical user interface (GUI), a First steps console on this platform must be started from a Windows workstation.

1. Open a command window.
2. Change to the following directory:
 - **i5/OS** **On i5/OS platforms:** `first_steps_location\firststeps\wbi\noprfile`
 - **Linux** **UNIX** **On Linux and UNIX platforms:** `install_root/firststeps/wbi`
 - **Windows** **On Windows platforms:** `install_root\firststeps\wbi`

The variable `install_root` represents the location of the WebSphere Process Server installation on Linux, UNIX, and Windows systems; `first_steps_location`, the location of the i5/OS First steps console on the Windows workstation. The `first_steps_location` is in one of the following locations:

- `install_image_location\WBI\iSeries`, where `install_image_location` is the path to the disc media or the location of the Passport Advantage image.
 - `pmt_client_installation`, which is by default `C:\Program Files\IBM\WebSphere\PMTCClient`
3. Issue the `firststeps` or `run` command (depending on platform) to start the console:
 - **i5/OS** **On i5/OS platforms:** `run.bat`
 - **Linux** **UNIX** **On Linux and UNIX platforms:** `./firststeps.sh`
 - **Windows** **On Windows platforms:** `firststeps.bat`

Fastpath:

Windows **On Windows platforms:** You can also start the generic version of the console on Windows platforms by selecting **Start** → **Programs** → **IBM WebSphere** → **Process Server 6.1** → **First steps**.

Starting a First steps console associated with a profile on i5/OS platforms

i5/OS Start a First steps console associated with a profile by performing the following steps. Because an i5/OS system does not have a graphical user interface (GUI), a First steps console on this platform must be started from a Windows workstation.

1. Open a command window.

2. Change to the directory containing the First steps console. The location of the directory depends on both the location of the First steps console and the profile type you wish to work with. The path is *first_steps_location*\firststeps*product_type**profile_type* where the variables are defined as follows:
 - *first_steps_location* is in one of the following locations:
 - *install_image_location*\WBI\iSeries, where the *install_image_location* is either the path to the disc media or the location into which the Passport Advantage image was downloaded.
 - *pmt_client_installation*, which is by default C:\Program Files\IBM\WebSphere\PMTCClient.
 - *product_type* is one of the following:
 - wbi -- WebSphere Process Server
 - esb -- WebSphere Enterprise Service Bus
 - *profile_type* is one of the following:
 - default -- stand-alone server profile
 - dmgr -- deployment manager profile
 - managed -- managed or custom profile
 - noprofile – use this value when there is no existing profile
3. Issue the following command to start the console:


```
run.bat --installRoot install_root --profilePath profile_root --hostname hostname --username username --password password
```

Note: Although the First steps console is started on a Windows workstation, the *hostname* must be the i5/OS system and the *username* and *password* must be for a valid i5/OS user profile. The i5/OS user profile must have *ALLOBJ and *SECADM special authorities.

Example:

```
run.bat --installRoot /QIBM/ProdData/WebSphere/ProcServer
--profilePath /QIBM/UserData/WebSphere/ProcServer/profiles/ProcSrv01
--hostname myi5.x.com --username username1 --password acb11abc
```

Starting a First steps console associated with a profile on Linux, UNIX, and Windows platforms

Linux **UNIX** **Windows** Start a First steps console associated with a profile by performing the following steps:

1. Open a command window.
2. Change to the following directory (where *profile_root* represents the installation location of the WebSphere Process Server or WebSphere Enterprise Service Bus profile):
 - For WebSphere Process Server profiles:
 - **Linux** **UNIX** **On Linux and UNIX platforms:** *profile_root*/firststeps/wbi
 - **Windows** **On Windows platforms:** *profile_root*\firststeps\wbi
 - For WebSphere Enterprise Service Bus profiles:
 - **Linux** **UNIX** **On Linux and UNIX platforms:** *profile_root*/firststeps/esb
 - **Windows** **On Windows platforms:** *profile_root*\firststeps\esb
3. Issue the **firststeps** command to start the console:

- **Linux** **UNIX** **On Linux and UNIX platforms:** `./firststeps.sh`
- **Windows** **On Windows platforms:** `firststeps.bat`

Fastpath:

You can also start a version of the First steps console associated with a profile by doing one of the following:

- When performing selected installation procedures, by checking the First steps console check box on the Installation complete panel at the end of the installation process.
- Checking the First steps console check box on the Profile creation complete or Profile augmentation complete panel at the end of the profile creation or augmentation process.
- **Windows** **On Windows platforms:** When starting a First steps console associated with a WebSphere Process Server or WebSphere Enterprise Service Bus profile, by selecting **Start** → **Programs** → **IBM WebSphere** → **Process Server 6.1** → *profile_name* → **First steps**.

See “Options on the First steps console” for descriptions of the options you can select from the First steps console.

Options on the First steps console

After installing WebSphere Process Server, use the First steps console to start product tooling, access product documentation, or direct elements such as servers and administrative consoles related to individual profiles. A generic version of the console, plus a version for each profile in your installation are available. Options on each console are displayed dynamically, depending on features you install and the availability of certain elements on particular operating systems. Options include verifying your installation, starting or stopping the server or deployment manager, accessing the administrative console, starting the Profile Management Tool, accessing the Samples gallery, accessing the product documentation, or starting the migration wizard.

Restrictions:

- **i5/OS** **On i5/OS platforms:** The i5/OS version of the First steps console does not have a migration wizard option.
- The WebSphere Process Server Client does not have an associated First steps console. The underlying WebSphere Application Server installation has its own First steps console.

Options that are displayed on the various types of First steps consoles are summarized in Table 21. Each option is defined in “Option descriptions” on page 120. “Usage tips” on page 122 describes which commands each option calls.

Table 21. Available options on First steps consoles

Option	Generic version	Stand-alone server profile version	Deployment manager profile version	Custom profile version
Installation verification	No	Yes	Yes	No
Start and stop the server	No	Yes	No	No

Table 21. Available options on First steps consoles (continued)

Option	Generic version	Stand-alone server profile version	Deployment manager profile version	Custom profile version
Start and stop the deployment manager	No	No	Yes	No
Administrative console	No	Yes	Yes	No
Profile Management Tool	Yes	Yes	Yes	Yes
Samples gallery	No	Yes	No	No
Information center	Yes	Yes	Yes	Yes
Migration wizard	Yes (except on i5/OS)	Yes (except on i5/OS)	Yes (except on i5/OS)	Yes (except on i5/OS)
Copyright and trademark information	Yes	No	No	No
Exit	Yes	Yes	Yes	Yes

Option descriptions

Options that are displayed on the various versions of the First steps consoles are described here:

Installation verification

Starts the installation verification test. The test consists of starting and monitoring the stand-alone server or deployment manager during its start up.

If this is the first time that you have used the First steps console since creating a stand-alone server or deployment manager profile, select **Installation verification** to verify your installation. The verification process starts the stand-alone server or deployment manager.

The **Start the server** and **Start the deployment manager** options are unavailable while the Installation Verification Tool (IVT) runs.

The IVT provides the following useful information about the stand-alone server or deployment manager:

- The name of the server process
- The name of the profile
- The profile path, which is the file path and the name of the profile
- The type of profile
- The cell name
- The node name
- The current encoding
- The port number for the administrative console
- Various informational messages that include the location of the SystemOut.log file and how many errors are listed within the file

- A completion message

Review more information about verifying your installation in Chapter 8, “Verifying the product installation,” on page 125 and its child topics.

Start the server

Toggles to **Stop the server** when the server runs.

After selecting the **Start the server** option, an output screen is displayed with status messages. The success message informs you that the server is open for e-business. Then the menu item changes to **Stop the server** and both the **Administrative console** and **Samples gallery** options are enabled (if you installed them).

If you select the **Start the server** option, the **Installation verification** option is unavailable while the server is starting.

Start the deployment manager

Toggles to **Stop the deployment manager** when the deployment manager runs.

After selecting the **Start the deployment manager** option, an output screen is displayed with status messages. The success message informs you that the deployment manager is open for e-business. Then the menu item changes to **Stop the deployment manager** and the **Administrative console** option is enabled (if you installed it).

If you select the **Start the deployment manager** option, the **Installation verification** option is unavailable while the deployment manager runs.

Administrative console

Displayed only if you deployed the Administrative console during profile creation or augmentation. This option is unavailable until you start the stand-alone server or deployment manager.

The administrative console is a configuration editor that runs in a Web browser. The administrative console lets you work with XML configuration files for the stand-alone server or deployment manager, and all of the applications that are in the cell.

To start the administrative console, select **Administrative console**.

The administrative console prompts for a login name. This is not a security item, but merely a tag to identify configuration changes that you make during the session. Secure signon is also available when administrative security is enabled.

The installation procedures in the information center caution you to write down the administrative user ID and password when security is enabled during installation. Without the ID and password, you cannot use the administrative console or scripting.

Profile Management Tool

Not available on 64-bit Linux or Linux on System z platforms. Starts the Profile Management Tool. The tool lets you create a stand-alone server, deployment manager, or custom profile.

A *profile* consists of files that define the runtime environment for the stand-alone server or deployment manager. Each profile has its own administrative interface. A custom profile is an exception. A custom profile is an empty node that you federate into a deployment manager cell and customize. No default server processes or applications are created for a custom profile.

Each profile has its own First steps console. The location of the command to start the First steps console is within the set of files in the profile. A prompt to start the First steps console that is associated with a profile is displayed on the last panel of the Profile Management Tool.

Samples gallery

Displayed only if you installed the WebSphere Process Server samples during profile creation or augmentation. This option starts the WebSphere Process Server Samples gallery in the administrative console. The option is unavailable until you start the server.

To start the Samples gallery, select **Samples gallery**.

If you did not install the WebSphere Process Server samples during the initial installation of the product, the option does not display on the First steps console. You can perform an incremental installation to add the Samples feature. After adding the Samples, the option is displayed on the First steps console.

Information center

Links you to the online information center at <http://publib.boulder.ibm.com/infocenter/dmndhelp/v6r1mx/>.

Migration wizard

Starts the WebSphere Process Server version-to-version migration wizard, which is the graphical interface to the migration tools. The version-to-version migration wizard is a graphical interface that guides you through migrating from an older version to a newer version of WebSphere Process Server. See the topic Migration wizard for more information about this interface.

Copyright and trademark information

Shows the copyright and trademark information for WebSphere Process Server.

Exit Closes the First steps console.

Usage tips

Table 22 on page 123 shows which commands the options on the various WebSphere Process Server First steps consoles call. For more information on selected individual commands, look up the command in the Command-line utilities section in the WebSphere Application Server Network Deployment, version 6.1.x, information center:

- `ivt` command
- `startServer` command
- `stopServer` command
- `startManager` command
- `stopManager` command

The `firststeps`, `pmt`, and `migration` commands included in the WebSphere Process Server product exist in different directory locations or perform different functions than the equivalent WebSphere Application Server Network Deployment, version 6.1.x commands. Therefore, links to those commands in the WebSphere Application Server Network Deployment, version 6.1.x information center are not provided here.

Table 22. Commands called by First steps console options

Option	Link
Installation verification	<p>Calls the ivt command.</p> <p>The location of the installation verification test command is:</p> <ul style="list-style-type: none"> <li>• i5/OS On i5/OS platforms: <i>profile_root/bin/ivt</i> <li>• Linux UNIX On Linux and UNIX platforms: <i>profile_root/bin/ivt.sh</i> <li>• Windows On Windows platforms: <i>profile_root\bin\ivt.bat</i>
Start the server	<p>Calls the startServer command.</p> <p>The location of the startServer command is:</p> <ul style="list-style-type: none"> <li>• i5/OS On i5/OS platforms: <i>profile_root/bin/startServer</i> <li>• Linux UNIX On Linux and UNIX platforms: <i>profile_root/bin/startServer.sh</i> <li>• Windows On Windows platforms: <i>profile_root\bin\startServer.bat</i> <p>When you have more than one stand-alone server on the same workstation, the command starts the stand-alone server that is associated with the same profile as in the First steps console.</p>
Stop the server	<p>Calls the stopServer command.</p> <p>The location of the stopServer command is:</p> <ul style="list-style-type: none"> <li>• i5/OS On i5/OS platforms: <i>profile_root/bin/stopServer</i> <li>• Linux UNIX On Linux and UNIX platforms: <i>profile_root/bin/stopServer.sh</i> <li>• Windows On Windows platforms: <i>profile_root\bin\stopServer.bat</i>
Start the deployment manager	<p>Calls the startManager command.</p> <p>The location of the startManager command is:</p> <ul style="list-style-type: none"> <li>• i5/OS On i5/OS platforms: <i>profile_root/bin/startManager</i> <li>• Linux UNIX On Linux and UNIX platforms: <i>profile_root/bin/startManager.sh</i> <li>• Windows On Windows platforms: <i>profile_root\bin\startManager.bat</i> <p>When you have more than one deployment manager on the same workstation, the command starts the deployment manager that is associated with the same profile as in the First steps console.</p>
Stop the deployment manager	<p>Calls the stopManager command.</p> <p>The location of the stopManager command is:</p> <ul style="list-style-type: none"> <li>• i5/OS On i5/OS platforms: <i>profile_root/bin/stopManager</i> <li>• Linux UNIX On Linux and UNIX platforms: <i>profile_root/bin/stopManager.sh</i> <li>• Windows On Windows platforms: <i>profile_root\bin\stopManager.bat</i>

Table 22. Commands called by First steps console options (continued)

Option	Link
Administrative console	<p>Opens the default browser to the administrative console Web address.</p> <p>When you have more than one server on the same workstation (or on the same logical partition on i5/OS), the port varies. The First steps console starts the administrative console that is associated with the same profile as in the First steps console.</p>
Profile Management Tool	<p>Calls the pmt command.</p> <p>The location of the pmt command is:</p> <ul style="list-style-type: none"> • i5/OS On i5/OS platforms: The pmt command is run from the Windows workstation. The command is found in one of two locations: <ul style="list-style-type: none"> – <i>install_image_location</i>\WBI\iSeries\PMT\pmt.bat, where the <i>install_image_location</i> is either the path to the disc media or the location into which the Passport Advantage image was downloaded – <i>pmt_client_installation</i>\PMT\pmt.bat, which is by default C:\ProgramFiles\IBM\WebSphere\PMTCClient • Linux UNIX On Linux and UNIX platforms: <i>install_root</i>/bin/ProfileManagement/pmt.sh • On Windows platforms: <i>install_root</i>\bin\ProfileManagement\pmt.bat
Samples gallery	<p>Opens the default browser to the Samples Web address.</p>
Information center	<p>Opens the default browser to the online information center at the http://publib.boulder.ibm.com/infocenter/dmndhelp/v6r1mx/ Web address.</p>
Migration wizard	<p>Calls the WebSphere Process Server version-to-version migration script to start the migration wizard.</p> <p>The location of the version-to-version migration script is:</p> <ul style="list-style-type: none"> • Linux UNIX On Linux and UNIX platforms: <i>install_root</i>/bin/wbi_migration.sh • Windows On Windows platforms: <i>install_root</i>\bin\wbi_migration.bat

Chapter 8. Verifying the product installation

Use the installation verification tools to verify that the installation of WebSphere Process Server and the creation of the stand-alone server or deployment manager profiles were successful. A *profile* consists of files that define the runtime environment for a deployment manager or a server. Verify the core product files with the `installver_wbi` checksum tool. Verify each profile with the installation verification test (IVT) tool.

Before you begin

After installing WebSphere Process Server and creating a stand-alone server or deployment manager profile, you are ready to use the installation verification tools.

About this task

Use the installation verification tools to gain assurance that the product is successfully installed. WebSphere Process Server includes two installation verification tools:

- the `installver_wbi` checksum tool, which verifies that the WebSphere Process Server files installed on your system were installed completely. The `installver_wbi` tool compares the checksum of each installed WebSphere Process Server file to the correct checksum value for each file and reports differences.
- the WebSphere Application Server installation verification test (IVT) tool, which tests deployment manager profiles and stand-alone server profiles to make sure that the server processes can start. The IVT program scans product log files for errors and verifies core functionality of the product installation.

To use the verification tools, perform the following steps.

Procedure

1. Run the `installver_wbi` command to verify that all WebSphere Process Server files are correctly installed.
For more information, see “Verifying checksums of installed files” on page 126.
2. Use the WebSphere Application Server installation verification test (IVT) tool to verify the proper creation of profiles. On the First steps console, click **Installation verification**. For more information, see the `ivt` command in the Command-line utilities section of the WebSphere Application Server Network Deployment, version 6.1 documentation and “Options on the First steps console” on page 119.

What to do next

After installing the product and verifying the installation, you can configure the installation by creating more profiles.

Verifying checksums of installed files

After installing the product or after installing maintenance packages, you can use the installation verification utility to compute checksums and verify the checksum of the installed file set against the checksum in the product bill of materials.

Before you begin

Installing the product also installs the installation verification utility, which is the `installver_wbi` command-line tool.

About this task

You use the `installver_wbi` command to compute a checksum on the installed files and compare the checksum to the product bill of materials.

The installation verification utility tool is installed during the installation of WebSphere Process Server.

You can also use the installation verification utility to compute a new checksum for a system after you make significant configuration changes. The `installver_wbi` tool computes a new baseline checksum for each file in the inventory of a configured system to use to identify file changes in the later comparisons. Such a comparison is useful for detecting file tampering on the configured system, for example. You can use the new checksums to compare installations on multiple systems.

Although the most common use of the tool is to compare the product bill of materials to the installed file set, other tasks are also possible.

To verify the checksums of installed files, perform the following steps.

- Verify the installed files against the bill of materials.
See “Verifying against the bill of materials” on page 127 for more information.
- Create and use a new baseline checksum.
See “Computing a new baseline checksum for an inventory of configured files” on page 131 for more information.
- Exclude files and components from the comparison.
See “Excluding files from a checksum comparison” on page 134 for more information.
- Include only specific files and components in the comparison.
See “Comparing specific file and component checksums” on page 137 for more information.
- Change the default message digest algorithm for computing checksums.
See “Changing the default message digest algorithm for the `installver_wbi` command” on page 140 for more information.
- Handle out-of-memory conditions.
See “Handling out-of-memory situations with the `installver_wbi` command” on page 141 for more information.

Results

When you are satisfied that your installed or updated file set matches the product bill of materials, you are finished verifying the product files.

If you detect a problem, see if the problem is a known problem by checking the WebSphere Process Server Support Web site.

To verify the proper creation of profiles, use the WebSphere Application Server installation verification test (IVT) tool. On the First steps console, click **Installation verification**. For more information, see the `ivt` command in the Command-line utilities section of the WebSphere Application Server Network Deployment, version 6.1 documentation.

After verifying your installation, you can create profiles or deploy an application on an existing WebSphere Process Server profile.

After installing, updating, and verifying, the next step is to use the product. See “Starting the First steps console” on page 116 for more information.

If you have not yet created a profile for WebSphere Process Server, go to “Creating profiles” on page 164

Verifying against the bill of materials

After installation of the product, verify actual checksums of installed files against a bill of materials that ships with the product. If the checksums match, the installed product is installed correctly. If the checksums differ, review the differences to determine whether a problem exists.

Before you begin

Complete the product installation before attempting to compare checksums of the installed files to the shipped bill of materials.

About this task

Use the `installver_wbi` command to compare a set of bill-of-material files against a checksum of the installed files to verify that all installed files are correct. The product includes a bill-of-materials file for each component to provide this system of verifying installation files.

The `installver_wbi` tool dynamically generates a list of total components found in the installation.

The `installver_wbi` command file is located in the `bin` directory of the installation root directory:

- **i5/OS** On i5/OS platforms: `install_root/bin/installver_wbi`
- **Linux** **UNIX** On Linux and UNIX platforms: `install_root/bin/installver_wbi.sh`
- **Windows** On Windows platforms: `install_root\bin\installver_wbi.bat`

Change directories to the `bin` directory to start the `installver_wbi` tool from the command line.

To check the bill of materials against the installed file system, perform the following steps.

- To compare the checksum of product files to the correct checksum in the bill-of-material files, type the following command:
 - **i5/OS** On i5/OS platforms: `install_root/bin/installver_wbi`

- **Linux** **UNIX** **On Linux and UNIX platforms:** `install_root/bin/installver_wbi.sh`
- **Windows** **On Windows platforms:** `install_root\bin\installver_wbi.bat`
- To compare checksums and display trace results, type the following command:
 - **i5/OS** **On i5/OS platforms:** `./installver_wbi -trace`
 - **Linux** **UNIX** **On Linux and UNIX platforms:** `./installver_wbi.sh -trace`
 - **Windows** **On Windows platforms:** `installver_wbi.bat -trace`
- To display information about how use the `installver_wbi` command, type the following command:
 - **i5/OS** **On i5/OS platforms:** `./installver_wbi -help`
 - **Linux** **UNIX** **On Linux and UNIX platforms:** `./installver_wbi.sh -help`
 - **Windows** **On Windows platforms:** `installver_wbi.bat -help`
- To compare checksums and include only specified files and components in the comparison, see “Comparing specific file and component checksums” on page 137. You can compare only the files and components that you list in the command.
- To compare checksums and ignore the list of files to exclude, type the following command:
 - **i5/OS** **On i5/OS platforms:** `./installver_wbi -ignoreuserexclude`
 - **Linux** **UNIX** **On Linux and UNIX platforms:** `./installver_wbi.sh -ignoreuserexclude`
 - **Windows** **On Windows platforms:** `installver_wbi.bat -ignoreuserexclude`

For information about specifying a list of files to exclude from the bill of materials checksum, see “Excluding files from a checksum comparison” on page 134.
- To compare checksums and ignore all IBM-excluded files, type the following command:
 - **i5/OS** **On i5/OS platforms:** `./installver_wbi -ignoreibmexclude`
 - **Linux** **UNIX** **On Linux and UNIX platforms:** `./installver_wbi.sh -ignoreibmexclude`
 - **Windows** **On Windows platforms:** `installver_wbi.bat -ignoreibmexclude`

Results

When you issue one of the checksum commands from the `install_root/bin` directory, the status of the command is displayed on the terminal console.

Logging results: The `installver_wbi` utility creates messages for each component. It also reports overall success based on the verification of all components in the bill of materials. The following messages indicate completion:

- I CWNVU0400I: [ivu] Total issues found : 625
- I CWNVU0340I: [ivu] Done.

The messages report the total number of issues found. If the issue count is zero, all of the components exist and no problems exist. The `installver_wbi` utility logs the

results of the command to the *install_root/logs/installver.log* file if you use the **-log** parameter without specifying a file name for the log.

You can redirect the output using the **-log** parameter and an argument. The directory that you specify must already exist. For example: `./installver_wbi.sh -log /tmp/waslogs/my_installver.log`

The following command produces this example, which shows the results of comparing the installed product against the product bill of materials.

- **i5/OS** On i5/OS platforms: `./installver_wbi`
- **Linux** **UNIX** On Linux and UNIX platforms: `./installver_wbi.sh`
- **Windows** On Windows platforms: `installver_wbi.bat`

Example output from components with errors

This example shows errors that the comparison finds.

```
I CWNVU0160I: [ivu] Verifying.
I CWNVU0170I: [ivu] The installation root directory is E:\WPS61\
I CWNVU0300I: [ivu] The total number of user excluded files found is 38.
I CWNVU0300I: [ivu] The total number of IBM excluded files found is 82.
I CWNVU0185I: [ivu] Searching component directory for file listing:files.list
I CWNVU0460I: [ivu] The utility is running.
I CWNVU0260I: [ivu] The total number of components found is: 441
I CWNVU0270I: [ivu] Gathering installation root data.
W CWNVU0280W: [ivu] Component mismatch: expected mismatchcomponentname
but found mismatchingname
I CWNVU0360I: [ivu] The following bill of materials issue is found for component
nullvaluesample: Hash must not be null or an empty string.
I CWNVU0360I: [ivu] The following bill of materials issue is found for component
nullvaluesample: Name must not be null or an empty string.
I CWNVU0360I: [ivu] The following bill of materials issue is found for component
nullvaluesample: Hash must not be null or an empty string.
I CWNVU0360I: [ivu] The following bill of materials issue is found for component
nullvaluesample: Permission must not be null or an empty string.
I CWNVU0360I: [ivu] The following bill of materials issue is found for component
symlinksample: Hash must not be null or an empty string.
I CWNVU0290I: [ivu] Starting the verification for 6 components.

I CWNVU0470I: [ivu] Starting to analyze: _binarycomponentsample
I CWNVU0480I: [ivu] Done analyzing: _binarycomponentsample

I CWNVU0470I: [ivu] Starting to analyze: nullvaluesample
I CWNVU0430I: [ivu] The following file is missing: testpath
I CWNVU0390I: [ivu] Component issues found : 1
I CWNVU0480I: [ivu] Done analyzing: nullvaluesample

I CWNVU0470I: [ivu] Starting to analyze: overlapbinarycomponentsample
W CWNVU0422W: [ivu] The following file is overlapped: lib/binaryTest.jar
W CWNVU0425W: [ivu] The overlap is caused by: _binarycomponentsample
I CWNVU0390I: [ivu] Component issues found : 1
I CWNVU0480I: [ivu] Done analyzing: overlapbinarycomponentsample

I CWNVU0470I: [ivu] Starting to analyze: regularcomponentsample
I CWNVU0440I: [ivu] The following file is different: lib/different.jar
I CWNVU0410I: [ivu] fc19318dd13128ce14344d066510a982269c241b is the
checksum in the bill of materials.
I CWNVU0420I: [ivu] 517d5a7240861ec297fa07542a7bf7470bb604fe is the
checksum on the file system.
I CWNVU0440I: [ivu] The following file is different: lib/ibmtemplateexclude.jar
I CWNVU0410I: [ivu] d3ac7a4ef1a8ffb4134f2f6e7f3c0d249d74b674 is the
checksum in the bill of materials.
I CWNVU0420I: [ivu] d3ac7a4ef1a838b4134f2f6e7f3c0d249d74b674 is the
```

```

checksum on the file system.
I CWNVU0430I: [ivu] The following file is missing: lib/missing.jar
I CWNVU0440I: [ivu] The following file is different: lib/usertemplateexclude.jar
I CWNVU0410I: [ivu] 12dea96fec20593566ab75ff2c9949596833adc9 is the
checksum in the bill of materials.
I CWNVU0420I: [ivu] 12dea96fec20593566ab75692c9949596833adc9 is the
checksum on the file system.
I CWNVU0430I: [ivu] The following file is missing: missingfilebutwithbaddirectory/
missingBadDirectory.jar
I CWNVU0390I: [ivu] Component issues found : 5
I CWNVU0480I: [ivu] Done analyzing: regularcomponentsample

I CWNVU0470I: [ivu] Starting to analyze: symlinksample
I CWNVU0480I: [ivu] Done analyzing: symlinksample

I CWNVU0400I: [ivu] Total issues found : 7
I CWNVU0340I: [ivu] Done.

```

Example output from a typical successful installation

This example shows typical results from checking a successful installation.

Carefully examine an issue before assuming that the issue is a problem.

```

I CWNVU0160I: [ivu] Verifying.
I CWNVU0170I: [ivu] The installation root directory is E:\WPS61\
I CWNVU0300I: [ivu] The total number of user excluded files found is 38.
I CWNVU0300I: [ivu] The total number of IBM excluded files found is 82.
I CWNVU0185I: [ivu] Searching component directory for file listing: files.list
I CWNVU0460I: [ivu] The utility is running.
I CWNVU0260I: [ivu] The total number of components found is: 441
I CWNVU0270I: [ivu] Gathering installation root data.
I CWNVU0290I: [ivu] Starting the verification for 439 components.

I CWNVU0470I: [ivu] Starting to analyze: ArtifactLoaderImpl
I CWNVU0480I: [ivu] Done analyzing: ArtifactLoaderImpl

I CWNVU0470I: [ivu] Starting to analyze: activity.impl
I CWNVU0480I: [ivu] Done analyzing: activity.impl

I CWNVU0470I: [ivu] Starting to analyze: activity.session.impl
I CWNVU0480I: [ivu] Done analyzing: activity.session.impl

I CWNVU0470I: [ivu] Starting to analyze: acwa
I CWNVU0480I: [ivu] Done analyzing: acwa

I CWNVU0470I: [ivu] Starting to analyze: adapter
I CWNVU0480I: [ivu] Done analyzing: adapter
...

I CWNVU0470I: [ivu] Starting to analyze: workspace
I CWNVU0480I: [ivu] Done analyzing: workspace

I CWNVU0470I: [ivu] Starting to analyze: workspace.query
I CWNVU0480I: [ivu] Done analyzing: workspace.query

I CWNVU0470I: [ivu] Starting to analyze: wps.rt.bundle
I CWNVU0480I: [ivu] Done analyzing: wps.rt.bundle

I CWNVU0470I: [ivu] Starting to analyze: wps.wccm.bundle
I CWNVU0480I: [ivu] Done analyzing: wps.wccm.bundle

I CWNVU0470I: [ivu] Starting to analyze: wpsnd
I CWNVU0480I: [ivu] Done analyzing: wpsnd

I CWNVU0470I: [ivu] Starting to analyze: wsadie.bundle

```

```
I CWNVU0480I: [ivu] Done analyzing: wsadie.bundle
I CWNVU0470I: [ivu] Starting to analyze: wsba.impl
I CWNVU0480I: [ivu] Done analyzing: wsba.impl

I CWNVU0400I: [ivu] Total issues found : 0
I CWNVU0340I: [ivu] Done.
```

Computing a new baseline checksum for an inventory of configured files

After installation, you can verify the actual checksums of installed files against a bill of materials that ships with the product. After configuring your system, create a checksum so that you can compare the system periodically to the checksum. Use the result to analyze changes to your configured system.

Before you begin

After configuring the product, save a new baseline checksum to establish a new checksum standard for your system.

About this task

You can use the `installver_wbi` command to create and compare an inventory of configured files to the currently installed files.

The `installver_wbi` command can compute a new baseline checksum for the inventory of all files in the installation root directory. Running the command stores the new checksum by default in the `sys.inv` file within the current working directory. You can specify a different file path and file name. Create the file outside of the installation root directory or exclude the file from comparisons.

Later, compare the checksums in the `sys.inv` file (or the file that you specified when creating the inventory) to the checksums of the currently installed files to see what files have changed.

The baseline checksum report identifies missing files, additional files, and changed files.

The `installver_wbi` command file is located in the `bin` directory of the installation root directory:

- **i5/OS** On i5/OS platforms: `install_root/bin/installver_wbi`
- **Linux** **UNIX** On Linux and UNIX platforms: `install_root/bin/installver_wbi.sh`
- **Windows** On Windows platforms: `install_root\bin\installver_wbi.bat`

Change directories to the `bin` directory to start the `installver_wbi` tool from the command line.

To compute a new baseline checksum for an inventory of configured files, perform the following steps.

- Create an inventory list of the files that are currently installed in the installation root directory:
 - **i5/OS** On i5/OS platforms: `./installver_wbi -createinventory`

– **Linux** **UNIX** **On Linux and UNIX platforms:** ./installver_wbi.sh
-createinventory

– **Windows** **On Windows platforms:** installver_wbi.bat -createinventory

Windows For example, the following messages might display on a Windows system when you issue the installver_wbi.bat -createinventory command to create the default *install_root\bin\sys.inv* file:

```
W CWNVU0320W: [ivu] The
C:\IBM\WebSphere\ProcServer\bin\sys.inv
inventory file is within the product installation root directory:
C:\IBM\WebSphere\ProcServer.
```

Create the file outside of the installation root directory to omit the file from the verification.

```
I CWNVU0300I: [ivu] The total number of user excluded files found are 2.
I CWNVU0300I: [ivu] The total number of IBM excluded files found are 78.
I CWNVU0310I: [ivu] Creating the following inventory file:
C:\IBM\WebSphere\ProcServer\bin\sys.inv
I CWNVU0460I: [ivu] The utility is running.
```

For example, the following messages might display on an i5/OS system when you issue the installver_wbi -createinventory command to create the default *install_root\bin\sys.inv* file:

Note: This command gets run within a Qshell environment on i5/OS platforms.

```
W CWNVU0320W: [ivu] The
/QIBM/ProdData/WebSphere/ProcServer/bin/sys.inventory file is within the product installation
root directory: /QIBM/ProdData/WebSphere/ProcServer.
```

Create the file outside of the installation root directory to omit the file from the verification.

```
I CWNVU0300I: [ivu] The total number of user excluded files found are 2.
I CWNVU0300I: [ivu] The total number of IBM excluded files found are 78.
I CWNVU0310I: [ivu] Creating the following inventory file:
/QIBM/ProdData/WebSphere/ProcServer/bin/sys.inv
I CWNVU0460I: [ivu] The utility is running.
```

When it finishes running, a completion message is displayed:

```
I CWNVU0340I: [ivu] Done.
```

The sys.inv contains the new inventory, as shown in this Windows system example:

```
#C:\IBM\WebSphere\AppServer\
#2005.10.10_06.24.06PM_EDT
#user_ID
#-createinventory -log
241fe4e309abfd8f2c5911216dbabd61dd4751a6
|_jvm\bin\appletviewer.exe
|42032
|2004.10.28 05.37.02AM EDT
e00c6ea688ab67e004ec6cfac26ec48541a5b9ff
|_jvm\bin\dbghe1p.dll
|712192
|2004.10.28 05.36.50AM EDT
916e244deeb44b9d3218aafa3b56c8680aa31f2f
|_jvm\bin\extcheck.exe
|42040
|2004.10.28 05.37.02AM EDT
...
7fc3bb38e8b90fed05cd0440953000c2cc965b44
|web\spidocs\stylesheet.css
|1240
|2005.10.09 12.14.17AM EDT
```

```
22706a0d900c52f1c015c870ddee25581c5d57b
|web\spidocs\toHTML\index.html
|867
|2005.10.09 12.14.17AM EDT
```

- Create the inventory file in a directory outside of the installation root directory to exclude the inventory file from the comparison.
 - **i5/OS** **On i5/OS platforms:** `./installver_wbi -createinventory /tmp/system.inv`
 - **Linux** **UNIX** **On Linux and UNIX platforms:** `./installver_wbi.sh -createinventory /tmp/system.inv`
 - **Windows** **On Windows platforms:** `installver_wbi.bat -createinventory "C:\temp\system.inv"`
- Compare the inventory list to files that are currently installed in the installation root directory:
 - **i5/OS** **On i5/OS platforms:** `./installver_wbi -compare`
 - **Linux** **UNIX** **On Linux and UNIX platforms:** `./installver_wbi.sh -compare`
 - **Windows** **On Windows platforms:** `installver_wbi.bat -compare`

If you created the inventory file somewhere other than the default location, use the following syntax:

 - **i5/OS** **On i5/OS platforms:** `./installver_wbi -compare /tmp/system.inv`
 - **Linux** **UNIX** **On Linux and UNIX platforms:** `./installver_wbi.sh -compare /tmp/system.inv`
 - **Windows** **On Windows platforms:** `installver_wbi.bat -compare "C:\temp\system.inv"`
- Compare and display trace results:
 - **i5/OS** **On i5/OS platforms:** `./installver_wbi -compare -trace`
 - **Linux** **UNIX** **On Linux and UNIX platforms:** `./installver_wbi.sh -compare -trace`
 - **Windows** **On Windows platforms:** `installver_wbi.bat -compare -trace`
- Compare and exclude specified files from the inventory comparison:
 - **i5/OS** **On i5/OS platforms:** `./installver_wbi -compare -exclude fn1;fn2;fn3;...`
 - **Linux** **UNIX** **On Linux and UNIX platforms:** `./installver_wbi.sh -compare -exclude fn1;fn2;fn3;...`
 - **Windows** **On Windows platforms:** `installver_wbi.bat -compare -exclude fn1;fn2;fn3;...`
- Compare and include only specified files in the inventory comparison:
 - **i5/OS** **On i5/OS platforms:** `./installver_wbi -compare -include fn1;fn2;fn3;...`
 - **Linux** **UNIX** **On Linux and UNIX platforms:** `./installver_wbi.sh -compare -include fn1;fn2;fn3;...`
 - **Windows** **On Windows platforms:** `installver_wbi.bat -compare -include fn1;fn2;fn3;...`

Results

When you issue an `installver_wbi` command from the `install_root/bin` directory, the status of the command is displayed on the terminal console. To create a log, use the `-log` parameter.

Excluding files from a checksum comparison

Specify individual files to exclude from a comparison, specify individual components to exclude, or create a single configurable properties file to specify a list of files to exclude from the bill of materials verification.

Before you begin

Install the product before comparing checksums and using exclusion properties.

About this task

You can use exclusion properties of the `installver_wbi` command to exclude files from a checksum comparison.

By default, IBM excludes some files from the checksum comparison. You can also exclude files. The number of files excluded is reported within the first few messages. For example:

```
I CWNVU0160I: [ivu] Verifying.  
I CWNVU0170I: [ivu] The installation root directory is ...  
I CWNVU0300I: [ivu] The total number of user excluded files found are 0.  
I CWNVU0300I: [ivu] The total number of IBM excluded files found are 82.  
...
```

Several methods are provided to exclude files from the comparison.

The `installver_wbi` command file is located in the `bin` directory of the installation root directory:

- **i5/OS** On i5/OS platforms: `install_root/bin/installver_wbi`
- **Linux** **UNIX** On Linux and UNIX platforms: `install_root/bin/installver_wbi.sh`
- **Windows** On Windows platforms: `install_root\bin\installver_wbi.bat`

Change directories to the `bin` directory to start the `installver_wbi` tool from the command line.

To exclude files from a checksum comparison, perform the following steps.

- To exclude all of the files within one or more components from the comparison, type the following command:

```
- i5/OS On i5/OS platforms: ./installver_wbi -excludecomponent comp1;comp2;comp3;...
```

```
- Linux UNIX On Linux and UNIX platforms: ./installver_wbi.sh -excludecomponent comp1;comp2;comp3;...
```

```
- Windows On Windows platforms: installver_wbi.bat -excludecomponent comp1;comp2;comp3;...
```

Linux **UNIX** For example, you might exclude the `prereq.wccm` component to avoid known but acceptable issues in the component:

```
./installver_wbi.sh -log -excludecomponent prereq.wccm
```

The resulting messages show the exclusion:


```

I CWNVU0160I: [ivu] Verifying.
I CWNVU0170I: [ivu] The installation root directory is E:\WPS61\
I CWNVU0300I: [ivu] The total number of user excluded files found is 38.
I CWNVU0300I: [ivu] The total number of IBM excluded files found is 82.
I CWNVU0185I: [ivu] Searching component directory for file listing: files.list
I CWNVU0460I: [ivu] The utility is running.
I CWNVU0260I: [ivu] The total number of components found is: 441
I CWNVU0270I: [ivu] Gathering installation root data.
I CWNVU0290I: [ivu] Starting the verification for 439 components.
...
I CWNVU0400I: [ivu] Total issues found : 0
I CWNVU0340I: [ivu] Done.

```

- To exclude certain files from the comparison, type the following command :
 - **i5/OS** **On i5/OS platforms:** `install_root/bin/installver_wbi -exclude fn1;fn2;fn3`
 - **Linux** **UNIX** **On Linux and UNIX platforms:** `install_root/bin/installver_wbi.sh -exclude fn1;fn2;fn3`
 - **Windows** **On Windows platforms:** `install_root\bin\installver_wbi.bat -exclude fn1;fn2;fn3`

For example, suppose that you want to include only the `prereq.wccm` component for comparison, but you want to exclude specific files that were missing when you previously ran that comparison:

```

...
I CWNVU0470I: [ivu] Starting to analyze: prereq.wccm
I CWNVU0430I: [ivu] The following file is missing:
web/configDocs/activitysessionejbext/ActivitySessionEJBJarExtension.html
I CWNVU0430I: [ivu] The following file is missing:
web/configDocs/activitysessionejbext/ActivitySessionEnterpriseBeanExtension.html
I CWNVU0430I: [ivu] The following file is missing:
web/configDocs/activitysessionejbext/ContainerActivitySession.html
...

```

Windows Here is an example of excluding those missing files that are highlighted files in the previous example:

```

installver_wbi.bat -log -includecomponent prereq.wccm -exclude web\configDocs\activitysessionejbext\
ActivitySessionEJBJarExtension.html;web\configDocs\activitysessionejbext\
ActivitySessionEnterpriseBeanExtension.html

```

Tip: **Windows** **On Windows platforms:** Use Windows-style slashes or UNIX-style slashes to delimit directories.

The result shows that the excluded files were not compared:

```

I CWNVU0160I: [ivu] Verifying.
I CWNVU0170I: [ivu] The installation root directory is ...
I CWNVU0300I: [ivu] The total number of user excluded files found are 0.
I CWNVU0300I: [ivu] The total number of IBM excluded files found are 82.
I CWNVU0185I: [ivu] Searching component directory for file listing: files.list
I CWNVU0260I: [ivu] The total number of components found is: 285
I CWNVU0270I: [ivu] Gathering installation root data.
I CWNVU0460I: [ivu] The utility is running.
I CWNVU0290I: [ivu] Starting the verification for 1 components.

I CWNVU0470I: [ivu] Starting to analyze: prereq.wccm
I CWNVU0430I: [ivu] The following file is missing:
web/configDocs/activitysessionejbext/ContainerActivitySession.html
...
I CWNVU0390I: [ivu] Component issues found : 623
I CWNVU0480I: [ivu] Done analyzing: prereq.wccm

I CWNVU0400I: [ivu] Total issues found : 623
I CWNVU0340I: [ivu] Done.

```

If the two files were in the comparison, they would be in the list and the count would be 625, as in the previous example.

Tip: The highlighted line in the example is reserved for excluded files listed in the user template file, as described in the next step. The highlighted line does not count files that you list in the `installver_wbi` command line with the `-exclude` parameter.

- To compare checksums and exclude certain files from the comparison by creating and using a user template file, perform the following steps. A configurable properties file is available to specify a list of files to exclude from the bill of materials verification.

1. Create an empty template file by typing the following command.

- **i5/OS** On i5/OS platforms: `install_root/bin/installver_wbi template_name -createtemplate`
- **Linux** **UNIX** On Linux and UNIX platforms: `install_root/bin/installver_wbi.sh template_name -createtemplate`
- **Windows** On Windows platforms: `install_root\bin\installver_wbi.bat template_name -createtemplate`

Windows For example, create the default user template file on a Windows system:

```
installver_wbi.bat -createtemplate
I CWNVU0200I: [ivu] Creating template:
C:\IBM\WebSphere\ProcServer\profiles\
Dmgr01\properties\ivu_user.template
I CWNVU0340I: [ivu] Done.
```

i5/OS For example, create the default user template file on an i5/OS system:

```
installver_wbi -createtemplate
I CWNVU0200I: [ivu] Creating template:
/QIBM/ProdData/WebSphere/ProcServer/profiles/
Dmgr01/properties/ivu_user.template
I CWNVU0340I: [ivu] Done.
```

The `ivu_user.template` file is created in the properties directory of the default profile, which in this case, is a deployment manager profile.

The `-template_name` parameter is optional. However, a template file must reside in the properties directory of the default profile, such as the `install_root/profiles/Dmgr01/properties` directory.

2. List files to exclude in the template file.

The properties file has the following format:

```
<template>
<componentfiles componentname="name_of_component">
  <file>
    <relativepath action="exclude">file_name</relativepath>
  </file>
</componentfiles>
</template>
```

For example, list the component and files from the previous example:

```
<template>
<componentfiles componentname="prereq.wccm">
  <file>
    <relativepath action="exclude">
web/configDocs/activitysessionejbext/ \
ActivitySessionEnterpriseBeanExtension.html
    </relativepath>
  </file>
```

```

        <file>
        <relativepath action="exclude">
web/configDocs/activitysessionejbext/ \
ActivitySessionEJBJarExtension.html
        </relativepath>
        </file>
    </componentfiles>
</template>

```

Tip: Do not use quotation marks or double quotation marks to delimit a file name.

- Use the template file to exclude files from the comparison:

For example:

```
installver_wbi.bat -log
```

If the `ivu_user.template` file exists in the properties directory of the default profile, the `installver_wbi` command uses it.

The result shows that some user files are excluded:

```

I CWNVU0160I: [ivu] Verifying.
I CWNVU0170I: [ivu] The installation root directory is ...
I CWNVU0300I: [ivu] The total number of user excluded files found are 2.
I CWNVU0300I: [ivu] The total number of IBM excluded files found are 82.
I CWNVU0185I: [ivu] Searching component directory for file listing: files.list
I CWNVU0460I: [ivu] The utility is running.
I CWNVU0260I: [ivu] The total number of components found is: 285
I CWNVU0270I: [ivu] Gathering installation root data.
I CWNVU0290I: [ivu] Starting the verification for 1 components.

I CWNVU0470I: [ivu] Starting to analyze: prereq.wccm
I CWNVU0430I: [ivu] The following file is missing:
web/configDocs/activitysessionejbext/ContainerActivitySession.html

...
I CWNVU0430I: [ivu] The following file is missing:
web/configDocs/wssecurity/generator-binding.html
I CWNVU0390I: [ivu] Component issues found : 623
I CWNVU0480I: [ivu] Done analyzing: prereq.wccm

I CWNVU0400I: [ivu] Total issues found : 623
I CWNVU0340I: [ivu] Done.

```

Results

When you run one of the checksum commands from the `install_root/bin` directory, the status of the command is displayed on the terminal console or in a log file.

Comparing specific file and component checksums

Specify individual files or components to include in the bill of materials verification.

Before you begin

Complete the product installation before attempting to compare checksums of individual files and components.

About this task

You can use inclusion properties to specify individual files and components.

By default, IBM includes all files in the checksum comparison except for the IBM excluded files. The displayed output will be similar to the following:

```
I CWNVU0160I: [ivu] Verifying.
I CWNVU0170I: [ivu] The installation root directory is E:\WPS61\
I CWNVU0300I: [ivu] The total number of user excluded files found are 0.
I CWNVU0300I: [ivu] The total number of IBM excluded files found are 82.
I CWNVU0185I: [ivu] Searching component directory for file listing: files.list
I CWNVU0460I: [ivu] The utility is running.
I CWNVU0260I: [ivu] The total number of components found is: 441
I CWNVU0270I: [ivu] Gathering installation root data.
I CWNVU0460I: [ivu] The utility is running.
I CWNVU0290I: [ivu] Starting the verification for 441 components.

I CWNVU0470I: [ivu] Starting to analyze: activity
I CWNVU0480I: [ivu] Done analyzing: activity

...
```

Several methods are provided to include only certain files in the comparison.

The `installver_wbi` command file is located in the `bin` directory of the installation root directory:

- **i5/OS** On i5/OS platforms: `install_root/bin/installver_wbi`
- **Linux** **UNIX** On Linux and UNIX platforms: `install_root/bin/installver_wbi.sh`
- **Windows** On Windows platforms: `install_root\bin\installver_wbi.bat`

Change directories to the `bin` directory to start the `installver_wbi` tool from the command line.

To compare specific file and component checksums, perform the following steps.

- To include only specified components in a checksum comparison, type the following command.
 - **i5/OS** On i5/OS platforms: `./installver_wbi -includecomponent comp1;comp2;comp3;...`
 - **Linux** **UNIX** On Linux and UNIX platforms: `./installver_wbi.sh -includecomponent comp1;comp2;comp3;...`
 - **Windows** On Windows platforms: `installver_wbi.bat -includecomponent comp1;comp2;comp3;...`

For example, you might include the `activity` component:

- **i5/OS** On i5/OS platforms: `./installver_wbi -log -includecomponent activity`
- **Linux** **UNIX** On Linux and UNIX platforms: `./installver_wbi.sh -log -includecomponent activity`
- **Windows** On Windows platforms: `installver_wbi.bat -log -includecomponent activity`

The resulting messages show the inclusion. The displayed output will be similar to the following:

```
I CWNVU0160I: [ivu] Verifying.
I CWNVU0170I: [ivu] The installation root directory is ...
I CWNVU0300I: [ivu] The total number of user excluded files found are 0.
I CWNVU0300I: [ivu] The total number of IBM excluded files found are 82.
I CWNVU0185I: [ivu] Searching component directory for file listing: files.list
I CWNVU0460I: [ivu] The utility is running.
```

```
I CWNVU0260I: [ivu] The total number of components found is: 285
I CWNVU0270I: [ivu] Gathering installation root data.
I CWNVU0290I: [ivu] Starting the verification for 1 components.
```

```
I CWNVU0470I: [ivu] Starting to analyze: activity
I CWNVU0480I: [ivu] Done analyzing: activity
```

```
I CWNVU0400I: [ivu] Total issues found : 0
I CWNVU0340I: [ivu] Done.
```

- To include only specified files in the checksum comparison, type the following command.

```
- i5/OS On i5/OS platforms: install_root/bin/installver_wbi -include fn1;fn2;fn3
```

```
- Linux UNIX On Linux and UNIX platforms: install_root/bin/installver_wbi.sh -include fn1;fn2;fn3
```

```
- Windows On Windows platforms: install_root\bin\installver_wbi.bat -include fn1;fn2;fn3
```

For example, you might include only the properties/version/proxy.server.component file, which was changed to generate the checksum difference in this example.

```
- Windows
   installver_wbi.bat -log -include properties\version\proxy.server.component
```

```
- i5/OS
   installver_wbi -log -include properties/version/proxy.server.component
```

The result shows that the included file was in the comparison, which scanned 285 components looking for all components that refer to the file. The displayed output will be similar to the following:

```
I CWNVU0160I: [ivu] Verifying.
...
I CWNVU0300I: [ivu] The total number of user excluded files found are 0.
I CWNVU0300I: [ivu] The total number of IBM excluded files found is 82.
I CWNVU0185I: [ivu] Searching component directory for file listing: files.list
I CWNVU0460I: [ivu] The utility is running.
I CWNVU0260I: [ivu] The total number of components found is: 285
I CWNVU0270I: [ivu] Gathering installation root data.
I CWNVU0290I: [ivu] Starting the verification for 285 components.
```

```
I CWNVU0470I: [ivu] Starting to analyze: activity
I CWNVU0480I: [ivu] Done analyzing: activity
```

```
...
I CWNVU0470I: [ivu] Starting to analyze: proxy.server
I CWNVU0440I: [ivu] The following file is different: properties/version/proxy.server.component
I CWNVU0410I: [ivu] f385fc95977092e0482d52f9d1d5beb9c39fbb10 is the checksum in the bill of materials.
I CWNVU0420I: [ivu] b43bda7f1e7202d1f9495fc74ac14b8d85830aab is the checksum on the file system.
I CWNVU0390I: [ivu] Component issues found : 1
I CWNVU0480I: [ivu] Done analyzing: proxy.server
```

```
...
I CWNVU0400I: [ivu] Total issues found : 1
I CWNVU0340I: [ivu] Done.
```

If you know that a file is in only one component, you can speed up the comparison by restricting the comparison of the file to the relevant component. For example:

```
- Windows
```

```
installver_wbi.bat -log -includecomponent proxy.server -include properties\version\proxy.server.component
```

```
- i5/OS
```

```
installver_wbi -log -includecomponent proxy.server -include properties/version/proxy.server.component
```

The result shows the comparison was restricted to one component. The displayed output will be similar to the following:

```
I CWNVU0160I: [ivu] Verifying.
...
I CWNVU0300I: [ivu] The total number of user excluded files found are 0.
I CWNVU0300I: [ivu] The total number of IBM excluded files found is 82.
I CWNVU0185I: [ivu] Searching component directory for file listing: files.list
I CWNVU0460I: [ivu] The utility is running.
I CWNVU0260I: [ivu] The total number of components found is: 285
I CWNVU0270I: [ivu] Gathering installation root data.
I CWNVU0460I: [ivu] The utility is running.
I CWNVU0290I: [ivu] Starting the verification for 1 components.

I CWNVU0470I: [ivu] Starting to analyze: proxy.server
I CWNVU0440I: [ivu] The following file is different: properties/version/proxy.server.component
I CWNVU0410I: [ivu] f385fc95977092e0482d52f9d1d5bebbc39fbb10 is the checksum in the bill
of materials.
I CWNVU0420I: [ivu] b43bda7f1e7202d1f9495fc74ac14b8d85830aab is the checksum on the file
system.
I CWNVU0390I: [ivu] Component issues found : 1
I CWNVU0480I: [ivu] Done analyzing: proxy.server

I CWNVU0400I: [ivu] Total issues found : 1
I CWNVU0340I: [ivu] Done.
```

Results

When you issue one of the checksum commands from the *install_root/bin* directory, the status of the command is displayed on the terminal console or in a log file.

Changing the default message digest algorithm for the `installver_wbi` command

You can change the default message digest algorithm for a checksum comparison of installed files. You must edit the `installver_wbi` command script to change the algorithm.

Before you begin

Install the product before attempting to change the default message digest algorithm from SHA to MD5.

Also, verify the product files with the `installver_wbi` command before you change the command file.

About this task

The default message digest algorithm is one of the secure hash algorithms (SHA) that are part of the Secure Hash Standard (SHS) from the National Institute of Standards and Technology (NIST). SHA-1 is the standard hash function of the U.S. government. For more information, see the Federal Information Processing Standards (FIPS) Web page at <http://csrc.nist.gov/publications/fips/index.html>, and view the publication FIPS 180-2.

For more information about WebSphere Process Server compliance with FIPS, see Federal Information Processing Standards.

Also available is the older MD5 message digest algorithm. MD5 is a deprecated type of message algorithm that is not as secure as SHA and is provided only for backward compatibility.

Change the default message digest algorithm from SHA to MD5 only if absolutely necessary. Edit the `installver_wbi.bat` file or the `installver_wbi.sh` file to make the change. Changing the algorithm invalidates the SHA-based checksums in the product bill of materials. For this reason, verify the product files before changing the message digest algorithm.

To change the default message digest algorithm, perform the following steps.

Procedure

1. Edit the `installver_wbi` command script:
 - **i5/OS** **On i5/OS platforms:** Edit the `install_root/bin/installver_wbi` file.
 - **Linux** **UNIX** **On Linux and UNIX platforms:** Edit the `install_root/bin/installver_wbi.sh` file.
 - **Windows** **On Windows platforms:** Edit the `install_root\bin\installver_wbi.bat` file.
2. Add the following environmental property to the script file:
`-Dchecksum.type=MD5`

The default value is:

`-Dchecksum.type=SHA`

3. Save your changes.

Results

After you change the algorithm, run the `installver_wbi` command to verify that it works correctly.

Handling out-of-memory situations with the `installver_wbi` command

Memory requirements for using the `installver_wbi` command are related to the size of the installed file set for the product. For the basic verification scenario, comparing an installed file set with the provided bill of materials might require a maximum heap size of 128 MB to 256 MB.

About this task

If you need more memory for either a product verification or a baseline checksum verification, increase the maximum heap size setting for your Java Virtual Machine (JVM) by including a setting in the `installver_wbi` command script.

Note: **i5/OS** On i5/OS systems, the default Java maximum heap size is `*NOMAX`, so there is no need to increase it.

To handle out-of-memory situations, perform the following steps.

Procedure

1. Edit the `installver_wbi` command script:

- **Linux** **UNIX** **On Linux and UNIX platforms:** Edit the `install_root/bin/installver_wbi.sh` file.
 - **Windows** **On Windows platforms:** Edit the `install_root\bin\installver_wbi.bat` file.
2. Add or increase the maximum heap size setting:
- **Linux** **UNIX** **On Linux and UNIX platforms:** Change the following line:
`"$JAVA_HOME"/bin/java \`

to:
`"$JAVA_HOME"/bin/java -Xmx256M \`
 - **Windows** **On Windows platforms:** Change the following line:
`"%JAVA_HOME%\bin\java" "-Dproduct.home=%WAS_HOME%"`

to:
`"%JAVA_HOME%\bin\java" -Xmx256M "-Dproduct.home=%WAS_HOME%"`
3. Save your changes.

Results

After you change the setting, run the `installver_wbi` command to verify that it works correctly.

installver_wbi command

Use the `installver_wbi` command to compute a checksum on installed files and compare the checksum to the shipped bill of materials for the product.

Purpose

The `installver_wbi` command performs two main functions. It computes a checksum on the installed files and compares the checksum to the shipped bill of materials for the product. The `installver_wbi` command can also compute a new baseline checksum for each file in the inventory of a configured system to use to identify file changes in later comparisons.

The default log file is the `install_root/logs/installver.log` file. You can redirect the output using the `-log` parameter and an argument. Use the `-log` parameter without the file argument to generate the default log file.

Computing the checksum: The `installver_wbi` command computes a checksum for each installed file in the product. The command compares each computed checksum to the correct checksum for the file. The correct checksums are shipped in the bill-of-material files. One bill-of-materials file exists for each component.

The tool parses the bill-of-materials file for each component to find the correct checksum value for each file in the component. Each product file has an entry in some bill-of-materials file. The entry for a product file lists the product file path and the correct checksum value.

Shipped bill-of-material files: Each bill-of-materials file is named `files.list`. Each component has one `files.list` file. Each `files.list` file is in one of the `install_root/properties/version/nif/backup/component_name` directories. A `component_name` directory exists for each component.

For example, the files.list file for the activity component is in the *install_root/properties/version/nif/backup/component_name* directory. The file resembles the following example:

```
<?xml version="1.0" encoding="UTF-8"?>
<componentfiles componentname="activity">
  <file>
    <relativepath>properties/version/activity.component</relativepath>
    <checksum>1a20dc54694e81fccd16c80f7c1bb6b46bba8768</checksum>
    <permissions>644</permissions>
    <installoperation>remove</installoperation>
  </file>
  <file>
    <relativepath>lib/activity.jar</relativepath>
    <checksum>2f056cc01be7ff42bb343e962d26328d5332c88c</checksum>
    <permissions>644</permissions>
    <installoperation>remove</installoperation>
  </file>
</componentfiles>
```

Comparing the computed checksum to the correct checksum: As the tool processes each product file in each bill-of-materials file, the tool also computes the actual checksum value of the corresponding installed product file. The tool then compares the checksum of the product file to the correct checksum value in the bill-of-materials file. The tool then reports any differences.

Location of the command file:

The installver_wbi command file is located in the bin directory of the installation root directory:

- **i5/OS** On i5/OS platforms: *install_root/bin/installver_wbi*
- **Linux** **UNIX** On Linux and UNIX platforms: *install_root/bin/installver_wbi.sh*
- **Windows** On Windows platforms: *install_root\bin\installver_wbi.bat*

Change directories to the bin directory to start the installver_wbi tool from the command line. The tool runs on any supported operating system except for z/OS®. For example, use the following command to start the tool on a Linux system or a UNIX system:

```
./installver_wbi.sh
```

Syntax for displaying information about how use the command

- **i5/OS** On i5/OS platforms: *./installver_wbi -help*
- **Linux** **UNIX** On Linux and UNIX platforms: *./installver_wbi.sh -help*
- **Windows** On Windows platforms: *installver_wbi.bat -help*

Syntax for listing all components

- **i5/OS** On i5/OS platforms: *./installver_wbi -listcomponents*
- **Linux** **UNIX** On Linux and UNIX platforms: *./installver_wbi.sh -listcomponents*
- **Windows** On Windows platforms: *installver_wbi.bat -listcomponents*

Syntax for comparing product files to the bill-of-material files

Use the following command syntax to automatically check the bill of materials against the installed file system.

- **i5/OS** On i5/OS platforms: `install_root/bin/installver_wbi`
- **Linux** **UNIX** On Linux and UNIX platforms: `install_root/bin/installver_wbi.sh`
- **Windows** On Windows platforms: `install_root\bin\installver_wbi.bat`

See “Verifying against the bill of materials” on page 127 for examples of using the command to compare the installed files to the product bill-of-materials files.

Example comparisons and command usage

Compare checksums and include specified files only in the comparison:

- **i5/OS** On i5/OS platforms: `./installver_wbi -include fn1;fn2;fn3`
- **Linux** **UNIX** On Linux and UNIX platforms: `./installver_wbi.sh -include fn1;fn2;fn3`
- **Windows** On Windows platforms: `installver_wbi.bat -include fn1;fn2;fn3`

See Comparing specific file and component checksums for examples of using the command to compare only files or components that you specify.

Compare checksums and include specified components only in the comparison:

- **i5/OS** On i5/OS platforms: `./installver_wbi -includecomponent comp1;comp2;comp3;...`
- **Linux** **UNIX** On Linux and UNIX platforms: `./installver_wbi.sh -includecomponent comp1;comp2;comp3;...`
- **Windows** On Windows platforms: `installver_wbi.bat -includecomponent comp1;comp2;comp3;...`

Compare checksums and exclude certain components from the comparison:

- **i5/OS** On i5/OS platforms: `./installver_wbi -excludecomponent comp1;comp2;comp3;...`
- **Linux** **UNIX** On Linux and UNIX platforms: `./installver_wbi.sh -excludecomponent comp1;comp2;comp3;...`
- **Windows** On Windows platforms: `installver_wbi.bat -excludecomponent comp1;comp2;comp3;...`

See “Excluding files from a checksum comparison” on page 134 for examples of using the command to exclude files from the comparison.

Compare checksums and ignore user-excluded files:

- **i5/OS** On i5/OS platforms: `./installver_wbi -ignoreuserexclude`
- **Linux** **UNIX** On Linux and UNIX platforms: `./installver_wbi.sh -ignoreuserexclude`
- **Windows** On Windows platforms: `installver_wbi.bat -ignoreuserexclude`

Compare checksums and ignore IBM-excluded files:

- **i5/OS** On i5/OS platforms: `./installver_wbi -ignoreibmexclude`
- **Linux** **UNIX** On Linux and UNIX platforms: `./installver_wbi.sh -ignoreibmexclude`
- **Windows** On Windows platforms: `installver_wbi.bat -ignoreibmexclude`

List all components only:

- **i5/OS** On i5/OS platforms: `./installver_wbi -listcomponents`
- **Linux** **UNIX** On Linux and UNIX platforms: `./installver_wbi.sh -listcomponents`
- **Windows** On Windows platforms: `installver_wbi.bat -listcomponents`

Create template (for listing excluded files) only:

- **i5/OS** On i5/OS platforms: `./installver_wbi -createtemplate`
- **Linux** **UNIX** On Linux and UNIX platforms: `./installver_wbi.sh -createtemplate`
- **Windows** On Windows platforms: `installver_wbi.bat -createtemplate`

Parameters for comparing checksums against the bill of materials

The following parameters are associated with the command when comparing product file checksums to the correct checksums in the bill of material files.

-componentdir *directory_1;directory_2;directory_n*

Optional parameter that identifies the name of the directory where WebSphere Application Server products store the individual bill-of-material lists for each component.

The default value is the `install_root/properties/version/nif/backup` directory.

-createtemplate [*file_name*]

Creates a template properties file for excluding files from the checksum comparison. Edit the template properties file to add a line for each file that you want to exclude from verification.

Without a file specification argument, the `installver_wbi` tool creates the `install_root/properties/ivu_user.template` file.

If you specify a file name, the `installver_wbi` tool creates the file in the working directory, which is the `install_root/profiles/profile_name/bin` directory by default.

- **i5/OS** On i5/OS platforms: Type the following at the command line:
 1. `cd install_root/bin`
 2. `./installver_wbi -createtemplate`
- **Linux** **UNIX** On Linux and UNIX platforms: Type the following at the command line:
 1. `cd install_root/bin`
 2. `./installver_wbi.sh -createtemplate`
- **Windows** On Windows platforms: Type the following at the command line:
 1. `cd install_root\bin`

2. `installver_wbi.bat -createtemplate`

The `installver_wbi` tool creates the template properties file in the properties directory of the default profile:

- **i5/OS** **On i5/OS platforms:** `default_profile_root/properties/ivu.user.template`
- **Linux** **UNIX** **On Linux and UNIX platforms:** `default_profile_root/properties/ivu.user.template`
- **Windows** **On Windows platforms:** `default_profile_root\properties\ivu.user.template`

-exclude *file1;file2;file3; ...*

Excludes files from verification.

Use a semi-colon (;) or a colon (:) to delimit file names.

-excludecomponent *component1;component2;component3; ...*

Excludes components from verification.

Use a semi-colon (;) or a colon (:) to delimit component names.

-filelist *file_name*

Optional parameter that identifies the name of the file that IBM uses to identify the correct checksums of product files in a particular product component.

The default value is `files.list`.

-help

Displays usage information.

-ignoreuserexclude

Ignores the default `install_root/properties/ivu_user.template` file, if the file exists, and compares the files listed in the template.

If you use the `-createtemplate` parameter with a file specification to create a template file in another location, the `-ignoreusertemplate` parameter has no effect.

-ignoreibmexclude

Compares checksums for all of the files in the installation root directory. IBM specifies certain files to exclude from the verification by default. You can cause the `installver_wbi` tool to verify those files as well by using the `-ignoreibmexclude` parameter.

-include *file1;file2;file3; ...*

Includes files in the verification and excludes all other files.

Use a semi-colon (;) or a colon (:) to delimit file names.

-includecomponent *component1;component2;component3; ...*

Includes components in the verification and excludes all other components.

Use a semi-colon (;) or a colon (:) to delimit component names.

-installroot *directory_name*

Overrides the default installation root directory.

-listcomponents

Displays a list of components in the product. Each component must have a `files.list` file.

-log [*file_path_and_file_name_of_log_file*]

The default log file is the *install_root/logs/installver.log* file. You can redirect the output using the `-log` parameter and an argument.

-profilehome *directory_name*

Overrides the default profiles directory in the installation root directory.

-trace

Provides trace output of what the tool checks and what the tool discovers.

Syntax for creating and using a new baseline checksum for an inventory of configured files

Use the following syntax to create and compare an inventory of configured files to the currently installed files.

Create an inventory list of the files that are currently installed in the installation root directory:

- **i5/OS** On i5/OS platforms: `./installver_wbi -createinventory [path/file_name]`, such as `./installver_wbi -createinventory /tmp/system.inv`
- **Linux** **UNIX** On Linux and UNIX platforms: `./installver_wbi.sh -createinventory [path/file_name]`, such as `./installver_wbi.sh -createinventory /tmp/system.inv`
- **Windows** On Windows platforms: `installver_wbi.bat -createinventory [path\file_name]`, such as `installver_wbi.bat -createinventory C:\temp\system.inv`

Compare the inventory list to files that are currently installed in the installation root directory:

- **i5/OS** On i5/OS platforms: `./installver_wbi -compare /path/file_name`
- **Linux** **UNIX** On Linux and UNIX platforms: `./installver_wbi.sh -compare /path/file_name`
- **Windows** On Windows platforms: `installver_wbi.bat -compare path\file_name`

Compare and display trace results:

- **i5/OS** On i5/OS platforms: `./installver_wbi -compare /path/file_name -trace`
- **Linux** **UNIX** On Linux and UNIX platforms: `./installver_wbi.sh -compare /path/file_name -trace`
- **Windows** On Windows platforms: `installver_wbi.bat -compare /path/file_name -trace`

Display usage information:

- **i5/OS** On i5/OS platforms: `./installver_wbi -help`
- **Linux** **UNIX** On Linux and UNIX platforms: `./installver_wbi.sh -help`
- **Windows** On Windows platforms: `installver_wbi.bat -help`

Compare and exclude specified files from the inventory comparison:

- **i5/OS** **On i5/OS platforms:** `./installver_wbi -compare /path/file_name -exclude fn1;fn2;fn3;...`
- **Linux** **UNIX** **On Linux and UNIX platforms:** `./installver_wbi.sh -compare /path/file_name -exclude fn1;fn2;fn3;...`
- **Windows** **On Windows platforms:** `installver_wbi.bat -compare \path\file_name -exclude fn1;fn2;fn3;...`

Compare and include only specified files in the inventory comparison:

- **i5/OS** **On i5/OS platforms:** `./installver_wbi -compare /path/file_name -include fn1;fn2;fn3;...`
- **Linux** **UNIX** **On Linux and UNIX platforms:** `./installver_wbi.sh -compare /path/file_name -include fn1;fn2;fn3;...`
- **Windows** **On Windows platforms:** `installver_wbi.bat -compare /path/file_name -include fn1;fn2;fn3;...`

Parameters for creating and using checksums for a file inventory

The following parameters are associated with this command.

-compare *file_path_and_file_name_of_existing_inventory_file*

Compares the existing inventory list to the existing files to determine changes.

First use the `-createinventory` parameter to create an inventory list. Then use the `-compare` parameter to compare the inventory list to the actual files that exist in the system at the time of the comparison.

The result of the comparison shows changed classes, changed files, missing files, and added files. Such a comparison is very useful for verifying the absence of virus files, for example.

-createinventory *directory_name*

Creates the new checksum by default in the `sys.inv` file within the current working directory, such as the `profile_root/bin` directory. You can specify a file path and file name. Create the file outside of the installation root directory or exclude the file from comparisons.

You can point the `installver_wbi` tool at any directory. The default directory is the installation root directory.

You can exclude files or components from the inventory.

The `installver_wbi` tool computes a checksum for each file. Each file entry in the inventory has the following general pattern:

```
checksum|relativepath/file_name|file_size|last_modified_time
```

After creating an inventory list, use the `-compare` parameter to compare the list to the actual files that exist in the system at the time of the comparison.

-exclude *file1;file2;file3;...*

Excludes files from comparison.

Use a semi-colon (;) or a colon (:) to delimit file names.

-help

Displays usage information.

-include *file1;file2;file3; ...*

Includes files in the comparison and excludes all other files.

Use a semi-colon (;) or a colon (:) to delimit file names.

-installroot *directory_name*

Overrides the default installation root directory.

-log [*file_path_and_file_name_of_log_file*]

The default log file is the *install_root/logs/installver.log* file. You can redirect the output using the `-log` parameter and an argument.

-trace

Provides trace output of what the tool checks and what the tool discovers.

Example

The following examples show issues that might occur when you run the `installver_wbi` command to compare checksums.

Ignore entries for checksum mismatches that you introduce on purpose, such as might occur when you extend a component

The checksums differ for each file that you change:

```
I CWNVU0470I: [ivu] Starting to analyze: regularcomponentsample
I CWNVU0440I: [ivu] The following file is different: lib/different.jar
I CWNVU0410I: [ivu] fc19318dd13128ce14344d066510a982269c241b is the checksum in
the bill of materials.
I CWNVU0420I: [ivu] 517d5a7240861ec297fa07542a7bf7470bb604fe is the checksum on
the file system.
I CWNVU0390I: [ivu] Component issues found : 1
I CWNVU0480I: [ivu] Done analyzing: regularcomponentsample
```

Ignore issues that are obvious informational (I) messages

Some messages indicate deviations from the normally expected result, but are not indicators of a serious issue:

```
I CWNVU0360I: [ivu] The following bill of materials issue is found for component
nullvaluesample:
Hash must not be null or an empty string.
```

Overlapped files are either a potential product issue or potential tampering with the IBM provided bill of materials

```
I CWNVU0470I: [ivu] Starting to analyze: overlapbinarycomponentsample
W CWNVU0422W: [ivu] The following file is overlapped: lib/binaryTest.jar
W CWNVU0425W: [ivu] The overlap is caused by: _binarycomponentsample
I CWNVU0390I: [ivu] Component issues found : 1
I CWNVU0480I: [ivu] Done analyzing: overlapbinarycomponentsample
```

Contact IBM support for the following issue

If you see any messages with the following format, contact IBM support:

```
W CWNVU0280W: [ivu] Component mismatch: expected ... but found ...
```

For current information available from IBM Support on known problems and their resolution, see this IBM Support page.

IBM Support has documents that can save you time gathering information needed to resolve this problem. Before opening a PMR, see this IBM Support page.

If you do not see a known installation problem that resembles yours, or if the information provided does not solve your problem, contact IBM support for further assistance.




Next

After verifying your installation, you can create profiles or deploy an application on an existing profile.

Chapter 9. Coexisting with other WebSphere product installations

An installation of WebSphere Process Server, version 6.1 can coexist on the same system with installations of any version of WebSphere Process Server or WebSphere Enterprise Service Bus, and with certain versions of selected WebSphere products.

An installation of WebSphere Process Server, version 6.1 can run on the same system at the same time as installations of one or more of the following supported products and versions:

- IBM WebSphere Process Server, versions 6.1 and 6.0.x
- IBM WebSphere Enterprise Service Bus, versions 6.1 and 6.0.x
- IBM WebSphere Application Server, versions 6.1, 6.0.x, and 5.x
- IBM WebSphere Application Server Network Deployment, versions 6.1, 6.0.x, and 5.x
- IBM WebSphere Business Integration Server Foundation, version 5.x
-    IBM WebSphere Application Server Enterprise, version 5.0.x

When configuring coexistence, you must address any port conflicts that occur to avoid communication errors. Each version of the server must have a distinct database.

Do not confuse coexistence with *migration*, *updating*, or *interoperation*:

- *Migration* is copying the configuration from a previous release of WebSphere Process Server into a new release. If you are installing WebSphere Process Server, version 6.1 on a system that already has a prior version of WebSphere Process Server or WebSphere ESB installed and you intend to migrate to the newer version of WebSphere Process Server or WebSphere ESB, see *Migrating to WebSphere Process Server* for more information.
- *Updating* is replacing out-of-date files or data of an existing installation with current information. Refresh packs, interim fixes, and fix packs are examples of updates. For more information on updating, see Chapter 12, “Installing fix packs and refresh packs with the Update Installer,” on page 195.
- *Interoperation* is exchanging data between two different systems, such as coexisting product installations. This version of WebSphere Process Server is generally interoperable with many previous versions. To support interoperability, you need apply the latest fix levels. See *Planning for interoperability between WebSphere Process Server and other WebSphere Application Server products* for more information.

Installing WebSphere Process Server or the WebSphere Process Server Client to coexist with existing installations of various WebSphere products

Use this procedure to install WebSphere Process Server or the WebSphere Process Server Client on a system with an existing installation of WebSphere Process Server, the WebSphere Process Server Client, WebSphere Enterprise Service Bus, or a supported version of WebSphere Application Server or WebSphere Application Server Network Deployment. This procedure uses the installation wizard graphical user interface (GUI).

Before you begin

Review the list of prerequisites for installing the product at Chapter 4, “Prerequisites for installing WebSphere Process Server,” on page 37.

Restriction on using mixed-release cells:

- You can upgrade a portion of the nodes in a cell to WebSphere Process Server, version 6.1, while leaving others at the older release level. This means that, for a period of time, you might be administering servers that are at the current release level and servers that are running the newer release level in the same cell.
- A WebSphere Process Server, version 6.1 deployment cell can contain mixed releases of version 6.0.1.x or 6.0.2.x nodes, but there is no mixed-node management support for version 6.0.0.x. For version 6.0.1.x nodes, they must have WebSphere Process Server 6.0.2, fix pack 9 or higher installed.

The version 6.1 migration tools still migrate these nodes during deployment-manager migration, but they issue a warning message that the nodes cannot be managed by the version 6.1 deployment manager. You can then do one of the following based on your needs:

- Upgrade all version 6.0.0.x nodes to at least version 6.0.1, and install WebSphere Application Server 6.0.2, fix pack 9 or higher. This will allow them to be administered by a version 6.1 deployment manager.
- Immediately migrate these nodes to version 6.1.
- On a deployment cell with a 6.1 deployment manager, applications that contain Business Process Execution Language (BPEL) processes that are running on 6.0.x managed nodes cannot be modified. Applications that are already installed on a 6.0.x managed node will run uninterrupted. However, for any such running applications, you cannot update the application or uninstall it. You also cannot install a new application on a 6.0.x node managed by a 6.1 deployment manager.
- In a cluster, version 6.0.x members and version 6.1 members must never run at the same time. All version 6.0.x cluster members must be stopped before you start the first version 6.1 cluster member. Also, once you start a version 6.1 cluster member, do not start any 6.0.x cluster members in that cluster.

About this task

This procedure assumes you have a version 6.0.x or 6.1 installation of WebSphere Process Server, the WebSphere Process Server Client, WebSphere Enterprise Service Bus, WebSphere Application Server, or WebSphere Application Server Network Deployment on your system. You do not have to have existing profiles. It also assumes you want to install using an interactive interface. Use the following procedure to install the product.

Procedure

1. Go to the topic “Installing WebSphere Process Server interactively” on page 79 and follow the steps to start the installation wizard, accept the license agreement, and check prerequisites.

This procedure identifies existing installations of WebSphere Process Server, the WebSphere Process Server Client, WebSphere Enterprise Service Bus, WebSphere Application Server, version 6.1, or WebSphere Application Server Network Deployment version 6.1 on your system.

2. When you reach the panels that identify that there are existing installations on your system, elect to install a new copy of WebSphere Process Server to coexist with the existing versions.
3. Progress through the installation wizard panels to install the product. If the Installation results panel indicates **Success**, the product was installed successfully, and if you created a profile during installation, it was created successfully.
4. Use the Profile Management Tool or the `manageprofiles` command to create profiles as needed.

During profile creation, the `manageprofiles` command can use port values that you specify instead of the default port values. You can use a port file, specify a starting port, or accept the default port values. See the topic “`manageprofiles` command” on page 337 for details.
5. If the installation was successful, after you have created a stand-alone server or deployment manager profile, start it from its First steps console to verify that your installation is operating properly. See “Options on the First steps console” on page 119 for more details. You can also use the installation verification tools to verify your installation. See Chapter 8, “Verifying the product installation,” on page 125 for more information.
6. If you have a node that you cannot start because of port conflicts, change port assignments to nonconflicting ports in configuration files. Use one of the following methods:
 - Run the `updatePorts` tool; see Updating ports in an existing profile.
 - Edit the `profile_root/config/cells/cell_name/nodes/node_name/serverindex.xml` file. See Setting port numbers kept in the `serverindex.xml` file using scripting
 - Perform scripting. See Scripting the application serving environment (`wsadmin`) for more information.

Results

You have two installations of WebSphere Process Server coexisting on the same system.

Creating new WebSphere Process Server profiles to coexist with configuration instances of WebSphere Business Integration Server Foundation and WebSphere Application Server products

Use this procedure to create a WebSphere Process Server, version 6.1 profile to coexist with a configuration instance of WebSphere Business Integration Server Foundation, version 5.x, WebSphere Application Server, version 5.x, WebSphere Application Server Network Deployment, version 5.x, or WebSphere Application Server Enterprise, version 5.0.x, on a single system. This procedure uses the Profile Management Tool graphical user interface (GUI).

Before you begin

Review the general prerequisites for creating or augmenting profiles in “Prerequisites for creating or augmenting profiles” on page 158, as well as those specific to “Creating profiles using the Profile Management Tool” on page 165 or “Augmenting profiles using the Profile Management Tool” on page 172. In addition to these prerequisites, you must also have an existing installation of either:

- WebSphere Business Integration Server Foundation, version 5.x with an existing configuration instance.
- WebSphere Application Server, version 5.x, WebSphere Application Server Network Deployment, version 5.x, or WebSphere Application Server Enterprise, version 5.0.x, with an existing configuration instance. Coexistence with WebSphere Application Server Enterprise, version 5.0.x is supported on Linux, UNIX, and Windows platforms only.

Restriction on using mixed-release cells:

- You can upgrade a portion of the nodes in a cell to WebSphere Process Server, version 6.1, while leaving others at the older release level. This means that, for a period of time, you might be administering servers that are at the current release level and servers that are running the newer release level in the same cell.
- A WebSphere Process Server, version 6.1 deployment cell can contain mixed releases of version 6.0.1.x or 6.0.2.x nodes, but there is no mixed-node management support for version 6.0.0.x. For version 6.0.1.x nodes, they must have WebSphere Process Server 6.0.2, fix pack 9 or higher installed.

The version 6.1 migration tools still migrate these nodes during deployment-manager migration, but they issue a warning message that the nodes cannot be managed by the version 6.1 deployment manager. You can then do one of the following based on your needs:

- Upgrade all version 6.0.0.x nodes to at least version 6.0.1, and install WebSphere Application Server 6.0.2, fix pack 9 or higher. This will allow them to be administered by a version 6.1 deployment manager.
- Immediately migrate these nodes to version 6.1.
- On a deployment cell with a 6.1 deployment manager, applications that contain Business Process Execution Language (BPEL) processes that are running on 6.0.x managed nodes cannot be modified. Applications that are already installed on a 6.0.x managed node will run uninterrupted. However, for any such running applications, you cannot update the application or uninstall it. You also cannot install a new application on a 6.0.x node managed by a 6.1 deployment manager.
- In a cluster, version 6.0.x members and version 6.1 members must never run at the same time. All version 6.0.x cluster members must be stopped before you start the first version 6.1 cluster member. Also, once you start a version 6.1 cluster member, do not start any 6.0.x cluster members in that cluster.

About this task

To create a new profile, use the following procedure.

Procedure

1. Create the new WebSphere Process Server profile.

To do so, follow the procedure in “Creating profiles using the Profile Management Tool” on page 165 or “Augmenting profiles using the Profile Management Tool” on page 172.

- When progressing through the Profile Management Tool, on the Port values assignment panel, verify that the ports specified for the new profile are unique and different than the ports assigned to the existing configuration instance.
2. If you created a stand-alone server profile or deployment manager profile, verify that it is operating correctly with the coexisting instance. To verify that the profile is operating properly, start it from its First steps console while the coexisting instance is running. If it starts successfully, the profile is operating properly.

Results

A new WebSphere Process Server profile exists.

Creating new WebSphere Process Server profiles to coexist with WebSphere Enterprise Service Bus profiles

Use this procedure to create a WebSphere Process Server profile to coexist with a WebSphere Enterprise Service Bus profile on a single workstation. This procedure uses the Profile Management Tool graphical user interface (GUI).

Before you begin

Review the general prerequisites for creating or augmenting profiles in “Prerequisites for creating or augmenting profiles” on page 158, as well as those specific to “Creating profiles using the Profile Management Tool” on page 165 or “Augmenting profiles using the Profile Management Tool” on page 172. In addition to these prerequisites, you must also have an existing installation of WebSphere Enterprise Service Bus, version 6.1 or 6.0.x with an existing profile.

Restriction on using mixed-release cells:

- You can upgrade a portion of the nodes in a cell to WebSphere Process Server, version 6.1, while leaving others at the older release level. This means that, for a period of time, you might be administering servers that are at the current release level and servers that are running the newer release level in the same cell.
- A WebSphere Process Server, version 6.1 deployment cell can contain mixed releases of version 6.0.1.x or 6.0.2.x nodes, but there is no mixed-node management support for version 6.0.0.x. For version 6.0.1.x nodes, they must have WebSphere Process Server 6.0.2, fix pack 9 or higher installed.

The version 6.1 migration tools still migrate these nodes during deployment-manager migration, but they issue a warning message that the nodes cannot be managed by the version 6.1 deployment manager. You can then do one of the following based on your needs:

- Upgrade all version 6.0.0.x nodes to at least version 6.0.1, and install WebSphere Application Server 6.0.2, fix pack 9 or higher. This will allow them to be administered by a version 6.1 deployment manager.
 - Immediately migrate these nodes to version 6.1.
- On a deployment cell with a 6.1 deployment manager, applications that contain Business Process Execution Language (BPEL) processes that are running on 6.0.x managed nodes cannot be modified. Applications that are already installed on a 6.0.x managed node will run uninterrupted. However, for any such running applications, you cannot update the application or uninstall it. You also cannot install a new application on a 6.0.x node managed by a 6.1 deployment manager.

- In a cluster, version 6.0.x members and version 6.1 members must never run at the same time. All version 6.0.x cluster members must be stopped before you start the first version 6.1 cluster member. Also, once you start a version 6.1 cluster member, do not start any 6.0.x cluster members in that cluster.

About this task

To create a new profile, use the following procedure.

Procedure

1. Create the new WebSphere Process Server profile.

To do so, follow the procedure in “Creating profiles using the Profile Management Tool” on page 165 or “Augmenting profiles using the Profile Management Tool” on page 172.

When progressing through the Profile Management Tool, on the Port values assignment panel, verify that the ports specified for the new profile are unique and different than the ports assigned to the existing WebSphere Enterprise Service Bus profile.

2. If you created a stand-alone server profile or deployment manager profile, verify that it is operating properly with the coexisting WebSphere Enterprise Service Bus profile. To verify that the profile is operating properly, start it from its First steps console while the coexisting profile is running. If it starts successfully, the profile is operating properly.

Results

A new WebSphere Process Server profile exists.

Chapter 10. Working with profiles

There are three types of profiles: a stand-alone server profile, a deployment manager profile, and a custom profile (managed node). Each profile defines a separate runtime environment, with separate files (commands, configuration files, and log files). Topics in this section provide detailed information on tasks you might have to perform to work with profiles after you install WebSphere Process Server.

Profiles

A profile defines a unique runtime environment, with separate command files, configuration files, and log files. Profiles define three different types of environments: stand-alone server, deployment manager, and managed node.

Using profiles you can have more than one runtime environment on a system, without having to install multiple copies of the WebSphere Process Server binary files.




The first profile can be automatically created when you install WebSphere Process Server. You can later use the Profile Management Tool or the `manageprofiles` command to create further profiles on the same system, without installing a second copy of the binary files.

Note: On distributed platforms, each profile has a unique name. On z/OS all the profiles are named “default”.

The profile directory

Every profile in the system has its own directory containing all its files. You specify the location of the profile directory when you create the profile: by default it is in the profiles directory in the directory where WebSphere Process Server was installed, for example, the `Dmgr01` profile is in `C:\Program Files\IBM\WebSphere\ProcServer\profiles\Dmgr01`.

The First steps console

   Every profile in the system has a First steps console, which is a user interface for familiarizing yourself with the stand-alone server, deployment manager, or managed node.

The default profile

The first profile that you create within one installation of WebSphere Process Server is the *default profile*. The default profile is the default target for commands issued from the `bin` directory in the directory where WebSphere Process Server was installed. If only one profile exists on a system, every command operates on that profile. If you create another profile, you can make it the default. For information on how to target commands to profiles other than the default, see “Profile commands in a multiprofile environment” on page 361.

Note: The default profile is not necessarily a profile whose name is “default”.

Augmenting profiles

If you already have a deployment manager, a custom profile, or a stand-alone server created for WebSphere Application Server Network Deployment, version 6 or WebSphere ESB, you can *augment* its profile to support WebSphere Process Server in addition to existing function. To augment a profile, first install WebSphere Process Server. Then use the Profile Management Tool or the `manageprofiles` command.

Restriction: You cannot augment a profile if it defines a managed node that is already federated to a deployment manager.

Prerequisites for creating or augmenting profiles

Before creating or augmenting a profile, you must ensure that a series of prerequisites have been met.

- You must have an existing installation of WebSphere Process Server. If you do not, see Chapter 7, “Installing the software,” on page 67 for installation procedures.
- If you are not the user ID who installed the product, that you have been given write permission to selected directories within the WebSphere Process Server installation. See “Granting write permission of files and directories to a non-root user for profile creation” on page 160 for instructions on how to obtain these permissions. You must create your profiles in a directory other than `install_root/profiles`.
- You must know the type of profile you want to create or augment. For more information about profiles, see “Profiles” on page 157.
- You must follow the correct procedure to create or augment the profile:
 - If you want to create a new profile rather than augment an existing profile, see one of the following topics:
 - To create a profile using an interactive interface: “Creating profiles using the Profile Management Tool” on page 165.
 - To create a profile using the `manageprofiles` command: “Creating profiles using the `manageprofiles` command” on page 168.
 - If you want to augment an existing WebSphere Application Server, WebSphere Application Server Network Deployment, or WebSphere Enterprise Service Bus profile into a WebSphere Process Server profile, see one of the following topics:
 - To augment a profile using an interactive interface: “Augmenting profiles using the Profile Management Tool” on page 172.
 - To augment a profile using the `manageprofiles` command: “Augmenting profiles using the `manageprofiles` command” on page 176.

Important: A profile that you plan to augment using the Profile Management Tool or the `manageprofiles` command cannot define a managed node that is already federated. If the managed node is already federated, you must augment it manually, as described in “Augmenting federated profiles manually” on page 178.

- You are not using the Profile Management Tool to create or augment profiles on 64-bit platforms (except i5/OS) or on the Linux on System z platform. To create or augment profiles on these platforms, you must use the `manageprofiles` command. See “Creating profiles using the `manageprofiles` command” on page 168 for more information.
- You must shut down any servers associated with a profile you plan to augment.

- Review “Naming considerations for profiles, nodes, hosts, and cells” on page 356 for information about reserved terms and issues that you must consider when naming your profile, node, host, and cell (if applicable).
- You must have enough disk and temporary space to create or augment the new profile. For information on space requirements, see WebSphere Process Server detailed system requirements at <http://www.ibm.com/support/docview.wss?uid=swg27006205> and select the link to your version of WebSphere Process Server.

The following prerequisites relate to product databases:

- During the profile creation or augmentation process, you will be configuring the database used by the Common Event Infrastructure component and the Common database used by other selected components. Whether you plan to create new databases and tables, add new tables to existing databases, or postpone actual database configuration by producing scripts that must be run manually by you or your database administrator (DBA), you must know the following database details:
 - For the Common Event Infrastructure database:
 - Database name
 - User ID and password for database authentication
 - Directory location of the JDBC driver classpath files (not required for Derby Embedded or Derby Network Server)
 - Database server host name (not required for Derby Embedded)
 - Server port (not required for Derby Embedded, DB2 UDB for iSeries (Toolbox), or DB2 UDB for iSeries (Native))
 - Event service instance name (required for Informix, Oracle, and Microsoft SQL Server only)
 - Directory of database server installation (required for Informix, and Oracle only)
 - Administrator user ID and password (required for Oracle, and Microsoft SQL Server only)
 - Database server name (required for Informix and Microsoft SQL Server only)
 - Database node name, if DB2 server remote (required for DB2 Universal only)
 - Database alias name (required for DB2 UDB for z/OS only)
 - Database storage group name (required for DB2 UDB for z/OS only)
 - Database subsystem name (required for DB2 UDB for z/OS only)
 - 4K, 8K, and 16K buffer pool names (required for DB2 UDB for z/OS only)
 - Disk size for the event service database (required for DB2 UDB for z/OS only)
 - Database collection name (required for DB2 UDB for iSeries (Toolbox), and DB2 UDB for iSeries (Native) only)
 - For the Common database:
 - Database name
 - User ID and password for database authentication (not required for Derby Embedded)
 - Directory location of the JDBC driver classpath files (not required for Derby Embedded, Derby Network Server, or Microsoft SQL Server Embedded)
 - Database server host name (not required for Derby Embedded or DB2 CLI)
 - Server port (not required for Derby Embedded, DB2 UDB for iSeries (Toolbox), DB2 UDB for iSeries (Native), or DB2 CLI)
 - JDBC driver type (required for DB2 Universal, Oracle 9i, and Oracle 10g only)

- Database alias name (required for DB2 UDB for z/OS and OS/390® V7, and DB2 UDB for z/OS V8 only)
- Connection location (required for DB2 UDB for z/OS and OS/390 V7, and DB2 UDB for z/OS V8 only)
- Storage group name (required for DB2 UDB for z/OS and OS/390 V7 ,and DB2 UDB for z/OS V8 only)
- Database collection name (required for DB2 UDB for iSeries (Toolbox), and DB2 UDB for iSeries (Native) only)
- Events service instance name (required for Informix only)
- If you plan to use DB2 Universal Database for your repository, you must perform the following steps before creating or augmenting the profile:
 - If you are configuring a DB2 database on a DB2 client with the server on a remote system, make sure the client system is configured to communicate with the server and that the DB2 node is cataloged. For more information, refer to the DB2 Universal Database documentation.
 - Linux UNIX If you are configuring a DB2 database on a Linux or UNIX system, source the database environment by doing the following:
 1. Modify `/etc/group` and make sure the user ID that installed the product is in the same group as `db2instance`.
 2. Source the database environment by running the `db2instance/sqllib/db2profile` script (replace `db2instance` with the name of your database instance).
- If you plan to locate the Common database repository on a remote server, you must create it before beginning to create or augment the profile. You can create a repository on the local server or use an existing one on a remote server. See Common database specifications for the location of default scripts you can use to create this database.
- If you plan to use DB2 on a remote z/OS machine for the Common Event Infrastructure and Common database repositories, your DBA must create, on the z/OS server, three databases called `event`, `eventcat`, and `WPRCSDB`, as well as the correct storage groups for each (`EVTST0` is the default). The DBA can use the site's standard database definition tools and procedures.
 - To create the `event` and `eventcat` databases and associated storage groups, the DBA can reference `Configuring the event database and its subtopics`.
 - To create the `WPRCSDB` database and associated storage groups, the DBA can edit and run the default scripts provided in the following directories:
 - Linux UNIX `install_root/dbscripts/CommonDB/DB2z0SV7/` or `install_root/dbscripts/CommonDB/DB2z0SV8/`
 - Windows `install_root\dbscripts\CommonDB\DB2z0SV7\` or `install_root\dbscripts\CommonDB\DB2z0SV8\`

After you have reviewed these prerequisites, return to the topic from which you accessed this one.

Granting write permission of files and directories to a non-root user for profile creation

The product installer (who can be a root/Administrator or non-root user) can grant write permission to the appropriate WebSphere Process Server files and directories to other non-root users. The non-root users can then create profiles. Alternatively, the product installer can create a group for users who are authorized to create

profiles or give individual users the authority to create profiles. The following example task shows how to create a group that is authorized to create profiles.

Restriction: i5/OS The tasks described in this topic are not supported on i5/OS.

Throughout this text, the terms "installer" and "product installer" refer to the user ID that installed WebSphere Process Server.

Restriction: WebSphere Process Server does not support changing ownership of existing profiles from the product installer to other non-root users. Thus, profile augmentation by non-root users is not supported.

Non-root users create their own profiles so that they can manage their own environments. Typically, they manage environments for development purposes.

Non-root users must store their profiles in their private directory structure, not in the *install_root/profiles* directory of the product.

Restriction: An ease-of-use limitation exists for non-root users who create profiles. Mechanisms within the Profile Management Tool that suggest unique names and port values are disabled for non-root users. The non-root user must change the default field values in the Profile Management Tool for the profile name, node name, cell name, and port assignments. The product installer can assign non-root users a range of values for each of the fields, and assign responsibility to the non-root users for adhering to their assigned value ranges and for maintaining the integrity of their own definitions.

Steps the product installer must perform to grant appropriate permissions

The installer can perform the following steps to create the profilers group and give the group appropriate permissions to create a profile.

1. Log on to the WebSphere Process Server system as the product installer. (The product installer can be a root/Administrator or non-root user.)
2. Using operating system commands, do the following:
 - Create a group named profilers, which will contain all users who can create profiles.
 - Create a user named user1, who can create profiles.
 - Add users product_installer and user1 to the profilers group.
3. Linux UNIX Log off and log back on as the installer to pick up the new group.
4. Create the following directories as the installer:
 - Linux UNIX Create the *install_root/logs/manageprofiles* directory:
`mkdir install_root/logs/manageprofiles`
 - Windows Create the *install_root\logs\manageprofiles* directory by following instructions in the Windows documentation. For this example procedure, the directory is:
`install_root\logs\manageprofiles`
 - Linux UNIX Create the *install_root/properties/fsdb* directory:
`mkdir install_root/properties/fsdb`

Windows Create the `install_root\properties\fsdb` directory by following instructions in the Windows documentation. For this example procedure, the directory is:

```
install_root\properties\fsdb
```

5. As the installer, follow directions for your operating system to create the `profileRegistry.xml` file. For this example, the file paths are:

Linux **UNIX**

```
install_root/properties/profileRegistry.xml
```

Windows

```
install_root\properties\profileRegistry.xml
```

Follow instructions for your operating system to add the following information to the `profileRegistry.xml` file. The file must be encoded as UTF-8.

```
<?xml version="1.0" encoding="UTF-8"?>
<profiles/>
```

6. As the product installer, use operating system tools to change directory and file permissions.

Linux **UNIX** The following example assumes that the variable `$WASHOME` is the WebSphere Process Server root installation directory `/opt/IBM/WebSphere/ProcServer`.

```
export WASHOME=/opt/IBM/WebSphere/ProcServer
echo $WASHOME
echo "Performing chgrp/chmod per WAS directions..."
chgrp profilers $WASHOME/logs/manageprofiles
chmod g+wr $WASHOME/logs/manageprofiles
chgrp profilers $WASHOME/properties
chmod g+wr $WASHOME/properties
chgrp profilers $WASHOME/properties/fsdb
chmod g+wr $WASHOME/properties/fsdb
chgrp profilers $WASHOME/properties/profileRegistry.xml
chmod g+wr $WASHOME/properties/profileRegistry.xml
chgrp -R profilers $WASHOME/profileTemplates
```

HP-UX Issue the following additional command where `profile_template_name` is `default`, `dmgr`, or `managed`, respectively:

```
chmod -R g+wr $WASHOME/profileTemplates/profile_template_name/documents
```

The ownership of files is preserved when the files are copied to the profile directory during profile creation. You granted write permission to the profile directory so that files copied to the profile directory can be modified as part of the profile creation process. Files that are already in the `profileTemplate` directory structure prior to the start of profile creation are not modified during profile creation.

Linux Issue the following additional commands:

```
chgrp profilers $WASHOME/properties/Profiles.menu
chmod g+wr $WASHOME/properties/Profiles.menu
```

Windows The following example assumes that the variable `$WASHOME` is the WebSphere Process Server root installation directory `C:\Program Files\IBM\WebSphere\ProcServer`. Follow instructions in the Windows documentation to give the `profilers` group read and write permission to the following directories and their files:

```
@WASHOME\logs\manageprofiles
@WASHOME\properties
@WASHOME\properties\fsdb
@WASHOME\properties\profileRegistry.xml
```

You might have to change the permissions on additional files if the non-root user encounters permission errors. For example, if the product installer authorizes a non-root user to delete a profile, then product installer might have to delete the following file:

```
Linux      UNIX      install_root/properties/profileRegistry.xml_LOCK
```

```
Windows   install_root\properties\profileRegistry.xml_LOCK
```

Give write access to the non-root user for the file to authorize the user to delete the file. If the non-root user still cannot delete the profile, then the product installer can delete the profile.

Result

The installer created the `profilers` group and gave the group proper permissions to certain directories and files to create profiles. These directories and files are the only ones in the installation root of WebSphere Process Server to which a non-root user needs to write to create profiles.

What to do next

The non-root user that belongs to the `profilers` group can create profiles in a directory that the non-root user owns and to which the non-root user has write permission. However, the non-root user cannot create profiles in the installation root directory of the product.

A non-root user ID can manage multiple profiles. The same non-root user ID can manage an entire profile, whether it is the deployment manager profile, a profile that contains the servers and the node agent, or a custom profile. A different user ID can be used for each profile in a cell, whether global security or administrative security is enabled or disabled. The user IDs can be a mix of root and non-root user IDs. For example, the root user might manage the deployment manager profile, while a non-root user might manage a profile that contains servers and the node agent, or vice versa. However, typically, a root user or a non-root user can manage all profiles in a cell.

The non-root user can use the same tasks to manage a profile that the root user uses.

Creating the Common database manually before profile creation or augmentation

Learn how to create the Common database manually, before creating or augmenting a profile.

About this task

The Profile Management Tool automatically creates and configures the Common database and its required tables. However, your organization might require that databases be created by a separate database administrator. As a result, you or your database administrator might need to create the WebSphere Process Server Common database before creating or augmenting profiles. WebSphere Process Server provides default scripts you can use to create the database.

Procedure

1. Go to the directory containing the profile creation scripts. The default location depends on the platform:

- `i5/OS` `install_root/dbscripts/CommonDB/db_type`
- `Linux` `UNIX` `install_root/dbscripts/CommonDB/db_type`
- `Windows` `install_root\dbscripts\CommonDB\db_type`

The variable `db_type` represents the supported database product.

2. Use your standard database definition tools, native commands, and procedures to create the database by editing and running the appropriate scripts. The scripts contain only basic statements for creating databases, tables, and indexes.

What to do next

After the database has been created successfully, start the Profile Management Tool to create or augment profiles.

Creating profiles

Learn how to create new WebSphere Enterprise Service Bus or WebSphere Process Server profiles. You can create profiles from a command line by using the `manageprofiles` command, or interactively by using the Profile Management Tool graphical user interface (GUI).

Before you begin

Choose the type of profile you want to create. For more information about profiles, see “Profiles” on page 157. See the list of prerequisites for creating or augmenting profiles in the topic “Prerequisites for creating or augmenting profiles” on page 158.

About this task

You can create any combination of deployment manager, stand-alone server, or custom profiles. Each time you use the Profile Management Tool or `manageprofiles` command one profile is created.

Restriction: You cannot use the Profile Management Tool to create or augment profiles on 64-bit platforms (except for `i5/OS`) or on the Linux on System z platform. To create profiles on these platforms, you must use the `manageprofiles` command. See “Creating profiles using the `manageprofiles` command” on page 168 for more information.

Procedure

Decide whether to create the profile from a command line by using the `manageprofiles` command, or interactively by using the Profile Management Tool. Use the command line for speed and the ability to reuse the command line (or the properties file) if you want to create similar profiles. Use the Profile Management Tool if you want a wizard help you through the procedure.

- To create the profile by using the `manageprofiles` command, see the topic “Creating profiles using the `manageprofiles` command” on page 168.
- To create the profile by using the Profile Management Tool, see the topic “Creating profiles using the Profile Management Tool” on page 165, which has you:

- Start the Profile Management Tool.
- Select whether to create a WebSphere Process Server or WebSphere Enterprise Service Bus profile.
- Select the type of profile to create (stand-alone server, deployment manager, or custom).
- Choose the type of profile creation you want to perform:
 - **Typical** (the default), which creates a profile with default configuration settings.
 - **Advanced**, which lets you specify your own configuration values for a profile.
 - **Deployment environment** (for deployment manager or custom profiles only), which lets you create a deployment manager and choose a deployment environment pattern for it, or choose a cluster or clusters to apply to a managed node. You specify your own configuration values for the profile.
- Based on the type of profile creation you select, links within the topic “Creating profiles using the Profile Management Tool” direct you to the proper interactive procedure to complete the profile creation you want.

Creating profiles using the Profile Management Tool

Learn how to create a stand-alone server profile, a deployment manager profile, or a custom profile using the Profile Management Tool graphical user interface (GUI).

Before you begin

Review the list of prerequisites for creating or augmenting a profile at “Prerequisites for creating or augmenting profiles” on page 158.

About this task

Complete the following steps to create a profile.

Procedure

1. Start the WebSphere Process Server Profile Management Tool.

Use one of the following commands:

- Linux UNIX `install_root/bin/ProfileManagement/pmt.sh`
- Windows `install_root\bin\ProfileManagement\pmt.bat`

See the topic “Starting the Profile Management Tool” on page 167 for details on the different methods of starting this tool.

Determine whether or not you have an existing WebSphere Application Server, WebSphere Application Server Network Deployment, or WebSphere Enterprise Service Bus profile on your system. The next step depends on whether or not a profile exists.

Is an existing profile on the system?	Next step
No	The Welcome panel is displayed. Proceed to step 3 on page 166.
Yes	The Create or augment profile panel is displayed. Proceed to step 2.

2. In the Create or augment profile panel, click **Create**.

The Profile Management Tool opens in a separate window and the Welcome panel is displayed.

3. In the Welcome panel, click **Next**.
The Environment selection panel is displayed.
4. In the Environment selection panel, select **WebSphere Process Server or WebSphere Enterprise Service Bus** and click **Next**.

Important: Do not select the entries **Cell**, **Deployment manager**, **Application server**, or **Custom profile** from this panel. These entries represent WebSphere Application Server profile types. If you select **WebSphere Process Server or WebSphere Enterprise Service Bus** in this panel, you ensure that the profile you create will be for that product type. You will specify which type of profile (stand-alone server, deployment manager, or custom) to create in a later step.

The next step depends on whether your installation of WebSphere Process Server is installed over WebSphere Application Server or WebSphere Application Server Network Deployment (although you can create a WebSphere Enterprise Service Bus profile with the WebSphere Process Server Profile Management Tool, the assumption of this procedure is that WebSphere Process Server is the installed product):

WebSphere Application Server product underlying WebSphere Process Server	Next step
WebSphere Application Server	You can create only a stand-alone server profile, so the Profile creation options panel is displayed. Proceed to step 6.
WebSphere Application Server Network Deployment	You must first choose which type of profile you want to create from the Profile type selection panel. Proceed to step 5.

5. In the Profile type selection panel, select the type of profile you want to create and click **Next**.
The Profile creation options panel is displayed.
6. In the Profile creation options panel, choose to perform a **Typical**, an **Advanced**, or (for deployment manager or custom profiles) a **Deployment environment** profile creation, and click **Next**. The **Typical** option creates a profile with default configuration settings. The **Advanced** option lets you specify your own configuration values for a profile. The **Deployment environment** option also lets you specify your own configuration values for a profile, plus lets you create a deployment manager and choose a deployment environment pattern for it or choose a cluster or clusters to apply to a managed node.
7. Before continuing to the next panel in the Profile Management Tool, proceed to one of the following topics to configure and complete creation of your profile.

Type of profile creation you selected	Procedure to complete profile creation based on your profile type (stand-alone server, deployment manager, or custom)
Typical	<ul style="list-style-type: none"> • “Configuring stand-alone server profiles using default values” on page 363 • “Configuring deployment manager profiles using default values” on page 365 • “Configuring custom profiles (managed nodes) using default values” on page 368

Type of profile creation you selected	Procedure to complete profile creation based on your profile type (stand-alone server, deployment manager, or custom)
Advanced	<ul style="list-style-type: none"> • “Configuring stand-alone server profiles using customized values” on page 371 • “Configuring deployment manager profiles using customized values” on page 404 • “Configuring custom profiles (managed nodes) using customized values” on page 423
Deployment environment Important: If you do not have an existing deployment manager and deployment environment pattern, be sure to follow the instructions under “Configuring deployment manager profiles for a deployment environment” on page 431 when creating profiles on your first workstation. Follow those under “Configuring custom profiles (managed nodes) for a deployment environment” on page 450 when creating profiles on subsequent workstations.	<ul style="list-style-type: none"> • “Configuring deployment manager profiles for a deployment environment” on page 431 • “Configuring custom profiles (managed nodes) for a deployment environment” on page 450

Results



You are ready to configure your profile, which defines a new operating environment of the type you specified (stand-alone server, deployment manager, or custom).




Starting the Profile Management Tool

Learn how to use the Profile Management Tool to create or augment profiles. You can start the Profile Management Tool in several ways.

Prerequisites

Restrictions:

- You cannot use the Profile Management Tool to create or augment profiles on 64-bit platforms (with the exception of i5/OS) or the Linux on System z platform.
-  When WebSphere Process Server is installed on an i5/OS system, the Profile Management Tool will run only in stand-alone mode. The tool cannot be launched from the Application Server Toolkit (AST) tool.
-  The **Browse** buttons on the Profile Management Tool panels are disabled.

   The language of the Profile Management Tool is determined by the default language on the system. If the default language is not one of the supported languages, then English is used. You can override the system’s default language by starting the Profile Management Tool from the command line and using the `java user.language` setting to replace the default language. Use the following command:

- **Linux** **UNIX** `install_root/java/bin/java -Duser.language=locale install_root/bin/ProfileManagement/startup.jar`
- **Windows** `install_root\java\bin\java -Duser.language=locale install_root\bin\ProfileManagement\startup.jar`

For example, to start the Profile Management Tool in the German language on a Linux system, type the following command:

```
install_root/java/bin/java -Duser.language=de install_root/ \
bin/ProfileManagement/startup.jar
```

Starting the tool on all platforms

Start the tool on any platform in one of the following ways:

- From the First steps console. See “Starting the First steps console” on page 116 for how to start the First steps console.
- At the end of an installation, select the check box to start the Profile Management Tool.

Starting the tool on i5/OS platforms

i5/OS You can start the tool from your Windows workstation if you have installed the Profile Management Tool Client on your Windows workstation. The Profile Management Tool Client can be installed from the launchpad.

When you start the Profile Management Tool, a panel appears on which you can sign on to the System i server.

1. Enter the system name, your i5/OS user profile, and password.
2. Select which installation (if there is more than one installation of WebSphere Process Server) and which port number you want to use.
3. Click **Launch Profile Management Tool**.

Note: The default port number is 1099. You can change this to a different port. If that port number is busy, you receive an error message, in which case, you can select a different port number to continue.

Starting the tool on Linux and UNIX platforms

Linux **UNIX** You can also start the tool on Linux and UNIX platforms by running the command `install_root/bin/ProfileManagement/pmt.sh`.

Starting the tool on Windows platforms

Windows You can also use the following methods to start the tool on Windows platforms:

- From the Windows Start menu. For example, select **Start > Programs or All Programs > IBM WebSphere > Process Server 6.1 > Profile Management Tool**.
- Run the command `install_root\bin\ProfileManagement\pmt.bat`.

Creating profiles using the manageprofiles command

Learn about creating a profile from the command line using the manageprofiles command and a property file.

Before you begin

To find out more about the `manageprofiles` command, see “`manageprofiles` command” on page 337.

Before you run the `manageprofiles` command ensure that:

- You have reviewed the full list of prerequisites for creating or augmenting a profile at “Prerequisites for creating or augmenting profiles” on page 158.
- You are not already running the `manageprofiles` command on the same profile. If an error message is displayed, determine if there is another profile creation or augmentation action in progress. If so, wait until it completes.

Security role required for this task: See “Granting write permission of files and directories to a non-root user for profile creation” on page 160.

Note: i5/OS **On i5/OS platforms:** You must have operating system permissions to read, write, and run commands in the `user_data_root/profiles` directory.

Procedure

1. Determine the kind of profile you want to create, which in turn determines the template to use for your new profile (using the `-templatePath` option). The following templates are available:
 - `default.wbiserver`: for a WebSphere Process Server stand-alone server profile, which defines a Stand-alone server.
 - `dmgr.wbiserver`: for a WebSphere Process Server deployment manager profile, which defines a Deployment manager. A *deployment manager* provides one administrative interface to a logical group of servers on one or more machines.
 - `managed.wbiserver`: for a WebSphere Process Server custom profile, which, when federated to a deployment manager, defines a Managed node. If you have decided that your solution requires a deployment environment, your runtime environment requires one or more managed nodes. A *custom profile* contains an empty node that you must federate into a deployment manager cell to make operational. Federating the custom profile changes it into a managed node. Do not federate a node unless the deployment manager you are federating to is at a release level the same or higher than that of the custom profile you are creating. Also, WebSphere Process Server profiles cannot use a WebSphere Enterprise Service Bus deployment manager, but WebSphere Enterprise Service Bus profiles can use a WebSphere Process Server deployment manager.
 - `default.esbserver`: for a WebSphere Enterprise Service Bus stand-alone server profile, which defines a Stand-alone server.
 - `dmgr.esbserver`: for a WebSphere Enterprise Service Bus deployment manager profile, which defines a Deployment manager.
 - `managed.esbserver`: for a WebSphere Enterprise Service Bus custom profile, which, when federated to a deployment manager, defines a Managed node. Do not federate a node unless the deployment manager you are federating to is at a release level the same or higher than that of the custom profile you are creating. WebSphere Enterprise Service Bus profiles can use a WebSphere Enterprise Service Bus or WebSphere Process Server deployment manager.Templates for each profile are located in the `install_root/profileTemplates` directory.
2. Determine which parameters are required for your type of profile. For more details on parameters, see “`manageprofiles` command parameters” on page 339.

3. Determine the values that you want to supply for the profile and review the default values in the template to see if they are what you need for your profile.
4. Run the file from the command line. For example:

- **i5/OS** `manageprofiles -create -templatePath install_root/profileTemplates/default.wbiserver`
- **Linux** **UNIX** `manageprofiles.sh -create -templatePath install_root/profileTemplates/default.wbiserver`
- **Windows** **On Windows platforms:** `manageprofiles.bat -create -templatePath install_root\profileTemplates\default.wbiserver`

If you have created a response file, use the **-response** parameter: `-response myResponseFile`

The following example shows a response file for a create operation:

```
create
profileName=testResponseFileCreate
profilePath=profile_root
templatePath=install_root/profileTemplates/default.wbiserver
nodeName=myNodeName
cellName=myCellName
hostName=myHostName
omitAction=myOptionalAction1, myOptionalAction2
```

The command displays status while it runs. Wait for it to finish. Normal syntax checking on the properties file applies when the file is parsed like any other Java properties file. Individual values in the property file are treated as command-line parameters.

What to do next

You can verify that the profile creation has completed by performing one of the following steps:

- Check the `profile_name_create.log` file in the `install_root/logs/manageprofiles` directory.

Note: **i5/OS** **On i5/OS platforms:** The `profile_name_create.log` is in the `userdata_root/profileRegistry/logs/manageprofiles` directory.

- Run the Installation Verification Test (IVT) tool to verify that the profile was created successfully. For more information, see the `ivt` command in the Command-line utilities section of the WebSphere Application Server Network Deployment, version 6.1 information center.

Augmenting existing profiles

Learn how to augment existing WebSphere Application Server or WebSphere Application Server Network Deployment profiles into WebSphere Enterprise Service Bus or WebSphere Process Server profiles, or WebSphere Enterprise Service Bus profiles into WebSphere Process Server profiles. You can augment profiles from a command line by using the `manageprofiles` command or interactively by using the Profile Management Tool graphical user interface (GUI).

Before you begin

Ensure that the profile:

- Exists on a system with a WebSphere Process Server installation.

- Is not federated to a deployment manager. You cannot use the Profile Management Tool or the `manageprofiles` command to augment federated profiles. You must augment them manually using the instructions in “Augmenting federated profiles manually” on page 178.
- Does not have running servers.

About this task

If you have existing WebSphere Application Server or WebSphere Application Server Network Deployment profiles on your system, you might want the operating environments defined by those profiles to have WebSphere Enterprise Service Bus or WebSphere Process Server functionality. Likewise, if you have existing WebSphere Enterprise Service Bus profiles, you might want them to have WebSphere Process Server functionality.

Restrictions:

- You cannot augment deployment manager profiles if you choose the **Deployment environment** profile augmentation option.
- You cannot use the Profile Management Tool to create or augment profiles on 64-bit platforms (except for i5/OS) or on the Linux on System z platform. To augment profiles on these platforms, you must use the `manageprofiles` command. See “Augmenting profiles using the `manageprofiles` command” on page 176 for more information.

Review the following high-level tasks to better understand profile augmentation:

Procedure

1. See the list of prerequisites for creating or augmenting profiles in the topic “Prerequisites for creating or augmenting profiles” on page 158.
2. Decide whether to augment the profile from a command line by using the `manageprofiles` command or interactively by using the Profile Management Tool.
 - To augment by using the `manageprofiles` command, see the topic “Augmenting profiles using the `manageprofiles` command” on page 176.
 - To augment by using the Profile Management Tool, see the topic “Augmenting profiles using the Profile Management Tool” on page 172, which has you:
 - Start the Profile Management Tool.
 - Select the profile to augment.
 - Select whether to augment the profile with WebSphere Enterprise Service Bus or WebSphere Process Server functionality.
 - Choose the type of profile augmentation you want to perform:
 - **Typical** (the default), which augments a profile with default configuration settings.
 - **Advanced**, which lets you specify your own configuration values for a profile.
 - **Deployment environment** (for custom profiles only), which lets you choose a cluster or clusters to apply to a managed node. You specify your own configuration values for the profile.
 - Based on the type of profile augmentation you select, links within the topic “Augmenting profiles using the Profile Management Tool” on page 172 direct you to the proper interactive procedure to complete the profile augmentation you want.

Augmenting profiles using the Profile Management Tool

Learn how to use the Profile Management Tool graphical user interface (GUI) to augment a WebSphere Application Server, WebSphere Application Server Network Deployment, or WebSphere Enterprise Service Bus profile into a WebSphere Process Server profile.

Before you begin

Ensure that:

- The profile type you will augment to (stand-alone server, deployment manager, or custom) is the same as the type of the profile you will augment from.
- You have reviewed the list of prerequisites for creating or augmenting a profile at “Prerequisites for creating or augmenting profiles” on page 158.
- You shut down any servers associated with the profile you plan to augment.
- If you plan to augment a stand-alone server or custom profile, you determine if it has already been federated to a deployment manager:
 - If the profile you want to augment has already been federated to a deployment manager, you cannot augment it to a WebSphere Process Server or a WebSphere Enterprise Service Bus profile using the Profile Management Tool. You must augment it manually by following the procedure in “Augmenting federated profiles manually” on page 178.
 - If the profile you want to augment has not already been federated to a deployment manager, when you do federate it via the **addNode** command later, the following must be true of the deployment manager with which it is federated in order for the augmentation to complete successfully:
 - It must be running.
 - It must have a JMX administrative port enabled. The default protocol is SOAP.
 - It must have already been augmented into a WebSphere Process Server deployment manager profile, depending on the product you have installed.

About this task

Complete the following steps to augment a profile.

Procedure

1. Start the WebSphere Process Server Profile Management Tool.

Use one of the following commands:

- **Linux** **UNIX** **On Linux and UNIX platforms:** `install_root/bin/ProfileManagement/pmt.sh`.
- **Windows** **On Windows platforms:** `install_root\bin\ProfileManagement\pmt.bat`.

See the topic “Starting the Profile Management Tool” on page 167 for details on the different methods of starting this tool.

The next step depends on whether there is an existing WebSphere Application Server, WebSphere Application Server Network Deployment, or WebSphere Enterprise Service Bus profile on your system.

Existing profile on system?	Next step
No	The Welcome panel is displayed. In this case, do not follow this procedure. Use the procedure described in “Creating profiles using the Profile Management Tool” on page 165.
Yes	The Create or augment profile panel is displayed. Proceed to step 2.

2. In the Create or augment profile panel, select **Augment**.

This procedure assumes that you want to do one of the following:

- Augment an existing WebSphere Application Server or WebSphere Application Server Network Deployment profile into a WebSphere Process Server or WebSphere Enterprise Service Bus profile.
- Augment an existing WebSphere Enterprise Service Bus profile into a WebSphere Process Server profile.

The Profile Management Tool opens in a separate window and the Welcome panel is displayed.

3. In the Welcome panel, select **Next**.

The Profile selection panel is displayed.

4. In the Profile selection panel, highlight the profile to augment from the drop-down list, and select **Next**.

All profiles are displayed as selections. If you select to augment a WebSphere Application Server or WebSphere Application Server Network Deployment profile, it must be from the version of WebSphere Application Server on which WebSphere Process Server is installed. The Augment selection panel is displayed.

Note: If you select a profile that is federated, you will receive an error message. If the profile you want to augment has already been federated to a deployment manager, you cannot augment it to a WebSphere Process Server or a WebSphere Enterprise Service Bus profile using the Profile Management Tool. You must augment it manually by following the procedure in “Augmenting federated profiles manually” on page 178.

5. In the Augment selection panel, choose whether to augment the profile into a WebSphere Enterprise Service Bus or WebSphere Process Server profile by highlighting the appropriate product and then select **Next**.

The Profile Management Tool displays a warning if the profile you selected to augment:

- Has a running server. You cannot augment the profile until you stop the server or select **Back** and choose another profile that does not have running servers.
- Is federated. You cannot augment a federated profile. You must first unfederate the profile or select **Back** and choose another profile that is not federated.
- Is already augmented with the product you selected. You must select **Back** and choose another profile to augment.
- Cannot be augmented with the product you selected. For instance, you cannot augment a WebSphere Process Server profile into a WebSphere Enterprise Service Bus profile. You must augment the profile with a compatible product or select **Back** and choose another profile to augment.

The Profile augmentation options panel is displayed.

6. In the Profile augmentation options panel, choose to perform a **Typical**, an **Advanced**, or (for custom profiles) a **Deployment environment** profile augmentation, and select **Next**. The **Typical** option augments a profile with default configuration settings. The **Advanced** option lets you specify your own configuration values for a profile. The **Deployment environment** option lets you specify your own configuration values for a custom profile and choose the cluster or clusters to apply to the managed node.
7. Before continuing to the next panel in the Profile Management Tool, proceed to one of the following topics to configure and complete augmentation of your profile.

Type of profile augmentation you selected	Procedure to complete profile augmentation based on your profile type (stand-alone server, deployment manager, or custom)
Typical	<ul style="list-style-type: none"> • “Configuring stand-alone server profiles using default values” on page 363 • “Configuring deployment manager profiles using default values” on page 365 • “Configuring custom profiles (managed nodes) using default values” on page 368
Advanced	<ul style="list-style-type: none"> • “Configuring stand-alone server profiles using customized values” on page 371 • “Configuring deployment manager profiles using customized values” on page 404 • “Configuring custom profiles (managed nodes) using customized values” on page 423
Deployment environment	<ul style="list-style-type: none"> • “Configuring custom profiles (managed nodes) for a deployment environment” on page 450

Results


You are ready to configure your profile, which will define an extended operating environment of the type you specified (stand-alone server, deployment manager, or custom).

Starting the Profile Management Tool

Learn how to use the Profile Management Tool to create or augment profiles. You can start the Profile Management Tool in several ways.

Prerequisites

Restrictions:

- You cannot use the Profile Management Tool to create or augment profiles on 64-bit platforms (with the exception of i5/OS) or the Linux on System z platform.
-  When WebSphere Process Server is installed on an i5/OS system, the Profile Management Tool will run only in stand-alone mode. The tool cannot be launched from the Application Server Toolkit (AST) tool.

- **i5/OS** The **Browse** buttons on the Profile Management Tool panels are disabled.

Linux **UNIX** **Windows** The language of the Profile Management Tool is determined by the default language on the system. If the default language is not one of the supported languages, then English is used. You can override the system's default language by starting the Profile Management Tool from the command line and using the `java user.language` setting to replace the default language. Use the following command:

- **Linux** **UNIX** `install_root/java/bin/java -Duser.language=locale install_root/bin/ProfileManagement/startup.jar`
- **Windows** `install_root\java\bin\java -Duser.language=locale install_root\bin\ProfileManagement\startup.jar`

For example, to start the Profile Management Tool in the German language on a Linux system, type the following command:

```
install_root/java/bin/java -Duser.language=de install_root/ \
bin/ProfileManagement/startup.jar
```

Starting the tool on all platforms

Start the tool on any platform in one of the following ways:

- From the First steps console. See “Starting the First steps console” on page 116 for how to start the First steps console.
- At the end of an installation, select the check box to start the Profile Management Tool.

Starting the tool on i5/OS platforms

i5/OS You can start the tool from your Windows workstation if you have installed the Profile Management Tool Client on your Windows workstation. The Profile Management Tool Client can be installed from the launchpad.

When you start the Profile Management Tool, a panel appears on which you can sign on to the System i server.

1. Enter the system name, your i5/OS user profile, and password.
2. Select which installation (if there is more than one installation of WebSphere Process Server) and which port number you want to use.
3. Click **Launch Profile Management Tool**.

Note: The default port number is 1099. You can change this to a different port. If that port number is busy, you receive an error message, in which case, you can select a different port number to continue.

Starting the tool on Linux and UNIX platforms

Linux **UNIX** You can also start the tool on Linux and UNIX platforms by running the command `install_root/bin/ProfileManagement/pmt.sh`.

Starting the tool on Windows platforms

Windows You can also use the following methods to start the tool on Windows platforms:

- From the Windows Start menu. For example, select **Start > Programs or All Programs > IBM WebSphere > Process Server 6.1 > Profile Management Tool**.
- Run the command `install_root\bin\ProfileManagement\pmt.bat`.

Augmenting profiles using the manageprofiles command

Augmentation is the ability to change an existing profile with an augmentation template. You can augment existing WebSphere Application Server or WebSphere Application Server Network Deployment profiles into WebSphere Enterprise Service Bus or WebSphere Process Server profiles, or WebSphere Enterprise Service Bus profiles into WebSphere Process Server profiles. You can augment a profile from the command line using the manageprofiles command.

Before you begin

Before using this procedure, ensure that you have done the following tasks:

- You have reviewed the list of prerequisites for creating or augmenting a profile at “Prerequisites for creating or augmenting profiles” on page 158.
- You have shut down any servers associated with the profile that you plan to augment.
- If you plan to augment a stand-alone server or custom profile, determine if it has already been federated to a deployment manager:
 - If the profile you want to augment has already been federated to a deployment manager, you cannot augment it using the manageprofiles command. You must augment it manually by following the procedure in Augmenting federated profiles manually.
 - If the profile you want to augment has not already been federated to a deployment manager, when you do federate it via the addNode command later, the following must be true of the deployment manager with which it is federated in order for the augmentation to complete successfully:
 - It must be running.
 - It must be at a release level the same or higher than that of the profile you are augmenting. WebSphere Process Server profiles cannot use a WebSphere Enterprise Service Bus deployment manager, but WebSphere Enterprise Service Bus profiles can use a WebSphere Process Server deployment manager. WebSphere Enterprise Service Bus profiles can use a WebSphere Enterprise Service Bus or WebSphere Process Server deployment manager.
 - It must have a JMX administrative port enabled. The default protocol is SOAP.
 - It must have already been augmented into a WebSphere Process Server profile, depending on the product you have installed.

Important: You must not run more than one profile creation or augmentation at the same time. If an error message is displayed, determine if there is another profile creation or augmentation in progress. If so, wait until it completes.

About this task

Security role required for this task: See “Granting write permission of files and directories to a non-root user for profile creation” on page 160.

To use the manageprofiles command to augment a profile, perform the following steps:

Procedure

1. Determine the template that the existing profile was created with (deployment manager, stand-alone, or managed). You can determine the template that was used for creating the profile by viewing the profile registry in `install_root/properties/profileRegistry.xml`. Do not modify this file, use it only to view the templates.
2. Find the appropriate template to augment to. You can augment an existing WebSphere Application Server or WebSphere Application Server Network Deployment profile into a WebSphere Process Server or WebSphere ESB profile. You can augment an existing WebSphere ESB profile into a WebSphere Process Server profile. The following profile templates are available:
 - `default.wbiserver`: for a WebSphere Process Server stand-alone server profile, which defines a Stand-alone server.
 - `dmgr.wbiserver`: for a WebSphere Process Server deployment manager profile, which defines a Deployment manager. A *deployment manager* provides one administrative interface to a logical group of servers on one or more machines.
 - `managed.wbiserver`: for a WebSphere Process Server custom profile, which, when federated to a deployment manager, defines a Managed node. If you have decided that your solution requires a deployment environment, your runtime environment requires one or more managed nodes. A *custom profile* contains an empty node that you must federate into a deployment manager cell to make operational. Federating the custom profile changes it into a managed node.
 - `default.esbserver`: for a WebSphere Enterprise Service Bus stand-alone server profile, which defines a Stand-alone server.
 - `dmgr.esbserver`: for a WebSphere Enterprise Service Bus deployment manager profile, which defines a Deployment manager.
 - `managed.esbserver`: for a WebSphere Enterprise Service Bus custom profile, which, when federated to a deployment manager, defines a Managed node.

Use the `augment` parameter to make changes to an existing profile with an augmentation template. The `augment` parameter causes the `manageprofiles` command to update or augment the profile identified in the `-profileName` parameter using the template in the `-templatePath` parameter. The augmentation templates that you can use are determined by which IBM products and versions are installed in your environment. Make sure that you specify the fully qualified file path for `-templatePath`, because a relative file path for the `-templatePath` parameter results in the specified profile not being fully augmented.

Note: Do not manually modify the files that are located in the `install_dir/profileTemplates` directory.

3. Run the file from the command line. Do not supply a `-profilePath` parameter. For example:
 - **i5/OS** **On i5/OS platforms:** `manageprofiles -augment -templatePath install_root/profileTemplates/default.wbiserver -profileName MyProfileName`
 - **Linux** **UNIX** **On Linux and UNIX platforms:** `manageprofiles.sh -augment -templatePath install_root/profileTemplates/default.wbiserver -profileName MyProfileName`
 - **Windows** **On Windows platforms:** `manageprofiles.bat -augment -templatePath install_root\profileTemplates\default.wbiserver -profileName MyProfileName`

Note: Use the **-response** parameter if you have created a Java properties file. The command displays status as it runs. Wait for it to finish. Normal syntax checking on the properties file applies as the file is parsed like any other Java properties file. Individual values in the property file are treated as command-line parameters.

The following example shows a Java properties file.

```
augment
profileName=testResponseFileAugment
templatePath=install_root/profileTemplates/default.wbiserver

nodeName=myNodeName
cellName=myCellName
hostName=myHostName
omitAction=myOptionalAction1, myOptionalAction2
```

You can see that your profile augmentation completed successfully if you receive a `INSTCONFSUCCESS: Profile augmentation succeeded.` message, and you can check the following log file:

- **Linux** **UNIX** **On Linux and UNIX platforms:** `install_root/logs/manageprofiles/profile_name_augment.log`
- **Windows** **On Windows platforms:** `install_root\logs\manageprofiles\profile_name_augment.log`
- **i5/OS** **On i5/OS platforms:** `user_data_root/profileRegistry/logs/manageprofiles/profile_name_augment.log`

Run the Installation Verification Test (IVT) tool to verify that the profile was changed successfully. For more information, see the `ivt` command in the Command-line utilities section of the WebSphere Application Server Network Deployment, version 6.1 information center.

Augmenting federated profiles manually

You must augment federated profiles manually.

About this task

To manually augment a federated profile, perform the following steps.

Procedure

1. Remove the node from its deployment manager by using the `removeNode.sh` command (on Linux and UNIX platforms), the `removeNode.bat` command (on Windows platforms), or the `removeNode` command (on i5/OS platforms).

Attention: Using the `removeNode` command will restore the configuration prior to using `addNode` command. Data might be lost.

See documentation for the `removeNode` command in the WebSphere Application Server Network Deployment, version 6.1 information center.

2. Augment the profile into a WebSphere Process Server profile by using the Profile Management Tool.

See “Augmenting profiles using the Profile Management Tool” on page 172 for instructions on how to augment the profile.

3. Ensure that the deployment manager to which the original profile was federated has been augmented into a WebSphere Process Server deployment manager profile.

For information, see “Augmenting profiles using the Profile Management Tool” on page 172.

4. Refederate the augmented node to the deployment manager by using the `addNode.sh` command (on Linux and UNIX platforms), the `addNode.bat` command (on Windows platforms), or the `addNode` command (on i5/OS platforms).

See documentation for the `addNode` command in the WebSphere Application Server Network Deployment, version 6.1 information center.

Deleting profiles using the `manageprofiles` command

You can delete a profile from the command line using the `manageprofiles` command.

About this task

For more information about the `manageprofiles` command, see “`manageprofiles` command” on page 337.

Security role required for this task: See “Granting write permission of files and directories to a non-root user for profile creation” on page 160.

Note: **i5/OS** **On i5/OS platforms:** You must have operating system permissions to read, write, and run commands in the `user_data_root/profiles` directory.

To use the `manageprofiles` command to delete a profile, perform the following steps.

Procedure

1. Open a command prompt and run one of the following commands, based on your operating system:
 - **i5/OS** **On i5/OS platforms:** `manageprofiles -delete -profileName profile_name`
 - **Linux** **UNIX** **On Linux and UNIX platforms:** `manageprofiles.sh -delete -profileName profile_name`
 - **Windows** **On Windows platforms:** `manageprofiles.bat -delete -profileName profile_name`

The variable `profile_name` represents the name of the profile that you want to delete.

2. Confirm that the profile deletion has completed by checking the following log file:
 - **i5/OS** **On i5/OS platforms:** `user_data_root/profileRegistry/logs/manageprofiles/profile_name_delete.log`
 - **Linux** **UNIX** **On Linux and UNIX platforms:** `install_root/logs/manageprofiles/profile_name_delete.log`
 - **Windows** **On Windows platforms:** `install_root\logs\manageprofiles\profile_name_delete.log`

Creating the Common database and tables after profile creation or augmentation

If you postponed creating the Common database and its tables by selecting the **Delay execution of database scripts for new or existing database** check box on the Database configuration panel in the Profile Management Tool, you or your database administrator must create the database and its tables manually. You can do this using scripts that the Profile Management Tool generates during profile creation or augmentation.

Before you begin

This topic assumes you created or augmented a stand-alone server or deployment manager profile using the procedure in one of the following topics:

- “Configuring stand-alone server profiles using customized values” on page 371
- “Configuring deployment manager profiles using customized values” on page 404
- “Configuring deployment manager profiles for a deployment environment” on page 431

It also assumes that in the Database configuration panel in the Profile Management Tool, you selected the **Create a new local database** radio button and chose to delay creation of the Common database and its tables by selecting the **Delay execution of database scripts for new or existing database** check box.

About this task

Because a WebSphere Process Server installation requires the Common database to function, if you did not allow the Profile Management Tool to create it automatically, you or your database administrator must now create the database and its tables manually by using scripts that the Profile Management Tool generated during the profile creation or augmentation.

Procedure

1. Go to the directory containing the configCommonDB script on i5/OS platforms, the configCommonDB.sh script on Linux and UNIX platforms, or the configCommonDB.bat script on Windows platforms. You specified its location in the **Database script output directory** field on the Database configuration panel in the Profile Management Tool. By default, this location is:

- **i5/OS** On i5/OS platforms: *profile_root/dbscripts/CommonDB/db_type/db_name*
- **Linux** **UNIX** On Linux and UNIX platforms: *profile_root/dbscripts/CommonDB/db_type/db_name*
- **Windows** On Windows platforms: *profile_root\dbscripts\CommonDB\db_type\db_name*

The variable *db_type* represents the supported database product; *db_name*, the name of the database.

2. Use your standard database definition tools, native commands, and procedures to create the database and required tables by running this script. The script contains only basic statements for creating databases, tables, and indexes.

What to do next

After database creation completes successfully, before starting the server or deployment manager, be sure the database is running even if it is installed locally. Then start the server or deployment manager from the profile's First steps console to ensure there are no errors.

Creating tables on an existing Common database after profile creation or augmentation

If you postponed creating required tables for your existing Common database by selecting the **Delay execution of database scripts for new or existing database** check box on the Database configuration panel in the Profile Management Tool, you or your database administrator must create the tables manually. You can do this using scripts that the Profile Management Tool generates during profile creation or augmentation.

Before you begin

This topic assumes you created or augmented a stand-alone server or deployment manager profile using the procedure in one of the following topics:

- “Configuring stand-alone server profiles using customized values” on page 371
- “Configuring deployment manager profiles using customized values” on page 404
- “Configuring deployment manager profiles for a deployment environment” on page 431

It also assumes that in the Database configuration panel in the Profile Management Tool, you selected the **Use an existing database** radio button and chose to delay creation of the tables by selecting the **Delay execution of database scripts for new or existing database** check box.

About this task

Because a WebSphere Process Server installation requires the Common database and its tables to function, if you did not allow the Profile Management Tool to create the tables automatically, you or your database administrator must now create the tables manually by using scripts that the Profile Management Tool generated during the profile creation or augmentation.

Procedure

1. Go to the directory containing the table creation script createDBTables on i5/OS platforms, createDBTables.sh on Linux and UNIX platforms, or createDBTables.bat on Windows platforms. You specified its location in the **Database script output directory** field on the Database configuration panel in the Profile Management Tool. By default, this location is:

- **i5/OS** On i5/OS platforms: *profile_root/dbscripts/CommonDB/db_type/db_name*
- **Linux** **UNIX** On Linux and UNIX platforms: *profile_root/dbscripts/CommonDB/db_type/db_name*
- **Windows** On Windows platforms: *profile_root\dbscripts\CommonDB\db_type\db_name*

The variable *db_type* represents the supported database product; *db_name*, the name of the database.

2. Use your standard database definition tools, native commands, and procedures to create the required tables by running this script. The script contains only basic statements for creating databases, tables, and indexes.

What to do next

After the tables are created successfully, before starting the server or deployment manager, be sure the database is running even if it is installed locally. Then start the server or deployment manager from the profile's First steps console to ensure there are no errors.

Configuring remote database support on i5/OS

WebSphere Process Server can be configured to use DB2 Universal Database™ for iSeries™ (DB2® UDB for iSeries) as a remote database that resides on i5/OS. When DB2 UDB for iSeries is used as a remote database for the product repository, then it is possible for WebSphere Process Server to run on any multiplatform as well as i5/OS or z/OS.

About this task

Configuration of DB2 UDB for iSeries will be specific to the creation or augmentation of the stand-alone and deployment manager profiles. Database configuration is performed via the Profile Management Tool (PMT) during the creation or augmentation of a custom profile, however such a profile must use the same database product already configured for the deployment manager profile.

The goal of the PMT is to ultimately execute the manageprofiles script with arguments that are specified by the user on a series of PMT panels. Alternatively, the PMT can be bypassed and the manageprofiles Qshell command line script can be used to create or augment profiles, with or without a response file which is in the form of a Java property file. The PMT is more user friendly because it provides a graphical user interface (GUI).

During the augmentation of a profile, there is a need to create or access a database and its tables in order to complete the augmentation process. A number of components require database connectivity during the augmentation process. Optionally, one might choose to generate database definition scripts only and later have an administrator run them to create the DB2 collection and tables.

The components that can be configured with remote DB2 UDB for iSeries during the profile creation and augmentation process are:

- Failed Event Management
- Common Event Infrastructure
- Relationships
- Recovery
- Business Rules
- Selector
- Lock Manager
- Application Scheduler
- Service Integration (SI) Bus (Messaging Engines)
- Enterprise Service Bus (ESB) message logger

What to do next

Now, you can create a stand-alone profile or deployment manager profile to connect to a remote database.

i5/OS database and collections

Unlike on distributed platforms, there is only one system-wide DB2[®] database on an i5/OS system (or logical partition). The DB2 Universal Database[™] for iSeries[™] (DB2[®] UDB for iSeries) is integrated with the i5/OS operating system and is not a separate product that needs to be installed.

DB2 UDB for iSeries is the relational database that is fully integrated with the i5/OS operating system, which makes it easy to use and manage.

DB2 UDB for iSeries also provides a variety of functions and features, such as triggers, stored procedures, and dynamic bitmapped indexing, that serve a wide variety of application types. These applications range from traditional host-based applications to client/server solutions to business intelligence applications.

The database hierarchy looks like this:

(Single Database) > Schema name > Table name

Two JDBC drivers are available to access this database:

- Native JDBC driver: Type 2, used when DB2 UDB for iSeries is local to the WebSphere Application Server-based server. This driver is local to WebSphere Process Server and cannot be used to access a database on a remote i5/OS machine.
- Toolbox JDBC driver: Type 4, typically used when the database being accessed is remote from the machine hosting WebSphere Process Server. The toolbox driver can be used when the database is local to the server, but the native driver is recommended because it is optimized for local database access.

The Toolbox JDBC driver files are found in a single, fixed location on i5/OS. On an i5/OS machine, the Toolbox for Java JDBC driver file, jt400.jar can be found at a fixed location in the file system namely:

```
/QIBM/ProdData/Http/Public/jt400/lib/jt400.jar
```

In a heterogeneous environment where WebSphere Process Server is running on a distributed platform, but accessing its common database on an i5/OS machine, the JDBC driver of choice is the Toolbox for Java JDBC driver. The driver file for the Toolbox JDBC driver is called jt400.jar and needs to be available on the machine that is hosting WebSphere Process Server. The driver can be obtained on the distributed machine in one of two ways:

- Copy the driver from the i5/OS database machine to a directory on the distributed machine.
- Download the driver from the jtopen Web site to a directory on the distributed machine. The jtopen Web site URL is: <https://sourceforge.net/projects/jt400>

Creating a stand-alone profile to connect to a remote database

The Profile Management Tool can create or augment a configuration for one or more WebSphere Process Server stand-alone server profiles configured with an

DB2 Universal Database™ for iSeries™ (DB2® UDB for iSeries) on a remote i5/OS server. The remote i5/OS server hosting the DB2 UDB for iSeries database does not have the WebSphere Process Server product installed on it.

Procedure

1. In the Welcome panel for the Profile Management Tool select **Next**.

Note: If any WebSphere Application Server profiles are found that can be augmented into WebSphere Process Server profiles, the Existing Profile Detection panel is displayed. You should not augment an existing profile, but instead choose to create a new profile.

2. In the Environment Selection panel, choose the option to create a **WebSphere Process Server type environment**. Select **Next**.
3. In the Profile Type Selection panel, choose the option to create a **Stand-alone server profile**. Select **Next**.
4. In the Profile Creation Options panel, you can specify whether to create a Typical profile using default settings, or an Advanced profile. Select **Advanced profile creation**. Select **Next**.
5. In the Optional Application Deployment panel, ensure that the check box for deployment of the administrative console is checked, and accept the default for the deployment of the default and sample applications. Select **Next**.
6. In the Name and Location panel, you need to input a unique name and unique location for this Profile. A default name and location are presented initially. A default directory is presented under `$user_data_root/profiles/profile_name`. If any other profiles exist, you will also be given the option of making this new profile the default profile. You can also select to create the server with a development template. Select **Next**.
7. In the Node and Host Name panel, a unique node name is required and a default node name is provided. Select **Next**.

Note: You can change the Node name if desired from the default node name as long as the Node name is unique.

8. In the Administrative Security panel, either deselect the check box or provide userid and password information. Select **Next**.
9. In the Port value assignment panel, default port values are provided. You can specify different port values if necessary. Select **Next**.
10. If this WebSphere Process Server profile creation is on Windows (or Linux), you are presented with the Windows (or Linux) service definition panel and can optionally setup this profile to run as a Windows (or Linux) service. Select **Next**.
11. Optional: In the Web Server Definition panel, you have the option of choosing to create a Web server definition. Select **Next**.
12. In the Common Event Infrastructure panel, you can choose to create a new database. You should choose to **Override the data source**. Common Event Infrastructure database scripts are generated in the provided output directory. Select the **DB2 UDB for iSeries (Toolbox)** menu item from the pull-down list for the database product. This action inserts *SYSBAS as the default Database name.

Note: In the case where the server hosting WebSphere Process Server and the server hosting the remote database are both i5/OS platforms, the remote database collection will automatically get created unless you elect to delay executing the database scripts. This is only true for i5/OS.

13. In the Common Event Infrastructure Configuration panel (Part 2), enter a valid User Name and Password to authenticate to the remote i5/OS DB2 database.
 - a. Enter the Location (directory) of the Toolbox JDBC driver classpath files (jt400.jar).
 - If the profile is being created on i5/OS, this directory is: /QIBM/ProdData/Http/Public/jt400/lib.
 - If the profile is not being created on i5/OS, enter the local directory containing this jar file.
 - b. Enter the host name of the i5/OS server where the remote DB2 UDB for iSeries database resides.
 - c. Enter the SQL collection name, EVENT by default, which must be a uniquely named collection on the remote i5/OS system. Select **Next**.
14. In the Business Process Choreographer Configuration panel, choose not to configure a sample Business Process Choreographer. (Configuring Business Process Choreographer on this panel will configure a Derby not a DB2 UDB for iSeries database). Select **Next**.
15. In the Database Configuration panel, select to create new database.
 - a. Specify a location to store the generated database scripts.
 - b. Deselect the check box next to Execute database scripts.
 - c. Select **DB2 UDB for iSeries (Toolbox)** menu item under Choose a database product. This causes *SYSBAS to appear in the Database name field.
 - d. Select to **Use this database for SCA messaging engines**. Select **Next**.
16. In the Database Configuration (Part 2) panel, enter a valid User Name and Password to authenticate to the remote i5/OS DB2 database.
 - a. Enter the Location (directory) of the Toolbox JDBC driver classpath files (jt400.jar).
 - If the profile is being created on i5/OS, this directory is: /QIBM/ProdData/Http/Public/jt400/lib.

Note: In the case where the server hosting WebSphere Process Server and the server hosting the remote database are both i5/OS platforms, the scripts can get executed automatically to create the Common database.

 - If the profile is not being created on i5/OS, enter the local directory containing this jar file.
 - b. Enter the host name of the i5/OS server where the remote DB2 UDB for iSeries database resides.
 - c. Enters the Schema name, WPRCSDB by default. The first three characters of the Schema name must be unique for the database that is being hosted on the remote i5/OS server. Select **Next**.
17. The Profile summary panel displays. Select **Next**.
18. The Profile creation is complete and de-selects the launch first steps option. Select **Finish**.
19. Export the DDL for both CEI and the commonDB on the (remote) i5/OS system. You get the CEI and commonDB DDL from the specified location (see CEI/Database Configuration panels mentioned above), which contains the generated database scripts. You can provide the scripts by a number of different methods to the Administrator.
20. The Administrator must run the scripts to setup the remote DB2 database tables for EVENT and WPRCSDB on the remote i5/OS.

21. Use the administrative console to configure Business Process Choreographer, configured to use remote DB2 on i5/OS.
 - a. Start Qshell.
 - b. Change to the directory location where the generated scripts were copied to on the database server.
 - c. Run the following command: `db2 -tvf .` Repeat for each script, if needed.
22. The Business Process Choreographer summary step provides the location of the DDL scripts to setup the Business Process Choreographer database collection and tables. The Administrator runs the DDL scripts to create a Business Process Choreographer database on i5/OS.

You have completed the following:

- Created a WebSphere Process Server profile.
- Augmented a WebSphere Enterprise Service Bus, WebSphere Application Server, or WebSphere Application Server Network Deployment, version 6 profile into a WebSphere Process Server profile.

DB2 UDB for iSeries tables and collections are generated on a remote i5/OS system for CEI (EVENT), Business Process Choreographer, CommonDB, Service Integration bus, and WebSphere Enterprise Service Bus Message Logger.

Creating a network deployment profile to connect to a remote database

The Profile Management Tool can create a WebSphere Process Server deployment manager profile configured with a DB2 Universal Database™ for iSeries™ (DB2® UDB for iSeries) on a remote i5/OS server. In a similar fashion, the Profile Management Tool can augment a WebSphere Application Server Network Deployment deployment manager profile into a WebSphere Process Server deployment manager profile configured for a remote database connection. The remote i5/OS server hosting the DB2 UDB for iSeries database does not have the WebSphere Process Server product installed on it.

About this task

Using the Profile Management Tool, complete the following steps to configure a new deployment manager profile that supports DB2 UDB for iSeries use on a remote server.

Procedure

1. In the Welcome panel for the Profile Management Tool select **Next**.

Note: If any WebSphere Application Server profiles are found that can be augmented into WebSphere Process Server profiles, the Existing Profile Detection panel is displayed. You should not augment an existing profile, but instead chooses to create a new profile.

2. In the Environment Selection panel, choose the option to create a **WebSphere Process Server type environment**. Select **Next**.
3. In the Profile Type Selection panel, choose the option to create a **Deployment Manager profile**. Select **Next**.
4. In the Profile Creation Options panel, you can specify whether to create a Typical profile using default settings, or an Advanced profile. Select **Advanced profile creation**. Select **Next**.

5. In the Optional Application Deployment panel, ensure that the checkbox for deployment of the administrative console is checked. Select **Next**.
6. In the Name and Location panel, you need to input a unique name and unique location for this Profile. A default name and location are presented initially. A default directory is presented under `$user_data_root/profiles/profile_name`. If any other profiles exist, you will also be given the option of making this new profile the default profile. You can also select to create the server with a development template. Select **Next**.
7. In the Node, Host, and Cell Name panel, a unique node and cell names within the cell. Default node and cell names are provided. Select **Next**.
8. In the Administrative Security panel, do not enable administrative security. Select **Next**.
9. In the Port value assignment panel, default port values are provided. You can specify different port values if necessary. Select **Next**.
10. If this WebSphere Process Server profile creation is on Windows (or Linux), you are presented with the Windows (or Linux) service definition panel and can optionally setup this profile to run as a Windows (or Linux) service. Select **Next**.
11. Optional: In the Web Server Definition panel, you have the option of choosing to create a Web server definition. Select **Next**.
12. In the Database Configuration panel, select to create new database.
 - a. Specify a location to store the generated database scripts.
 - b. Deselect the check box next to Execute database scripts.
 - c. Select **DB2 UDB for iSeries (Toolbox)** menu item under Choose a database product. This causes *SYSBAS to appear in the Database name field.
 - d. Select to **Use this database for SCA messaging engines**. Select **Next**.
13. In the Database Configuration (Part 2) panel, enter a valid User Name and Password to authenticate to the remote i5/OS DB2 database.
 - a. Enter the Location (directory) of the Toolbox JDBC driver class path files (jt400.jar).
 - If the profile is being created on i5/OS, this directory is:
/QIBM/ProdData/Http/Public/jt400/lib.

Note: In the case where the server hosting WebSphere Process Server and the server hosting the remote database are both i5/OS platforms, the scripts can get executed automatically to create the Common database.

 - If the profile is not being created on i5/OS, enter the local directory containing this jar file.
 - b. Enter the host name of the i5/OS server where the remote DB2 UDB for iSeries database resides.
 - c. Enters the Schema name, WPRCSDB by default. The Schema name must be unique on the remote server. Select **Next**.
14. The Profile summary panel displays. Select **Next**.
15. A new deployment manager profile is created and augmented. The Profile creation is complete and de-selects the launch first steps option. Select **Finish**.
16. Next, you need to create a deployment manager profile. See "Creating profiles" on page 164.

You have completed the following:

- Created a WebSphere Process Server deployment manager profile.

- Augmented a WebSphere Process Server deployment manager.
- Successfully federated a WebSphere Process Server stand-alone profile to a WebSphere Process Server deployment manager cell.

DB2 UDB for iSeries tables and collections are generated on a remote i5/OS system for Common Event Infrastructure, Business Process Choreographer, CommonDB, Service Integration bus, and WebSphere Enterprise Service Bus Message Logger.

Scripts for configuring DB2 on a remote z/OS server

If you plan to use DB2 on a remote z/OS machine for the Common Event Infrastructure and Common database repositories, you or the database administrator (DBA) must create relevant databases and correct storage groups on the z/OS workstation.

- To create the Common Event Infrastructure repository, see Configuring the event database and its subtopics.
- To create the Common database repository, use standard database definition tools and procedures to edit and run the default scripts provided in the following directories:

- **Linux** **UNIX** **On Linux and UNIX platforms:** *install_root/dbscripts/CommonDB/DB2zOSV7/*.
- **Windows** **On Windows platforms:** *install_root\dbscripts\CommonDB\DB2zOSV7*.
- **Linux** **UNIX** **On Linux and UNIX platforms:** *install_root/dbscripts/CommonDB/DB2zOSV8/*.
- **Windows** **On Windows platforms:** *install_root\dbscripts\CommonDB\DB2zOSV8*.

Chapter 11. Verifying your deployment environment

Before moving your production applications to the new environment, you must test to make sure that all of the components operate correctly.

Before you begin

Complete the implementation of your deployment environment as described in “Implementing a deployment environment.”

1. Install the software
2. Configure a node to host a deployment manager
3. Configure nodes
4. Federate nodes to the deployment manager
5. Cluster nodes together to provide function for the deployment environment

About this task

How you verify the deployment environment depends on whether the environment you implemented is an IBM-supplied deployment environment or a custom deployment environment. You can manage IBM-supplied deployment environments from a single panel in the administrative console. You must create and manage custom deployment environments manually in the administrative console.

Procedure

1. Identify the type of deployment environment you are verifying.
You should already have this information based on your original plans.
2. Start the deployment environment.

Type of deployment environment	How to start
IBM-Supplied pattern	Start from System administration > Deployment environments > Deployment environment configuration as described in “Starting and stopping deployment environments.”
Custom	Start from Servers > Clusters as described in “Verifying a custom deployment environment starts.” Note: You must start all the servers and clusters defined in the deployment environment.

3. Install the test application.
4. Configure the test application for routing.
5. Start the test application.
6. Run the test application and verify those results.

What to do next

Install your production applications.

Verifying the application deployment target cluster starts

To verify that the application deployment target cluster can start, you must start all three clusters in your deployment environment. This is an example for a three cluster deployment environment.

Before you begin

You need to create and configure the clusters for the messaging engines, Common Event Infrastructure (CEI) event server application and the application deployment target.

About this task

To verify that the application deployment cluster can start, you will start each cluster in turn.

Notes:

- This description assumes that you configured three clusters in the topology named **MECluster**, **SupportCluster**, and **AppCluster**. Substitute the actual cluster names and repeat the appropriate steps for any additional clusters in your deployment environment.
- The first time you start servers will take longer than subsequent starts because the system is creating the database tables and schemas.

Procedure

1. From the administrative console on the deployment manager, expand **Servers**, then select **Clusters**.
2. Start the clusters.
 - a. Select the check box beside **MECluster**.
 - b. Select **Start**, and wait for the **MECluster** to start as shown by a green arrow.
 - c. Select the check box beside **SupportCluster**.
 - d. Select **Start**, and wait for the **SupportCluster** to start as shown by another green arrow.
 - e. Select the check box beside **AppCluster**.
 - f. Select **Start**, and wait for the **AppCluster** to start as shown by another green arrow.
3. Click the messaging buses.
 - a. Wait until all the clusters start.
 - b. Click **Service Integration** → **Buses**
 - c. Verify the messaging engine is running for each bus.
 - 1) Select the bus name.
 - 2) Click **Local Topology** to display the bus topology.
 - 3) Expand the bus until you see the status of the messaging engines.
4. Check the cluster members' **SystemOut.log** and **SystemErr.log** files located in the profile directory's logs subdirectory on the node that hosts the cluster member. Make sure that they have no errors, and look for the line **Server AppCluster_member1 is open for e-business** or **Server AppCluster_member2 is open for e-business** indicating that the cluster started successfully. Correct any errors you find before continuing.

After correcting any errors, you configure the host aliases.

Note: After correcting configuration errors, you must stop the cluster and restart it for the configuration changes to take effect.

Troubleshooting tip: When examining the log you may see a message that states that a messaging engine failed to start because it could not find a certain bus. Restarting the clusters eliminates this message.

Installing the test application

Install the test application to begin the process of verifying your deployment environment.

Before you begin

- You need to create and install your completed deployment environment.
- Log in to the deployment manager administrative console.

About this task

We will use the application provided for you with WebSphere Process Server called BPCIVTApp (Business Process Choreographer Installation Verification Test) to verify that you installed and configured your WebSphere Process Server environment correctly. First you must install the application.

For more information about installing this application, see “Verifying that Business Process Choreographer works”. For more information about installing applications from the administrative console, see “Installing application files with the console.”

Note: If you have not enabled business processes and human tasks, you cannot use BPCIVTApp to test your deployment environment. In this case, you must install and run a Service Component Architecture application that uses business rules and selectors to exercise your deployment environment. Change the process to test the deployment environment to fit your application.

Procedure

1. From the administrative console, select **Applications > Install New Application**.
2. Make sure that **Local file system** is selected, and then browse for the file `bpcivt.ear`. It will be in the `install_root/installableApps` directory.
3. Select the file `bpcivt.ear`, then select **Open**.
4. These steps assume you will use the default configurations. Select **Next** on the subsequent panels until you reach the Summary page. During these steps you will be selecting various options and mapping the module to the servers as described in other topics. For testing purposes, map this module to the application deployment target cluster.

Note: You will not have to map the module to the application target cluster on a stand-alone server.

5. Select **Finish**.
6. Select **Save**, then **Synchronize**.

What to do next

Configuring the test application for routing

Use this procedure to configure your test application for routing.

Before you begin

You need to install your test application.

About this task

You first configure the application and then generate the plug-in configuration files.

Note: The description assumes a cluster named *AppCluster* and a Web server named *Webserver1*. If your test application uses human tasks or business processes, make sure you have already configured Business Process Choreographer on your application cluster.

Procedure

1. Configure the application (or applications) that you will run to identify the Web server and the deployment target to the application, as follows.
 - a. From the administrative console, select **Applications > Enterprise Applications**.
 - b. Select the name of the application.
 - c. From under **Additional Properties**, select **Map modules to servers**.
 - d. From the choices listed under Clusters and servers, select *Webserver1* (the Web server you configured previously) and *AppCluster* (the application deployment target).
 - e. Select **Apply**, then select **OK**.
 - f. Repeat steps 1d through 1e until you have configured all Web servers and deployment targets for your deployment environment.
 - g. Select **Save**, then **Synchronize**.
2. Generate the plug-in configuration file.
 - a. From the administrative console, select **Servers > Web servers**.
 - b. Select the check box next to the name *Webserver1*.
 - c. Select **Generate plug-in**. A plug-in configuration file is created, as indicated by the message in the top of the window.
 - d. Repeat steps 2b and 2c as many times as needed for your deployment environment.

What to do next

Stop and restart the deployment manager and node agent. Next start the test application.

Starting the test application

Use this procedure to start your test application to test your implementation.

Before you begin

You need to install and configure the test application for routing.

About this task

You start your test application from the administrative console.

Procedure

1. From the administrative console, select **Applications > Enterprise Applications**.
2. Select the check box next to the application name and select **Start**. Wait until a green arrow appears, indicating that the application has started successfully.

What to do next

After you start the test application, run this application.

Note: If the application does not start correctly, refer to the log files to find error messages indicating the problem.

Running the test application

Use this procedure to run your test application to determine if your deployment environment is operating correctly.

Before you begin

You need to start your test application.

About this task

Successful execution of this application shows that your deployment environment is operating correctly. Follow the same procedure on the other member of the application deployment target cluster to make sure that it also functions correctly.

Procedure

1. In a browser window, enter a URL in the following form: `http://hostname:portnumber/testapp` where *hostname* is the fully qualified DNS name or IP address of the system hosting the cluster member on which you installed the application, and *portnumber* is the port number associated with default host for that cluster member and *testapp* is the name of your test application.
2. Examine the logging messages on the screen.

If your test application contains human tasks, you should see logging messages being written to the screen starting with Looking up the HumanTaskManager API EJB. . . . The application will proceed to create a task, claim it, check input and output data, complete the task, and delete it. The word Passed appears near the end of the log messages to indicate that the application ran successfully.

Make sure that you see all messages you have embedded in your application to indicate success.

What to do next

Install and start other test applications.

Installing and accessing other applications

Install and access applications from the administrative console or Business Process Choreographer Explorer to further test your deployment environment.

Before you begin

You must have successfully installed and configured a deployment environment.

About this task

You can install and start other applications similarly to the way you installed your test application. To access these applications you will use the administrative console or Business Process Choreographer Explorer.

Procedure

1. Locate your application.
In the administrative console click **Applications** → **Install New Application** and locate the application to install.
2. Install the application.
3. Start the application.
4. Access the application.

Enter a URL for the application in a browser window. For example, `http://hostname:portnumber/myapp` where *hostname* is the fully qualified DNS name (or IP address) of the system corresponding to the cluster member on which you've installed the application, and *portnumber* is the port number associated with `default_host` for that cluster member.

From Business Process Choreographer Explorer:

- a. Enter a URL in the following form in a browser window:
`http://hostname:portnumber/bpc` where *hostname* is the fully qualified DNS name (or IP address) of the system corresponding to the cluster member, on which you've installed the application, and *portnumber* is the port number associated with `default_host` for that cluster member.
A page will appear labeled **My Tasks**, but with no tasks listed.
 - b. Select **My Process Templates**. You should see templates listed corresponding to any applications that you installed.
 - c. Use the interface controls on the page to start a task, work on it, complete it, and so on. For more information on running Business Process Choreographer tasks, see "Administering business processes and human tasks."
5. If desired, you can check the `SystemOut.log` file for the cluster member to view a record of the application and check for errors.

Chapter 12. Installing fix packs and refresh packs with the Update Installer

You can use the IBM Update Installer for WebSphere Software to install interim fixes, fix packs, and refresh packs collectively known as maintenance packages. The Update Installer for WebSphere Software is also known as the update installer program, the UpdateInstaller program, and the Update Installation Wizard.

Before you begin

Use the correct authorizations to successfully install product updates.

When administrative security is enabled on WebSphere Application Server Network Deployment or WebSphere Process Server, you must supply the administrative user ID and password before you can update the files.

Use the Update Installer program from the same installer ID that installed the product that you are updating. Otherwise, the file ownership mismatches might require correction by the root user.

i5/OS **On i5/OS platforms:** Use the Update Installer program from a user profile with *ALLOBJ special authority.

Important:

- The user account that originally installed the product you want to update should be used to install the Update Installer, and the same user account should be used to start the Update Installer program to update the product.
 - When a different user account uses the location where the Update Installer files are located, that user account must have reading and running access to that location. It must also have writing access to the logs directory and its subdirectory. For information about the location of the Update Installer files, see “Installing the Update Installer for WebSphere Software” on page 199.
 - When a different user account is used to update the target WebSphere Application Server product location, that user account must have full access (reading, writing, and running) to the target location where a maintenance package is to be applied.
- **AIX** **On AIX platforms:** If a non-root user starts the Update Installer program, that user account must be able to run the slibclean command; otherwise, a root user must run the slibclean command whenever the Update Installer program is used.
- Make sure that no processes from any users are locking any files in the target location where a maintenance package is to be installed.

The Update Installer is an InstallShield MultiPlatform wizard that runs with either a graphical user interface or in silent mode with or without a response file. When you omit the response file in silent mode, the wizard installs the last maintenance package that you downloaded to the default maintenance directory. For more information about the example response file that is installed with the Update Installer, see the install.txt topic in the WebSphere Application Server Network Deployment, Version 6.1 documentation.

Restriction: i5/OS **On i5/OS platforms** The Update Installer on i5/OS runs only with the install.txt response file.

About this task

Updating is modifying a file or data set with current information. When WebSphere Process Server is updated with a refresh pack, interim fix, or a fix pack, its out-of-date files are replaced with newer versions. Updating is different from *migrating*, which is installing a completely new version of the product to replace an earlier version of the product. For more information about migrating, see *Migrating*.

Important: Instructions you receive with your interim fix, fix pack or refresh pack override the instructions in this topic, which are provided for your general reference only. Always follow the specific installation instructions you receive with your interim fix, fix pack or refresh pack.

Check the list of WebSphere Process Server recommended fixes to confirm that your software is at the latest maintenance level. From the Recommended Fixes web page, make sure to read the readme file, also called the installation instructions, for the fix pack or refresh pack that you are installing.

Important: Do not start multiple copies of the update installer at one time. Concurrent instances of the update installer program are not supported. Performing more than one update at the same time can produce unpredictable results, which might include a failed or faulty installation.

Note: Throughout this topic, certain directory paths are shown only in Linux and UNIX format for simplicity. The equivalent Windows paths are identical except for the direction of the slashes.

The following procedure describes how to install a maintenance package. For a description of how to roll back a maintenance package, see *Uninstalling maintenance packages*.

To install an interim fix, a fix pack, or a refresh pack, perform the following steps.

Procedure

1. Make sure that the most recent version of the Update Installer for WebSphere Software is installed on your system. In order to install an interim fix, a fix pack, or a refresh pack, you must have the Update Installer for WebSphere Software installed. You can download it from the WebSphere Process Server product support Web site or from the product CD using the launchpad. For more information about installing for the first time, see “Installing the Update Installer for WebSphere Software” on page 199. For more information about installing a newer version of the update installer, see *Updating the Update Installer for WebSphere Software in the WebSphere Application Server Network Deployment, Version 6.1 documentation*.
2. Download the most current version of the interim fix, fix pack, or refresh pack from the WebSphere Process Server recommended fixes Web site into the update installer maintenance directory. The maintenance directory is located in one of the following locations, depending on the operating system that you are using:
 - AIX **On AIX platforms:** /usr/IBM/WebSphere/UpdateInstaller

- **i5/OS** **On i5/OS platforms:** /QIBM/ProdData/WebSphere/UpdateInstaller/V61/UPDI
 - **HP-UX** **Linux** **Solaris** **On HP-UX, Linux and Solaris platforms:** /opt/IBM/WebSphere/UpdateInstaller
 - **Windows** **On Windows platforms:** C:\Program Files\IBM\WebSphere\UpdateInstaller
3. **Windows** **On Windows platforms:** Use the Windows Services panel to stop all services for WebSphere Process Server processes.
 4. Stop all WebSphere Process Server-related Java processes that are running on the system where you are using the update installer program.
For example, Java processes can include:
 - All Java Virtual Machines (JVMs)
 - WebSphere Process Server processes, including:
 - Server processes
 - The node agent process on a node when the node is federated into a deployment manager cell
 - The dmgr process for the deployment manager server
 - **i5/OS** **On i5/OS platforms:** The above processes can be stopped by ending the subsystem where the WebSphere Process Server is running. This subsystem will either be QWAS61 (default) or QWBI61 (custom) and can be ended with the ENDSBS command.
 - IBM HTTP Server processes
 - Web services processes that use a plugin you are installing
 - First steps consoles
 - Installation verification test (IVT) processes
 - The Profile Management Tool
 - Other InstallShield MultiPlatform (ISMP) installation programs
 - InstallShield MultiPlatform uninstallation programs
 - IBM WebSphere Integration Developer Java processes
 - The IBM Agent Controller
 - The Derby Network Server database server (if you are updating a deployment manager profile that is configured to use Derby Network Server).
 5. Change directories to the update installer directory. The update installer directory is located in one of the following locations, depending on the operating system that you are using:
 - **AIX** **On AIX platforms:** /usr/IBM/WebSphere/UpdateInstaller
 - **i5/OS** **On i5/OS platforms:** /QIBM/ProdData/WebSphere/UpdateInstaller/V61/UPDI
 - **HP-UX** **Linux** **Solaris** **On HP-UX, Linux and Solaris platforms:** /opt/IBM/WebSphere/UpdateInstaller
 - **Windows** **On Windows platforms:** C:\Program Files\IBM\WebSphere\UpdateInstaller
 6. Use the update command to install the interim fix, fix pack, or refresh pack. Install the maintenance package on the deployment manager node before installing the maintenance package on each server node that you intend to update.

- To install the maintenance package using the graphical user interface, type one of the following commands:
 - **Linux** **UNIX** **On Linux and UNIX platforms:** `./update.sh` to initialize the maintenance package field with the name of the package that has the most recent date stamp and time stamp.
 - **Windows** **On Windows platforms:** `update.bat` to initialize the maintenance package field with the name of the package that has the most recent date stamp and time stamp.
 - **Linux** **UNIX** **On Linux and UNIX platforms:** `./update.sh -options "responsefiles/file_name"` to override all graphical interface values with values that you specified in the options response file. For more information about the example response file that is installed with the update installer, see the `install.txt` topic in the WebSphere Application Server Network Deployment, version 6.1 documentation.
 - **Windows** **On Windows platforms:** `update.bat -options "responsefiles/file_name"` to override all graphical interface values with values that you specified in the options response file. For more information about the example response file that is installed with the update installer, see the `install.txt` topic in the WebSphere Application Server Network Deployment, version 6.1 documentation.

For more information about options to use with the update command, see the update command topic in the WebSphere Application Server Network Deployment, version 6.1 documentation.

- To install the maintenance package as a background process, using the silent mode, type one of the following commands:
 - **Linux** **UNIX** **On Linux and UNIX platforms:** `./update.sh -silent -options "responsefiles/file_name"` to install without a graphical user interface, using the values that you specified in the options response file. For more information, see `install.txt` topic in the WebSphere Application Server Network Deployment, version 6.1 documentation.
 - **Windows** **On Windows platforms:** `update.bat -silent -options "responsefiles/file_name"` to install without a graphical user interface, using the values that you specified in the options response file. For more information, see `install.txt` topic in the WebSphere Application Server Network Deployment, version 6.1 documentation.
 - **i5/OS** **On i5/OS platforms:** `update -silent -options responsefiles/file_name`

For more information about the update command, see the update command topic in the WebSphere Application Server Network Deployment, Version 6.1 documentation.

The update installer creates a backup files in the `install_root/properties/version/nif/backup` directory.

Note: When you install a maintenance package that contains service for a profile that a non-root user owns, you own any new files that the maintenance package creates. You can change the ownership of the new files so that a non-root user can successfully start the product. For more information, see Installing maintenance packages as an installer and changing the ownership of profile-related files in the WebSphere Application Server Network Deployment documentation.

After installing an maintenance package, continue to use your WebSphere software.

Important: For information about known problems, see Update command - known problems and workarounds in the WebSphere Application Server Network Deployment documentation.

Installing the Update Installer for WebSphere Software

From the WebSphere Process Server launchpad, you can install the Update Installer for WebSphere Software, which is used to install interim fixes, fix packs and refresh packs for WebSphere Process Server.

Before you begin

Before installing the Update Installer for WebSphere Software, review the following requirements:

- All of the product hardware and software prerequisites must have been met. For more information, see WebSphere Process Server system requirements.
- You must have a version of WebSphere Process Server correctly installed before you install the update installer.
- Only one copy of the update installer should be installed on your system at any one time for use with all WebSphere products.
- The user account that was used to originally install the WebSphere Process Server product should be install the update installer, and the same user account should be used to run the update installer program to update a product.
 - When a different user account uses the location of the installed update installer, that user account must have security access to read and run applications at that location, and write access to the logs directory subdirectories.
 - When a different user account is used to update the target WebSphere Process Server product location, that user account must have full access (read, write, and run) to the target location where a maintenance package is to be applied.
- **AIX** **On AIX platforms:** If a non-root user starts the update installer program, that user account must have security permissions to run the slibclean command; otherwise, a root user must run the slibclean command whenever the update installer program is used.
- Processes from other users cannot lock files in the target location where the update installer will be installed.
- Make sure you are installing the most recent version of the Update Installer for WebSphere Software. If you do not have the most recent version, download the latest version of the Update Installer for WebSphere Software as a compressed file or a TAR file from the following IBM Web site: Update Installer for WebSphere Software. For more information, see Updating the Update Installer for WebSphere Software in the WebSphere Application Server Network Deployment, version 6.1 documentation.

To install the Update Installer for WebSphere Software, perform the following steps.

Procedure

1. Before installing a newer version of the update installer, you must first remove the existing update installer. For more information, see Uninstalling the Update

Installer for WebSphere Software in the WebSphere Application Server Network Deployment, version 6.1 documentation.

2. Start the installation wizard for the Update Installer for WebSphere Software in one of the following ways.
 - From the launchpad:
 - a. Start the WebSphere Process Server launchpad. For more information about how to start the launchpad, see “Starting the launchpad” on page 69.
 - b. Click **IBM Update Installer for WebSphere Software installation** in the list of options displayed on the left of the launchpad window. The IBM Update Installer for WebSphere Software installation panel opens.
 - c. On the IBM Update Installer for WebSphere Software installation panel of the launchpad, click **Launch the installation wizard for IBM Update Installer**.
 - From the command line:
 - a. Log on to the system.
 - b. Linux UNIX On **Linux and UNIX platforms**: Mount the CD-ROM drive if necessary. See Mounting CD-ROMs on Linux and UNIX operating systems for details.
 - c. Insert the product CD labeled *WebSphere Process Server V6.1 Disk 1* or the DVD labeled *WebSphere Process Server V6.1 DVD* into the CD-ROM drive.
 - d. Navigate to the UpdateInstaller directory.
 - e. Type the `install` or `install -silent` command from the UpdateInstaller directory.
3. Follow the directions in the installation wizard.

Results

The Update Installer for WebSphere Software is installed in the following root directories, depending on the platform you are using:

- AIX On **AIX platforms**: `/usr/IBM/WebSphere/UpdateInstaller`
- i5/OS On **i5/OS platforms**: `/QIBM/ProdData/WebSphere/UpdateInstaller/V61/UPDI`
- HP-UX Linux Solaris On **HP-UX, Linux and Solaris platforms**: `/opt/IBM/WebSphere/UpdateInstaller`
- Windows On **Windows platforms**: `C:\Program Files\IBM\WebSphere\UpdateInstaller`

What to do next

After you have installed the update installer, you can use it to install interim fixes, fix packs, and refresh packs. For more information, see [Installing fix packs and refresh packs with the update installer](#).

Uninstalling maintenance packages

You can use the Update Installer for WebSphere Software to uninstall interim fixes, fix packs, and refresh packs. The Update Installer for WebSphere Software is also known as the update installer program, the `updateInstaller` program, and the Update Installation Wizard.

Before you begin

Use the correct authorizations to successfully install product updates.

The Update Installer is an InstallShield MultiPlatform wizard that runs with either a graphical user interface or in silent mode with a response file: `uninstall.txt`.

Note: i5/OS **On i5/OS platforms:** The Update Installer on i5/OS runs only with the response file.

Important: For information about known problems, the topic Update command - known problems and workarounds in the WebSphere Application Server Network Deployment, version 6.1, documentation.

Important: Throughout this topic, certain directory paths are shown only in Linux and UNIX format for simplicity. The equivalent path for i5/OS is identical to Linux and UNIX. The equivalent Windows paths are identical except for the direction of the slashes.

The following descriptions contain reference information about uninstalling interim fixes, fix packs, and refresh packs on WebSphere Process Server:

Overview of the uninstallation procedure

To uninstall a maintenance package:

1. Make sure that you have the backup file that was created when you used the update installer to install the maintenance package: it should be located in the `install_root/properties/version/nif/backup` directory. IBM does not support user modifications to backup files.
2. Use the update installer program to remove the maintenance package as described in this topic.

Viewing the fix level of the node

You can use the `versionInfo` command in the `install_root/bin` directory to display the exact fix and version level of the product. However, do not use the `versionInfo` command while installing or uninstalling a maintenance package.

Do not launch multiple copies of the Update Installer at one time: Concurrent launches of the update installer program are not supported. Performing more than one update at the same time can produce unpredictable results, which might include a failed or faulty installation.

Required information

The graphical interface requires the following information that you must supply:

Table 23. Information required when uninstalling a maintenance package

Field	Valid values	Description
File path of the installation root directory of the WebSphere product and the Update Installer	Identify the installation root directory for IBM WebSphere Process Server.	The Update Installer application defaults to the last-visited product location.
File name of the maintenance package to uninstall.	Select a maintenance package to uninstall from the <code>install_root/properties/version/update/backup</code> directory.	The default maintenance package is the package with the latest date stamp and time stamp in the <code>install_root/properties/version/update/backup</code> directory.

Required security role for this task: Use the correct authorizations to successfully uninstall product updates. Use the update installer program as the root user on a Linux or UNIX platform, or as the Administrator on a Windows platform.

To remove an interim fix, a fix pack, or a refresh pack, perform the following steps.

Procedure

1. Log on to the operating system.

Linux **UNIX** **On Linux and UNIX platforms:** In addition, verify that the umask setting is 0022.

To verify the umask setting, type the following command: `umask`.

To set the umask setting to 0022, type the following command: `umask 0022`

2. Change directories to the update installer directory. The update installer directory is located in one of the following locations, depending on the operating system that you are using:

- **AIX** **On AIX platforms:** `/usr/IBM/WebSphere/UpdateInstaller`

- **i5/OS** **On i5/OS platforms:** `/QIBM/ProdData/WebSphere/UpdateInstaller/V61/UPDI`

- **HP-UX** **Linux** **Solaris** **On HP-UX, Linux and Solaris platforms:** `/opt/IBM/WebSphere/UpdateInstaller`

- **Windows** **On Windows platforms:** `C:\Program Files\IBM\WebSphere\UpdateInstaller`

3. **Windows** **On Windows platforms:** Use the Windows Services panel to stop all services for WebSphere Process Server and WebSphere Application Server processes.

4. Stop all Java processes that use the IBM Software Developer Kit (SDK) or IBM Developer Kit for Java (JDK and used on i5/OS platforms).

Before uninstalling interim fixes, fix packs, and refresh packs on a machine, stop all Java processes on the machine that use the IBM SDK, Java Technology Edition.

WebSphere Process Server processes include:

- Server processes
- The node agent process on a node when the node is federated into a deployment manager cell
- The dmgr process for the deployment manager server

Stop all Java processes, if necessary. If you uninstall a maintenance package while a WebSphere Process Server-related Java process runs, IBM does not guarantee that the product can continue to run successfully, or without error.

5. Use the update installer to uninstall the maintenance package.

- To uninstall the maintenance package using the graphical user interface, type one of the following commands:

- **Windows** **On Windows platforms:** `update.bat -W update.type="uninstall"` to uninstall the maintenance package with the most recent date stamp and time stamp using the graphical user interface.

- **Linux** **UNIX** **On Linux and UNIX platforms:** `./update.sh -W update.type="uninstall"` to uninstall the maintenance package with the most recent date stamp and time stamp using the graphical user interface.

- **Windows** **On Windows platforms:** `update.bat -options "responsefiles/file_name"` to override all graphical interface values with values that you specified in the options response file. For more information about the example response file that is installed with the update installer, see the `uninstall.txt` topic in the WebSphere Application Server Network Deployment, version 6.1 documentation.
- **i5/OS** **On i5/OS platforms:** `./update -silent -options "responsefiles/file_name"` to uninstall without a graphical user interface, using the values that you specified in the options response file. For more information, see the `uninstall.txt` topic in the WebSphere Application Server Network Deployment, version 6.1 documentation.
- **Linux** **UNIX** **On Linux and UNIX platforms:** `./update.sh -options "responsefiles/file_name"` to override all graphical interface values with values that you specified in the options response file. For more information about the example response file that is installed with the update installer, see the `uninstall.txt` topic in the WebSphere Application Server Network Deployment, version 6.1 documentation.
- To uninstall the maintenance package as a background process, using the silent mode, type one of the following commands:
 - **Windows** **On Windows platforms:** `update.bat -silent -options "responsefiles/file_name"` to uninstall without a graphical user interface, using the values that you specified in the options response file. For more information, see the `uninstall.txt` topic in the WebSphere Application Server Network Deployment, version 6.1 documentation.
 - **Linux** **UNIX** **On Linux and UNIX platforms:** `./update.sh -silent -options "responsefiles/file_name"` to uninstall without a graphical user interface, using the values that you specified in the options response file. For more information, see the `uninstall.txt` topic in the WebSphere Application Server Network Deployment, version 6.1 documentation.

Note: Uninstall the interim fix on each server node in a cell before uninstalling the maintenance package from the deployment manager node.

To view tables that show all of the options available when using the update command to uninstall maintenance packages, see the update command topic in the WebSphere Application Server Network Deployment, version 6.1 documentation.

Results

The interim fix, fix pack or refresh pack is removed, and the previous version of WebSphere Process Server software remains on your system.

What to do next

After uninstalling maintenance packages, you can continue to use the WebSphere software.

Chapter 13. Uninstalling the software

Learn about the different ways of uninstalling IBM WebSphere Process Server.

The uninstaller program removes all profiles by default, including all of the configuration data and applications in each profile. The exception is i5/OS, which does not remove all profiles by default. Before you start the uninstallation procedure, back up the config folder, the installableApps folder, and the installedApps folder of each profile, if necessary, or use the `-OPT removeProfilesOnUninstall="false"` parameter on the uninstall command. See Using command line tools for a description of managing configuration files. Back up all applications that are not stored in another location. To uninstall, select the link to the uninstallation procedure you require from the following list.

- “Uninstalling the product using the GUI or silently” -- Describes how to uninstall WebSphere Process Server and the underlying copy of WebSphere Application Server or WebSphere Application Server Network Deployment either interactively using the uninstallation wizard graphical user interface (GUI) or silently using a command-line invocation.

Restriction: i5/OS **On i5/OS platforms:** Uninstallations can only be done silently using a command-line invocation.

- “Preparing for reinstallation after failed uninstallation” on page 210 -- An uninstallation that does not complete successfully can leave files that prevent you from reinstalling into the original directory. Follow the procedure for your platform in this section if your uninstallation failed and you plan to reinstall into the same directory. If you are not planning to reinstall, you do *not* have to follow these procedures.

Also covered is how to remove the different components from a WebSphere Process Server installation. These components are uninstalled during an uninstallation of WebSphere Process Server. See the topics under Removing the Business Process Choreographer configuration and Removing the Common Event Infrastructure configuration for more information.

To uninstall related products, such as the Web server plug-ins for WebSphere Application Server, IBM HTTP Server, and the Application Client for WebSphere Application Server, see the following topics in the WebSphere Application Server Network Deployment and IBM HTTP Server, version 6.1 information centers:

- Uninstalling the Web server plug-ins for WebSphere Application Server.
- Uninstalling IBM HTTP Server.
- Uninstalling Application Client for WebSphere Application Server feature pack..

Uninstalling the product using the GUI or silently

Learn how to uninstall WebSphere Process Server and the underlying copy of WebSphere Application Server or WebSphere Application Server Network Deployment using either the uninstallation wizard graphical user interface (GUI) or silently using a command-line invocation.

Before you begin

Before uninstalling WebSphere Process Server using this procedure, do the following:

- Determine if you want to uninstall WebSphere Process Server interactively or silently. Steps that you must perform for each procedure will be identified in the overall procedure below.

Restriction: i5/OS **On i5/OS platforms:** You can only uninstall WebSphere Process Server silently.

- Determine if you want to uninstall the underlying WebSphere Application Server or WebSphere Application Server Network Deployment product when you are uninstalling WebSphere Process Server. If you uninstall this product, the uninstaller program also removes all profiles by default, including all of the configuration data and applications in each profile. You can choose NOT delete ALL of the profiles.

Note: i5/OS **On i5/OS platforms:** Websphere Application Server is uninstalled by default. You must change this option in the uninstall command if you don't want to uninstall WebSphere Application Server.

- Back up the config folder, the installableApps folder, and the installedApps folder of each profile, if necessary. Back up all applications that are not stored in another location.
- Remove the event messaging enterprise application, the event database, and the configuration for the Common Event Infrastructure application, in that order.
 - The instructions for removing the event messaging enterprise application are found in Removing the event messaging enterprise application.
 - Those for removing the event database, in Removing the event database.
 - And those for removing the configuration for the Common Event Infrastructure application, in Removing the Common Event Infrastructure application.
- If you configured Business Process Choreographer, you must delete all external resources manually after uninstalling WebSphere Process Server. For instructions on how to do this, see Removing the Business Process Choreographer configuration.
- Ensure that you are uninstalling the product using the same user ID that was used when the product was installed.

Restriction: You cannot perform partial, custom, or incremental uninstallations.

About this task

The uninstallation program is created during product installation. It is customized for each product installation, with specific disk locations and routines for removing installed features.

To uninstall WebSphere Process Server, perform the following steps.

Procedure

1. Log on using the same user ID that was used when the product was installed.
2. If you are uninstalling the underlying WebSphere Application Server or WebSphere Application Server Network Deployment product, run the uninstallation program for the Web server plug-ins for WebSphere Application Server.

If your system includes a Web server configured to run with the WebSphere Application Server or WebSphere Application Server Network Deployment, you must uninstall the plug-ins to remove the configuration from the Web server. See the uninstallation procedure for the plug-ins in the following topic in the WebSphere Application Server Network Deployment information center: Uninstalling the Web server plug-ins for WebSphere Application Server.

3. Stop all deployment managers, node agents and server processes. For instructions on how to stop these processes, see Chapter 6, “Stopping servers and nodes,” on page 65.
4. Optional: Back up configuration files and log files to refer to them later, if necessary.

The uninstallation program does not remove log files in the *install_root* directory. If you elect to uninstall the underlying WebSphere Application Server or WebSphere Application Server Network Deployment product, it does remove all profiles and all of the data in all profiles.

Back up the config folder and the logs folder of each profile to refer to later, if necessary. You cannot reuse profiles so there is no need to back up an entire profile.

If you want to uninstall with the interactive GUI interface, go to step 5. If you want to uninstall silently, go to step 6 on page 208.

Restriction: i5/OS You can only perform a silent uninstallation for a WebSphere Process Server for i5/OS installation.

5. **If uninstalling interactively using the uninstallation wizard only:** Do the following:
 - a. Issue the **uninstall** command from a command line using one of the following commands, depending on platform:
 - Linux UNIX **On Linux and UNIX platforms:**
`install_root/uninstall.wbi/uninstall`
 - Windows **On Windows platforms:** `install_root\uninstall.wbi\uninstall.bat`

The uninstallation wizard starts and the Welcome panel is displayed.

- b. In the Welcome panel, select whether to uninstall the underlying WebSphere Application Server or WebSphere Application Server Network Deployment product when uninstalling WebSphere Process Server.
 - If you want to uninstall these products, select the **Uninstall the underlying WebSphere Application Server, version 6.1** check box (if WebSphere Application Server is installed) or select the **Uninstall the underlying WebSphere Application Server Network Deployment, version 6.1** check box (if WebSphere Application Server Network Deployment is installed).
 - If you do *not* want to uninstall these products, leave this check box cleared.
- c. Click **Next** to begin uninstalling the product.

The uninstaller wizard displays a confirmation panel that lists a summary of the components that you are uninstalling.

- Click **Next** to continue uninstalling the product.

If you chose not to uninstall the underlying WebSphere Application Server, any profiles that have been augmented with WebSphere Process Server profile templates are deleted.

If you chose to uninstall the underlying WebSphere Application Server, a panel allows you to choose whether or not the uninstaller deletes all profiles before it deletes the core product files. By default, all profiles will be deleted, but this option can be deselected on the panel.

After uninstalling profiles, the uninstaller program deletes the core product files in component order.

- Click **Finish** to close the wizard after the wizard removes the product.

6. **If uninstalling silently only:** Run the command that uninstalls WebSphere Process Server. Issue the following command to silently uninstall WebSphere Process Server and the underlying WebSphere Application Server and to remove all profiles:

- **i5/OS On i5/OS platforms:**

```
install_root/bin/uninstall_wbi/uninstall -OPT isUmbrellaUninstall="true"
-OPT removeProfilesOnUninstall="true" -silent
```

- **Linux UNIX On Linux and UNIX platforms:**

```
install_root/uninstall.wbi/uninstall
-OPT isUmbrellaUninstall="true" -OPT removeProfilesOnUninstall="true" -silent
```

- **Windows On Windows platforms:**

```
install_root\uninstall.wbi\uninstall.bat
-OPT isUmbrellaUninstall="true" -OPT removeProfilesOnUninstall="true" -silent
```

Issue the following command to silently uninstall WebSphere Process Server and the underlying WebSphere Application Server and to retain all profiles :

- **i5/OS On i5/OS platforms:**

```
install_root/bin/uninstall_wbi -OPT isUmbrellaUninstall="true"
-OPT removeProfilesOnUninstall="false" -silent
```

- **Linux UNIX On Linux and UNIX platforms:**

```
install_root/uninstall.wbi/uninstall
-OPT isUmbrellaUninstall="true" -OPT removeProfilesOnUninstall="false" -silent
```

- **Windows On Windows platforms:**

```
install_root\uninstall.wbi\uninstall.bat
-OPT isUmbrellaUninstall="true" -OPT removeProfilesOnUninstall="false" -silent
```

Issue the following command to silently uninstall WebSphere Process Server and keep the underlying WebSphere Application Server. This command deletes all profiles:

- **i5/OS On i5/OS platforms:**

```
install_root/bin/uninstall_wbi -OPT isUmbrellaUninstall="false"
-silent
```

- **Linux UNIX On Linux and UNIX platforms:**

```
install_root/uninstall.wbi/uninstall
-OPT isUmbrellaUninstall="false" -silent
```

- **Windows On Windows platforms:**

```
install_root\uninstall.wbi\uninstall.bat -OPT isUmbrellaUninstall="false"
-silent
```

7. If you configured Business Process Choreographer, you must delete all external resources manually.

Do the following:

- If you use WebSphere MQ as the Java Message Service (JMS) provider for any Business Process Choreographer, delete the queue managers that you noted earlier.

- Delete the databases that you noted earlier for each Business Process Choreographer that does not use a Derby database. (If you use a Derby database for a Business Process Choreographer, the database was deleted automatically.)
8. Remove any configuration entries in the managed node that describe a deleted deployment manager.

A common topology is to install the core product files on multiple workstations. One workstation has the deployment manager and other workstations have managed nodes created from custom profiles. If you delete an installation where you created a data manager into which you federated a custom profile from another installation, you must update the configuration of those custom profiles.

The official statement of support for a node configuration problem in the managed node is that you use the **backupConfig** command after the initial installation. Use the command again whenever you make significant changes to the configuration that you must save. With a valid backup of the configuration, you can always use the **restoreConfig** command to get back to a previously existing state in the configuration.

You can also use one of the following commands on the machine with the managed node to remove the node. In this example, *profile_root* represents the installation directory of the managed node profile:

- **i5/OS** On i5/OS platforms: *profile_root/bin/removeNode -force*
 - **Linux** **UNIX** On Linux and UNIX platforms: *profile_root/bin/removeNode.sh -force*
 - **Windows** On Windows platforms: *profile_root\bin\removeNode.bat -force*
9. Remove any configuration entries in the deployment manager that describe a deleted managed node.

Open the administrative console of the deployment manager and click **System administration > Nodes**. Select the check box beside the node you wish to delete and then select **Remove node**.

If the administrative console cannot successfully remove the node, run the following command with the deployment manager running:

- **i5/OS** On i5/OS platforms: *install_root/bin/cleanupNode node_name*
- **Linux** **UNIX** On Linux and UNIX platforms: *install_root/bin/cleanupNode.sh node_name*
- **Windows** On Windows platforms: *install_root\bin\cleanupNode.bat node_name*

The official statement of support for a node configuration problem in the deployment manager is that you use the **backupConfig** command after the initial installation. Use the command again whenever you make significant changes to the configuration that you must save. With a valid backup of the configuration, you can always use the **restoreConfig** command to get back to a previously existing state in the configuration.

Results

This procedure uninstalls WebSphere Process Server, and if selected, WebSphere Application Server or WebSphere Application Server Network Deployment. After running the uninstallation wizard, the directory structure has only a few remaining directories, including the logs directory.

The uninstallation program leaves some log files in this directory, including the following:

- **i5/OS** On i5/OS platforms: `install_root/logs/wbi/uninstall/log.txt`
- **Linux** **UNIX** On Linux and UNIX platforms: `install_root/logs/wbi/uninstall/log.txt`
- **On Windows platforms:** `install_root\logs\wbi\uninstall\log.txt`

The `uninstlog.txt` file records file system or other unusual errors. Look for the `INSTCONFSUCCESS` indicator of success in the log:

```
Uninstall, com.ibm.ws.install.ni.ismp.actions.  
  ISMPLogSuccessMessageAction, msg1,  
  INSTCONFSUCCESS
```

If you intend to reinstall the product into the same installation root directory, you must do one of the following, depending on the success of the uninstallation:

- If uninstallation was successful, you must manually remove the `install_root` directory.

Important: You need to uninstall both WebSphere Process Server and the underlying WebSphere Application Server or WebSphere Application Server Network Deployment product if you uninstall and plan to reinstall WebSphere Process Server into the same directory. Therefore the `install_root` directory, which you must manually remove, must be empty.

- If uninstallation was not successful, you must manually uninstall the remaining artifacts of the product. See “Preparing for reinstallation after failed uninstallation” for more information. If you do not plan to reinstall, you do not need to perform this task.

For more information on the commands mentioned in this topic, see the following topics in the Command-line utilities section in the WebSphere Application Server Network Deployment, version 6.1, information center:

- `stopManager`
- `stopNode`
- `stopServer`
- `backupConfig`
- `restoreConfig`

Preparing for reinstallation after failed uninstallation

Learn how to reinstall the software. An uninstallation program that does not complete successfully can leave files that can prevent you from reinstalling into the original directory. This topic outlines the procedures you need to follow in order to reinstall.




Before you begin

You can reinstall without a clean machine. However, such an installation creates a coexistence scenario that can prevent you from installing into the original directory.

Cleaning the machine means deleting everything from the previous installation, including log files that are left behind by the uninstallation wizard or silent uninstallation procedure. Before you start the procedure, back up log files, if necessary. See Log files for the location of log files.

About this task

Other related products might be part of your installation and need to be uninstalled. For instructions, see the following topics in the WebSphere Application Server Network Deployment and IBM HTTP Server, version 6.1 information centers:

- Uninstalling the Web server plug-ins for WebSphere Application Server.
-    Uninstalling IBM HTTP Server.
- Uninstalling Application Client for WebSphere Application Server.

To prepare for reinstallation after a failed uninstallation, follow the appropriate procedure for your platform.

- On an AIX system
- On an HP-UX system
- On an i5/OS system
- On a Linux system
- On a Solaris system
- On a Windows system

Cleaning the system eliminates all evidence of all deleted installation. After you have cleaned your system, go to [Installing the software](#) for information on how to install the product again.

Preparing for reinstallation after failed uninstallation on AIX systems

Learn how to clean an AIX system if uninstallation of WebSphere Process Server fails. After running the uninstallation program, go through these manual steps to remove registry entries that can prevent you from reinstalling the product into the original directory.

Before you begin

Before performing this procedure, ensure you have uninstalled WebSphere Process Server using the Uninstallation wizard or silently, and that the procedure was not completely successful. If the procedure was successful, you do not need to perform this task.

Determine the *install_root* directory for the product so that you remove the correct product and produce a clean system.

For details on default directory locations see “Default installation directories for the product, profiles, and tools” on page 322.

The installation wizard and the Profile Management Tool let you specify your own locations for installation root directories. Examine the following files to determine the actual locations:

- The */usr/.ibm/.nif/.nifregistry* file identifies the installation root for all installed WebSphere Process Server products; it also looks for all WebSphere Application Server products.
- The *install_root/logs/manageprofiles/profile_name_create.log* file for each created profile identifies the installation location in the stanza with the `invokeWSProfile` method.

Uninstalling the product leaves the *profile_root* directory, including the *profile_root/logs* file, where *profile_root* represents the installation location of the profile. It leaves the *install_root/logs* directory as well.

About this task

Reinstalling the product into a new directory when files remain from a previous installation can create a coexistence scenario. However, you can delete all files and registry entries to completely remove WebSphere Process Server. A clean system lets you reinstall the product into the original directory without coexistence.

Important: Throughout this procedure, steps address removing artifacts left after uninstallation of both WebSphere Process Server and WebSphere Application Server or WebSphere Application Server Network Deployment. The WebSphere Application Server product addressed is assumed to be the one underlying the installation of WebSphere Process Server.

Perform the following procedure to produce a clean system.

Procedure

1. Log on as the same user ID who installed the product.

2. Use the **kill** command to stop all Java processes that are running.

If you are running Java processes that are not related to WebSphere Process Server or WebSphere Application Server products and it is not possible to stop them, stop all WebSphere Process Server and WebSphere Application Server product-related processes. Use the following command to determine all processes that are running:

```
ps -ef | grep java
```

Stop all WebSphere Process Server and WebSphere Application Server product-related processes with the **kill -9 java_pid_1 java_pid_2...java_pid_n** command.

3. List WebSphere Process Server and WebSphere Application Server components that are installed.

Type the following command to search for related packages:

```
ls1pp -l | grep -i WS
```

To narrow your query to search for WebSphere Process Server packages only, type the following command:

```
ls1pp -l | grep -i WSEAA61
```

WebSphere Process Server package names have a prefix of WSE and a suffix of 61. WebSphere Application Server Network Deployment, version 6.1 package names have a prefix of WSB or WSP and a suffix of 61. Do not remove packages for WebSphere Process Server and WebSphere Application Server products that you did not uninstall.

4. Change directories to the `/usr/IBM` directory, or the equivalent top directory of your installation.

5. Type `rm -rf WebSphere` to delete this WebSphere Process Server-related directory, but only if the ProcServer (or AppServer directory associated with the WebSphere Process Server installation you removed) is the only directory within the WebSphere directory. Delete the directory if the only products contained in the directory are products that you intend to delete.

6. Use the `installRegistryUtils` command to examine the installation locations for all installed WebSphere server products and remove the desired products from the installation registry.
7. Edit the `vpd.properties` file to remove the entries for WebSphere Process Server and WebSphere Application Server.

The file is located in the installation directory of the operating system, such as the root directory. Remove all entries for the installation of WebSphere Process Server that you have uninstalled. Each WebSphere Process Server entry starts with the characters WSE, followed by numbers representing the release number, and on the same line will have the *install_root* path corresponding to the installation you have uninstalled. (Each entry is on a single line if the file is displayed in a text editor with word wrap turned off.) For example, the line

```
WSEAA61|6|1|0|0|6.1.0.0|4=IBM WebSphere Process Server|
IBM WebSphere Process Server|IBM WebSphere Process Server V6.1.0.0|
IBM|http://www.ibm.com|6.1.0.0||6.1.0.0|
C:\Program Files\IBM\WebSphere\Procserver|0|0|1|WSEAA61|6|1|0|0|6.1.0.0|4|0|
false|"_uninst" "uninstall.jar" "uninstall.dat" "
"|true|3|WSEAA61|6|1|0|0|6.1.0.0|4
```

corresponds to the Websphere Application Server that was installed in the directory `C:\Program Files\IBM\WebSphere\ProcServer`.

Note: This text appears in several lines in this document for formatting purposes but would be a single line in the `vpd.properties` file.

Each WebSphere Application Server or WebSphere Application Server Network Deployment entry in the `vpd.properties` file has a similar format. For information about these entries to help you determine which to delete, and for more information about the `vpd.properties` file, refer to the topic `vpd.properties` file in the WebSphere Application Server Network Deployment, version 6.1 information center.

Do not delete or rename the `vpd.properties` file because the InstallShield MultiPlatform (ISMP) program uses it for other products that it installs. If the WebSphere Process Server or WebSphere Application Server product that you are uninstalling is the only product with entries in the `vpd.properties` file, you can delete this file.

8. Run the `WPS_ODM_clean.sh` script.
 - a. Obtain the scripts from the technote document titled, Manual Object Data Manager (ODM) cleanup script for AIX on the WebSphere Application Server Support site.
 - b. Edit the `WPS_ODM_clean.sh` script and replace every instance of the string `/usr/WebSphere/AppServer` with the actual installation root directory.
 - c. Run the `WPS_ODM_clean.sh` script from the command line:
9. Clean the `nifregistry` file. To clean this file
 - a. Backup the `.nifregistry` file.
 - b. Open the `.nifregistry` file in a text editor (ensure that line wrapping is turned off).
 - c. Search and delete all lines that have the `<INSTALL_LOC>` and `<PRODUCT_ID>` in them where `<INSTALL_LOC>` is the install location where you have a failed uninstallation and `<PRODUCT_ID>` is the product offering ID of the product that you are trying to uninstall
 - d. Save the `.nifregistry` file and close the text editor.

Results

This procedure results in having a clean system. You can reinstall into the same directories now. A clean system has no trace of a previously deleted installation.

What to do next

After you have cleaned your system, go to Chapter 7, “Installing the software,” on page 67 to choose an installation procedure.

Preparing for reinstallation after failed uninstallation on HP-UX systems

Learn how to clean a HP-UX system if uninstallation of WebSphere Process Server fails. After running the uninstallation program, go through these manual steps to remove registry entries that can prevent you from reinstalling the product into the original directory.

Before you begin

Before performing this procedure, ensure you have uninstalled WebSphere Process Server using the uninstallation wizard or silently, and that the procedure was not completely successful. If the procedure was successful, you do not need to perform this task.

Determine the *install_root* directory for the product so that you remove the correct product and produce a clean system.

For details on default directory locations see “Default installation directories for the product, profiles, and tools” on page 322.

The installation wizard and the Profile Management Tool let you specify your own locations for installation root directories. Examine the following files to determine the actual locations:

- The */opt/.ibm/.nif/.nifregistry* file identifies the installation root for all installed WebSphere Process Server products; it also looks for all WebSphere Application Server products.
- The *install_root/logs/manageprofiles/profile_name_create.log* file for each created profile identifies the installation location in the stanza with the *invokeWSProfile* method.

Uninstalling the product leaves the *profile_root* directory, including the *profile_root/logs* file, where *profile_root* represents the installation location of the profile. It leaves the *install_root/logs* directory as well.

About this task

Reinstalling the product into a new directory when files remain from a previous installation can create a coexistence scenario. However, you can delete all files and registry entries to completely remove WebSphere Process Server. A clean system lets you reinstall the product into the original directory without coexistence.

Important: Throughout this procedure, steps address removing artifacts left after uninstallation of both WebSphere Process Server and WebSphere Application Server or WebSphere Application Server Network Deployment. The WebSphere Application Server product addressed is assumed to be the one underlying the installation of WebSphere Process Server.

Perform the following procedure to produce a clean system.

Procedure

1. Log on as the same user ID who installed the product.

2. Use the **kill** command to stop all Java processes that are running.

If you are running Java processes that are not related to WebSphere Process Server or WebSphere Application Server products and it is not possible to stop them, stop all WebSphere Process Server and WebSphere Application Server product-related processes. Use the following command to determine all processes that are running:

```
ps -ef | grep java
```

Stop all WebSphere Process Server and WebSphere Application Server product-related processes with the **kill -9 java_pid_1 java_pid_2...java_pid_n** command.

3. Use the HP-UX System Administration Manager (SAM) utility to remove packages.

a. Start the SAM utility and verify that your DISPLAY and TERM environment variables are set properly.

b. Select **Software management**.

c. Select **View installed software**.

d. Look for WebSphere Process Server, WebSphere Application Server entries in the SD list.

e. Close the SD list.

f. Select **Remove local host software**.

g. Select any of the following instances that are displayed in the SD Remove List:

- WSEAA61
- WSBAA61

h. Select **Actions > Mark for remove**.

i. Select **Actions > Remove**.

j. Select **OK** in the Remove analysis dialog box.

k. Select **Logs** to display real-time removal of selected packages.

l. Select **Done** when all packages are removed.

m. Exit SAM.

4. Search for the packages to verify their removal.

Type `swlist | grep WS` to show packages for WebSphere Process Server and WebSphere Application Server.

To narrow your query to search for WebSphere Process Server packages only, type the following command:

```
swlist | grep WSEAA61
```

5. Remove the installation root directory.

Type `rm -rf install_root` to remove WebSphere Process Server. Ensure you specify the correct *install_root* for the product you uninstalled. For example, if you uninstalled WebSphere Process Server from the default installation directory `/opt/IBM/WebSphere/ProcServer`, issue the following command:

```
rm -rf /opt/IBM/WebSphere/ProcServer
```

6. Use the `installRegistryUtils` command to examine the installation locations for all installed WebSphere server products and remove the desired products from the installation registry.
7. Clean the `.nifregistry` file. To clean this file:
 - a. Backup the `.nifregistry` file.
 - b. Open the `.nifregistry` file in a text editor (ensure that line wrapping is turned off).
 - c. Search and delete all lines that have the `<INSTALL_LOC>` and `<PRODUCT_ID>` in them where `<INSTALL_LOC>` is the installation location where you have a failed uninstallation and `<PRODUCT_ID>` is the product offering ID of the product that you are trying to uninstall.
 - d. Save the `.nifregistry` file and close the text editor.

Results

This procedure results in having a clean system. You can reinstall into the same directories now. A clean system has no trace of a previously deleted installation.

What to do next

After you have cleaned your system, go to Chapter 7, “Installing the software,” on page 67 to choose an installation procedure.

Preparing for reinstallation after failed uninstallation on i5/OS systems

Learn how to clean a i5/OS system if uninstallation of WebSphere Process Server fails. After running the uninstallation program, go through these manual steps to remove registry entries that can prevent you from reinstalling the product into the original directory.

Before you begin

Before performing this procedure, ensure you have uninstalled WebSphere Process Server silently, and that the procedure was not completely successful. If the procedure was successful, you do not need to perform this task.

Determine the `install_root` and `profile_root` directories for the product so that you remove the correct product and produce a clean system.

For details on default directory locations see “Default installation directories for the product, profiles, and tools” on page 322

The installation wizard and the Profile Management Tool let you specify your own locations for installation root directories. Examine the following files to determine the actual locations:

- The `/QIBM/WAS/.ibm/.nif/.nifregistry` file identifies the installation root for all installed WebSphere Process Server products.
- The `user_data_root/profileRegistry/logs/manageprofiles/profile_create.log` file for each created profile identifies the installation location in the stanza with the `<method>invokeWSProfile</method>` tag.

Uninstalling the product leaves the `user_data_root/profileRegistry/logs`. It leaves the `install_root/logs` directory as well.

About this task

Reinstalling the product into a new directory when files remain from a previous installation can create a coexistence scenario. However, you can delete all files and registry entries to completely remove WebSphere Process Server. A clean system lets you reinstall the product into the original directory without coexistence.

Important: Throughout this procedure, steps address removing artifacts left after uninstallation of both WebSphere Process Server and WebSphere Application Server or WebSphere Application Server Network Deployment. The WebSphere Application Server product addressed is assumed to be the one underlying the installation of WebSphere Process Server.

Perform the following procedure to produce a clean system.

Procedure

1. Sign onto the i5/OS system with a user profile that has *ALLOBJ and *SECADM special authorities.
2. In Qshell, go to the *install_root* directory.
3. Remove the subdirectory related to the install you are removing. Delete the installation subdirectory and all files and directories contained in this subdirectory.

Note: This subdirectory will increment with each additional install. Example, first installation will be *ProcServer*, then *ProcServer1*, etc.

4. Next, go to the *user_data_root*/profiles directory.
5. Remove the subdirectory related to the install you are removing. Delete the installation subdirectory and all files and directories contained in this subdirectory.

Note: This subdirectory will increment with each additional install. Example, first installation will be *ProcServer*, then *ProcServer1*, etc.

6. Edit the */QIBM/WAS/.ibm/.nif/.nifregistry* file. Remove all entries referring to your installation.
7. If this is the last installation of WebSphere Process Server being removed from the system, then you must also delete the i5/OS licensed program registry entry for WebSphere Process Server by issuing the following DLTLICPGM command at the i5/OS CL command prompt.

```
DLTLICPGM LICPGM(5724L01)
```

Results

This procedure results in having a clean system. You can reinstall into the same directories now. A clean system has no trace of a previously deleted installation.

What to do next

After you have cleaned your system, go to Chapter 7, “Installing the software,” on page 67 to choose an installation procedure.

Preparing for reinstallation after failed uninstallation on Linux systems

Learn how to clean a Linux system if uninstallation of WebSphere Process Server fails. After running the uninstallation program, go through these manual steps to remove registry entries that can prevent you from reinstalling the product into the original directory.

Before you begin

Before performing this procedure, ensure you have uninstalled WebSphere Process Server using the uninstallation wizard or silently, and that the procedure was not completely successful. If the procedure was successful, you do not need to perform this task.

Determine the *install_root* directory for the product so that you remove the correct product and produce a clean system.

For details on default directory locations see “Default installation directories for the product, profiles, and tools” on page 322.

The installation wizard and the Profile Management Tool let you specify your own locations for installation root directories. Examine the following files to determine the actual locations:

- The *opt/.ibm/.nif/.nifregistry* file identifies the installation root for all installed WebSphere Process Server products and for all WebSphere Application Server products. The *install_root/logs/manageprofiles/profile_name_create.log* file for each created profile identifies the installation location in the stanza with the *invokeWSProfile* method.

Uninstalling the product leaves the *profile_root* directory, including the *profile_root/logs* directory, where *profile_root* represents the installation location of the profile. It leaves the *install_root/logs* directory as well.

About this task

Reinstalling the product into a new directory when files remain from a previous installation can create a coexistence scenario. However, you can delete all files and registry entries to completely remove WebSphere Process Server. A clean system lets you reinstall the product into the original directory without coexistence.

Important: Throughout this procedure, steps address removing artifacts left after uninstallation of both WebSphere Process Server and WebSphere Application Server or WebSphere Application Server Network Deployment. The WebSphere Application Server product addressed is assumed to be the one underlying the installation of WebSphere Process Server.

Perform the following procedure to produce a clean system.

Procedure

1. Log on as the same user ID who installed the product.
2. Use the **kill** command to stop all Java processes that are running.

If you are running Java processes that are not related to WebSphere Process Server or WebSphere Application Server products and it is not possible to stop

them, stop all WebSphere Process Server and WebSphere Application Server product-related processes. Use the following command to determine all processes that are running:

```
ps -ef | grep java
```

Stop all WebSphere Process Server and WebSphere Application Server product-related processes with the `kill -9 java_pid_1 java_pid_2...java_pid_n` command.

3. Search for related packages. Issue the following command to show packages for the WebSphere Process Server and WebSphere Application Server products:

```
rpm -qa | grep WS
```

To narrow your query to search for WebSphere Process Server packages only, type the following command:

```
rpm -qa | grep WSEAA61
```

For example, after issuing the command `rpm -qa | grep WSEAA61`, the following list of packages might be displayed:

```
WSEAA61WBICoreComponent-6.1-0
WSEAA61WBIServerSamplesComponent-6.1-0
WSEAA61BPCCComponent-6.1-0
WSEAA61WBIServerComponent-6.1-0
WSEAA61JavadocsComponent-6.1-0
WSEAA61LicensingComponent-6.1-0
WSEAA61CEISamplesComponent-6.1-0
WSEAA61AddBytesNonHP-6.1-0
WSEAA61WBICoreSamplesComponent-6.1-0
WSEAA61CEIComponent-6.1-0
WSEAA61BPCCSamplesComponent-6.1-0
```

WebSphere Process Server package names have a prefix of WSE and a suffix of 61. WebSphere Application Server Network Deployment, version 6.1, package names have a prefix of WSB or WSP and a suffix of 61. Do not remove packages for WebSphere Process Server and WebSphere Application Server products that you did not uninstall.

4. If there are packages to delete, type `rpm -e packagename` to remove any packages for the product that you uninstalled.

Alternatively, you can search for packages to verify that every item in the list is something to delete:

```
rpm -qa | grep WSEAA61
```

If the list contains packages that you intend to delete and no others, remove all of the packages with the following command:

```
rpm -qa | grep WSEAA61 | xargs rpm -e
```

If there is a problem with package dependencies, you can use the following command to remove the packages:

```
rpm -e packagename --nodeps --justdb
```

The `nodeps` option skips the dependency check. The `justdb` option updates only the package database, and not the file system. Using only the `nodeps` option can cause a failure in package removal if there is any mismatch in the dependent file system (files and directories).

5. Remove the installation root directory. Type `rm -rf install_root` to remove WebSphere Process Server directories. Ensure you specify the correct for the product you uninstalled. For example, if you uninstalled WebSphere Process Server from the default installation directory `/opt/ibm/WebSphere/ProcServer`, issue the following command:

```
rm -rf /opt/ibm/WebSphere/ProcServer
```

6. Edit the `vpd.properties` file to remove the entries for WebSphere Process Server and WebSphere Application Server or WebSphere Application Server Network Deployment.

The file is located in the installation directory of the operating system, such as the root directory. Remove all entries for the installation of WebSphere Process Server that you have uninstalled. Each WebSphere Process Server entry starts with the characters WSE, followed by numbers representing the release number, and on the same line will have the *install_root* path corresponding to the installation you have uninstalled. (Each entry is on a single line if the file is displayed in a text editor with word wrap turned off.) For example, the line

```
WSEAA61|6|1|0|0|6.1.0.0|4=IBM WebSphere Process Server|
IBM WebSphere Process Server|IBM WebSphere Process Server V6.1.0.0|
IBM|http://www.ibm.com|6.1.0.0|6.1.0.0|
C:\Program Files\IBM\WebSphere\Procserver|0|0|1|WSEAA61|6|1|0|0|6.1.0.0|4|0|
false|"_uninst" "uninstall.jar" "uninstall.dat" "
"|true|3|WSEAA61|6|1|0|0|6.1.0.0|4
```

corresponds to the WebSphere Process Server that was installed in the directory `C:\Program Files\IBM\WebSphere\ProcServer`.

Note: This text appears in several lines in this document for formatting purposes but would be a single line in the `vpd.properties` file.

Each WebSphere Application Server or WebSphere Application Server Network Deployment entry in the `vpd.properties` file has a similar format. For information about these entries to help you determine which to delete, and for more information about the `vpd.properties` file, refer to the topic `vpd.properties` file in the WebSphere Application Server Network Deployment, version 6.1 information center.

Do not delete or rename the `vpd.properties` file because the InstallShield MultiPlatform (ISMP) program uses it for other products that it installs. If the WebSphere Process Server or WebSphere Application Server product that you are uninstalling is the only product with entries in the `vpd.properties` file, you can delete this file.

7. Edit the `/opt/.ibm/.nif/.nifRegistry` file.

This file is located in the home directory of the user ID from which the product was installed.

The `/opt/.ibm/.nif/.nifRegistry` file contains a one-line entry for each WebSphere Process Server product installation and also an entry, for each WebSphere Application Server product installation.

Use a flat-file editor to remove the line that identifies the installation root directory of the product that you removed. Leave the other lines intact.

Results

This procedure results in having a clean system. You can reinstall into the same directories now. A clean system has no trace of a previously deleted installation.

What to do next

After you have cleaned your system, go to Chapter 7, "Installing the software," on page 67 to choose an installation procedure.

Preparing for reinstallation after failed uninstallation on Solaris systems

Learn how to clean a Solaris system if uninstallation of WebSphere Process Server fails. After running the uninstallation program, go through these manual steps to remove registry entries that can prevent you from reinstalling the product into the original directory.

Before you begin

Before performing this procedure, ensure you have uninstalled WebSphere Process Server using the uninstallation wizard or silently, and that the procedure was not completely successful. If the procedure was successful, you do not need to perform this task.

Determine the *install_root* directory for the product so that you remove the correct product and produce a clean system.

For details on default directory locations see “Default installation directories for the product, profiles, and tools” on page 322.

The installation wizard and the Profile Management Tool let you specify your own locations for installation root directories. Examine the following files to determine the actual locations:

- The */opt/.ibm/.nif/.nifregistry* file identifies the installation root for all installed WebSphere Process Server products; it also looks for all WebSphere Application Server products.
- The *install_root/logs/manageprofiles/profile_name_create.log* file for each created profile identifies the installation location in the stanza with the *invokeWSPprofile* method.

Uninstalling the product leaves the *profile_root* directory, including the *profile_root/logs* directory file, where *profile_root* represents the installation location of the profile. It leaves the *install_root/logs* directory as well.

About this task

Reinstalling the product into a new directory when files remain from a previous installation can create a coexistence scenario. However, you can delete all files and registry entries to completely remove WebSphere Process Server. A clean system lets you reinstall the product into the original directory without coexistence.

Important: Throughout this procedure, steps address removing artifacts left after uninstallation of both WebSphere Process Server and WebSphere Application Server or WebSphere Application Server Network Deployment. The WebSphere Application Server product addressed is assumed to be the one underlying the installation of WebSphere Process Server.

Perform the following procedure to produce a clean system.

Procedure

1. Log on as the same user ID who installed the product.
2. Use the **kill** command to stop all Java processes that are running.

If you are running Java processes that are not related to WebSphere Process Server or WebSphere Application Server products and it is not possible to stop

them, stop all WebSphere Process Server and WebSphere Application Server product-related processes. Use the following command to determine all processes that are running:

```
ps -ef | grep java
```

Stop all WebSphere Process Server and WebSphere Application Server product-related processes with the `kill -9 java_pid_1 java_pid_2...java_pid_n` command.

3. Search for related packages. Issue the following command to show packages for the WebSphere Process Server and WebSphere Application Server products (if no packages appear when using these commands, skip the next step):

```
pkginfo | grep WS
```

To narrow your query to search for WebSphere Process Server packages only, type the following command:

```
pkginfo | grep WSEAA61
```

For example, after issuing the command `pkginfo | grep WSEAA61`, the following list of packages might be displayed:

application WSEAA61AB	Non-HPRepository
application WSEAA61BM	BPCSamples
application WSEAA61BN	BPCSamples.ismp.component
application WSEAA61BO	Bpc.ismp.component
application WSEAA61BP	Bpc
application WSEAA61CA	WBICoreSamples.ismp.component
application WSEAA61CC	WBICore.ismp.component
application WSEAA61CE	CEI
application WSEAA61CI	CEI.ismp.component
application WSEAA61CM	CEISamples
application WSEAA61CS	WBICoreSamples
application WSEAA61EMSCO	CEISamples.ismp.component
application WSEAA61JC	Javadocs.ismp.component
application WSEAA61JD	Javadocs
application WSEAA61LC	LAP Component
application WSEAA61SA	Samples
application WSEAA61SC	WBIServerSamples.ismp.component
application WSEAA61SS	WBIServerSamples
application WSEAA61WC	WBICore
application WSEAA61WS	WBIServer

WebSphere Process Server package names have a prefix of WSE and a suffix of 61. WebSphere Application Server Network Deployment, version 6.1, package names have a prefix of WSB or WSP and a suffix of 61. Do not remove packages for WebSphere Process Server and WebSphere Application Server products that you did not uninstall.

4. Change directories to the directory where package information is registered.

```
cd /var/sadm/pkg
```
5. Issue the following command to remove any WebSphere Process Server or WebSphere Application Server product-related packages.

```
pkgrm packagename1 packagename2 packagename3 ...
```

Do not remove packages for WebSphere Process Server and WebSphere Application Server products that you did not uninstall.

Issue the following commands from the `/var/sadm/pkg` directory to search for and remove any WebSphere Application Server product-related packages that are registered in the `/var/sadm/pkg` directory:

- a. Change directories to the correct directory: `cd /var/sadm/pkg`
- b. `ls |grep WSB|xargs -i pkgrm -n {}` for WebSphere Application Server products

- c. `ls |grep WSC|xargs -i pkgrm -n {}` for WebSphere Application Server Clients
- d. `ls |grep WSP|xargs -i pkgrm -n {}` for Web server plug-ins for WebSphere Application Server
- e. `ls |grep WSE|xargs -i pkgrm -n {}` for WebSphere Process Server

Package names for Web server plug-ins for WebSphere Application Server are:

```
WSPAA61
WSPAA61AC
WSPAA61BC
WSPAA61CC
WSPAA61DC
WSPAA61FC
WSPAA61FB
WSPAA61GC
WSPAA61HC
```

If there is a problem removing the packages, remove the related package directories in the `/var/sadm/pkg` directory, including the preremove files. For example, remove the following file before issuing the `pkgrm -n WSBA61` command:

```
/var/sadm/pkg/WSBA61/install/preremove
```

- 6. Remove any profile directories that are not located in the installation root (*install_root*) directory.

To determine the locations of profile directories, first use the `wasprofile -listProfiles` command to display profile names. Then, to determine where profile directories are located, use the `wasprofile -getPath -profileName profile_name` command, where *profile_name* is the name of the profile corresponding to a given directory.

- 7. Remove the installation root directory. Type `rm -rf install_root` to remove WebSphere Process Server directories. Ensure you specify the correct *install_root* for the product you uninstalled. For example, if you uninstalled WebSphere Process Server from the default installation directory `/opt/IBM/WebSphere/ProcServer`, issue the following command:

```
rm -rf /opt/IBM/WebSphere/ProcServer
```

Remove all of the profile directories as well.

- 8. Edit the `/opt/.ibm/.nif/.nifregistry` file.

This file contains a one-line entry for each WebSphere Process Server product installation; and also has an entry for each WebSphere Application Server product installation.

You can delete these files if there is just one line in each that identifies the product that you removed. Otherwise, use a flat-file editor to remove the line that identifies the installation root directory of the product that you removed. Leave the other lines intact.

Results

This procedure results in having a clean system. You can reinstall into the same directories now. A clean system has no trace of a previously deleted installation.

What to do next

After you have cleaned your system, go to Chapter 7, “Installing the software,” on page 67 to choose an installation procedure.

Preparing for reinstallation after a failed uninstallation on Windows systems

Learn how to clean a Windows system if uninstallation of WebSphere Process Server fails. After running the uninstallation program, go through these manual steps to remove registry entries that can prevent you from reinstalling the product into the original directory.

Before you begin

Before performing this procedure, ensure you have uninstalled WebSphere Process Server using the uninstallation wizard or silently, and that the procedure was not completely successful. If the procedure was successful, you do not need to perform this task.

Determine the *install_root* directory for the product so that you remove the correct product and produce a clean system.

For details on default directory locations see “Default installation directories for the product, profiles, and tools” on page 322.

The installation wizard and the Profile Management Tool let you specify your own locations for installation root directories. Examine the following files to determine the actual locations:

- The `C:\Windows\nifRegistry` file identifies the installation root for all installed WebSphere Process Server products; it also looks for all WebSphere Application Server products.
- The `install_root\logs\manageprofiles\profile_name_create.log` file for each created profile identifies the installation location in the stanza with the `invokeWSPprofile` method.

Uninstalling the product leaves the *profile_root* directory, including the *profile_root\logs* directory, where *profile_root* represents the installation location of the profile. It leaves the *install_root\logs* directory as well.

About this task

Reinstalling the product into a new directory when files remain from a previous installation can create a coexistence scenario. However, you can delete all files and registry entries to completely remove WebSphere Process Server. A clean system lets you reinstall the product into the original directory without coexistence.

Important: Throughout this procedure, steps address removing artifacts left after uninstallation of both WebSphere Process Server and WebSphere Application Server or WebSphere Application Server Network Deployment. The WebSphere Application Server product addressed is assumed to be the one underlying the installation of WebSphere Process Server.

Perform the following procedure to produce a clean system.

Procedure

1. Log on as the same user ID who installed the product.
2. Verify that you have an Emergency Recovery Disk. Instructions for creating this disk are in the Windows help documentation.

This step is a safeguard. This procedure does not require the recovery disk.

3. Use the `regback.exe` program from the Windows Resource Kit to back up the registry.

This step is a safeguard. This procedure does not require the backup copy of the registry.

4. Delete product registry entries for the WebSphere Process Server and WebSphere Application Server products that you uninstalled.

Invoke `regedit.exe` from a command prompt, to edit the Windows system registry.

CAUTION:

Handle the Registry with care. You can easily make a mistake while using the registry editor to view and edit registry contents. The editor does not warn you of editing errors, which can be extremely dangerous. A corrupt registry can disrupt your system to the point where your only option is to reinstall the Windows operating system.

- a. Use **Ctrl-F** to search for all instances of *WebSphere*, to determine whether you should delete each entry. You might not be able to remove all of the entries related to WebSphere Process Server and WebSphere Application Server, which is not a problem.
- b. Expand and select keys related to WebSphere Process Server and WebSphere Application Server products.

Delete the following keys if present for the WebSphere Application Server product:

- HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Explorer\MenuOrder\Start Menu2\Programs\IBM WebSphere\Application Server Network Deployment V6.1
- HKEY_CURRENT_USER\Software\IBM\WebSphere Application Server Network Deployment\6.1.0.0
- HKEY_LOCAL_MACHINE\Software\IBM\Web server Plug-ins for IBM WebSphere Application Server\ 6.1.0.0

Delete the following keys if present for the WebSphere Process Server product:

- HKEY_CURRENT_USER\Software\Microsoft\Windows\Currentversion\ Explorer\ MenuOrder\ Start Menu\ Programs\ IBM WebSphere\Process Server 6.1
- HKEY_LOCAL_MACHINE\CURRENT_USER\Software\IBM\WebSphere Process Server\6.1.0.0

- c. Select **Edit > Delete** from the menu bar for each related key.
 - d. Select **Yes** when asked to confirm deletion of the key.
 - e. Select **Registry > Exit** from the menu bar when you are finished.
5. Delete the installation root directory for the product that you uninstalled.
 6. Delete the registry key using `regedit`: Delete HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\IBMWAS61Service
 7. Determine all of the profile directories and remove the directories.
 8. Open a Windows Explorer window and browse to the following directories:
 - C:\Documents and Settings\All Users\Start Menu\Programs\IBM WebSphere
 - C:\Documents and Settings\ \Start Menu\Programs\IBM WebSphere

If you have only one installation of WebSphere Application Server, delete the following folders if present:

Application Server v6.1

If you have only one installation of WebSphere Application Server Network Deployment, delete the following folder if it is present:

Application Server Network Deployment v6.1

If you have only one installation of WebSphere Process Server, delete the following folder if it is present:

Process Server 6.1

If you have multiple versions of WebSphere Application Server or WebSphere Process Server installed, the folder names will be appended with a number, for example, Application Server Network Deployment v6.1 (2) or Process Server 6.1 (2). In this case, you can use the following procedure to determine which folder(s) to delete:

- a. Open
 - C:\Documents and Settings\All Users\Start Menu\Programs\IBM WebSphere
 - C:\Documents and Settings\Start Menu\Programs\IBM WebSpherein Windows Explorer.
 - b. Open the Application Server v6.1 or Application Server Network Deployment v6 subfolder, if one exists in the IBM WebSphere folder.
 - c. Right-click the First steps subfolder and select Properties, then select the Shortcut tab.
 - d. Examine the Target property and determine if the Target directory points to the WebSphere Application Server installation that failed to uninstall. If that is the case, delete the Application Server v6.1 or Application Server Network Deployment v6.1 folder.
 - e. Repeat steps b through d, but this time for step b start with the Process Server 6.1 (2) subfolder, and for step d, determine if the Target directory points to the WebSphere Process Server installation that failed to install.
 - f. Repeat steps b through e for each additional set of folders (for example, Application Server Network Deployment v6.1 (2) or Process Server 6.1 (2)).
9. Edit your entries in the .nifRegistry files.
- The location of these files is the home directory of the user ID from which the product was installed.
- The .nifRegistry file contains a one-line entry for each WebSphere Process Server product installation and each WebSphere Application Server product installation.
- You can delete these files if there is just one line in each that identifies the product that you removed. Otherwise, use a flat-file editor to remove the line that identifies the installation root directory of the product that you removed. Leave the other lines intact. Do not delete the .nifRegistry files unless you removed all of the installations listed in the files.
10. Restart your server if a prompt is displayed that directs you to restart.

Results

This procedure results in having a clean system. You can reinstall into the same directories now. A clean system has no trace of a previously deleted installation.

What to do next

After you have cleaned your system, go to Chapter 7, “Installing the software,” on page 67 to choose an installation procedure.

Uninstalling Business Process Choreographer

For information on how to remove the Business Process Choreographer component from a WebSphere Process Server installation, go to the WebSphere Process Server for Multiplatforms, version 6.1, information center and review the topics under **Installing and configuring WebSphere Process Server > Uninstalling the software > Removing the Business Process Choreographer configuration**. You can also find this information in the *Business Process Choreographer PDF*.

Chapter 14. Using the IBM Installation Factory

The IBM Installation Factory creates turn-key installation packages for installing WebSphere products in a reliable and repeatable way, tailored to your specific needs. The installation packages are customized WebSphere Process Server installation images that can include one or more maintenance packages, scripts and other files that help customize the resulting installation.

Before creating and installing a customized installation package (CIP), you must understand how to install and configure WebSphere Process Server. See the *Planning for WebSphere Process Server* PDF.

You can also view the planning topics in the WebSphere Process Server for Multiplatforms, version 6.1, online information center at <http://publib.boulder.ibm.com/infocenter/dmndhelp/v6rxmx/index.jsp> under **Planning for WebSphere Process Server**.

When you have planned your installation strategy you can then use the following paths through the information center to use the IBM Installation Factory to expedite your installation:

- “Installation Factory - overview”
- Install the Installation Factory
- Working with CIPs
 - Starting the Installation Factory Console
 - Creating a CIP
 - Installing a CIP
 - Maintaining a CIP
 - Uninstalling a CIP
- Uninstalling the Installation Factory

Installation Factory - overview

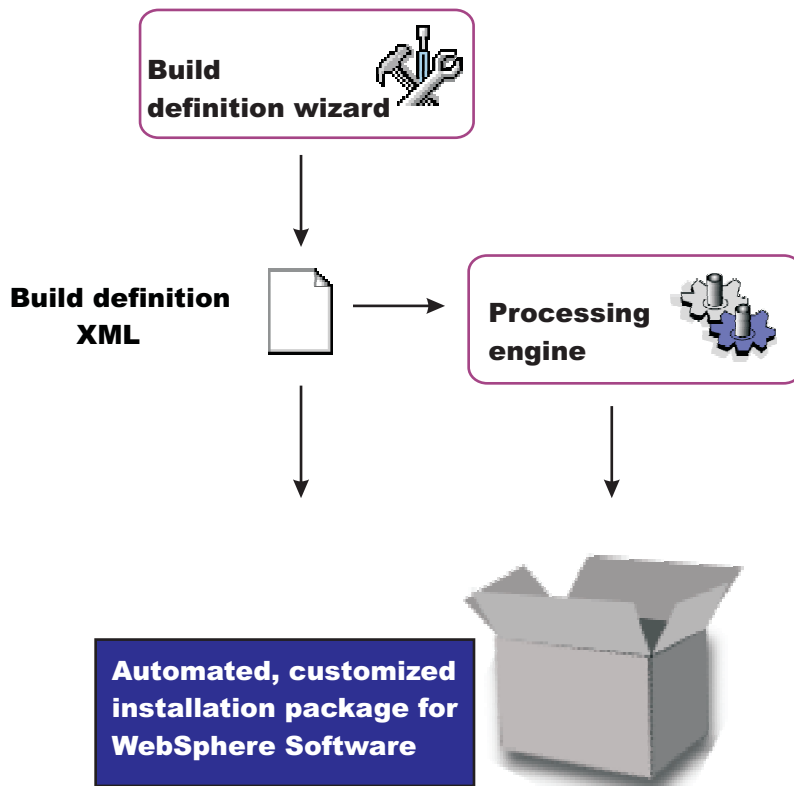
The IBM Installation Factory combines the installation image for WebSphere Process Server with applicable maintenance packages, customization scripts, and other files, to create a customized installation package (CIP). These installation packages can be installed in a single step.

Installing and configuring WebSphere Process Server is usually a multiple step process:

1. Install the shipped version of WebSphere Process Server.
2. Install the current fix pack.
3. Install a refresh pack.
4. Install one or more interim fixes as needed.
5. Create and configure application servers and other artifacts.
6. Deploy applications.

The Installation Factory simplifies the process by creating a single installation image - the customized installation package (CIP). The installation image can be created with a wide array of optional assets to allow you to customize the

resulting installation to your needs.



The process of using the Installation Factory comprises the following steps:

1. Install the IBM Installation Factory on a supported platform.
2. Obtain a copy of the installation image for WebSphere Process Server for the operating system that is your target. The target system can be the local or a remote system.

Note: The Installation Factory tool can be used to create CIPs for operating systems that do not support the tool itself.

3. Launch the Installation Factory GUI using the ifgui command.

Note: On some platforms the Installation Factory GUI is not supported, but the ifcli command is supported. On these platforms, you have the option to create the CIP on a different platform, export it to your target and invoke the ifcli command to complete the installation.

4. If possible choose connected mode on the Mode Selection panel. Certain combinations of working operating systems and target operating systems do not support connected mode. In those instances, either work in disconnected mode or change the working operating system to one which does support connected mode operation for the target operating system.
5. On the same panel identify the target operating system.
6. Work through the GUI and create a customized installation package (CIP).
7. If necessary, transfer the CIP to the target machine.
8. Install the CIP.

Installing the IBM Installation Factory

The Installation Factory is provided on the product media. The latest version can also be downloaded from the IBM support site.

Before you begin

You must be authenticated to your system and all hardware and software requirements must be met. See the software and hardware requirements page.

Procedure

1. Obtain a copy of the appropriate Installation Factory archive file for your operating system.

Option	Description
From the product media.	Copy the appropriate archive from the /IF directory on the product media to a local directory on your system.
From the IBM support site.	<ol style="list-style-type: none">1. Download the base Installation Factory tool. Select "WebSphere" for the category and WebSphere Application Server for the sub category. Click Continue. On the subsequent page click tools and utilities. The Installation Factory download page should be listed. Download the appropriate archive file for the operating system of the machine on which you intend to work.2. Download the Installation Factory plugin for WebSphere Process Server. Select "WebSphere" for the category and WebSphere Process Server for the sub category. Click Continue. On the subsequent page click tools and utilities. The Installation Factory download page should be listed. Download the appropriate archive file for the operating system of the machine on which you intend to work. <p>Note: The Installation Factory can be used on one operating system to create installation packages for a different operating system. However not all combinations are supported. Please consult the list of supported operating systems before deciding on which platform to install the Installation Factory.</p>

2. Extract the archive file to an otherwise empty directory.
3. Optional: Add the bin directory from your expanded package to your path environment variable. Adding the bin directory to the path variable allows you to access the Installation Factory commands from any directory on your system without qualifying the path to that command.
4. Optional: Ensure that all users who will need to use the Installation Factory have write permission to the logs directory in the install directory. If you do not make this directory writable to all Installation Factory users, the user will

need to use the `-logFile` and `-traceFile` options when they invoke Installation Factory commands to change the location of the log and trace files that will be created.

What to do next

The Installation Factory is ready to use.

Working with customized installation packages

A customized installation package (CIP) is a customized WebSphere Process Server installation image that can include one or more maintenance packages, profile customizations, EAR files, scripts and other files that help you to customize the resulting installation. The IBM Installation Factory for WebSphere Process Server creates CIPs.

Before you begin

Read through this topic and its related topics to prepare for creating and installing customized installation packages (CIPs). Become familiar with CIP installation options before you start to use the installation tools. Review the hardware and software requirements on the Supported hardware and software Web site to get started.

If you encounter a problem such as needing more disk space or more temporary space, or missing prerequisite packages on your system, cancel the installation, make the required changes, and restart the installation.

About this task

This topic introduces the IBM Installation Factory for WebSphere Process Server, which you can use to create a CIP. The first step is to create a build definition for the CIP using the Installation Factory console. Use the `ifgui` command to start the Installation Factory console.

i5/OS The Installation Factory console is not supported on i5/OS. However, you can work with the Installation Factory on a Windows, UNIX or Linux server to create build definition files and CIPs for use on i5/OS.

Note: You can install the CIP on i5/OS either remotely from a Windows platform or silently on the i5/OS server.

After defining the build parameters in the build definition file, create the CIP, which will then contain a version of the WebSphere Process Server Installation wizard.

The following procedure describes how to get started creating and installing a CIP for WebSphere Process Server.

Procedure

1. Use the Installation Factory to create a customized installation package. See the related task: Creating a customized installation package for more information.
2. Prepare your operating system platform for installation. See the related information: Preparing the operating system for installation.

3. Install WebSphere Process Server using the CIP. The CIP Installation wizard performs the following actions:
 - Automatically checks prerequisites.
 - Looks for a previous WebSphere Process Server Version 6.1 installation to determine installation options to display. Options include adding features and maintenance to the product binaries, and installing a new set of product binaries at the updated maintenance level that is included in the CIP.
 - Looks for previous versions of related WebSphere products from which an upgrade path is available.
 - Can create a stand-alone server, custom or deployment manager profile as well as install a deployment environment or WebSphere Process Server Client when installing a new set of product binaries and the maintenance packages included in the CIP.
4. Choose an installation scenario to continue the installation:

Option	Description
Perform a typical installation with the CIP Installation wizard.	The typical installation of the base product allows you to install any of the features in the CIP and also what type of profile to create.
Perform a slip installation from a lower maintenance level to a higher one.	The CIP Installation wizard can install maintenance to an existing product without installing features.
Install maintenance packages and additional features with the CIP Installation wizard to increment an existing installation.	The CIP Installation wizard can install maintenance and add features to an existing product.
Perform a trade-up installation from a lower-level product to the full product.	The CIP Installation wizard can install maintenance packages when upgrading from a lower-level product.
Perform a silent installation with the CIP Installation wizard.	See Installing a CIP silently. A silent installation requires you to edit the response file that contains all of your installation choices. After creating a valid response file, you issue the install command with the silent parameter from a command window.

The installer program does not support console-mode installation.

Results

You can use a CIP to install WebSphere Process Server by following the procedures outlined in subsequent topics.

Starting the Installation Factory

Launch the Installation Factory console from a command line. The Installation Factory console provides GUIs to create installation packages.

Before you begin

You must have installed the Installation Factory on the system before commencing this task. If you intend to create a CIP with the Installation Factory GUI, you

should have a copy of the installation image for the target operating system either on the local machine or in location that can be accessed from the machine you are working on.

About this task

The Installation Factory console provides you with all the tools you need to create a build definition file and a customized installation package (CIP) for your system.

Note: Integrated installation packages are not supported in this release of WebSphere Process Server. IIPs are supported for other products such as WebSphere Application Server.

Gather all the components that you intend to include in the installation package before launching the console. Optional assets include:

- Maintenance packages
- Scripts or Java classes
- Additional user files.
- Enterprise archive (EAR) files.

Procedure

1. Launch the Installation Factory graphical user interface.

From the Installation Factory directory, invoke the ifgui command:

```
HP-UX Linux AIX Solaris bin/ifgui.sh
```

```
Windows bin\ifgui.bat
```

2. On the launch panel of the Installation Factory console, choose between creating a new customized installation package, creating a new integrated installation package (not supported in this release) and opening an existing build definition. You can also launch the Installation Factory help system. Details of the options on the Installation Factory console are found in subsequent topics.

The ifgui command

The ifgui command launches the Installation Factory console which can be used to create a build definition XML file that identifies the product to install, the features of the product, and the maintenance packages and other customizations to include in a customized installation package (CIP). The ifgui tool can, when used in connected mode, also create the CIP directly.

Purpose

Note: The Installation Factory console is sometimes referred to as the Build Definition wizard.

The ifgui command gives you access to the Installation Factory console, which is the simplest method of creating build definition files.

Location

The ifgui command file is located in the /bin directory of the directory where you unpack the Installation Factory. The command file is a script named:

```
AIX HP-UX Linux Solaris ifgui.sh
```

Windows ifgui.bat

Logging

The ifgui command creates a log file that shows whether the build definition file is produced successfully. In connected mode, the log also contains information about the CIP creation. When the build definition file is not successfully built, examine the trace file to determine what is wrong.

The following files record build file definition data:

- *IF_working_directory*/logs/trace.xml is a detailed trace log in XML format.
- *IF_working_directory*/logs/log.txt is the log file.

The tracing and logging output and level are configurable as described in the **logLevel** and **traceLevel** parameters. The success indicator is INSTCONFSUCCESS.

Common problems that can cause failure include mismatched fix packs and interim fixes, or insufficient disk space.

Syntax for ifgui.sh

AIX

HP-UX

Linux

Solaris

To display help:

```
./ifgui.sh -help
```

To create a build definition:

```
./ifgui.sh  
-logLevel log_level  
-logFile log_file_path_name  
-traceLevel trace_level  
-traceFile trace_file_path_name
```

Syntax for ifgui.bat

Windows

To display help:

```
.\ifgui.bat -help  
.\ifgui.bat -?
```

To create a build definition:

```
.\ifgui.bat  
-logLevel log_level  
-logFile log_file_path_name  
-traceLevel trace_level  
-traceFile trace_file_path_name
```

Parameters

Supported arguments include

-? Shows usage information.

-help

Shows usage information.

-logFile *log_file_path_name*

Identifies the log file. The default value is *current_working_directory*/logs/log.txt.

-logLevel *log_level*

Sets the level for logging of messages. Valid values for *log_level* are:

- ALL
- CONFIG
- INFO
- WARNING
- SEVERE
- OFF (Turns off logging)

The default value is INFO.

-traceFile *trace_file*

Identifies the trace file. The default value is *current_working_directory/logs/trace.xml*.

-traceLevel *trace_level*

Sets the level of tracing. Valid values for *trace_level* are:

- ALL
- FINE
- FINER
- FINEST
- OFF (Turns off tracing).

The default value is OFF.

Usage

Use the build definition file in connected mode to create a CIP from within the wizard. In most instances it is advisable to use the build definition wizard in connected mode, even if you are creating a CIP for a different operating system. Use the build definition in disconnected mode as input to the Installation Factory processing engine to create a customized installation package. See the `ifcli` command for more information.

Options on the Installation Factory console

The console for the Installation Factory provides options that you can select to build and modify build definition files. These build definition files can in turn be used to create customized or integrated installation packages (CIPs).

The Installation Factory console provides you with options to create a new build definition file and optionally a corresponding customized installation package (CIP) from a new build definition or to open and edit an existing build definition and optionally create a CIP from that build definition. In addition an option to launch the Installation Factory help system is offered.

Create New Customized Installation Package

The Create New Customized Installation Package option launches a product selection wizard. Once you have chosen the product, release and to install, the build definition wizard is launched. Use the build definition wizard to create a build definition file and optionally a corresponding customized installation package.

Create New Integrated Installation Package

Not supported at this time.

Integrated installation packages are a function of the Installation Factory tool for WebSphere Application Server. Please consult the WebSphere Application Server documentation for details of this option.

Open Build Definition

If you choose the Open Build Definition option, the Modify an Existing Build Definition panel is displayed, with a file browser to allow you to choose the build definition that you want to edit.

Help

Click the Help icon to launch the Installation Factory documentation.

Creating build definitions

A build definition, is an XML document from which a customized installation package (CIP) can be created. Create a build definition using the Build Definition wizard from the Installation Factory console.

Before you begin

Ensure that you have correctly set up the Installation Factory before performing this task.

Note: i5/OS You must use a Windows, UNIX or Linux server to create the build definition and CIP for an i5/OS installation. From Windows you can install the CIP on i5/OS, but from Linux or UNIX, you must transfer the CIP to either the i5/OS server or a Windows server before installing.

About this task

Before creating a CIP, you must first create a build definition for the CIP. The build definition is an XML document that defines how the Installation Factory is to customize the WebSphere Process Server installation. The Build Definition wizard is the easiest way to create a build definition. Launch the Installation Factory console with the ifgui command from the *Installation_Factory_home/bin* directory (where *Installation_Factory_home* is the directory where you unpacked the Installation Factory). Launch the Build Definition Wizard by either choosing to create a new CIP, or by opening an existing build definition. You can save a build definition and use it to generate the CIP directly from the Build Definition wizard. Alternatively, you can pass the build definition to the command-line interface through an option on the ifcli command. This second approach is useful when you want to create the build definition interactively on one machine using the console, but then generate the CIP in batch mode, for instance on a different machine, and perhaps as part of some larger automated process.

i5/OS Run the Build Definition wizard in connected mode, select i5/OS as your target operating system and choose to create the CIP when you have the option to do so. This CIP can then be transferred to your i5/OS system and installed silently. You can also install a CIP for i5/OS from a Windows server using the installation GUI.

Procedure

1. Launch the Installation Factory console. From the *Installation_Factory_home/bin* directory (where *Installation_Factory_home* is the directory where you unpacked the Installation Factory) use the `ifgui` command to launch the console.
2. Work through the panels of the Build Definition wizard to create your customized build definition. See subsequent topics for the details of the console panels.
3. Save the build definition.
4. Use the build definition to generate a CIP. You can generate the CIP either directly with the Installation factory console, or using a command-line tool.

Option	Description
From the Build Definition wizard	Choose the option to create a CIP.
Using the <code>ifcli</code> command-line tool	Pass the saved build definition as an option to the <code>ifcli</code> command.

Build Definition wizard:

To create a customized installation package (CIP), you must first create a build definition file, which the Installation Factory uses to generate the CIP. The build definition file describes exactly what the Installation Factory includes in the CIP so that you can achieve the installation customizations that you require. The Build Definition wizard allows you to easily create build definition files.

Purpose

The Build Definition wizard within the Installation Factory GUI steps you through the process of creating a build definition file. You can create as many different build definition files as needed to define the CIPs you require. You can also use the Build Definition wizard to modify an existing build definition file. A build definition file saves as an XML document in a location that you choose.

Overview

Each panel in the Build Definition wizard prompts you for information about the CIP. For example, prompts exist for the locations of maintenance packages, scripts, and other components that you can include. Another prompt requests the location for generating the CIP. All of this information is saved in the new build definition file, or modified and saved in a build definition file that you are changing.

The last wizard panel provides an option for generating a CIP that is based on the content of the build definition file that you just defined. Alternately, you can save just the build definition file. Use the `ifcli` command to create a CIP from a previously saved build definition file. The `ifcli` command generates the CIP outside of the Installation Factory console, and can be used on a different machine or operating system.

When you create a new build definition file, an initial wizard helps you choose the specific product and installation package to customize, such as an installation package for the WebSphere Process Server product. This wizard is the Product Selection wizard.

Once you have selected the installation package to customize, the Build Definition wizard helps you create the build definition file, as previously described.

Sample

Sample build definition files are provided in the *IF_root/samples/wbi* directory.

Build Definition wizard panels:

The Build Definition wizard provides a convenient tool for creating build definition files and customized installation packages.

Purpose

The Build Definition wizard is used to create build definition files. Build definition files can in turn be used to create customized installation packages.

Panels

- Mode selection panel
- Package identification panel
- Build information panel
- Product installation image panel
- Feature selection panel
- Maintenance packages panel
- Installation and uninstallation scripts panel
- Profile customization panel
- Additional files panel
- Authorship panel
- Customized installation preview panel

Mode selection panel:

Choose between connected and disconnected modes using the mode selection panel. Choose connected mode on the mode selection panel to create a CIP for an i5/OS server.

When the Build Definition wizard has access to the product installation image, maintenance packages, and other components required to create the customized installation package (CIP), then you can use it in what is called "connected mode." In this mode, the Build Definition wizard can validate the files that are provided as input and optionally generate the CIP in addition to creating the build definition file. If the product installation image, maintenance packages, and other components are not accessible because they are on a separate machine, the Build Definition wizard can only be used in disconnected mode. It is recommended to use connected mode when creating a CIP for an i5/OS server.

In disconnected mode, the Build Definition wizard can be used to create a build definition file for a target platform but it is not able to validate any of the input nor actually generate a CIP. The build definition file can then be copied to the target machine and used as input to the *ifcli* command to actually generate the CIP, at which time all of the input that was provided in the Build Definition wizard is validated.

It is convenient to run in connected mode whenever possible. Choose connected mode when the Build Definition wizard and the processing engine run on the same machine.

The mode affects component location specifications

In connected mode, specify local file paths for all components. The processing engine that builds the CIP is also on this machine. Therefore, the processing engine can access the local components. In disconnected mode, specify component locations in terms of the target machine, where the processing engine will run to build the CIP. For example, suppose that the product installation image is on the target machine in the /tmp/IBM/WASImage directory. Specify the location in terms of the target machine where the processing engine must find the product image to include in the CIP.

The mode affects component validation

In connected mode, the Build Definition wizard can validate connected installation images, maintenance packages, and other components while creating the build definition file because everything is on the same machine. When running in disconnected mode, the Build Definition wizard does not attempt to access components and cannot verify those components. In such a case, the Installation Factory relies on the processing engine to verify all components. The processing engine verifies each component as it adds the component to the CIP.

The mode affects the target operating system

Disconnected mode provides a selection field to identify the target operating system and hardware platform. Choose the operating system and hardware platform where the processing engine runs to create the CIP and upon which the CIP will be installed. The command-line invocation tool (ifcli) runs on 32-bit kernels and 64-bit kernels.

Supported architectures

Linux **UNIX** You can create CIPs for the following platforms:

- HP PA-RISC
- HP Itanium®
- IBMAIXPPC32 and AIXPPC64
- IBM i5/OS
- Linux IA32
- LinuxPPC32
- LinuxPPC64
- LinuxS390
- LinuxS390x
- SolarisSparc
- SolarisX64
- SolarisX86_64
- WindowsIA32
- WindowsAMD64

Windows You can create CIPs for the following platforms:

- i5/OS
- WindowsIA32
- WindowsAMD64

Package identification panel:

Specify an identifier and version for the customized installation package (CIP) on the package identification panel.

Package identification fields include:

- **Identifier:** Type a descriptor. For example, if you work in the Functional Verification Test department on the installation development team for WebSphere Process Server, you might use *com.ibm.toronto.wps.fvt* to identify test CIPs that you create. Suppose that you work in IT for the Sports Information department at the University of North Carolina. You might use *edu.unc.tarheels.sid.wps* as an identifier for CIPs that you create to install WebSphere Process Server updates on machines used by the Press.


The package identifier is designed to be universally unique. Multiple CIPs can install on a single installation. Each CIP installs customization assets in the installation under a unique directory. The unique directory name is modelled after the unique identifier provided. For this reason, the identifier must be unique. That is why IBM suggests a unique reverse domain notation with a version number.

- **Version:** Type a version number to help identify CIPs that you create. For example, the GUI field is pre-filled with 1.0.0.0, so you may want to start with that and increment from there.

The version number of the CIP does not have to reflect the version number of the product.

- **Full package identifier:** Informational only. This field shows the concatenation of the previous two fields. The Installation Factory uses this unique identifier as the name of a directory that holds the customized installation package. For example, the full package identifier might be *edu.unc.tarheels.sid.was_1.0.0.0*. The full package identifier is sometimes referred to as the variable *cip_uid*.

The full package identifier must

-  Contain 35 or fewer characters
- Start and end with alphabetic characters (A-Z, a-z) or numbers (0-9) only
- Contain alphabetic characters (A-Z, a-z), numbers (0-9), periods (.) and underscores (_) only
- Not contain spaces or the following characters: ~ ` ! @ # \$ % ^ & () { } [] | \ / : ; , ? ' " < = > + *

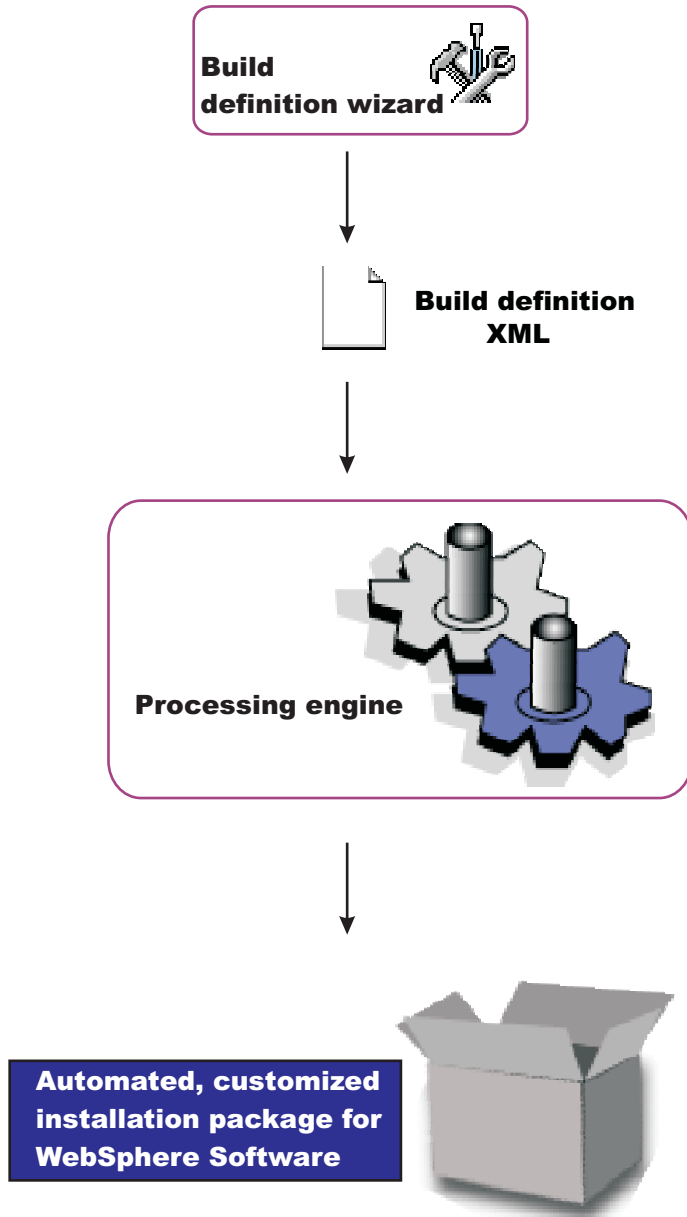
Build information panel:

Specify the build settings for your customized installation package (CIP) on the build information panel.

The Build Definition wizard creates the XML build definition file, which specifies the location for outputting the (CIP). The name and location of both files are under your control. The build definition file is always saved to a directory path on the Build Definition wizard machine. Name the build definition file in the Build Definition field. You can think of the build definition file as a response file for the processing engine. The XML file provides the information that the processing engine needs to locate all of the components for the CIP. Name the directory where you want to create the CIP in the Customized Installation Package field. The Installation Factory creates a compressed file containing the CIP and stores the file in the directory name that you specify.

Note: Windows The number of characters in the CIP build directory must be no more than 30 characters.

The processing engine reads the CIP location from the build definition file to determine where to store the CIP.



Customized installation package build location

`/Opt/ifactory/wpsimages`

You can type the file and directory locations directly into the fields. Or, click **Browse** in connected mode to search for and select either an existing file (build definition) or an existing directory (CIP). The CIP directory path is on the target machine, when you are working in disconnected mode you must type in the appropriate path and that path must be appropriate for the remote system. For example the build definition directory path and file names could be:

- **AIX** **HP-UX** **Linux** **Solaris** /IF/builddefs/
com.ibm.ws.install.wbiserver_1.0.0.0.xml
- **Windows** C:\IF\builddefs\com.ibm.ws.install.wbiserver_1.0.0.0.xml
- **i5/OS** /IF/builddefs/com.ibm.ws.install.wbiserver_1.0.0.0.xml

and the corresponding CIP build directory paths could be:

- **AIX** **HP-UX** **Linux** **Solaris** /IF/
- **Windows** C:\IF\
- **i5/OS** /IF/

Validation is performed when you click **Next**. Validation consists of checking that the build directory path is in the correct format.

Product installation image panel:

Identify the location of the installation image of your WebSphere Process Server on the product installation image panel.

The build definition file must provide the processing engine with the location of the directory that contains the installation image for WebSphere Process Server.

Specify the location of the directory for the product installation image in the **product installation image directory path** field. The path that you provide is to the directory that contains the latest install image for WebSphere Process Server (either from the product CD or from your downloaded image).

You can also specify the parent directory, such as /tmp if the image is in the /tmp/WAS directory, for example.

You can type directly into the field to identify the directory location. Or, click **Browse** in connected mode to search for and select the existing directory.

The processing engine requires the directory to exist and to have a valid installation image that matches the product that you selected with the Product Selection wizard. In connected mode, validation occurs when you click **Next**. In disconnected mode, the processing engine performs validation while building the customized installation package.

The directory for the installation image must exist in connected mode. In disconnected mode, remember to specify the file path in terms of the machine on which the processing engine machine runs. Specify the mount point for the CD-ROM drive on the target machine, for example. The processing engine must be able to locate the image at build time.

Feature selection panel:

Select the features that you want to include in your build definition file using the feature selection panel.

The build definition file must identify product features to include in the customized installation package (CIP). Select the features to include. Features that you include in the CIP are displayed when an installer uses the CIP to install the product.

Required features are listed with the word “Required” appended to the feature name, but are not selectable. Some products contain features that you must include in the CIP to have a viable product to install.

Optional features that you do not include in the CIP are not available when an installer uses the CIP to install the product.

Important: You must include any features that you might want to include in your installation at this stage. When you install the CIP you will have the option to exclude these features from the installation, but you cannot add features that are not included in the CIP.

What are maintenance packages?

Maintenance packages include fix packs and interim fixes.

A fix pack is a cumulative package of fixes, such as Version 6.1.2.1. Fix packs install on top of a previous fix pack, such as applying Version 6.1.2.2 to Version 6.1.2.1. Fix packs are cumulative, so Version 6.1.2.2 includes all fixes in Version 6.1.2.1. Check the list of delivered fixes in the fix pack to determine which interim fixes must be reinstalled. If an interim fix is deleted, but the fix is not in the fix pack, reinstall the interim fix.

An interim fix is a single published emergency fix that resolves one or more product defects. An interim fix can be applied to a release or fix pack where applicable. Interim fixes are validated by at least one customer prior to publishing.

Maintenance packages panel:

Select any maintenance packages (*.pak files) that want to include in your customized installation package (CIP) using the maintenance packages panel. Maintenance packages include refresh packs, fix packs and interim fixes.

Selecting maintenance packages is optional. The types of packages to include are your choice. For example, you can skip fix packs and install an interim fix. Or you can install one refresh pack and five interim fixes.

Fix pack compressed files are bundled with the Update Installer for WebSphere Software. Decompress the file to expose the maintenance package (*.pak) file in the /updateinstaller/maintenance directory.

Always select a *.pak file when selecting a maintenance package, such as the updateinstaller\maintenance\6.1-WS-WBI-WinX32-RP0000001.pak file.

You can select only one fix pack and one refresh pack. Fix packs are cumulative. Always select the latest available package.

Type directly into each field to identify the file path and file name of the *.pak files. In connected mode, you can instead click the **Browse** buttons to locate available refresh packs and fix packs.

Validation

The processing engine requires selected maintenance packages to have a valid file path and valid format. In connected mode, validation of the file path occurs when you click **Next**. When fix packs are validated, a dialog is displayed which displays

the base WebSphere Application Server maintenance level that is required for the WebSphere Process Server CIP that is being created.

In disconnected mode, the processing engine performs validation while building the customized installation package from the build definition.

Disconnected mode affects file path specifications

The directory and valid maintenance package must exist in connected mode. In disconnected mode, remember to specify the file path and the name of the *.pak file in terms of the machine on which the processing engine machine runs. The processing engine must be able to locate the maintenance package at build time.

What are maintenance packages?

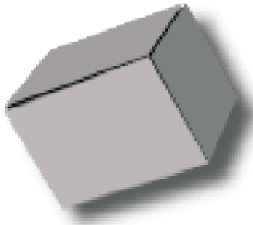
Maintenance packages include fix packs, refresh packs and interim fixes.

A fix pack is a cumulative package of fixes, such as Version 6.1.2.1. Fix packs install on top of a previous fix pack, such as applying Version 6.1.2.2 to Version 6.1.2.1. Fix packs are cumulative, so Version 6.1.2.2 includes all fixes in Version 6.1.2.1. Check the list of delivered fixes in the fix pack to determine which interim fixes must be reinstalled. If an interim fix is deleted, but the fix is not in the fix pack, reinstall the interim fix.

A refresh pack is a cumulative package of fixes, such as version 6.1.2. Refresh packs install on top of a previous refresh pack, such as applying Version 6.1.2 to Version 6.1.1. Refresh Packs are cumulative, so Version 6.1.2 includes all fixes in Version 6.1.1. A refresh pack also includes the fixes from all of the intermediate fix packs. Check the list of delivered fixes in the refresh pack to determine which interim fixes must be reinstalled. If an interim fix is deleted, but the fix is not in the refresh pack, reinstall the interim fix.

An interim fix is a single published emergency fix that resolves one or more product defects.

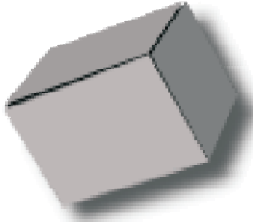
An interim fix can be applied to a release, refresh pack, or fix pack where applicable. Interim fixes are validated by at least one customer prior to publish.



Refresh packs

Rp1

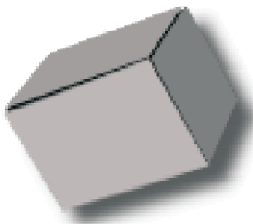
C:\WBI_downloads\name_of_refresh_pack_1_ZIP_file.pak



Fix packs

FP3

C:\WBI_downloads\name_of_fix_pack_3_ZIP_file.pak



SDK, Java technology edition fix pack

SDK

C:\WBI_downloads\name_of_SDK_fix_pack_ZIP_file.pak

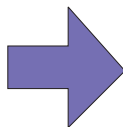


Interim fixes

iFix "A" and iFix "B"

C:\WBI_downloads\name_of_ifix_A_file.pak

C:\WBI_downloads\name_of_ifix_B_file.pak




**Build
definition wizard**



Installation and uninstallation scripts panel:

The Build definition wizard provides a way to include configuration scripts that run after successfully installing the customized installation package (CIP) or before uninstalling the CIP, as part of a complete uninstallation. If you are updating an existing installation by installing a CIP that includes maintenance, these scripts do not run.

You can include scripts as part of your CIP. These scripts can be run as part of an installation or an uninstallation. The supported script types are:

- ANT (.ant)
- JACL (.jacl)
- Jython (.py)
-  Batch shell script (.bat).

Note: The platform refers to target platform, not necessarily the platform on which you are running the Installation Factory.

-    Shell script (.sh)

Note: The platform refers to target platform, not necessarily the platform on which you are running the Installation Factory. Also note that on i5/OS the shell script does not have the .sh extension.

- JAR file (.jar)

Install tab

Identify scripts to run after successful installation of the CIP on the install tab.

Uninstall tab

Identify scripts to run before uninstalling the CIP during a full uninstall using the uninstall tab.

File name

The name of the script appears in the **File Name** field, after you add your script. You can modify this name using the **Modify** button.

Directory path

The directory where the script file resides is reported in the Directory Path field, after you add your script. You can modify the path using the **Modify** button.




Failure action

The action to be taken in event of a script error is reported in the **Failure Action** field. The value is initially set depending on whether you select the **Stop the operation if an error occurs while running this script** check box on the Add script panel. If the check box is selected the value “Fatal error” is reported in the Failure Action field, otherwise the value “Continue” is reported.

The value of the Failure Action field can be modified by pressing the **Modify** button, and by selecting or deselecting the **Stop the operation if an error occurs while running this script** check box.

Add Scripts

Press the **Add scripts** button to search for and select scripts to include in the CIP. Scripts can be any of the following supported script types:

- ANT scripts (*.ant)
-  Windows batch files (.bat)
-   Shell scripts (.sh)
- JACL scripts

- Jython scripts
- JAR files

The .jar files should have the main class defined in the META-INF/MANIFEST.MF file inside each .jar file. Scripts are in the cip_uid_root/config/install directory when the CIP is installed. These scripts run as configuration actions after all of the configuration actions run that are in the normal installation procedure.

- **Modify** Select an entry and click Modify to change the file name or the directory path.
- **Remove** Removes selected scripts from the CIP.
- **Move Up** Move a script up in the list to make it run earlier than scripts below it.
- **Move Down** Move a script down in the list to make it run after scripts above it.

Profile customization panel:

You can use the profile customization panel to run scripts at profile creation or deletion time. You can also deploy one or more enterprise archive file (EAR) file as part of profile augmentation.

You can use the profile customization panel to create customizations for one of three types of profile:

- Stand-alone server
- Deployment manager
- Custom

When you install the CIP, the profile management tool will prompt you for the choice of profile type. In order to use the customizations that you define here, you must select the same type of profile on the profile management tool as you do on the profile customization panel.

Note: Only deployment manager and custom can be selected when installing into a network deployment environment.

Note: You can deploy EAR files only with default options using the profile customization panel. If you need to deploy the EAR file with other options, include the EAR file as a user file and use a script to deploy the EAR with the necessary options.

.

Profile types

Select the type of profile for which you want to create customizations:

- Stand-alone server
- Deployment manager
- Custom

Profile_type **Profiles**

In the section entitled *Profile_type* Profiles (where *Profile_type* is the type of profile you are working with) you can specify whether the profile management tool displays options to use the customizations to create new profiles or augment existing profiles.

Note: Augmenting existing profiles is not supported.

Select **Allow creation of new profiles using the customizations** to allow the Profile Management tool to list all available profile types to be created using your customizations.

Profile_type Customizations

In the section entitled *Profile_type* Customizations (where *Profile_type* is the type of profile you are working with) you can specify the customizations that you want to make on profile creation or deletion.

Profile creation

Specifies scripts that run or files to include after successfully installing the CIP.

Perform such actions as running scripts, including and restoring configuration archives, including enterprise archive (EAR) files, and deploying applications within an EAR file.

Profile deletion

Specifies scripts that run when the profile is unaugmented.

At profile deletion time, the CIP can specify additional scripts to run. Generally, these scripts are needed to reverse the customization actions that occurred at profile creation time. If there are any profile deletion time configuration actions to run, then the *cip_app_server_root/if_augmentingTemplates/deleteRegistry.xml* file contains the configuration actions. The *manageprofiles* command typically unaugments any Installation Factory customized augments when deleting a profile.

cip_app_server_root

The following list shows the default installation root directories for a customized installation package (CIP) produced by the Installation Factory.

AIX	/usr/ibm/WebSphere/ProcServer/cip/cip_uid
HP-UX	/opt/ibm/WebSphere/ProcServer/cip/cip_uid
Linux	/opt/ibm/WebSphere/ProcServer/cip/cip_uid
Solaris	/opt/ibm/WebSphere/ProcServer/cip/cip_uid
Windows	C:\Program Files\ibm\WebSphere\ProcServer\cip\cip_uid
i5/OS	/QIBM/ProdData/WebSphere/ProcServer/V61/ND/cip/cip_uid

The *cip_uid* variable is the CIP unique ID generated during creation of the build definition file. You can override the generated value in the Build definition wizard. Use a unique value to allow multiple CIPs to install on the system.

Action Type

Specifies one of the following types of configuration actions:

- Run a script
- Deploy an enterprise archive. You will only be able to deploy an EAR file to a stand-alone server.

File Name

Specifies scripts, enterprise archive files, or the configuration archive file.

Directory Path

Specifies the directory that contains scripts, enterprise archive files, or the configuration archive file.





Failure Action

Specifies what action to take if a script fails or a file cannot be loaded. The following choices are valid:

- Fatal error
- Continue

Add scripts

Opens a file browsing dialog window where you can search for and select scripts to include in the CIP. Scripts can be any of the following supported script types:

- ANT scripts (*.ant)
-  Windows batch files (*.bat)
-    Shell scripts (*.sh)

Note: On i5/OS the shell script does not have the .sh extension.

- JAR files (.jar)
- JAACL scripts (.jacl)
- Jython scripts (.py)

Note: The script that you add becomes specifically associated with the type of profile and the action (either creation or deletion) that you have selected on this panel. Hence you should select the type and event before adding the script.

Add enterprise archives

Opens a browse dialog where you can search for and select an enterprise application archive (EAR) file to include in the CIP for an application server profile.

An EAR file is an enhanced Java archive (JAR) file, defined by the J2EE standard used to deploy J2EE applications to J2EE application servers. An EAR file contains enterprise beans, a deployment descriptor, and Web archive (WAR) files for individual Web applications.

Additional files panel:

Use the additional files panel to add files and directories to the customized installation package (CIP).

Scripts can run at any of four possible times:

- CIP installation,
- CIP uninstallation,
- profile creation,

- profile deletion.

A script can call other scripts that you can include as additional files.

All additional files and directories are in the installed CIP in the `WPS_HOME/cip/cip_uid/userFiles` directory.

Add files

Browse within a configured system or within a cache of relevant files to select additional files to include in the CIP. For example, you can include one or more script files that are called by a script listed in the Profile Customization panel. When the script runs at profile creation or deletion time, the script can call other scripts that you include as additional files.

Similarly, a script listed in the Installation and uninstallation scripts panel runs at CIP installation or CIP deletion time. Such a script can call other scripts that you include as additional files.

Add directories

Browse to select additional directories to include in the CIP. You can include a directory full of scripts, for example.

Modify

Select an entry and click **Modify** to change the file path and file name or the directory path and directory name.

Remove

Removes selected files and directories from the CIP.

File Name

Identifies the file.

Directory Path

Identifies the directory where the file resides.

Authorship panel:

Use the Authorship panel to specify useful information about the customized installation package (CIP).

The person who performs the installation can view an **About this customized installation package** panel. You can provide additional information to the person performing the installation by populating the fields on the authorship panel.

Organization

Enter identifying information about your organization.

Description

Enter a description of the CIP.

Customized installation package preview panel:

The Build Definition wizard provides a summary panel to let you review all of your selections.

If you run the Build Definition wizard in connected mode, you can also start the processing engine to build the customized installation package (CIP). If you run the Build Definition wizard in disconnected mode, copy the build definition file to the target system before using the `ifcli` command to start the processing engine on the target system.

The build definition file will be created automatically when you click **Finish**. If the specified file already exists, a dialog will appear asking you to verify that you want to overwrite the file. The directory for the CIP will also be created automatically. If the specified directory already exists, a dialog will appear asking you to verify that you want to overwrite the current contents.

You can make an estimate of the size of the proposed CIP and compare that with the disk space available on the local system by clicking the **Estimate Size and Available Space** button.

Build definition file:

A build definition file is an XML file that identifies components and characteristics for a customized installation package (CIP).

Purpose

The build definition file identifies the contents of a CIP. If you use the Installation Factory graphical user interface, you do not need to edit the file. If you edit the build definition file, you should start with a sample build definition file and use a validating XML editor to make your changes. The sample build definition file is found in the `IF_root/samples/wbi` directory, where `IF_root` is the name of the directory where you unpacked the Installation Factory.

After making your changes, validate the build definition document with its XML schema (the `Common.xsd`, `BaseBuildDefinition.xsd`, and `BuildDefinition.xsd` files) using a validating XML parser or editor. Then use the command-line interface to start the processing engine and create the customized installation package. The XML schema files are in the system-specific directory:

- `AIX` `HP-UX` `UNIX` `Linux` `IF_root/bin/eclipse/plugins/com.ibm.ws.install.factory.base_6.1.0/xsd`
- `Windows` `IF_root\bin\eclipse\plugins\com.ibm.ws.install.factory.base_6.1.0\xsd`

Sample

The following sample shows some elements from one version of the build definition file. See the `IF_root/samples/wbi/SampleBuildDefinition.xml` file for a current example. Always consult the latest build definition XML schema for definitive answers to XML coding questions.

```

<basebuilddef:buildDefinition
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:basebuilddef="http://www.ibm.com/xmlns/prod/websphere/ib/basebuilddef"
xmlns:builddef="http://www.ibm.com/xmlns/prod/websphere/ib/builddef"
xmlns:common="http://www.ibm.com/xmlns/prod/websphere/ib/common"
xsi:type="builddef:BuildDefinition">
  <installFactoryVersion>
    <version>6</version>
    <release>1</release>
    <refreshPack>0</refreshPack>
    <fixPack>0</fixPack>
    <buildID>o0618.44</buildID>
  </installFactoryVersion>
  <description lang="en_US">Custom Install Package for
  WebSphere Process Server</description>
  <qualifiedVersionedPackageId>
    <offeringId>WBI</offeringId>
    <editionId></editionId>
    <installPackageId></installPackageId>
    <version>
      <version>6</version>
      <release>1</release>
      <refreshPack>0</refreshPack>
      <fixPack>1</fixPack>
    </version>
  </qualifiedVersionedPackageId>
  <modeSelection>Connected</modeSelection>
  <supportMultiPlatformsImage>>false</supportMultiPlatformsImage>
  <buildOptions>
    <targetLocation>E:\test</targetLocation>
    <overwriteWithoutWarning>>false</overwriteWithoutWarning>
  </buildOptions>
  <authorInfo lang="en_US">
    <organization>IBM</organization>
  </authorInfo>
  <packageIdentifier>
    <fullPackageIdentifier>com.ibm.ws.install.wbiserver_1.0.0.0
    </fullPackageIdentifier>
    <identifier>com.ibm.ws.install.wbiserver</identifier>
    <version>1.0.0.0</version>
  </packageIdentifier>
  <packageMergeInfo>
  <sourceFullInstallPackageLocation>
  E:\WPSImage\v6.1\installimage</sourceFullInstallPackageLocation>
  <sourceMaintenanceInstallPackages installOrder="1" maintenanceType="fixPack">
    <rootFolder>
      <whichFolderToUse>literalRootProvided</whichFolderToUse>
      <rootFolder>E:\WPSImage\v6.1\FixPack\Windows\6.1.0.1</rootFolder>
    </rootFolder>
    <relativeFolder>.</relativeFolder>
    <fileNamePattern isRegex="false">6.1.0-WS-WPS-ESB-WinX32-FP0000001.pak
    </fileNamePattern>
  </sourceMaintenanceInstallPackages>
  <interimFixes maintenanceType="interimFix">
    <rootFolder>
      <whichFolderToUse>literalRootProvided</whichFolderToUse>
      <rootFolder>E:\ICT\maintenance</rootFolder>
    </rootFolder>
    <relativeFolder>.</relativeFolder>
    <fileNamePattern isRegex="false">6.1.0.1-WS-WBI-IFJR78946.pak
    </fileNamePattern>
  </interimFixes>
  </packageMergeInfo>
  <userFiles>
    <files>
      <fileSet>
        <rootFolder>

```

```

        <whichFolderToUse>literalRootProvided</whichFolderToUse>
        <rootFolder>E:\test\<\/rootFolder>
    </rootFolder>
    <relativeFolder includeSubfolders="false">.</relativeFolder>
    <fileNamePattern isRegex="false">myFile</fileNamePattern>
</fileSet>
</files>
</userFiles>
<common:features>
    <feature>
        <featureId>
            <featureId isRegex="false">wbi.server.samples</featureId>
        </featureId>
        <selectedByDefault>>false</selectedByDefault>
        <userModifiable>>true</userModifiable>
        <hidden>>false</hidden>
    </feature>
</common:features>
</basebuilddef:buildDefinition>

```

Below is a sample CustomInstallInfo.xml for WebSphere Process Server

```

<custinstinfo:customInstallInfo
xmlns:common="http://www.ibm.com/xmlns/prod/websphere/if/common"
xmlns:custinstinfo="http://www.ibm.com/xmlns/prod/websphere/if/custinstinfo">
    <installFactoryVersion>
        <version>6</version>
        <release>1</release>
        <refreshPack>0</refreshPack>
        <fixPack>0</fixPack>
        <buildID>o0618.44</buildID>
    </installFactoryVersion>
    <common:bundle>
        com.ibm.ws.install.factory.wbiserver.cip.v61.comd.provider.wbiservercip
    </common:bundle>
    <description lang="en_US">Custom Install Package for WebSphere Process Server
    </description>
    <qualifiedVersionedPackageId>
        <offeringId>WBI</offeringId>
        <editionId></editionId>
        <installPackageId></installPackageId>
        <version>
            <version>6</version>
            <release>1</release>
            <refreshPack>0</refreshPack>
            <fixPack>1</fixPack>
        </version>
    </qualifiedVersionedPackageId>
    <offeringDisplayName>
        <messageKey>COMD.OfferingName.WPS</messageKey>
    </offeringDisplayName>
    <platformInfo>
        <common:osVendor isRegex="false">MICROSOFT</common:osVendor>
        <common:osName isRegex="false">WINDOWS</common:osName>
        <common:osVersion isRegex="false">NA</common:osVersion>
        <common:osPatchLevel isRegex="false">NA</common:osPatchLevel>
        <common:osArch isRegex="false">x86</common:osArch>
        <displayName>
            <osVendorDisplayName>
                <messageKey></messageKey>
            </osVendorDisplayName>
            <osNameDisplayName>
                <messageKey>COMD.OS.Windows</messageKey>
            </osNameDisplayName>
            <osVersionDisplayName>
                <messageKey></messageKey>
            </osVersionDisplayName>

```

```

        <osArchDisplayName>
            <messageKey>CMD.Arch.x32</messageKey>
        </osArchDisplayName>
    </displayName>
</platformInfo>
<authorInfo lang="en_US">
    <organization>IBM</organization>
</authorInfo>
<packageIdentifier>
    <fullPackageIdentifier>com.ibm.ws.install.wbiserver_1.0.0.0
    </fullPackageIdentifier>
    <identifier>com.ibm.ws.install.wbiserver</identifier>
    <version>1.0.0.0</version>
</packageIdentifier>
<buildDate>2006-06-26</buildDate>
<buildTime>15:59:44</buildTime>
<rollbackSupported>true</rollbackSupported>
<fixes>
    <fix>
        <name>6.1.0.1-WS-WBI-IFJR78946.pak</name>
    </fix>
    <folderWithinPackageForInterimFixes>custom.wbi/maintenance
    </folderWithinPackageForInterimFixes>
</fixes>
<common:features>
    <feature>
        <featureId>
            <featureId>wbis</featureId>
            <common:displayName>
                <messageKey>CMD.FeatureName.wbis</messageKey>
            </common:displayName>
        </featureId>
        <selectedByDefault>true</selectedByDefault>
        <userModifiable>false</userModifiable>
        <hidden>true</hidden>
    </feature>
    <feature>
        <featureId>
            <featureId>wbisonly</featureId>
            <common:displayName>
                <messageKey>CMD.FeatureName.wbisonly</messageKey>
            </common:displayName>
        </featureId>
        <selectedByDefault>true</selectedByDefault>
        <userModifiable>false</userModifiable>
        <hidden>true</hidden>
    </feature>
    <feature>
        <featureId>
            <featureId>wbis.itlm</featureId>
            <common:displayName>
                <messageKey>CMD.FeatureName.wbis.itlm</messageKey>
            </common:displayName>
        </featureId>
        <selectedByDefault>true</selectedByDefault>
        <userModifiable>false</userModifiable>
        <hidden>true</hidden>
    </feature>
    <feature>
        <featureId>
            <featureId>wbi.common2</featureId>
            <common:displayName>
                <messageKey>CMD.FeatureName.wbi.common2</messageKey>
            </common:displayName>
        </featureId>
        <selectedByDefault>true</selectedByDefault>
        <userModifiable>false</userModifiable>
        <hidden>true</hidden>
    </feature>

```

```

</feature>
<feature>
  <featureId>
    <featureId>wesb</featureId>
    <common:displayName>
      <messageKey>CMD.FeatureName.wesb</messageKey>
    </common:displayName>
  </featureId>
  <selectedByDefault>true</selectedByDefault>
  <userModifiable>false</userModifiable>
  <hidden>true</hidden>
</feature>
<feature>
  <featureId>
    <featureId>bpc</featureId>
    <common:displayName>
      <messageKey>CMD.FeatureName.bpc</messageKey>
    </common:displayName>
  </featureId>
  <selectedByDefault>true</selectedByDefault>
  <userModifiable>false</userModifiable>
  <hidden>true</hidden>
</feature>
<feature>
  <featureId>
    <featureId>soacore</featureId>
    <common:displayName>
      <messageKey>CMD.FeatureName.soacore</messageKey>
    </common:displayName>
  </featureId>
  <selectedByDefault>true</selectedByDefault>
  <userModifiable>false</userModifiable>
  <hidden>true</hidden>
</feature>
</common:features>
<omittedFeatures>
  <featureId>
    <featureId>wbis.samples</featureId>
    <common:displayName>
      <messageKey>CMD.FeatureName.wbis.samples</messageKey>
    </common:displayName>
  </featureId>
  <featureId>
    <featureId>bpc.samples</featureId>
    <common:displayName>
      <messageKey>CMD.FeatureName.bpc.samples</messageKey>
    </common:displayName>
  </featureId>
  <featureId>
    <featureId>wesb.samples</featureId>
    <common:displayName>
      <messageKey>CMD.FeatureName.wesb.samples</messageKey>
    </common:displayName>
  </featureId>
  <featureId>
    <featureId>soacore.samples</featureId>
    <common:displayName>
      <messageKey>CMD.FeatureName.soacore.samples</messageKey>
    </common:displayName>
  </featureId>
  <featureId>
    <featureId>wbis.brb</featureId>
    <common:displayName>
      <messageKey>CMD.FeatureName.wbis.brb</messageKey>
    </common:displayName>
  </featureId>
  <featureId>

```

```

        <featureId>wbis.brb.samples</featureId>
        <common:displayName>
          <messageKey>CMD.FeatureName.wbis.brb.samples</messageKey>
        </common:displayName>
      </featureId>
    <featureId>
      <featureId>wbis.cmm</featureId>
      <common:displayName>
        <messageKey>CMD.FeatureName.wbis.cmm</messageKey>
      </common:displayName>
    </featureId>
    <featureId>
      <featureId>wbis.cmm.samples</featureId>
      <common:displayName>
        <messageKey>CMD.FeatureName.wbis.cmm.samples</messageKey>
      </common:displayName>
    </featureId>
    <featureId>
      <featureId>wbis.javadocs</featureId>
      <common:displayName>
        <messageKey>CMD.FeatureName.wbis.javadocs</messageKey>
      </common:displayName>
    </featureId>
  </omittedFeatures>
</slipInstallInfo>
  <supportsSlipInstall>true</supportsSlipInstall>
</slipInstallInfo>
</custinstinfo:customInstallInfo>

```

Creating customized installation packages

You can create a customized installation package (CIP) either using the build definition wizard directly, or by creating a build definition file with the build definition wizard and using a command-line tool to build the CIP.

About this task

i5/OS On i5/OS, you must create a customized installation package (CIP) using the Installation Factory console on a Windows, Linux or UNIX server. You can then export the CIP to your i5/OS server and install the CIP directly or on a Windows server you can use the install GUI to install the CIP on a remote i5/OS server.

Each panel in the Build Definition wizard prompts you for information about the CIP. For example, prompts exist for the locations of maintenance packages, scripts, and other components that you can include. Another prompt requests the location for generating the CIP. All of this information is saved in the new build definition file, or modified and saved in a build definition file that you are changing.

The last wizard panel provides an option for generating a CIP that is based on the content of the build definition file that you just defined. Alternately, you can save only the build definition file, for later use with the ifcli command. In disconnected mode you do not have the option to create the CIP. The ifcli command generates the CIP outside of the Installation Factory console, perhaps even on a different machine or operating system.

i5/OS When you have completed the Build Definition wizard, save the build definition file and (if working in connected mode) create the CIP, for later installation on your i5/OS server.

Procedure

1. Create a new, or edit an existing, build definition file using the build definition wizard.
2. Choose to create the CIP, or choose to save only the new or modified build definition file.

In general it is advantageous to have the CIP available, so you should select the option to create the CIP. Select **Save build definition file and generate customized installation package** rather than the default **Save build definition file only**.

Note: If you are working in disconnected mode you will not have the option to create the CIP.

i5/OS Choose to create the CIP.

3. If you choose not to create the CIP, transfer the build definition file to the target server and use the ifcli command on the target server to create a CIP from your build definition file.
4. **i5/OS** Transfer the CIP to the target server and install it directly.

Creating a customized installation package to use on the processing engine machine

The installation factory allows you to create customized installation packages for use on the local machine or for other servers. The process for creating a CIP on the machine which hosts the build definition wizard is described.

Before you begin

You must be working on a machine which has both the IBM Installation Factory for WebSphere Application Server and the Installation Factory for WebSphere Process Server plugin installed.



About this task

Use the following procedure to create the build definition file and the customized installation package on one machine.

Procedure

1. Mount or access the product installation image for your operating system. Ensure that the product media (CD or DVD) with the WebSphere Process Server installation image is accessible from the machine on which you are working. You need the installation image to create the customized installation package.
2. Download maintenance packages. Locate download packages for WebSphere Process Server on the following Web site: Recommended updates for WebSphere Process Server.
3. Start the Installation Factory console with the ifgui script.
 - **AIX** **HP-UX** **Linux** **Solaris** Use the `IF_root/bin/ifgui.sh` script.
 - **Windows** Use the `IF_root\bin\ifgui.bat` script.

4. Create a new build definition or edit an existing build definition.

Option	Description
Create a new build definition file 	Click the button for a New build definition file. From here the Installation Factory launches two wizards in sequence. The two wizards are the Product Selection wizard and the Build Definition wizard.
Open an existing build definition file 	Click the button to Open an existing build definition file. Opening an existing build definition starts the Build Definition wizard only. If you must change the product, start a new build definition.

5. Select **Connected mode** so that you can create a customized installation package later in addition to creating the build definition file. Browse to select the installation image directory and the maintenance package files.
6. Provide all required parameters to identify the product, installation image, maintenance packages, the enterprise archive file, other files and directories, scripts, the output location for the build definition file, and the output location for the customized installation package (CIP).
7. Select the Save build definition file and generate customized installation package option. Select **Save build definition file and generate customized installation package** rather than the default **Save build definition file only**.
8. Click **Finish** to generate the CIP.
 The amount of time required to generate the CIP depends on the number of maintenance packages and the number of features that you include in the package.
 The Installation Factory logs a completion message in the /logs/log.txt file when the processing engine is finished.
9. You can install the customized installation package using the InstallShield MultiPlatform (ISMP) Installation wizard that is included in the CIP. Panels in the CIP Installation wizard vary according to the product that you are installing. The Installation wizard for WebSphere Process Server is the install command in the *CIP_directory/WBI* directory.
10. Create a CIP-based custom stand-alone server profile in one of the following ways.

Option	Description
Using the profile management tool	After the CIP installation, run the Profile management tool. Note: You can only augment the profile if the CIP contains no profile customizations, or if the CIP does contain profile customizations but you elect not to use them.

Option	Description
Using the <code>manageprofiles</code> command	<p>After the CIP installation run the <code>manageprofiles</code> command to create and optionally augment a server profile. You can do this by running the command once (create and augment) or twice (create then augment).</p> <p>Note: You can only augment the profile if the CIP contains no profile customizations, or if the CIP does contain profile customizations but you elect not to use them.</p>
Using the CIP installation wizard	<p>If you are using a CIP to create a new installation, not an upgrade or patch, you can create the server profile by doing the following:</p> <ol style="list-style-type: none"> 1. On the Feature selection panel, select the Install profile customizations checkbox. 2. On the Environment selection panel, select a profile that has profile customization defined. If the profile that you select has profile customization defined, then the installation wizard will effectively run the <code>manageprofiles</code> command once to do a create and augment. If there is no profile customization defined, you get a regular profile.

In some cases, you might be unable to use the Installation Factory console on the target operating system platform. For instance, on certain platforms the `ifcli` command is supported but the `ifgui` command is not. You have two options in such a case:

- Use the console in disconnected mode on a supported machine to create a build definition file for the target operating system on another machine.
Copy the file to the target operating system and use the command line interface to start the processing engine and create the customized installation package.
See the related tasks for a fuller description of this process.
- Create the build definition XML document using a validating XML editor.
Copy one of the sample build definition documents from the `IF_root/samples/wbi` directory to get started.
After making your changes, validate the build definition document with its XML schema (the `Commom.xsd`, `BaseBuildDefinition.xsd`, and `BuildDefinition.xsd` files) using a validating XML parser or editor. Then use the command line interface to start the processing engine and create the customized installation package.

Creating build definition files for use on a remote system

In some instances it is necessary or convenient to create a build definition file on one machine for use on another machine. The build definition file is the precursor to the customized installation package (CIP). To install a CIP on an i5/OS server, create the build definition file and CIP on a Windows, Linux or UNIX server in connected mode. The CIP can then be exported either to the i5/OS server or to a Windows server and installed on the i5/OS server from there.

Before you begin

You must have downloaded and unpacked the IBM Installation Factory for WebSphere Process Server on the server machine which will be used to create the customized installation package.

About this task

Use the following procedure to create the build definition file and the associated CIP and complete the installation on a different server. For simplicity we will refer to the machine on which you intend to install the customized installation package as the “target system”, and the machine on which you will create the build definition file as the “processing engine”.

Procedure

1. Mount or access the product installation image for your target system’s operating system.

If you intend to work in connected mode, ensure that the product media (CD or DVD) with the WebSphere Process Server installation image is accessible from the processing engine.

You need to know the location of the image so that you can create a build definition file that points to the image.

Write down the mount point or the storage location so that you can provide the storage location to the Build Definition wizard that is running on the processing engine.

2. Download to your processing engine the maintenance packages for the target system’s operating system.

Locate download packages for WebSphere Process Server on the following Web site: Recommended updates for WebSphere Process Server.


Refresh pack ZIP files and fix pack ZIP files are bundled with the Update Installer for WebSphere Software. Extract the file to expose the maintenance package (*.pak) file in the updateinstaller/maintenance directory.


Write down the storage location of the downloaded maintenance package so that you can provide the location to the Build Definition wizard that is running on the processing engine.

3. Start the Installation Factory console on the processing engine with the ifgui script.

- **AIX** **HP-UX** **Linux** **Solaris** Use the `IF_root/bin/ifgui.sh` script.
- **Windows** Use the `IF_root\bin\ifgui.bat` script.

4. Create a new build definition or edit an existing build definition.

Option	Description
 Create a new build definition file	Click the button for a New build definition file. From here the Installation Factory launches two wizards in sequence. The two wizards are the Product Selection wizard and the Build Definition wizard.

Option	Description
	Click the button to Open an existing build definition file. Opening an existing build definition starts the Build Definition wizard only. If you must change the product, start a new build definition.

5. Select **Connected mode** and then select the operating system of your target system from the list.
6. Provide all required parameters to identify the product, installation image, maintenance packages, the enterprise archive file, other files and directories, scripts, the output location for the build definition file, and the output location for the customized installation package (CIP).
7. Select the option to create both the CIP and the build definition file. Select **Save build definition file and generate customized installation package** rather than the default **Save build definition file only**.
8. Click **Finish** to save the build definition and create the CIP on the processing engine.
9. Copy the CIP to the target system.
10. i5/OS Alternatively you can install the CIP onto i5/OS directly from a Windows server. See the related task: Installing a CIP on System i using a Windows workstation graphical interface.
11. On the target system install the customized installation package using the InstallShield for Multiplatforms (ISMP) Installation wizard that is included in the CIP.

Panels in the CIP Installation wizard vary according to the product that you are installing. The Installation wizard for WebSphere Process Server is in the WBI directory and is named:

- AIX HP-UX Linux Solaris `install`
- Windows `install.bat`

The ifcli command

The ifcli command-line tool invokes the Installation Factory processing engine for a specified build definition file. The processing engine then creates a customized installation package (CIP).

Purpose

The ifcli command-line tool takes a build definition XML file as input and invokes the Installation Factory processing engine. The processing engine interprets the XML file, locates the product source files and maintenance packages, and then creates a customized installation package (CIP).

Location

The command file is located in the /bin directory of the directory where you unpack the Installation Factory. The command file is a script named:

- HP-UX Linux AIX Solaris `ifcli.sh`
- Windows `ifcli.bat`

Logging

The `ifcli` command creates a build log file that shows whether the customized installation image is produced successfully. When the CIP is not successfully built, examine the trace file to determine what is wrong.

The following files record CIP creation data:

- `trace.xml` is a detailed trace log in XML format
- `log.txt` is the log file.

The tracing and logging output and level are configurable as described in the `logLevel` and `traceLevel` parameters.

Syntax for `ifcli.sh`

AIX

HP-UX

Linux

Solaris

To display help:

```
./ifcli.sh -help
```

To create a customized installation package:

```
./ifcli.sh -buildDef build_definition_file  
-silent  
-logLevel log_level  
-logFile log_file_path_name  
-traceLevel trace_level  
-traceFile trace_file_path_name
```

Syntax for `ifcli.bat`

Windows

To display help:

```
.\ifcli.bat -help  
.\ifcli.bat -?
```

To create a customized installation package:

```
.\ifcli.bat -buildDef build_definition_file  
-silent  
-logLevel log_level  
-logFile log_file_path_name  
-traceLevel trace_level  
-traceFile trace_file_path_name
```

Parameters

Supported arguments include

Windows `-?`

Shows usage information.

`-help`

Shows usage information.

`-buildDef` *build_definition_file*

Identifies the build definition file created by the Build Definition wizard.

`-logFile` *log_file_path_name*

Identifies the log file. The default value is `current_working_directory/logs/log.txt`.

`-logLevel` *log_level*

Sets the level for logging of messages. Valid values for *log_level* are:

- ALL
- CONFIG
- INFO
- WARNING
- SEVERE
- OFF (Turns off logging)

The default value is INFO.

-silent

Specifies that the processing engine runs in silent mode, without displaying results to the console.

-traceFile *trace_file*

Identifies the trace file. The default value is *current_working_directory/logs/trace.xml*.

-traceLevel *trace_level*

Sets the level of tracing. Valid values for *trace_level* are:

- ALL
- FINE
- FINER
- FINEST
- OFF (Turns off tracing).

The default value is OFF.

Usage

Use the `ifcli` command to create a customized installation package for a WebSphere Process Server product from a build definition file.

Validating the underlying WebSphere Application Server installation

The WebSphere Process Server CIP cannot be installed on your system unless a WebSphere Application Server Network Deployment customized installation package (CIP) is available at the same directory level as the WebSphere Process Server CIP and the WebSphere Application Server CIP must be at the correct fix pack level.

The WebSphere Process Server CIP requires a WebSphere Application Server Network Deployment CIP, which is necessary to umbrella install (or slip install) the underlying WebSphere Application Server Base or WebSphere Application Server Network Deployment when the WebSphere Process Server CIP is installed.

A WebSphere Application Server Network Deployment installation image is included as part of the WebSphere Process Server product to allow you to build CIPs directly from your product media.

You can use your Installation Factory tools to create the WebSphere Application Server Network Deployment CIP that you need to install the WebSphere Process Server CIP. See the WebSphere Application Server documentation for more information on creating and installing WebSphere Application Server Network Deployment CIPs.

The WebSphere Application Server Network Deployment CIP must be at the correct fix pack level. The required fix pack level is reported in a message dialog in one or more of three instances:

- You click **Next** on the Maintenance packages panel
- You elect to save and build the CIP on the last panel of the Installation factory GUI.

The following information is provided in the message dialog:

- The required version of the WebSphere Application Server Network Deployment CIP. The version requirements are established from the fix packs, and interim fixes in addition to the WebSphere Process Server requirements.
- The fact that the sample features must be included in the WebSphere Application Server Network Deployment CIP.

Installing customized installation packages: task roadmap

There are several methods that you can use to install a customized installation package.

The customized installation package (CIP) is treated in much the same way as any installation image. This means that you can follow the installation routes of a regular installation when installing a CIP.

You can install the CIP in a variety of ways:

- Interactively using the WebSphere Process Server installer to create a new installation.
- Silently using a response file.
- Interactively using the WebSphere Process Server installer to add maintenance to an existing installation.
- In a trade-up from a lower level product to a higher level.

Installing a customized installation package interactively

Install a customized installation package (CIP) using the Installation wizard on distributed operating system platforms. You install from a CIP image created with the Installation Factory.

Before you begin

You can install a customized installation package (CIP) that includes a WebSphere Process Server product and one or more maintenance packages and other customizations. You must create a CIP with the IBM Installation Factory before you can install the CIP. See *Creating a customized installation packages* for more information about generating customized installation packages (CIPs).

- The steps required to install a CIP interactively are the same as for a conventional installation. See “Installing WebSphere Process Server interactively” on page 79 for the required steps.
- On the Welcome panel an additional **About this customized installation package** button is displayed when you are installing a CIP. Click the button to see the detailed information about the CIP, including:
 - the version of the Installation Factory used to create the CIP,
 - the package and version of the product that the CIP will install,
 - the build time and date of the CIP,
 - a list of features and interim fixes,

- the operating system on which the CIP can be installed,
- whether slip installation is supported
- any organization or description that the creator added on the Authorship panel.

Results

You have started the installation wizard, accepted the licensing agreement, checked prerequisites, and identified any existing installations of WebSphere products that could impact your installation. You have also chosen the type of installation you want to perform (Typical, Deployment environment, or Client).

What to do next

Continue your installation by following the instructions from the appropriate link depending on the choices you have made.

Installing a CIP on System i using a Windows workstation graphical interface

On System i, you can install your WebSphere Process Server CIP from a Windows workstation graphical user interface (GUI).

Before you begin

This topic assumes that you have a CIP image created using the Installation Factory, that the target operating system of the CIP is i5/OS and that you want to install the product from the CIP. See “Creating customized installation packages” on page 257 for more information on generating the CIP.

A WebSphere Process Server CIP being installed from a Windows workstation to an i5/OS system cannot be used to upgrade, add features to, or apply maintenance to an existing WebSphere Process Server install. The WebSphere Process Server CIP must be run using a local silent install from the i5/OS system in these cases.

About this task

When you run the GUI installation tool, you specify installation options interactively during the installation process.

Use this procedure to install WebSphere Process Server on i5/OS from a CIP with the GUI installation program:

Procedure

1. If TCP/IP is not started or if you don't know if TCP/IP is started, enter the Start TCP/IP (STRTCP) command on the Control Language (CL) command line.
2. Verify that the host server jobs are started on your System i server. The host server jobs allow the installation code to run on System i.
Enter this command on a CL command line:
`STRHOSTSVR SERVER(*ALL)`
3. Verify that your user profile has the *ALLOBJ and *SECADM special authorities.
4. Place the CIP for i5/OS disc in the disc drive of your Windows workstation. The autorun feature brings up the launchpad.

Do not use the IBM WebSphere Process Server Windows disc or any other operating system platform disc from the product package.

5. Enter the name of the i5/OS server where you are installing WebSphere Process Server and your corresponding i5/OS login information, then click **OK**.

You also must enter a valid user ID and password for the server. Your profile must have *ALLOBJ and *SECADM special authorities for this step.

6. On the Welcome panel, click **Next**.
7. On the next panel, if you accept the terms of the license agreement, select **I accept the terms in the license agreement**, then click **Next**. If you do not accept the terms of the license agreement, you cannot continue with the installation.
8. The system prerequisites check verifies that your server meets the minimum requirements to install the product. If the prerequisites are met, click **Next**. If the prerequisites are not met, you can continue the installation. However, it is recommended that you exit the installation wizard and make the required changes.
9. On the Installation type panel, select the type of installation you want to perform and click **Next**.

The installation wizard provides a choice of installation paths (not all might appear based on selections you made on previous panels). The next step depends on the type of installation you want and (in the case of the WebSphere Process Server Client) on whether you are installing over an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment.

Installation type	Next step
<p>Typical Installation (the default): installs WebSphere Process Server and WebSphere Application Server Network Deployment using default installation selections and configurations. You can also create a stand-alone server, deployment manager, or custom profile.</p> <p>Important: If you create a typical install and select a stand-alone server and you turn on security, then a Business Process Choreographer sample configuration is created. If security is turned off then no Business Process Choreographer sample configuration is created. If you decide at a later date to federate this server, you must remove any Business Process Choreographer sample configuration that was created.</p>	<p>The Features selection panel is displayed. Go to the topic “Installing WebSphere Process Server and creating a profile interactively” on page 84.</p>
<p>Deployment Environment Installation: installs WebSphere Process Server and WebSphere Application Server Network Deployment, and guides you through setting up a deployment environment. You can choose to create a deployment manager based on a deployment environment pattern or continue to define a deployment environment that you have already created.</p>	<p>The Features selection panel is displayed. Go to the topic “Installing WebSphere Process Server with a deployment environment interactively” on page 90.</p>

Installation type	Next step
<p>Client Installation: installs the WebSphere Process Server Client and can install WebSphere Application Server Network Deployment. It allows you to run client applications that interact with WebSphere Process Server within the same cell.</p>	<p>The panel that is displayed depends on whether or not you are installing over an existing installation of WebSphere Application Server (either base or Network Deployment):</p> <ul style="list-style-type: none"> • If you are <i>not</i> installing over an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment, the Installation location panel is displayed. Go to the topic “Installing the WebSphere Process Server Client interactively” on page 101. • If you <i>are</i> installing over an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment, the Installation summary panel is displayed. Go to the topic “Installing the WebSphere Process Server Client interactively” on page 101.

10. On the next panel, select features to install and click **Next**.

A CIP might not have the Samples feature. You can install only what was included in the CIP.

11. The next panel displays the product installation root directory, the default profile location, and the product library name. Accept or change these values, then click **Next**.

The product installation root directory for WebSphere Process Server for i5/OS contains the core product files. It is referred to in many information center examples as the *app_server_root*.

The default profile location for WebSphere Process Server for i5/OS contains the configurable files for the profile. This directory is referred to in many information center examples as the *user_data_root*. The default profile location is the directory under which the profile registry and profiles directory are created. The default profile is created under *user_data_root/profiles/default*. The profile registry is created under *user_data_root/profileRegistry*.

The product library is often spelled out in information center examples, but it might also be referred to as the *product_library*

12. On the next panel, select the type of WebSphere Process Server profile to create after the installation of the core product files, then click **Next**.

Choose one of the following profile types:

- Deployment manager

The deployment manager provides a single administrative interface to a logical group of application servers on one or more machines.

- Stand-alone server

A stand-alone server profile has a default server, the default application that includes the Snoop servlet and the HitCount servlet, and application Samples. You can federate the stand-alone server or use it as a stand-alone server.

- Custom

A custom profile is an empty node that you must customize to include application servers, clusters, or other Java processes such as a messaging server.

13. On the next panel, choose whether to enable administrative security. If enabled, specify a user name and password to access the administrative tools. Click **Next** to continue.
The user ID and password do not need to be a system user ID and password or an LDAP user ID and password. The ID-and-password pair specified are stored in the user registry and used for administrative security for the default profile.
14. On the next panel, verify that the summary information is correct. If not, click **Back** to change your specifications. If the summary information is correct, click **Next** to install WebSphere Process Server for i5/OS.
The InstallShield program displays messages that indicate the status of the installation and a status bar to show the progress of the installation.
After the installation runs, the Configuration Manager progress panel is displayed. The configuration manager performs post-installation tasks and creates the default profile.
After the installation process is complete, the summary panel displays the results of the installation process and links to additional information about the product.
15. Click **Finish** to close the InstallShield program.
16. For security purposes, if the host servers were not running prior to installation, it is recommended that you run the End Host Server (ENDHOSTSVR) command after the installation is complete

Results

This procedure results in installing the product from a Windows workstation GUI.

What to do next

Go to “Installing customized installation packages: task roadmap” on page 265 to continue the installation.

Installing a customized installation package silently

Installing a customized installation package (CIP) using silent installation refers to using a response file to supply installation options without user interaction. To configure the installation, change the options in the response file before you issue the installation command. Silent installation mode does not accept interactive installation options. To specify non-default options during a silent installation, you must edit the response file in advance. To install silently, you must accept the license agreement in the agreement option.

Before you begin

- Make sure that you have reviewed the list of prerequisites for installing the product at Chapter 4, “Prerequisites for installing WebSphere Process Server,” on page 37.
- Make sure that you are logged in as an administrator when security and role-based authorization are enabled. Security is enabled by default during silent installation. To disable security change the **PROF_enableAdminSecurity** value in the response file to “false”.

Note: If you select to create a stand-alone server profile during a Typical installation and enable security, the installer creates a sample Business Process Choreographer configuration for the profile. If you do not enable security, the



sample configuration is not created. If you plan to federate the stand-alone server to a deployment manager, you will first have to delete this sample configuration.

About this task

You can install a customized installation package (CIP) that includes WebSphere Process Server and one or more maintenance packages and other customizations. The Installation Factory must create a CIP before you can install it. See *Developing and installing customized installation packages* for more information about creating a customized installation package (CIP).

A silent installation uses the installation wizard to install the product in silent mode, without the graphical user interface. Instead of displaying a wizard interface, the silent installation causes the installation program to read all of your responses from a file that you provide.

Use this procedure to perform a silent installation of the product.

1. Log on to the operating system.
2.   **On Linux and UNIX platforms:** After inserting a DVD into a drive, some Linux and UNIX operating systems require you to mount the drive.
3. Copy the sample response file `responsefile.wbis.txt` from the WBI directory of the CIP to a place that you can easily identify on your system and save it with a new name, such as `myoptionsfile.txt`.
4. Edit the file using a flat file editor of your choice, on the target operating system, to customize it with the parameters for your system. Read the directions contained within the response file to choose appropriate values for all of the options you must set for your specific silent installation.

You can modify all of the parameters in the response file, but pay attention the following options and values:

Important: Make sure that you change the License Acceptance statement in the file to a value of "true". Leaving it with a value of "false" causes the installation to fail.

For example, the License Acceptance should be: `-OPT silentInstallLicenseAcceptance="true"`

- Change the value of the `wpsInstallType` option to designate one of the following types of installation:
 - "typical" - a full installation of WebSphere Process Server that allows you to define an initial WebSphere Process Server environment of stand-alone server, deployment manager, custom or none.
By default, the Installation Type Settings in `responsefile.wbis.txt` are set for a typical installation: `-OPT wpsInstallType="typical"`
 - "client" - a partial installation of WebSphere Process Server that allows you to run client applications that interact with a process server within the same cell.

To create an operational WebSphere Process Server client environment, don't select any of the optional features (such as samples and Javadoc) and don't create a profile as part of the installation. Doing so will cause the installation to fail. For an example of how to create a client installation, see the example response file.

- "ndGuided" - a full installation of WebSphere Process Server that guides you through setting up a deployment environment, creating a deployment manager based on a deployment environment pattern or defining a deployment environment that you have previously created.
- For a typical installation you must have a profile to create an operational WebSphere Process Server environment. You can create a profile silently by specifying certain values in your response file that will create a profile during the installation process. Change the value of the option profileType to one of the following values:
 - deploymentManager - creates a profile with a deployment manager. For example:
-OPT profileType="deploymentManager"
 - standAlone - creates a profile with a stand-alone server. For example:
-OPT profileType="standAlone"
 - custom - creates a profile with an empty node, which you can configure after installation.
-OPT profileType="custom"
 - none - does not create a profile during installation. Use this value if you do not want to create a profile during the silent installation process. After installation, you will need to run the Profile Management Tool in order to create a profile.
-OPT profileType="none"

Note: If you want to create a profile for an existing installation, comment out the -OPT installType="installNew" section of your response file, remove the comments from the -OPT createProfile section of the response file, and change the value of the option-createProfile to true. For example:

```
#-OPT installType="installNew"
-OPT createProfile="true"
```

For more information about creating profiles silently, see "Creating profiles using the manageprofiles command" on page 168.

- If you designated a deployment environment installation (-OPT wpsInstallType="ndGuided"), you must designate additional options to define that installation. Change the value of the ndGuidedInstallType option to one of the following values:
 - deploymentManager - guides you through the creation of a deployment manager in order to create a new deployment environment based on the pattern that you choose. For example:
-OPT ndGuidedInstallType="deploymentManager"

If you use the deploymentManager value, you must change several other values in the response file to further define the creation of the deployment manager server during the silent installation.

- additionalRoles - guides you through the creation of a custom profile on a deployment environment that you have already defined. You must be able to connect to the running deployment manager on that deployment environment. For example:
-OPT ndGuidedInstallType="additionalRoles"

For more information about the deployment environment, see Planning considerations and Implementing a deployment environment

Note: You can always go back to the *WebSphere Process Server V6.1 DVD* in the WBI directory to view the example response file `responsefile.wbis.txt` and review the default options and values.

5. Save your changes in your copy of the response file.
6. Run the command to install WebSphere Process Server using your custom response file. The commands shown assume that you have copied your response file into a temporary directory and renamed it as `myoptions.txt` before customizing the file.

Run the following command from either the *WebSphere Process Server V6.1 DVD* or from the temporary location where you have saved the contents of the electronic image from *Passport Advantage* or *WebSphere Process Server V6.1 Disk 1* and *WebSphere Process Server V6.1 Disk 2*.

- **Linux** **UNIX** **On Linux and UNIX platforms:** `install -options /tmp/WBI/myoptions.txt -silent`
- **Windows** **On Windows platforms:** `install.bat -options "C:\temp\WBI\myoptions.txt" -silent`

To silently install a CIP on an existing installation, you must edit your response file.

Set the `installType` option to `installAndPatch`, or equivalently to `addFeature`.

The other option to set is `if_cip_modifyexistinginstall` which can have values: `maintenanceOnly` which will only install product binaries and will not perform any profile customization or `customizationAndMaintenance` which will perform any profile customizations in addition to installing the product binaries.

Results

The installation wizard and the Profile Management tool record records installation events in the following log files:

Table 24.

Log	Content	Indicators
<code>app_server_root /logs/wbi/install/log.txt</code>	Logs all installation events	Return code - Meaning 0 - Success 1 - Failure 2 - Partial Success
<code>app_server_root /logs/manageprofiles/profile_name_create.log</code> <code>user_data_root/profileRegistry/logs/manageprofiles/create.log</code>	<ul style="list-style-type: none"> • Traces all events that occur during the creation of the named profile • Created when using the Profile Management tool or the <code>manageprofiles</code> command 	INSTCONFFAIL - Total profile creation failure. INSTCONFSUCCESS - Successful profile creation. INSTCONFPARTIALSUCCESS - Profile creation errors occurred but the profile is still functional. Additional information identifies the errors.

Table 24. (continued)

Log	Content	Indicators
<p><i>app_server_root</i> /logs/manageprofiles/ profile_name_delete.log <i>user_data_root</i>/profileRegistry/logs/ manageprofiles/delete.log</p>	<ul style="list-style-type: none"> Traces all events that occur during the deletion of the named profile Created when using the Profile Management tool or the manageprofiles command 	<p>INSTCONFFAIL - Total profile deletion failure.</p> <p>INSTCONFSUCCESS - Successful profile deletion.</p> <p>INSTCONFPARTIALSUCCESS - Profile deletion errors occurred but the profile is still deleted. Additional information identifies the errors.</p>
<p><i>app_server_root</i> /logs/wbi/install/ installconfig.log.gz</p>	<ul style="list-style-type: none"> Logs the activities of ANT configuration scripts that run at the end of the installation procedure Gzip file 	<p>Configuration action failed: Unsuccessful ANT script configuration.</p> <p>Configuration action succeeded: Successful ANT script configuration.</p>

Running a customized installation package interactively to add maintenance to an existing WebSphere Process Server installation: basic steps

There are several options for installing a customized installation package (CIP) that includes WebSphere Process Server and one or more maintenance packages. You can use the CIP Installation wizard to install features that are included in the CIP. The Installation wizard also installs maintenance packages that are included in the CIP. The steps that are common to each of the possible use-case scenarios are presented.

Before you begin

You must log onto the system with appropriate permissions to install the custom install package. There must be at least one installation of WebSphere Process Server on the target system.

About this task

When you have created your CIP it will be stored as a compressed file in the directory (*CIP_directory*) that you indicated on the Build Information panel of the Build Definition wizard. The *CIP_directory* has two subdirectories: WBI and custom.wbi.

Before you can install your WebSphere Process Server CIP, you must create a WebSphere Application Server Network Deployment CIP. The *WAS_ND_CIP_directory* contains the following directories:

- WAS
- custom
- JDK

The following steps are common to each of the subsequent tasks, and must be undertaken before moving on to the specific installation scenario you have in mind.

Procedure

1. Copy the WBI and custom.wbi to the WebSphere Application Server Network Deployment CIP directory *WAS_ND_CIP_directory*. When you have completed this step, *WAS_ND_CIP_directory* contains the following subdirectories:
 - custom.wbi
 - WBI
 - WAS
 - custom
 - JDK

If you have the WebSphere Process Server product media, and the version of the WebSphere Application Server Network Deployment CIP reported in the message about required maintenance level is lower than the version on the product media you can simply copy the WBI and custom.wbi directories to the WebSphere Application Server Network Deployment CIP directory of the install image. This overwrites the existing WBI directory.

2. Commence the installation of your WebSphere Process Server custom install package.

Start the installation directly with the install command.

- a. Change to the *WAS_ND_CIP_directory*/WBI directory
- b. Issue the install command:

- AIX HP-UX Linux Solaris UNIX ./install
- Windows install.bat

After launching the CIP installation wizard from the command line, the wizard initializes and displays the Welcome panel. Click **About this custom installation package** to display detailed information about the current customized installation package, such as the edition and version.

3. Move on to the License panel. Click **Next** on the Welcome panel.
4. Read the license agreement and accept its terms.

Click **I accept both the IBM and the non-IBM terms** to agree to the license agreement and click **Next** to continue.

After you accept the licensing terms, the installation wizard checks for a supported operating system and prerequisite patches. If you encounter a problem such as not having the right prerequisite updates on your system, cancel the installation, make the required changes, and restart the installation.

Although the installation wizard checks for prerequisite operating system patches with the prereqChecker application, review the prerequisites on the supported hardware and software web site if you have not already done so.

The Web site lists all supported operating systems and the operating system fixes and patches that you must install to have a compliant operating system.

Refer to the documentation for non-IBM prerequisite and corequisite products to learn how to migrate to their supported versions.

5. Complete the prerequisite check and move on to the Detect existing copy panel. Click **Next** when the system prerequisite check is complete.
6. Check for previous versions of the product.

The installation wizard checks for a previous installation at the same major product level.

If the wizard detects a previous installation, it displays the Existing installation panel. For this task it is assumed that a previous installation exists and that you are adding features with an incremental installation.

The CIP wizard detects all WebSphere Process Server installations. You can use a CIP to do cross product installation. However, you cannot use a CIP to add features to a different product installation. For example, a WebSphere Process Server CIP cannot be used to add features to an installation of WebSphere Enterprise Service Bus.

7. Choose to apply maintenance and add features to an existing copy of WebSphere Process Server.

Click **Apply maintenance and add features to an existing copy of WebSphere Process Server**, then select the existing installation from the list. System prerequisite checking is performed on the selected installation.

What to do next

Completing the steps described in this task is insufficient to install the CIP, and you must follow the steps in one of the sub-topics to complete your installation. Choose the sub-topic which matches your installation plans and follow the steps described therein.

Slip installation:

A slip installation involves moving an existing WebSphere Process Server installation to a higher maintenance level of WebSphere Process Server with or without additional features.

If you have an existing installation of WebSphere Process Server at a certain maintenance level, you can use a customized installation package (CIP), which contains an installation of WebSphere Process Server at a higher maintenance level, to move your installation to this higher maintenance level. Such an installation is referred to as a slip installation.

A slip installation can optionally include fix packs and additional features.

i5/OS Slip installation is not supported on a remote i5/OS system. In this case a local silent installation must be performed.

Completing the installation of a CIP to augment an existing WebSphere Process Server installation:

When you have completed the core steps for augmentation of an existing installation, complete the process of augmentation by performing this task.

Before you begin

This task is a continuation of the information provided in the topic “Running a CIP interactively to augment an existing WebSphere Process Server installation”. Do not commence this task until you have completed the prerequisite task.

About this task

Perform the following steps immediately after completing the task: “Running a CIP interactively to augment an existing WebSphere Process Server installation”. The Features panel of the CIP installation wizard should be on-screen.

Procedure

1. Do not choose any additional features on the Features panel. Installation routes which include additional features are discussed elsewhere. Simply click **Next**.
2. Review the installation information on the Installation preview summary panel. If the summary information does not match with your needs, stop the installation process and start again.
3. Start the installation. If the information on the Installation preview summary panel is correct, start the installation by clicking **Next**.
4. Track the process of the installation on the progress indicator.
5. When the installation finishes the Installation complete panel is displayed. Inspect the panel to ensure that the installation completed successfully.

Results

A backup for the CIP will be created in the *WPS_HOME/properties/versions/nif/backup* directory. You can use the update installer to slip-uninstall the CIP, to restore the system to its pre-slip-install state (e.g. to a previous version of WebSphere Process Server).

Slip WebSphere Process Server installation - with no additional features:

When you have completed the core steps for augmentation of an existing installation, complete the process of augmentation by completing this task.

Before you begin

This task is a continuation of the information provided in the topic “Running a CIP interactively to augment an existing WebSphere Process Server installation”. Do not commence this task until you have completed the prerequisite task.

About this task

Perform the following steps immediately after completing the task: “Running a CIP interactively to augment an existing WebSphere Process Server installation”. In the case where the CIP does not contain any additional features (compared to the features included in the existing installation), the Features panel of the CIP installation wizard should be on-screen with all available features selected and disabled. **Install Maintenance Updates contained in this installation** is selected and disabled.

Procedure

1. Click **Next** on the Features panel.
2. Review the installation information on the Installation preview summary panel. If the summary information does not match with your needs, stop the installation process and start again.
3. Start the installation. If the information on the Installation preview summary panel is correct, start the installation by clicking **Next**.
4. Track the process of the installation on the progress indicator.
5. When the installation finishes the Installation complete panel is displayed. Inspect the panel to ensure that the installation completed successfully.

Results

A backup for the CIP will be created in the *WPS_HOME/properties/version/nif/* backup directory. You can use the update installer to slip-uninstall the CIP, to restore the system to its pre-slip-install state (e.g. to a previous version of WebSphere Process Server).

Slip WebSphere Process Server installation - with one or more additional features:

When you have completed the core steps for augmentation of an existing installation, complete the process of augmentation by completing this task.

Before you begin

This task is a continuation of the information provided in the topic “Running a CIP interactively to augment an existing WebSphere Process Server installation”. Do not commence this task until you have completed the prerequisite task.

About this task

Perform the following steps immediately after completing the task: “Running a CIP interactively to augment an existing WebSphere Process Server installation”. The Features panel of the CIP installation wizard should be on-screen.

Procedure

1. Choose the additional features to install on the Features panel. Select the additional features that you want to be installed as part of the installation and click **Next**.
2. Review the installation information on the Installation preview summary panel. The features section of the summary will list the additional features and interim fixes that you are about to install. Features that are already installed are not listed. If the summary information does not match with your needs, stop the installation process and start again.
3. Start the installation. If the information on the Installation preview summary panel is correct, start the installation by clicking **Next**.
4. Track the process of the installation on the progress indicator.
5. When the installation finishes the Installation complete panel is displayed. Inspect the panel to ensure that the installation completed successfully.

Results

A backup for the CIP will be created in the *WPS_HOME/properties/version/nif/* backup directory. You can use the update installer to slip-uninstall the CIP, to restore the system to its pre-slip-install state (e.g. to a previous version of WebSphere Process Server).

Slip WebSphere Process Server installation - existing installation has interim fixes:

When you have completed the core steps for augmentation of an existing installation, complete the process of augmentation by completing this task.

Before you begin

This task is a continuation of the information provided in the topic “Running a CIP interactively to augment an existing WebSphere Process Server installation”. Do not commence this task until you have completed the prerequisite task.

About this task

Perform the following steps immediately after completing the task: “Running a CIP interactively to augment an existing WebSphere Process Server installation”. The Features panel of the CIP installation wizard is skipped when no additional features are included in the CIP. The Installation preview summary panel will be on screen.

Procedure

1. Review the installation information on the Installation preview summary panel. A message at the top of the panel warns you that the interim fixes (listed) will be uninstalled when you install the CIP. Any of these interim fixes that are not included in the CIP, will need to be re-installed separately after the installation of the CIP is complete.
2. Start the installation. If the information on the Installation preview summary panel is correct, start the installation by clicking **Next**.
3. Track the process of the installation on the progress indicator. The uninstallation of the interim fixes is also included in the progress indicator.
4. When the installation finishes the Installation complete panel is displayed. Inspect the panel to ensure that the installation completed successfully.

Results

A backup for the CIP will be created in the *WPS_HOME/properties/version/nif/update/* directory. You can use the update installer to slip-uninstall the CIP, to restore the system to its pre-slip-install state (e.g. to a previous version of WebSphere Process Server).

Slip WebSphere Process Server installation - CIP is missing some features and cannot be updated:

When you have completed the core steps for augmentation of an existing installation, complete the process of augmentation by completing this task.

Before you begin

This task is a continuation of the information provided in the topic “Running a CIP interactively to augment an existing WebSphere Process Server installation”. Do not commence this task until you have completed the prerequisite task.

About this task

Perform the following steps immediately after completing the task: “Running a CIP interactively to augment an existing WebSphere Process Server installation”. If there are additional features included in the CIP, the Features panel of the CIP installation wizard should be on-screen. If there are no additional features, the first step below is omitted.

Procedure

1. If there are additional features to install, those features are displayed in the Features panel. If there are no additional features, the Features panel is not

displayed. All features that are part of the CIP and also part of the original WebSphere Process Server installation are displayed with a check box that is disabled indicating that the feature will be installed. Any CIP feature that was not part of the original WebSphere Process Server installation, is displayed with an active check box. Select the feature if you want it to be installed, unselect the feature if you want to omit the feature from the installation. When finished, click **Next**.

2. Review the installation information on the Installation preview summary panel. A message at the top of the panel warns you that the interim fixes (listed) will be uninstalled when you install the CIP. Any of these interim fixes that are not included in the CIP, will need to be re-installed separately after the installation of the CIP is complete.
3. Start the installation. If the information on the Installation preview summary panel is correct, start the installation by clicking **Next**.
4. Track the process of the installation on the progress indicator. The uninstallation of the interim fixes is also included in the progress indicator.
5. When the installation finishes the Installation complete panel is displayed. Inspect the panel to ensure that the installation completed successfully.

Results

A backup for the CIP will be created in the *WPS_HOME/properties/version/nif/update/* directory. You can use the update installer to slip-uninstall the CIP, to restore the system to its pre-slip-install state (e.g. to a previous version of WebSphere Process Server).

Incremental installation:

An incremental installation involves adding or modifying features of an existing installation without replacing or modifying the underlying WebSphere Process Server installation.

An incremental installation involves using a customized installation package (CIP) to add features to the current WebSphere Process Server installation using a CIP which contains the same maintenance level of WebSphere Process Server.

The result of an incremental installation is to leave the maintenance version of the product unchanged while adding or upgrading other features of the installation.

Incremental WebSphere Process Server installation - add features to an existing installation at the same maintenance level - Any interim fixes in the CIP are found on the existing installation:

When you have completed the core steps for augmentation of an existing installation, complete the process of augmentation by completing this task.

Before you begin

This task is a continuation of the information provided in the topic “Running a CIP interactively to augment an existing WebSphere Process Server installation”. Do not commence this task until you have completed the prerequisite task.

About this task

An incremental installation does not change the version of WebSphere Process Server, rather it adds fixes, features or maintenance packs. Perform the following steps immediately after completing the task: “Running a CIP interactively to augment an existing WebSphere Process Server installation”. The Features panel of the CIP installation wizard should be on-screen.

Procedure

1. Choose the additional features that you wish to install from the Features panel. Select the features that you wish to install as part of the CIP installation. Click **Next**.
2. Review the installation information on the Installation preview summary panel. If the summary information does not match with your needs, stop the installation process and start again.
3. Start the installation. If the information on the Installation preview summary panel is correct, start the installation by clicking **Next**.
4. Track the process of the installation on the progress indicator.
5. When the installation finishes the Installation complete panel is displayed. Inspect the panel to ensure that the installation completed successfully.

Results

A backup for the CIP will be created in the *WPS_HOME/properties/version/nif/update/* directory. You can use the update installer to slip-uninstall the CIP, to restore the system to its pre-incremental-install state.

The WebSphere Process Server version remains the same, the interim fixes remain unchanged and any new features that you selected are installed.

Incremental WebSphere Process Server installation - add features to an existing installation at the same maintenance level - None of the interim fixes in the CIP are found on the existing installation:

When you have completed the core steps for augmentation of an existing installation, complete the process of augmentation by completing this task.

Before you begin

This task is a continuation of the information provided in the topic “Running a CIP interactively to augment an existing WebSphere Process Server installation”. Do not commence this task until you have completed the prerequisite task.

About this task

An incremental installation does not change the version of WebSphere Process Server, rather it adds fixes, features or maintenance packs. Perform the following steps immediately after completing the task: “Running a CIP interactively to augment an existing WebSphere Process Server installation”. The Features panel of the CIP installation wizard should be on-screen.

Procedure

1. Choose the additional features that you wish to install from the Features panel. Select the features that you wish to install as part of the CIP installation. Click **Next**.

2. Review the installation information on the Installation preview summary panel. If the summary information does not match with your needs, stop the installation process and start again.
3. Start the installation. If the information on the Installation preview summary panel is correct, start the installation by clicking **Next**.
4. Track the process of the installation on the progress indicator.
5. When the installation finishes the Installation complete panel is displayed. Inspect the panel to ensure that the installation completed successfully.

Results

A backup for the CIP will be created in the *WPS_HOME/properties/version/nif/update/* directory. You can use the update installer to slip-uninstall the CIP, to restore the system to its pre-incremental-install state.

The WebSphere Process Server version remains the same, the installed interim fixes are the union of interim fixes that were previously installed, and those included in the CIP. Additionally, any new features that you selected are installed.

Incremental WebSphere Process Server installation - add features to an existing installation at the same maintenance level - Some, but not all, interim fixes in the CIP are found on the existing installation:

When you have completed the core steps for augmentation of an existing installation, complete the process of augmentation by completing this task.

Before you begin

This task is a continuation of the information provided in the topic “Running a CIP interactively to augment an existing WebSphere Process Server installation”. Do not commence this task until you have completed the prerequisite task.

About this task

An incremental installation does not change the version of WebSphere Process Server, rather it adds fixes, features or maintenance packs. Perform the following steps immediately after completing the task: “Running a CIP interactively to augment an existing WebSphere Process Server installation”. The Features panel of the CIP installation wizard should be on-screen.

Procedure

1. Do not choose any additional features on the Features panel. Installation routes which include additional features are discussed elsewhere. Simply click **Next**.
2. Review the installation information on the Installation preview summary panel. If the summary information does not match with your needs, stop the installation process and start again.
3. Start the installation. If the information on the Installation preview summary panel is correct, start the installation by clicking **Next**.
4. Track the process of the installation on the progress indicator.
5. When the installation finishes the Installation complete panel is displayed. Inspect the panel to ensure that the installation completed successfully.

Results

A backup for the CIP will be created in the `WPS_HOME/properties/version/nif/update/` directory. You can use the update installer to slip-uninstall the CIP, to restore the system to its pre-incremental-install state.

The WebSphere Process Server version remains the same, the installed interim fixes are the union of interim fixes that were previously installed, and those included in the CIP. Additionally, any new features that you selected are installed.

Trade-up installation

You can use a customized installation package (CIP) to perform trade-up installation, from a lower level product to a higher level product.

Before you begin

To perform this task you must have an existing installation of a lower level product. You must also have a customized installation package containing a higher level product image.

About this task

A trade-up installation is from a lower level product to the full version of WebSphere Process Server. The following table describes which trade-up paths are supported.

Table 25.

Existing product	Trade-up product	Supported
Enterprise Service Bus	WebSphere Process Server	Yes
WebSphere Process Server Client	WebSphere Process Server	Yes

Trade-up installation is a one-step process, running the CIP moves the installation from the lower level product to the higher level, and then brings the newly installed product up to the maintenance level required.

Procedure

1. Commence the installation of your WebSphere Process Server custom install package.

Start the installation directly with the install command.

- a. Change to the `WPS_HOME` directory
- b. Issue the install command:

- `AIX` `HP-UX` `Linux` `Solaris` `UNIX` `./install`
- `Windows` `install.bat`

After launching the CIP installation wizard from the command line, the wizard initializes and displays the Welcome panel. Click **About this custom installation package** to display detailed information about the current custom installation package, such as the edition and version.

2. Move on to the License panel. Click **Next** on the Welcome panel.
3. Read the license agreement and accept its terms.

Click **I accept both the IBM and the non-IBM terms** to agree to the license agreement and click **Next** to continue.

After you accept the licensing terms, the installation wizard checks for a supported operating system and prerequisite patches. If you encounter a problem such as not having the right prerequisite updates on your system, cancel the installation, make the required changes, and restart the installation.

Although the installation wizard checks for prerequisite operating system patches with the `prereqChecker` application, review the prerequisites on the supported hardware and software web site if you have not already done so.

The Web site lists all supported operating systems and the operating system fixes and patches that you must install to have a compliant operating system.

Refer to the documentation for non-IBM prerequisite and corequisite products to learn how to migrate to their supported versions.

4. Complete the prerequisite check and move on to the Detect existing copy panel. Click **Next** when the system prerequisite check is complete. If the system detects an existing copy of WebSphere Process Server
5. Depending on the trade-up you are performing (e.g., from which product you are trading up, or to what maintenance level of WebSphere Process Server you are trading up) you will receive various options on the Detect existing copy panel. Select the option to install a new copy of WebSphere Process Server.
6. On the Trade up panel, indicate the existing copy of the lower level product that you intend to trade up.

The Trade up panel will only display fields for products that have been detected on the system. Click the **Use an existing copy of *product_name*** where *product_name* is the lower level product from which you are trading up.

Next select the specific installation of the existing product from the list.

Click **Next**. After completing this step, the system will check that the product from which you are trading up has all the prerequisite features. Unless a problem is detected, the wizard will move on to the Features panel.

7. On the Features panel select any features that you want to be installed from the CIP or that are already installed on the lower product.

The default appearance of the Features panel will be for:

- All features contained in the CIP which are not installed to be selected.
- All features contained in the CIP which are installed to be selected and the check box is disabled.
- All features that are not contained in the CIP which are installed to be displayed with the check box cleared.

You should not change any options on this panel. Click **Next**.

8. Review the information on the Installation summary panel. If everything is correct click **Next** to commence the installation.
9. Monitor the installation on the progress indicator.

install command

This topic describes the Installation Factory installer program for WebSphere Process Server products. The install command starts the InstallShield MultiPlatforms (ISMP) Installation wizard. The Installation Factory installer program for WebSphere Process Server installs the customized installation package (CIP) that includes the product image and one or more maintenance packages.

Purpose

The Installation Factory installer program is sometimes referred to as the CIP Installation wizard or the Installation Factory Installation wizard.

The Installation wizard has the capability to perform a new product installation, an incremental installation by adding features to an existing installation, or an update to an existing installation that updates the installation to a new service level. The term “slip install” is sometimes used to describe an update to an existing installation that updates the installation to a new service level.

Location of command file

The install command file is located in the `customized_installation_package/WBI` directory.

Logging

The logging system of the Installation Factory installer program includes:

- ISMP logging to the `app_server_root/logs/wbi/install/log.txt` file
- Component deployment and configuration logging
- Profile-related logging to a temporary file in the system temp directory
- Profile-related logging to a dedicated log file when creating or deleting a profile:
 - `app_server_root/logs/profiles/profile_name_create.log`
 - `app_server_root/logs/profiles/profile_name_delete.log`

Syntax

AIX **Linux** **Solaris** **UNIX** Installing using the graphical user interface: `./install`.

AIX **Linux** **Solaris** **UNIX** Installing silently using a customized response file: `./install -options /tmp/WBI/myoptionsfile.txt -silent`.

Windows Installing using the graphical user interface: `install.bat`.

Windows Installing silently using the graphical user interface: `install.bat -options "C:\temp\WBI\myoptionsfile.txt" -silent`.

Maintaining a customized installation package installation

After you have installed using a customized installation package (CIP), the system is maintained as if installation had been performed directly. You can use CIPs to apply maintenance patches or interim fixes to any installation of WebSphere Process Server.

Before you begin

These topics describes how to maintain an installation of WebSphere Process Server that was created using the installation factory.

About this task

There is no substantive difference between an installation of WebSphere Process Server created with a CIP and an installation created by another route. Therefore applying maintenance, refresh packs, fix packs and interim fixes is identical to the usual methods. See the related tasks for details. However, do note that there are specific steps to rolling back maintenance that was applied with a CIP.

Subsequent topics describe how to apply or rollback maintenance to a WebSphere Process Server installation created with a CIP.

Applying maintenance to a WebSphere Process Server installation created with the Installation Factory

The steps required to install maintenance packages on a WebSphere Process Server installation that was created using a CIP are the same as for any other installation of WebSphere Process Server.

Before you begin

You must use the Update Installer for WebSphere software to apply maintenance to a CIP installation.

About this task

Details of how to apply maintenance to a WebSphere Process Server installation see the related task on Installing maintenance packages.

Rolling back a maintenance from a WebSphere Process Server installation that was installed with a customized installation package

In general rolling back a maintenance package from a WebSphere Process Server installation that was created with a customized installation package (CIP) is the same as the procedure for other installations. However, there are specific differences which are described here.

Before you begin

This task is appropriate if you have an installation of WebSphere Process Server that was created with a CIP, to which a maintenance package has been applied in one of a variety of ways. You must use the Update Installer for WebSphere software to roll back maintenance from a CIP installation.

About this task

The core information for rolling back maintenance packages is contained in the related task: Uninstalling maintenance packages. Additional steps for uninstalling maintenance packages from WebSphere Process Server installations that were created with a CIP are described below.

- After you slip install a CIP onto an existing WebSphere Process Server installation you want to uninstall maintenance, without uninstalling the entire product. The CIP consists of a merged refresh pack, fix pack, and one or more interim fixes.
 1. Uninstall any interim fixes that were installed as part of the slip installation.
 2. Roll back the maintenance levels that were contained in the CIP. This is identical to uninstalling a single fix pack or refresh pack except that whatever maintenance had been rolled up into the CIP is rolled back in a single operation. This means that it is not possible to roll back just the fix pack portion of a CIP and leave the installation at the refresh pack level, both will be rolled back at once, leaving the installation in the same state it was in before the slip install was performed.
- After a slip installation you want to remove maintenance that was installed prior to the slip installation.
 1. Roll back the slip installation.

2. Roll back the maintenance package as described in the related task:
Uninstalling maintenance packages.
- After adding an interim fix to a WebSphere Process Server installation that was created with a CIP. This procedure is independent of the method of WebSphere Process Server installation.
 - After adding an fix pack or refresh pack to a WebSphere Process Server installation that was created with a CIP. This procedure is independent of the method of WebSphere Process Server installation.

Uninstalling a customized installation package installation

The process of uninstalling WebSphere Process Server from your system is the same regardless of how the original installation was performed.

About this task

Regardless of the nature of your customized installation package installation (for example: full, slip, or incremental) the uninstallation process is identical to uninstalling the software for a standard installation. See related topics for details of how to perform an uninstallation.

Uninstalling the installation factory tool

To uninstall the installation factory tools from your system simply delete the folders where the installation factory was placed.

About this task

If you want to uninstall the installation factory tools from your system you can do so by removing the folders which contain the tools from your operating system.

Procedure

1. Backup any build definitions and customized installation packages that you have created that you may want to use in the future.
2. Remove the directories where the installation factory tools are housed. The tools are located in the directory into which you extracted the installation factory tools originally.

Note: You should backup any files (for instance build definition files) that you created before uninstalling the installation factory.

Chapter 15. Troubleshooting installation and configuration

You can diagnose problems when the installation and configuration of WebSphere Process Server is unsuccessful.

About this task

The installer program records the following indicators of success at the end of the primary log file, which can be found in *install_root/logs/wbi/install/log.txt* on i5/OS, Linux and UNIX or *install_root\logs\wbi\install\log.txt* on Windows, where *install_root* represents the product installation directory:

- INSTCONFSUCCESS: installation was successful
- INSTCONFPARTIALSUCCESS: installation was partly successful. Some installation actions failed but can be retried.
- INSTCONFFAILED: installation was not successful. Recovery is not possible.

If the result is INSTCONFPARTIALSUCCESS or INSTCONFFAILED, continue analyzing the problem by following these steps.

To troubleshoot the installation, perform the following steps.

Procedure

1. Read any error messages from the installation process.

See the following topic for an explanation: Error messages: installation and profile creation and augmentation. If the message corresponds to any of those described, correct the problem, clean up any installed portions, and try to reinstall.

For details on uninstalling any installed portions before reinstalling, see Preparing for reinstallation after a failed uninstallation.

2. Determine if the installation of WebSphere Application Server Network Deployment was successful. (If it was unsuccessful and WebSphere Application Server Network Deployment was installed as part of the WebSphere Process Server installation, the installation process will not continue and an error message will be displayed.) If the installation of WebSphere Process Server was not successful, first check *install_root/logs/install/log.txt* on Linux and UNIX platforms or *install_root\logs\install\log.txt* on Windows platforms for errors to determine if the installation of WebSphere Application Network Deployment was successful.

If the installation of WebSphere Application Server Network Deployment failed, see the topic Troubleshooting installation in the WebSphere Application Server Network Deployment information center and use the information found there to correct the problems before attempting to reinstall WebSphere Process Server.

If the installation of WebSphere Application Server Network Deployment succeeded and the installation of WebSphere Process Server failed, use the troubleshooting information below to correct the problems.

i5/OS On i5/OS platforms, if the installation was unsuccessful and WebSphere Application Server Network Deployment was installed as part of the WebSphere Process Server installation, the installation process will not continue and an error message will be displayed. If the installation of WebSphere Process Server was not successful, first check *install_root/logs/*

install/log.txt on i5/OS platforms for errors to determine if the installation of WebSphere Application Network Deployment was successful.

3. Check the WebSphere Process Server installation log files for errors after installing.

For information about the names, locations, and descriptions of the various log files that are created, see Log files.

Check the log files in this sequence:

i5/OS On i5/OS platforms:

- a. log files in the *install_root*/logs/wbi/install directory
- b. *user_data_root*/profileRegistry/logs/manageprofiles/*profile_name*_create.log, *user_data_root*/profileRegistry/logs/manageprofiles/*profile_name*_augment.log, and *user_data_root*/profileRegistry/logs/manageprofiles/pmt.log.
- c. Any additional log or trace files generated by installation actions. Look in *install_root*/logs/wbi/install for trace files generated during the installation process. Look in *install_root* /logs/manageprofiles/*profile_name* for those generated by profile creation or augmentation. (For more information about *install_root* and *profile_root* locations, see Default installation directories for the product, profiles, and tools.) These files are primarily intended for use by IBM technical support.

Linux UNIX On Linux and UNIX platforms:

- a. log files in the *install_root*/logs/wbi/install directory
- b. log files in the %tmp%/niflogs.wbi directory if no files are found in *install_root*/logs/wbi/install
- c. *install_root*/logs/manageprofiles/*profile_name*_create.log, *install_root*/logs/manageprofiles/*profile_name*_augment.log, and *install_root*/logs/manageprofiles/pmt.log.
- d. Any additional log or trace files generated by installation actions. Look in *install_root*/logs/wbi/install for trace files generated during the installation process. Look in *install_root*/logs/manageprofiles/*profile_name* for those generated by profile creation or augmentation. (For more information about *install_root* and *profile_root* locations, see Default installation directories for the product, profiles, and tools.) These files are primarily intended for use by IBM technical support.

Windows On Windows platforms:

- a. log files in the *install_root*\logs\wbi\install directory
 - b. log files in the %tmp%\niflogs.wbi directory if no files are found in *install_root*\logs\wbi\install
 - c. *install_root*\logs\manageprofiles*profile_name*_create.log, *install_root*\logs\manageprofiles*profile_name*_augment.log, and *install_root*\logs\manageprofiles\pmt.log.
 - d. Any additional log or trace files generated by installation actions. Look in *install_root*\logs\wbi\install for trace files generated during the installation process. Look in *install_root*\logs\manageprofiles*profile_name* for those generated by profile creation or augmentation. (For more information about *install_root* and *profile_root* locations, see Default installation directories for the product, profiles, and tools.) These files are primarily intended for use by IBM technical support.
4. Determine whether the installation problem is caused by a configuration script that failed.

The `install_root/logs/wbi/installconfig.log` file on i5/OS, Linux and UNIX platforms or `install_root\logs\wbi\installconfig.log` file on Windows platforms indicates configuration problems that can prevent the product from working correctly.

For more information about diagnosing failed configuration scripts, see “Diagnosing a failing Ant configuration script” on page 293.

5. If the error logs do not contain enough information to determine the cause of the problem, uninstall the product, clean up any log files or other artifacts that are left behind, turn on tracing, and reinstall.

- Report the stdout and stderr logs to the console window by adding the `-is:javaconsole` parameter to the install command:

– **i5/OS** **On i5/OS platforms:**

```
install -is:javaconsole
```

Capture the stream to a file with the following commands:

```
install -is:javaconsole > captureFileName.txt 2>&1
```

– **Linux** **UNIX** **On Linux and UNIX platforms:**

```
install -is:javaconsole
```

Capture the stream to a file with the following commands:

```
install -is:javaconsole > captureFileName.txt 2>&1
```

– **Windows** **On Windows platforms:**

```
install.bat -is:javaconsole
```

Capture the stream to a file with the following commands:

```
install.bat -is:javaconsole > drive:\captureFileName.txt
```

- Capture additional information to a log of your choice with the `-is:log file_name` option.

6. If you have successfully created a server profile, use the First steps console or the command-line method to start the server. For more information, see First steps console.

7. Verify that the server starts and loads properly by looking for a running Java process and the *Open for e-business* message in the `SystemOut.log` and `SystemErr.log` files.

If no Java process exists or if the message does not appear, examine the same logs for any miscellaneous errors. Correct any errors and retry.

You can find the `SystemOut.log` and `SystemErr.log` files in the following platform-specific directories:

- **i5/OS** **On i5/OS platforms:** `profile_root/logs/servername`

- **Linux** **UNIX** **On Linux and UNIX platforms:** `profile_root/logs/servername`

- **Windows** **On Windows platforms:** `profile_root\logs\servername`

8. Use the First steps console or the command-line method to stop the server, if it is running. For more information, see Options on the First steps console

9. To troubleshoot a WebSphere Process Server deployment environment, see Verifying your deployment environment.

10. If you want to use a Snoop Servlet to verify the ability of the Web server to retrieve an application from WebSphere Process Server, see step 10 in Troubleshooting installation in the WebSphere Application Server Network Deployment documentation.

11. Start the administrative console. For more information, see Starting and stopping the administrative console.

12. To resolve any IP address caching problems, see step 14 in Troubleshooting installation in the WebSphere Application Server Network Deployment documentation.

What to do next

On the product support Web site, you can review current information about resolutions to known problems, and you can read documents that can save you time gathering the information that you need to resolve a problem. Before opening a PMR, see the IBM WebSphere Process Server support page.

Troubleshooting the launchpad application

If the launchpad application does not start, try the following troubleshooting tips.

Restart the launchpad after you make any changes.

- If you are using images from Passport Advantage, make sure that you extract the contents of the images for *WebSphere Process Server V6.1 DVD*, *WebSphere Application Server Network Deployment Supplements V6.1 CD*, and *WebSphere Application Server Toolkit V6.1.1 Disk 1* (if included for your platform) into three separate directories. Extracting the files from the images into the same directory will cause errors to occur. It is recommended that you use three sibling directories. For example, use a set of directories such as the following:

– **Linux** **UNIX** **On Linux and UNIX platforms:**

```
%/downloads/WPS/image1
%/downloads/WPS/image2
%/downloads/WPS/image3
```

– **Windows** **On Windows platforms:**

```
C:\downloads\WPS\image1
C:\downloads\WPS\image2
C:\downloads\WPS\image3
```

- If you can start the launchpad, but selecting a link does not resolve to a page in the launchpad, you might have the media for the wrong operating system in the disk drive. Check the validity of the media.
- **Windows** If you are attempting to use the Mozilla browser on a Windows system, Internet Explorer might open instead. The launchpad does not recognize Mozilla as the default browser if Internet Explorer is also installed on the same system. The launchpad is fully functional with Internet Explorer, so no action is required.

To create an environment variable that forces the use of Mozilla, issue the following case-specific command at a command prompt:

```
set BROWSER=Mozilla
```

- Ensure that the JavaScript™ function is enabled in your browser.

– **Linux** **UNIX** **Mozilla: Click Edit > Preferences > Advanced > Scripts & Plugins:**

- Enable JavaScript for: Navigator.
- Allow scripts to ... (Select all boxes.)

– **Linux** **UNIX** **Mozilla Firefox: Click Tools > Options > Content:**

- Select **Enable Java**.
- Select **Enable JavaScript**.
- Click **Advanced** and Allow scripts to ... (Select all boxes.)

Windows Internet Explorer: Click **Tools > Internet Options > Security > Custom Level for Internet > Scripting > Active scripting > Enable**.

If the launchpad links still do not work after trying these tips, start the component installation programs directly. The locations of these programs are listed in Options on the launchpad.

Troubleshooting a silent installation

If a silent installation using a response file fails, you can examine log files and error messages to determine what went wrong, and make changes to your response file.

Before you begin

For information about using the response file for a silent installation of WebSphere Process Server, see *Installing silently*.

To troubleshoot a silent product installation, perform the following steps.

Procedure

1. Check your response file to make sure you are precise when supplying option values in the file so that the installation program can read the values. Incorrect specifications affect the silent interface of the installation wizard. For example, always use the correct case within property names, which are case-sensitive. In addition, always enclose values in double quotation marks. If the error is an incorrect option value, the InstallShield MultiPlatform program displays a warning message that you must confirm and stops the installation.
2. Compare your response file to the `responsefile.wbis.txt` file that is shipped with the product to make the necessary corrections. This file is in the `install_root/WBI` directory. After correcting the file, reinstall.
3. Review commonly found error messages in *Messages: installation and profile creation and augmentation*.
4. Examine log files. See the descriptions of relevant log files listed in *Log files*.
5. Certain events can prevent InstallShield MultiPlatform from starting the installation wizard silently (for example, not having enough disk space to launch the installation wizard). If your installation fails and there is no information in the installation logs, record entries for events that cause the ISMP program to fail to start the installation wizard.

The syntax of the `install` command for logging such events is as follows:

AIX **On AIX platforms:**

```
install -options "/usr/IBM/WebSphere/silentFiles/myresponsefile.txt"  
-silent -log
```

HP-UX **Solaris** **On HP-UX and Solaris platforms:**

```
install -options "/opt/IBM/WebSphere/silentFiles/myresponsefile.txt"  
-silent -log
```

i5/OS **On i5/OS platforms:**

```
install -options responsefile.wbis.txt -silent -log log.txt @ALL
```

Note: **i5/OS** **On i5/OS platforms:** You must change to the directory that contains the copied CD or DVD image. Example: `/MYDIR/WBI`

Linux **On Linux platforms:**

```
install -options "/opt/ibm/WebSphere/silentFiles/myresponsefile.txt"
-silent -log
```

Windows **On Windows platforms:**

```
install.bat -options "C:\IBM\WebSphere\silentFiles\myresponsefile.txt"
-silent -log # !C:\IBM\WebSphere\silentFiles\log.txt @ALL
```

6. For other tips on troubleshooting your installation, see [Troubleshooting installation](#).
7. If your profile did not create successfully, see [Recovering from profile creation or augmentation failure](#).

i5/OS installation troubleshooting tips

You can refer to sources that might be helpful in troubleshooting an installation problem for a WebSphere Process Server product on the i5/OS operating system.

WebSphere Process Server offers several methods you can use to troubleshoot problems. Which method you use depends on the nature of the problem. Generally, you use a combination of these methods to determine the cause of a problem and then decide on an appropriate method for its resolution.

Tip 1: Refer to troubleshooting documentation for WebSphere Application Server for i5/OS

These resources provide general troubleshooting assistance:

- [WebSphere Process Server Release Notes](#)[®].
- [WebSphere Application Server FAQ database](#).
- [WebSphere Application Server for OS/400[®] newsgroup](#). This System i Technical Support Web-based forum is dedicated to WebSphere Application Server for i5/OS and OS/400.

Tip 2: Install WebSphere Process Server Version 6.1 for i5/OS

- **Wrong version of i5/OS installed on your server.**

WebSphere Process Server runs on i5/OS V5R3 or V5R4. The product cannot be installed on prior releases of i5/OS.

- **IBM Development Kit for Java V1.5 is not installed.**

Local and remote command-line installations require JDK 1.5. Install product 5722-JV1, option 7 to obtain JDK 1.5. After installing option 7, you should reinstall the cumulative PTF package and Java group PTF to pick up any JDK 1.5 specific fixes.

- **Host servers are not started, or failed to start correctly.**

The installation process requires that the i5/OS host servers be running. To start the host servers, run this command from the CL command line.

```
STRHOSTSVR SERVER(*ALL)
```

If errors other than "Host server daemon jobs unable to communicate using IPX." occur when starting the host servers, follow the instructions in the error message to fix the problem. After the problem is fixed, start the host servers and attempt to install WebSphere Process Server again.

- **Installation fails due to "Object not found" or "Not authorized" errors.**

The user profile of the user installing the product must have *ALLOBJ and *SECADM special authorities.

Tip 3: Start WebSphere Process Server for i5/OS

- **Port conflicts**

Port conflicts may exist if you have a previous version of WebSphere Application Server installed and running.

Diagnosing a failing Ant configuration script

Determine whether a product installation problem on an operating system such as AIX, Linux, Windows, or i5/OS is caused by a failing Apache Ant configuration script.

Before you begin

Start diagnosing installation problems by looking at the troubleshooting procedure. See Troubleshooting installation. After the installation completes successfully, several Ant scripts configure the product. The following procedure describes what to do when an Ant script fails. When the installation log does not indicate a failure, determine how to correct any problems with failing Ant configuration scripts.

About this task

The *install_root/logs/wbi/installconfig.log* file, when present, describes any failure of an Ant script. Determine if any of the following configuration scripts failed. If so, use the configuration script recovery procedures. Use the investigative action to manually verify that the following configuration scripts ran successfully during the configuration of the WebSphere Process Server product. If any script failed, use the recovery action steps to complete the function of the script.

To diagnose failed Ant configuration scripts, perform the following steps.

- Diagnose the failed *90SConfigWBIMigrationScript.ant* configuration script. This script changes the permissions of the following script to 755: *install_root/bin/wbi_migration*. This script also replaces the following tokens in the *install_root/bin/wbi_migration* script:

From:	To the value that you selected during installation:
<code>\${JAVAROOT}</code>	<i>install_root/java/jre/bin/java</i>
<code>\${MIGRATIONJAR}</code>	<i>install_root/bin/migration/migrationGUI/migrationGUI.jar</i>
<code>\${WASROOT}</code>	<i>install_root</i>
<code>\${PRODUCTID}</code>	<code>\${WS_CMT_PRODUCT_TYPE}</code>

1. Investigative action: Verify that the permissions are 755 for the *install_root/bin/wbi_migration.sh* script on Linux and UNIX platforms, *install_root\bin\wbi_migration.bat* on Windows platforms, or for the *install_root/bin/wbi_migration* script on i5/OS platforms.
2. Recovery action: Issue the following command: `chmod 755 install_root/bin/wbi_migration.sh` on Linux and UNIX platforms, `chmod 755 install_root\bin\wbi_migration.bat` on Windows platforms or `chmod 755 install_root/bin/wbi_migration` on i5/OS platforms.
3. Investigative action: Open the *install_root/bin/wbi_migration.sh* on Linux and UNIX platforms, *install_root\bin\wbi_migration.bat* on Windows platforms, or *install_root/bin/wbi_migration* script on i5/OS platforms in an

editor and verify that real values exist instead of the following values: `${JAVAROOT}`, `${MIGRATIONJAR}`, `${WASROOT}`, and `${PRODUCTID}`.

4. Recovery action: Change the following tokens to actual values in the `wbi_migration` script: `${JAVAROOT}`, `${MIGRATIONJAR}`, `${WASROOT}`, and `${PRODUCTID}`.
- Diagnose the failed `85SConfigNoProfileFirstStepsWBI.ant`. This script copies all files from the `install_root/properties/version/install.wbi/firststeps.wbi` directory to the `install_root/firststeps/wbi/html/noprofile` directory. This script also replaces the following tokens in the `install_root/firststeps/wbi/firststeps.sh` script (Linux, and UNIX), the `install_root/firststeps/wbi/firststeps.bat` script (Windows platforms), or the `install_root /firststeps/wbi/firststeps` script (i5/OS platforms):

From:	To the value that you selected during installation:
<code>\${JAVAROOT}</code>	<code>install_root/java/jre/bin/java</code>
<code>\${PROFILEROOT}</code>	<code>install_root</code>
<code>\${HTMLSHELLJAR}</code>	<code>install_root/lib/htmlshellwbi.jar</code>
<code>\${CELLNAME}</code>	<code>\${WS_CMT_CELL_NAME}</code>

1. Investigative action: Verify that all files are copied from the `install_root/properties/version/install.wbi/firststeps.wbi` directory to the `install_root/firststeps/wbi/html/noprofile` directory.
2. Recovery action: Copy all of the files from the `install_root/properties/version/install.wbi/firststeps.wbi` directory to the `install_root/firststeps/wbi/html/noprofile` directory.
3. Investigative action: Open the `install_root/firststeps/wbi/firststeps` script in an editor. Verify that real values exist instead of the following values: `${JAVAROOT}`, `${PROFILEROOT}`, `${HTMLSHELLJAR}`, and `${CELLNAME}`.
4. Recovery action: Change the following tokens to actual values in the `install_root/firststeps/wbi/firststeps` script. `${JAVAROOT}`, `${PROFILEROOT}`, `${HTMLSHELLJAR}`, and `${CELLNAME}`.

Results

After you correct any installation errors and any Ant script configuration errors by performing the corrective actions in this procedure, the installation is complete.

What to do next

Start the First steps console.

Messages: installation and profile creation

Some of the most commonly found error messages encountered when installing and configuring can be addressed with actions that resolve the underlying problems. WebSphere Process Server.

Note: Linux UNIX Windows The following WebSphere Process Server installation and configuration errors appear on Linux, UNIX, and Windows platforms.

Tip: For information about messages that might be generated by the installation of WebSphere Application Server Network Deployment, refer to the Troubleshooting installation topics available in the WebSphere Application Server Network Deployment documentation.

What kind of problem are you having?

- “Supported IBM JDK was not found. The IBM JDK shipped with this product must be located at *install_root*/JDK. Please correct this problem and try again.”
- “Error: The input line is too long”
- “Note: The following file systems will be expanded during the installation” on page 297
- “The disk space is nn Mbyte less than required. The installation cannot continue.” on page 297
- “Specify a different directory or perform a manual uninstall” on page 297
- “Error: /usr/opt/ibm/gskta/bin/gsk7ikm: not found” on page 297
- “Error writing file = There may not be enough temporary disk space.” on page 297
- “Error: localhost is not a valid host name for remote access” on page 298
- “Warning: Cannot convert string “<type_name>”to type FontStruct” on page 298
- “INFO: Created system preferences directory in java.home” on page 298
- “The installer could not successfully add the product information into the RPM database.” on page 298
- “Error: java.io.IOException: konqueror: not found” on page 299

If you do not see an error message that resembles yours, or if the information provided does not solve your problem, contact WebSphere Process Server support at IBM for further assistance.

Supported IBM JDK was not found. The IBM JDK shipped with this product must be located at *install_root*/JDK. Please correct this problem and try again.

If you use symbolic links to point to the IBM Java Development Kit (JDK) shipped with the product, or to a JDK found in the PATH environment variable on your system, IBM SDK for Java validation might fail, resulting in a failed installation. This problem is caused by the way IBM SDK for Java validation code detects whether the JDK shipped with the product is the current JDK used for installation.

To resolve this problem, do not use symbolic links in JVMs supplied with the installation image of WebSphere Process Server and remove symbolic links from all JVMs that appear in your system’s PATH environment variable.

Error: The input line is too long

Windows This is a profile creation error. It can occur during installation or when using the Profile Management Tool.

Windows The installation directory path must be no longer than 60 characters.

- **Option 1:** If the installation failed, reinstall the WebSphere Process Server product using a shorter directory path and a shorter node name.

The node name field is available during a custom installation. The length of the default node name is typically short enough. Avoid using a node name that is longer than 10 characters if possible.

- **Option 2:** If the installation was successful but the ISMPWSProfileLaunchAction failed, use the Profile Management Tool to create the profile. Use a shorter profile directory path, a shorter profile name, and a shorter node name when creating the profile.

You can select your own profiles path, which could be C:\profiles, for example.

You can select your own profile name.

Verify from the <install location>/logs/install/log.txt file that the ISMPConfigManagerLaunchAction is successful.

Examine the following messages in the log.txt file to determine whether the installation was successful. If so, you can run the Profile Management Tool to create the default profile.

```
(date time), Install,  
com.ibm.ws.install.ni.ismp.actions.ISMPConfigManagerLaunchAction,  
msg1, INSTCONFSUCCESS: Post-installation configuration is successful.
```

```
(date time), Install,  
com.ibm.ws.install.ni.ismp.actions.ISMPWSProfileLaunchAction,  
err, INSTCONFFAILED: Cannot complete required configuration actions  
after the installation. The configuration failed. The installation is  
not successful.
```

Refer to

C:\Program Files\IBM\WebSphere\AppServer1234567890\logs\wasprofile\
wasprofile_create_default.log for more details.

Refer to

C:\Program Files\IBM\WebSphere\AppServer1234567890\logs\manageprofiles\
default_create.log for more details.

```
(date time), Install,  
com.ibm.ws.install.ni.ismp.actions.ISMPLogSuccessMessageAction,  
msg1, INSTCONFFAILED
```

The following error within a log in the *install_root*\profiles\default\logs directory indicates that a wsadmin action has failed to create a profile. The failure is because the length of the file path, the profile name, and the node name on the command string has caused the entire command to exceed the operating system limit for command length.

The input line is too long.

Windows The number of characters in the *profile_root* must be no more than 80 characters. If your *profiles_directory_path**profile_name* string is 80 characters or less and you still have a problem, edit the *install_root*\bin\setupCmdLine.bat file to make it use the Windows subst command. The subst command maps an entire path to a virtual drive. After editing the file, run the Profile Management Tool again. If changing the setupCmdLine.bat file does not fix the problem, you can install the WebSphere Application Server product using a shorter installation path, such as C:\WAS.

See "The input line is too long" section of Administrative scripting problems in the WebSphere Application Server Network Deployment documentation for a description of how to edit the setupCmdLine.bat file.

Note: The following file systems will be expanded during the installation

AIX You can allocate expansion space for directories on AIX. If the installation wizard does not have enough space, InstallShield MultiPlatform (ISMP) issues a system call for more space that increases the space allocation dynamically. The message you might see when this occurs for the /usr directory is similar to the following example:

NOTE: The following file systems will be expanded during the installation:
/usr

The disk space is nn Mbyte less than required. The installation cannot continue.

Linux **UNIX** If the file system is not dynamically expandable, an insufficient amount of disk space results in a message that is similar to the following example:

The disk space is 33 Mbyte less than required. The installation cannot continue.

Specify a different directory or perform a manual uninstall

This error indicates that you deleted the installation root directory before using the uninstaller program to remove the product. Now you are attempting to reinstall into the same directory.

To correct the problem, perform a manual uninstall. See Uninstalling the software for an introduction to manually uninstalling.

The warning entry in the \$TMP/log.txt file is:

```
(Month day, year time), Install,  
com.ibm.ws.install.ni.ismp.actions.ISMPWarningDialogAction,  
wrn, Specify a different directory or perform a manual uninstall  
to remove all packages before reinstalling to the same directory.
```

Error: /usr/opt/ibm/gskta/bin/gsk7ikm: not found

This error indicates that the xlC.rte 6.0 runtime code has not been installed. You must install the xlC.rte 6.0 runtime code before you install Global Security Kit 7 (GSKit7).

To correct this problem, download AIX 5.1 Maintenance Level 9 from the AIX Support site at <https://www14.software.ibm.com/webapp/set2/sas/f/aix51fixes/ml9details.html>

AIX If you have AIX 5.2, you can install the xlC.rte 6.0 runtime code from the AIX 5.2 CD.

For a complete list of installation prerequisites, see the WebSphere Process Server system requirements page at <http://www.ibm.com/support/docview.wss?rs=2307&context=SSQH9M&uid=swg27006205>.

Error writing file = There may not be enough temporary disk space.

```
Searching for Java(tm) Virtual Machine...  
A suitable JVM could not be found.  
Please run the program again using the option
```

```
-is:javahome <JAVA HOME DIR>  
Error writing file = There may not be enough temporary disk space.  
Try using -is:tempdir to use a temporary directory on a partition with more disk space.
```

This error can occur when you have not provided enough temporary space to create a profile. Verify that you have a minimum of 40 MB of temporary space available before creating a profile.

Note: The product installation cannot use the InstallShield MultiPlatform -is:tempdir parameter to redirect the location of the temporary directory. You must free up space in the temporary directory of the system for the installation to proceed.

Error: localhost is not a valid host name for remote access

This error occurs when you enter localhost as the value for the **Host name** field in the Profile Management Tool.

The error can also occur during product installation if you enter localhost as the value of the host name field.

Warning: Cannot convert string "<type_name>" to type FontStruct

If you install the Web server plug-ins for WebSphere Application Server, you also install the ikeyman utility. The ikeyman utility is part of the Global Services Kit 7 (GSKit7).

Linux If you issue the ikeyman.sh script on a Linux system, you might see the following message:

```
Warning: Cannot convert string  
"-monotype-arial-regular-r-normal---140*--p--iso8859-1"  
to type FontStruct
```

You can safely ignore the warning and use the ikeyman utility.

INFO: Created system preferences directory in java.home

Linux The Key Man Utility (ikeyman) on Linux Redhat Enterprise 3.0 displays the following message after your first use of the utility.

```
[root@benson12 bin]# ./ikeyman.sh  
Oct 19, 2004 10:47:26 AM java.util.prefs.FileSystemPreferences$3 run  
INFO: Created system preferences directory in java.home.
```

The utility is logging preferences. The message does not appear when you use the utility again.

You can safely ignore the message.

The installer could not successfully add the product information into the RPM database.

Linux If the last line in the log.txt file is something similar to the following example, the problem might be a corrupted RedHat Package Manager (RPM) database:

```
(Oct 17, 2004 4:02:16 PM),
Plugin.Install,
com.ibm.wizard.platform.linux.LinuxProductServiceImpl,
wrn, The installer could not successfully add the product
information into the RPM database. Installation will continue
as this is not critical to the installation of the product.
```

Run the following command to verify that the problem is a corrupted RPM database:

```
rpm -q --all
```

If the command hangs, the problem is a corrupted RPM database.

Error: java.io.IOException: konqueror: not found

Linux **UNIX** The ISMP Launch Browser action of the installation wizard or the Update Installer wizard produces the following error on operating systems such as AIX or Linux:

```
com.installshield.wizardx.actions.LaunchBrowserAction, err, java.io.IOException:
konqueror: not found
STACK_TRACE: 11
java.io.IOException: konqueror: not found
    at java.lang.UNIXProcess.forkAndExec(Native Method)
    at java.lang.UNIXProcess.<init>(UNIXProcess.java:72)
    at java.lang.Runtime.execInternal(Native Method)
    at java.lang.Runtime.exec(Runtime.java:602)
    at java.lang.Runtime.exec(Runtime.java:524)
    at java.lang.Runtime.exec(Runtime.java:490)
    at com.installshield.util.BrowserLauncher.openURL(BrowserLauncher.java:578)
    at com.installshield.wizardx.actions.LaunchBrowserAction.execute(LaunchBrowserAction
.java:62)
    at com.installshield.wizard.RunnableWizardBeanContext.run(RunnableWizardBeanContext.
java:21)
```

This action searches for a Netscape, Mozilla, or Konqueror browser for displaying an HTML page or a Web site. In the case of the Web server plug-ins for WebSphere Application Server, the target page is the Plug-ins roadmap. Even though the ISMP Launch Browser action might find Mozilla or Netscape, the exception is thrown and a log entry occurs.

You can safely ignore this error.

Log files

Various log files are created during installation and uninstallation of WebSphere Process Server and during profile creation, augmentation, and deletion. Consult the applicable logs if problems occur during these procedures.

Table 26 on page 300 shows the logs, content, and indicators of success and failure for WebSphere Process Server.

If the logs directory does not exist on your system, the installation failed very early in the process. In this case, review the following:

- **Linux** **UNIX** /tmp/niflogs.wbi/log.txt file on Linux and UNIX platforms.
- **Windows** %TEMP%\niflogs.wbi\log.txt file on Windows platforms.
- **i5/OS** /tmp/InstallShield/niflogs.wbi/log.txt file on i5/OS platforms.

Important: **Windows** **On Windows platforms:** The %TEMP% directory can be hidden from the Windows GUI. It usually resolves to C:\Documents and Settings*username*\Local Settings\Temp. To find the %TEMP% directory, type one of the following commands at a command prompt:

- At a command prompt, type `cd %TEMP%`.
- At a command prompt, type `echo %TEMP%` and copy and paste the result into Windows Explorer.

Some directory paths, file names, and indicator values in Table 26 contain spaces to allow the entries to fit in the table cells. The actual directory paths, file names, and indicator values do not contain spaces.

The variable *install_root* represents the installation directory of WebSphere Process Server. The variable *profile_root* represents the root location of a profile.

i5/OS **On i5/OS platforms:** The variable *user_data_root* represents the default user data directory.

For more information see Default installation directories for the product, profiles, and tools.

Table 26. Installation and profile logs for WebSphere Process Server components

Log	Content	Indicators
<ul style="list-style-type: none"> • Linux UNIX On Linux and UNIX platforms: <i>install_root</i>/logs/wbi/install/log.txt 	Logs all installation events relating to WebSphere Process Server.	INSTCONFFAILED Total installation failure.
<ul style="list-style-type: none"> • Windows On Windows platforms: <i>install_root</i>\logs\wbi\install\log.txt 		INSTCONFSUCCESS Successful installation.
<ul style="list-style-type: none"> • i5/OS On i5/OS platforms: <i>install_root</i>/logs/wbi/install/log.txt 		INSTCONFPARTIALSUCCESS Installation errors occurred but the installation is still usable. Additional information in other log files identifies the errors.

Table 26. Installation and profile logs for WebSphere Process Server components (continued)

Log	Content	Indicators
<ul style="list-style-type: none"> Linux UNIX On Linux and UNIX platforms: <i>install_root/logs/wbi/installconfig.log</i> Windows On Windows platforms: <i>install_root\logs\wbi\installconfig.log</i> i5/OS On i5/OS platforms: <i>install_root/logs/wbi/installconfig.log</i> 	<p>Logs configuration actions that run at the end of the installation process to configure components, install system applications, and create Windows shortcuts and registry entries.</p>	<p>Contains a series of <record> elements that document the configuration actions. If a post-installation configuration action fails, text like the following appears in the log:</p> <pre><record> <date>2005-05-26T11:41:17</date> <millis>1117132877344</millis> <sequence>742</sequence> <logger>com.ibm.ws.install.configmanager.ConfigManager</logger> <level>WARNING</level> <class>com.ibm.ws.install.configmanager.ConfigManager</class> <method>executeAllActionsFound</method> <thread>12</thread> <message>Configuration action failed: com.ibm.ws.install.configmanager.actionengine.ANTAction-D:\WBI\AS\properties\version\install.wbi\6.1.0.0\config\full\install\90SInstallCEI.ant</message> </record></pre> <p>If no actions fail, the following message is included in the record in the log:</p> <pre><record> . . . <message>No errors were encountered while executing the repository actions</message> </record></pre>
<ul style="list-style-type: none"> Linux UNIX On Linux and UNIX platforms: <i>install_root/logs/manageprofiles/pmt.log</i> Windows On Windows platforms: <i>install_root\logs\manageprofiles\pmt.log</i> i5/OS On i5/OS platforms: <i>user_data_root/profileRegistry/logs/manageprofiles/pmt.log</i> 	<p>Logs all events from the Profile Management Tool.</p>	<p>INSTCONFFAILED Total profile creation failure.</p> <p>INSTCONFSUCCESS Successful profile creation.</p> <p>INSTCONFPARTIALSUCCESS Profile creation errors occurred but the profile is still functional. Additional information in other log files identifies the errors.</p>

Table 26. Installation and profile logs for WebSphere Process Server components (continued)

Log	Content	Indicators
<ul style="list-style-type: none"> Linux UNIX On Linux and UNIX platforms: <i>install_root/logs/manageprofiles/profile_name_create.log</i> Windows On Windows platforms: <i>install_root/logs/manageprofiles/profile_name_create.log</i> i5/OS On i5/OS platforms: <i>user_data_root/profileRegistry/logs/manageprofiles/profile_name_create.log</i> 	<ul style="list-style-type: none"> Traces all events that occur during the creation of the named profile. Created when a profile is created during a Complete installation, when using the Profile Management Tool, or when using the manageprofiles command. 	<p>INSTCONFFAILED Total profile creation failure.</p> <p>INSTCONFSUCCESS Successful profile creation.</p> <p>INSTCONFPARTIALSUCCESS Profile creation errors occurred but the profile is still functional. Additional information in other log files identifies the errors.</p>
<ul style="list-style-type: none"> Linux UNIX On Linux and UNIX platforms: <i>install_root/logs/manageprofiles/profile_name_augment.log</i> Windows On Windows platforms: <i>install_root/logs/manageprofiles/profile_name_augment.log</i> i5/OS On i5/OS platforms: <i>user_data_root/profileRegistry/logs/manageprofiles/profile_name_augment.log</i> 	<ul style="list-style-type: none"> Traces all events that occur during the augmentation of the named profile. Created when a profile is augmented, when using the Profile Management Tool, or when using the manageprofiles command. 	<p>INSTCONFFAILED Total profile augmentation failure.</p> <p>INSTCONFSUCCESS Successful profile augmentation.</p> <p>INSTCONFPARTIALSUCCESS Profile augmentation errors occurred but the profile is still functional. Additional information in other log files identifies the errors.</p>
<ul style="list-style-type: none"> Linux UNIX On Linux and UNIX platforms: <i>install_root/logs/manageprofiles/profile_name_delete.log</i> Windows On Windows platforms: <i>install_root/logs/manageprofiles/profile_name_delete.log</i> i5/OS On i5/OS platforms: <i>user_data_root/profileRegistry/logs/manageprofiles/profile_name_delete.log</i> 	<ul style="list-style-type: none"> Traces all events that occur during the deletion of the named profile. Created when profile deletion is performed with the manageprofiles command. 	<p>INSTCONFFAILED Total profile deletion failure.</p> <p>INSTCONFSUCCESS Successful profile deletion.</p> <p>INSTCONFPARTIALSUCCESS Profile deletion errors occurred but the profile is still deleted. Additional information in other log files identifies the errors.</p>

Table 26. Installation and profile logs for WebSphere Process Server components (continued)

Log	Content	Indicators
<ul style="list-style-type: none"> Linux UNIX On Linux and UNIX platforms: <i>install_root/logs/install/log.txt</i> Windows On Windows platforms: <i>install_root\logs\install\log.txt</i> i5/OS On i5/OS platforms: <i>install_root/logs/wbi/install/log.txt</i> 	<ul style="list-style-type: none"> Logs all installation events relating to WebSphere Application Server Network Deployment. Created as part the underlying installation of WebSphere Application Server Network Deployment that is installed with WebSphere Process Server. 	<p>INSTCONFFAILED Total installation failure.</p> <p>INSTCONFSUCCESS Successful installation.</p> <p>INSTCONFPARTIALSUCCESS Installation errors occurred but the installation is still usable. Additional information in other log files identifies the errors.</p>
<ul style="list-style-type: none"> Linux UNIX On Linux and UNIX platforms: <i>install_root/logs/installconfig.log</i> Windows On Windows platforms: <i>install_root\logs\installconfig.log</i> i5/OS On i5/OS platforms: <i>install_root/logs/wbi/installconfig.log</i> 	<ul style="list-style-type: none"> Logs configuration actions that run at the end of the installation process to configure components, install system applications, and create Windows shortcuts and registry entries. Created as part the underlying installation of WebSphere Application Server Network Deployment that is installed with WebSphere Process Server. 	<p>Contains a series of <record> elements that document the configuration actions.</p>
<ul style="list-style-type: none"> Linux UNIX On Linux and UNIX platforms: <i>install_root/logs/wbi/uninstall/log.txt</i> Windows On Windows platforms: <i>install_root\logs\wbi\uninstall\log.txt</i> i5/OS On i5/OS platforms: <i>install_root/logs/wbi/uninstall/log.txt</i> 	<p>Logs all uninstallation events relating to WebSphere Process Server.</p>	<p>INSTCONFFAILED Total uninstallation failure.</p> <p>INSTCONFSUCCESS Successful uninstallation.</p> <p>INSTCONFPARTIALSUCCESS The uninstallation wizard successfully removed the core product files, but errors occurred during configuration. Additional information in other log files identifies the errors.</p>
<ul style="list-style-type: none"> Linux UNIX On Linux and UNIX platforms: <i>install_root/logs/wbi/update/updateconfig.log</i> Windows On Windows platforms: <i>install_root\logs\wbi\update\updateconfig.log</i> i5/OS On i5/OS platforms: <i>install_root/logs/wbi/update/updateconfig.log</i> 	<p>Logs configuration actions that run at the end of the uninstallation process.</p>	<p>Contains a series of <record> elements that document the configuration actions.</p>

Table 26. Installation and profile logs for WebSphere Process Server components (continued)

Log	Content	Indicators
<ul style="list-style-type: none"> i5/OS On i5/OS platforms: %TEMP%\firststeps_i5.log 	Logs errors that occur during the first steps procedure and provides suggestions on how to fix them.	This log is useful when you are running first steps from the command line, because there are chances of typos or similar errors. When first steps is launched from the Profile Management Tool or the installer, it should work without any problem. Whenever you experience any unexpected or erroneous behavior from first steps, you should check this log file.

Recovering from profile creation or augmentation failure

The Profile Management Tool can experience failures when creating new or augmenting existing profiles. The same can occur using the `manageprofiles` command. If such a failure occurs, first check the log files as described in this topic, then follow the recovery instructions described, depending on the situation.

Log files

All `manageprofiles` log files are in `install_root/logs/manageprofiles`. Look at the following log files in the order given. Each log file must contain the entry "INSTCONFSUCCESS." If a file does not include this entry, a failure was detected. Look at the log files to determine why a failure was encountered and to determine a remedy.

- The log file `profile_name_create.log` (where `profile_name` is the name of the profile).

Note: Look at this file only if you were creating a new profile, not augmenting an existing one.

This log file is located in the following directories:

- i5/OS `user_data_root/profileregistry/logs/manageprofiles` on i5/OS systems (where `user_data_root` is the WebSphere Process Server user data directory).
- Linux UNIX `install_root/logs/manageprofiles` on Linux and UNIX systems (where `install_root` is the WebSphere Process Server installation root location).
- Windows `install_root\logs\manageprofiles` on Windows systems (where `install_root` is the WebSphere Process Server installation root location).

Search for the text Configuration action succeeded or Configuration action failed.

Note: There can be multiple occurrences of Configuration action failed. Investigate and remedy each one. Also review the log files described in the following options, if the profile was created.

Note: Additional information is available in the `manageprofiles` directory in the `pmt.log`, which logs all events that occur when a default profile is created during a complete installation using the Profile Management Tool.

- Log file `profile_name_augment.log` (where `profile_name` is the name of the profile).

This log file is located in the following directories:

- **i5/OS** `user_data_root/profileregistry/logs/manageprofiles` on i5/OS systems (where `user_data_root` is the WebSphere Process Server user data directory).
- **Linux** **UNIX** `install_root/logs/manageprofiles` on Linux and UNIX systems (where `install_root` is the WebSphere Process Server installation root location).
- **Windows** `install_root\logs\manageprofiles` on Windows systems (where `install_root` is the WebSphere Process Server installation root location).

Search for the text Configuration action succeeded or Configuration action failed.

Note: There can be multiple occurrences of Configuration action failed. Investigate and remedy each one. Also review the log files described in the following options, if the profile was created.

3. Individual profile template action log files.

If you discovered false values in the log files described in the preceding options, review the log files in the following directories:

- **i5/OS** `user_data_root/profileregistry/logs` on i5/OS systems.
- **Linux** **UNIX** `install_root/logs/manageprofiles/profile_name` on Linux and UNIX systems.
- **Windows** `install_root\logs\manageprofiles\profile_name` on Windows systems.

where `profile_root` or `user_data_root` is the installation location of the profile.

These log files do not follow a consistent naming convention, but typically, each is the name of the Ant script that failed followed by `.log`. For example, suppose the following entry is in the `profile_name_augment.log` file:

```
<messages>Result of executing
E:\o0536.15\profileTemplates\default.wbi.core\actions\saveParamsWbiCore.ant
was:false</messages>
```

First look at the surrounding entries in the `profile_name_augment.log` file in the `install_root/logs/manageprofiles` directory. If you cannot determine the cause of the failure from the surrounding entries, look for the corresponding log file for any failing Ant script entries. In this case, the log file created by the `saveParamsWbiCore.ant` script is `saveParamsWbiCore.ant.log`. Look at that file to investigate why the failure occurred.

Recovery for creation failure

After you determine why profile creation failed and address the cause of the failure, you can try to create the profile again.

Note: When you create a profile, it first creates a WebSphere Application Server profile and then augments it with WebSphere Process Server profile templates to create a WebSphere Process Server profile. Even if you encountered a profile creation failure, a profile can exist that does not have all the needed augmentations.

To determine if the profile exists, run the `install_root/bin/manageprofiles -listProfiles` command. If the profile name you used for creation does not exist, you can recreate the profile. If the profile name you used for creation exists, then the profile was created and you have encountered an augmentation failure. For tips on recovering from an augmentation failure, see “Recovery for augmentation failure” on page 306.

Recovery for augmentation failure

After you determine why profile augmentation failed and address the cause of the failure, you can try to augment the existing profile again to successfully create a complete WebSphere Process Server profile by following these steps:

1. Start the Profile Management Tool and, instead of creating a new profile, choose to augment an existing profile.
2. Choose the profile you were working with, and enter the correct information for it.

Note: Some of the augmentations might have completed successfully the first time you ran the Profile Management Tool. As a result, you might not see all of the panels that you saw the first time you tried to create the profile. This is because the Profile Management Tool detects which remaining augmentations must be completed and displays only the necessary panels.

Troubleshooting the Business Process Choreographer configuration

For information on how to solve problems relating to the configuration of Business Process Choreographer and its Business Flow Manager, or Human Task Manager components, go to the WebSphere Process Server for Multiplatforms, version 6.1, information center and review the topics under **Installing and configuring WebSphere Process Server > Troubleshooting installation and configuration > Troubleshooting the Business Process Choreographer configuration**. You can also find this information in the *Business Process Choreographer PDF*.

Chapter 16. Installation information

This reference section contains subtasks and supporting conceptual and reference information related to installing and configuring WebSphere Process Server.

i5/OS scripts

These WebSphere Application Server scripts are commonly used to perform tasks when using WebSphere Process Server. The default location of these scripts is *install_root/bin* directory. When a profile is created, copies of the scripts are also put in the *profile_root/bin* directory.

Note: Unlike the other platforms, i5/OS Qshell scripts do not have an extension (.bat or .sh) in the file name. For example, the script addNote.bat for Windows platforms will be addNode on i5/OS.

Refer to the table for a description of commonly used scripts used for WebSphere Process Server for i5/OS.

Table 27. Scripts commonly used for WebSphere Process Server for i5/OS

Script	Description
backupConfig	The backupConfig command is a simple utility to back up the configuration of your node to a file.
enableJVM	The enableJVM command allows you to switch between using the IBM® J2SE 5.0 32-bit JVM and the i5/OS® Java™ Developer Kit 5.0 JVM (64 bit also known as the "classic" JVM) for the JVM when starting the server.
historyInfo	The historyInfo command generates a report from data extracted from XML files in the properties/version folder and the properties/version/history folder. The report includes a list of changed components and a history of installed or uninstalled maintenance packages.
ivt	The install verification (ivt) script verifies that the application server for an instance is functioning correctly.
manageprofiles	The manageprofiles command line tool creates all application server run-time environments. The command creates a profile, which is the set of files that define the run-time environment for a stand-alone application server.
restoreConfig	Use the restoreConfig command to restore the configuration of your node after backing up the configuration using the backupConfig command.
startNode	The startNode command reads the configuration file for the node agent process and constructs a launch command.
startServer	The startServer command reads the configuration file for the specified application server and starts the server.
stopNode	The stopNode command reads the configuration file for the Network Deployment node agent process and sends a Java Management Extensions (JMX) command telling the node agent to shut down.

Table 27. Scripts commonly used for WebSphere Process Server for i5/OS (continued)

Script	Description
stopServer	The stopServer command reads the configuration file for the specified server process. This command sends a Java Management Extensions (JMX) command to the server telling it to shut down.
versionInfo	The versionInfo command generates a report from data extracted from XML files in the properties/version folder. The report includes a list of changed components and installed or uninstalled maintenance packages.

WebSphere Application Server on i5/OS also provides some i5/OS platform specific scripts. The following table contains some i5/OS platform specific scripts.

Table 28. i5/OS platform specific scripts

Script	Description
chgwassvr	The chgwassvr command allows you to change the ports for an application server within a profile.
dspwasinst	The dspwasinst command displays information about a profile and the application servers it contains.

Product version and history information

Information and links to product version and history information.

The WBI.product file in the properties/version directory contains information such as product, version, build date, and build level. For example:

```
WBI
6.1.0.0
date="9/29/07"
level="o0738.14"/>
```

Click on the following links for appropriate product version and history information:

Table 29. Product version and history information links.

Item	Link
Product version information	http://publib.boulder.ibm.com/infocenter/wasinfo/v6r1/topic/com.ibm.websphere.nd.multipatform.doc/info/ae/ae/rins_prodVersion.html
genVersionReport command	http://publib.boulder.ibm.com/infocenter/wasinfo/v6r1/topic/com.ibm.websphere.nd.multipatform.doc/info/ae/ae/rins_genVersionReport.html
versionInfo command	http://publib.boulder.ibm.com/infocenter/wasinfo/v6r1/topic/com.ibm.websphere.nd.multipatform.doc/info/ae/ae/rins_versionInfo.html
historyInfo command	http://publib.boulder.ibm.com/infocenter/wasinfo/v6r1/topic/com.ibm.websphere.nd.multipatform.doc/info/ae/ae/rins_historyInfo.html
genHistoryReport command	http://publib.boulder.ibm.com/infocenter/wasinfo/v6r1/topic/com.ibm.websphere.nd.multipatform.doc/info/ae/ae/rins_genHistoryReport.html

Operating system registry keys

Use the installation procedures to register WebSphere Process Server and associated products with the native operating system registry. This topic describes possible registry key values.

Installations are registered with the native operating system registries, such as the Red Hat Package Manager (RPM) on Linux systems.

Note: It is not possible to register with the native operating system registries when performing a non-root installation.

The InstallShield MultiPlatform (ISMP) installation wizard also creates the .nifregistry and vpd.properties files that contain a list of product codes that ISMP uses to track installations that it has performed.

i5/OS The licensed program product codes for i5/OS are:

- 5724I82 WebSphere Enterprise Service Bus V6.1
- 5724L01 WebSphere Process Server V6.1

If you install any of the other WebSphere Process Server options, you will see 5724L01 WebSphere Process Server V6.1.

See Limitations of non-root installers for more information about registry entries.

Note: **i5/OS** **On i5/OS platforms:** Non-root installation is not available on i5/OS platforms.

Table 30. Keys used to register WebSphere Process Server and WebSphere Enterprise Service Bus

Registry file location	WebSphere Process Server	WebSphere Enterprise Service Bus
vpd.properties	WSEAA61	WSEAA61
AIX	WSEAA61	WSEAA61
HP-UX	WSEAA61	WSEAA61
i5/OS	WSEAA61	WSEAA61
Linux	WSEAA61	WSEAA61
Solaris	WSEAA61	WSEAA61
Windows	HKEY_LOCAL_MACHINE\SOFTWARE\IBM\WebSphere Process Server\6.1.0.0	HKEY_LOCAL_MACHINE\SOFTWARE\IBM\WebSphere Enterprise Service Bus\6.1.0.0

In addition to the vpd.properties file, the installation programs also create a record of installed products in an installation registry file and creates a catalog signature file for use by IBM Tivoli License Compliance Manager.

The install registry file

The Version 6.1 install registry file is an XML file that contains data entries for all of the installed products that are listed in the preceding table:

- **Product information:** product ID (offering), product installation location, and product version
- **Package information:** package name, package installation location, product installation location, and any associated products

The catalog signature files

Packages installed by a non-root installer might not register using native operating system mechanisms.

AIX **On AIX platforms:** For example, a WebSphere Process Server version 6.1 product installed as a non-root user on an AIX version 5.3 operating system cannot register to the AIX `lpp` command. Thus, running the `ls lpp` command does not list the current WebSphere Process Server version that is installed.

You can use the IBM Tivoli License Compliance Manager to manage the WebSphere Process Server license and version.

To enable the IBM Tivoli License Compliance Manager to detect and monitor WebSphere Process Server software components, obtain the `ITLMReadinessOfferings.xml` catalog file. This file is also referred to in IBM Tivoli License Compliance Manager as the `IBMUseOnlySoftwareCatalog_****_**-**.xml` or `IBMSoftwareCatalog_****_**-**.xml` file. The `IBMUseOnlySoftwareCatalog_****_**-**.xml` file is used with the Sub-Capacity version. The `IBMSoftwareCatalog_****_**-**.xml` file is used for the Full version.

The catalog file lists software signature recognition and usage files in XML format that are used by the IBM Tivoli License Compliance Manager components to identify and monitor software found on the agents. You can obtain the catalog file from <http://www.ibm.com/software/sysmgmt/products/support/IBMTivoliLicenseManager.html>.

Example package entries

Linux **On Linux platforms:** Issue the following command on a Linux system to show packages for WebSphere Process Server:

```
rpm -qa | grep WS
```

.nifregistry and vpd.properties files

The installer program for WebSphere Process Server uses the InstallShield MultiPlatform (ISMP) program to install code. The `.nifregistry` and `vpd.properties` files list program components that are currently installed. The file helps ISMP and the installer programs of WebSphere Process Server recognize previous installations of WebSphere Process Server and control options for new installations.

Location of the .nifregistry file

The location of the `.nifregistry` file varies per operating platform:

- **AIX** **On AIX platforms:** The root directory `/usr/.ibm/.nif/.nifregistry` or the non-root directory `<NON-ROOT-HOME>/.ibm/.nif/.nifregistry`
- **HP-UX** **On HP-UX platforms:** The root directory `/opt/.ibm/.nif/.nifregistry` or the non-root directory `<NON-ROOT-HOME>/.ibm/.nif/.nifregistry`
- **i5/OS** **On i5/OS platforms:** The root directory `/QIBM/WAS/.ibm/.nif/.nifregistry`
- **Linux** **On Linux platforms:** The root directory `/opt/.ibm/.nif/.nifregistry`
- **Solaris** **On Solaris platforms:** The root directory `/opt/.ibm/.nif/.nifregistry` or the non-root directory `<NON-ROOT-HOME>/.ibm/.nif/.nifregistry`
- **Windows** **On Windows platforms:** The root directory `C:\Windows\.nifregistry`

For example:

```
NON-ROOT user: fvttest
NON-ROOT-HOME: /home/fvttest .nifregistry dir: /home/fvttest/.ibm/.nif/.nifregistry
```

Examples of the .nifregistry file

For a particular product the .nifregistry file contains one entry (line) each for every PAK that gets installed and one entry (line) for the product offering (e.g. WebSphere Business Integration, Enterprise Service Bus, and so on).

The following line shows an example of a PAK entry in the .nifregistry file:

```
<pak installrooturi="file:///C:/IBM/WebSphere/ProcServer/" name="wbi.primary.pak"
paklocationuri="zip:///C:/IBM/WebSphere/ProcServer/properties/version/nif/backup/
wbi.primary.pak" productid="WBI"/
<pak installrooturi="<INSTALL_LOC>" paklocationuri="<PAK_PATH>"
productid="<PRODUCT_ID>"/>
```

The following line shows an example of a product offering entry in the .nifregistry file:

```
<product installrooturi="file:///C:/IBM/WebSphere/ProcServer/"
lastvisited="2007-10-29 00:07:43-0500" productid="WBI" version="6.1.0.0"/>
<product installrooturi="<INSTALL_LOC>" lastvisited="2007-10-29 00:07:43-0500"
productid="<PRODUCT_ID>" version="6.1.0.0"/>
```

Cleaning up the .nifregistry file after a failed uninstallation

For these steps to clean the .nifregistry file after a failed uninstallation:

1. Backup the .nifregistry file.
2. Open the .nifregistry file in a text editor (ensure that line wrapping is turned off).
3. Search and delete all lines that have the <INSTALL_LOC> and <PRODUCT_ID> in them where <INSTALL_LOC> is the install location where you have a failed uninstallation and <PRODUCT_ID> is the product offering ID of the product that you are trying to uninstall.
4. Save the .nifregistry file and close the text editor.

HP-UX Solaris Operating system exceptions for using the vpd.properties file

- ISMP uses the vpd.properties file to track WebSphere products that it installs on all platforms but Solaris and HP-UX.
- ISMP uses native operating system registration on these platforms when installing as root, and does not create a vpd.properties file.

When installing as a non-root installer, the installer programs create a vpd.properties file on all platforms, including Solaris and HP-UX.

Situations that require you to edit the vpd.properties file

Certain situations require you to edit the vpd.properties file before reinstalling WebSphere Process Server. The uninstaller programs for WebSphere Process Server edit the vpd.properties while uninstalling a product, to remove entries for the product and any of its features that might have entries in the file.

Some situations that occur require you to manually remove product entries from the vpd.properties file before you can reinstall a product. These situations include:

- Bypassing the uninstaller program to uninstall a product manually

- Uninstalling a product manually when the uninstaller program is not present or is not working

If the vpd.properties file has entries for a product that you uninstalled, you must edit the file and remove the entries. If you do not edit the vpd.properties file to remove entries for a product or features of a product, you cannot reinstall the product into the same directory structure. If product entries in the vpd.properties file are present, the installer program reads the vpd.properties file, determines that the product is already installed, and displays the panel that prompts you to install additional features into the existing product or to install the binaries a second time. Unfortunately, the existing binaries might not be valid at that point. The installer program does not verify the products that it finds listed in the vpd.properties file.

Location of the vpd.properties file

The location of the vpd.properties file varies per operating platform:

- **AIX** On AIX platforms: The root directory or the usr/lib/objrepos directory
- **i5/OS** On i5/OS platforms: /InstallShield/VitalProductData/vpd.properties
- **Linux** On Linux platforms: The root directory
- **Windows** On Windows platforms: Installation directory of the operating system, such as the C:\WINNT directory or the C:\windows directory

Example of the vpd.properties file

The following example shows the entry for the vpd.properties file for Version 6.1.0.0 of the WebSphere product on a Windows platform. The example shows entire lines but wraps each line for formatting purposes.

```
WSEAA61|6|1|0|0|6.1.0.0|1=IBM WebSphere Process Server|IBM WebSphere Process Server|
IBM WebSphere Process Server V6.1.0.0|IBM|http://www.ibm.com|6.1.0.0|C:\Program Files\
IBM\WebSphere\ESB1|0|0|1|WSEAA61|6|1|0|0|6.1.0.0|1|0|false|"_uninst" "uninstall.jar" "
uninstall.dat" ""|true|3|WSEAA61|6|1|0|0|6.1.0.0|1
```

Identifying entries in the vpd.properties file

Use the following table to help identify product entries.

Table 31. Identifier in the vpd.properties file for WebSphere products

Identifier	Product
WSE...61	All version 6.1 products use this identifier to identify the core product files: <ul style="list-style-type: none"> • WebSphere Process Server, Version 6.1 • WebSphere Enterprise Service Bus, Version 6.1

Installing with existing WebSphere Process Server installations

The installation wizard found an existing installation of WebSphere Process Server by itself or together with installations of other WebSphere products on your system. You must decide whether to install a new installation of WebSphere Process Server to coexist with the current one or to instead add features or new profiles to the existing installation.

About this task

Perform the following procedure to make those choices. This topic assumes that you have already started the installation wizard, accepted the licensing agreement, and checked prerequisites, by following the procedure in “Installing WebSphere Process Server interactively” on page 79. The Detected IBM WebSphere Process Server panel is displayed.

Procedure

1. On the Detected IBM WebSphere Process Server panel, select an option based on how you want to handle your new WebSphere Process Server installation and click **Next**. The panel that is displayed and your next step depend on the option you select:

Option you select	Next step
<p>Add features to IBM WebSphere Process Server: adds features to an existing installation of WebSphere Process Server, which you select from a drop-down list on the panel.</p> <p>Tip: This option is available only when the existing installation of WebSphere Process Server does not have all features installed.</p>	<p>The Features selection panel is displayed. Go to the topic “Installing additional features on an existing installation” on page 103 for instructions to complete your installation.</p>
<p>Install a new copy of WebSphere Process Server: installs a new copy of WebSphere Process Server to coexist with the existing version.</p> <p>Tip: Also choose this option if you want to install WebSphere Process Server over an existing installation of WebSphere Enterprise Service Bus, WebSphere Process Server Client, WebSphere Application Server or WebSphere Application Server Network Deployment. Succeeding detection panels will identify installations of those products and allow you to install over them.</p>	<p>The next panel depends on whether you have an existing installation of another WebSphere product on your system:</p> <ul style="list-style-type: none"> • If you have no other existing installations of WebSphere products, the Installation type panel is displayed. Go to step 2 on page 314. • If you have an existing installation of WebSphere Enterprise Service Bus or WebSphere Process Server Client, the “Detected an installation of an existing product or component” panel is displayed. Go to the topic “Installing with existing WebSphere Enterprise Service Bus or WebSphere Process Server Client installations” on page 315. • If you have an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment, and no existing installations of WebSphere Enterprise Service Bus or WebSphere Process Server Client, the Detected WebSphere Application Server panel is displayed. Go to the topic “Installing with existing WebSphere Application Server or WebSphere Application Server Network Deployment installations” on page 318.
<p>Create a new WebSphere Process Server profile using the Profile Management Tool: opens the Profile Management Tool to let you create a new WebSphere Process Server profile in an existing installation you select from a drop-down list on the panel.</p>	<p>The Installation results panel is displayed and the Profile Management Tool starts. Click Finish to close the installation wizard.</p>

2. On the Installation type panel, select the type of installation you want to perform and click **Next**.

The installation wizard provides a choice of installation paths (the choice of installation path is based on selections you made on previous panels). The next step depends on the type of installation you want and (in the case of the WebSphere Process Server Client) on whether you are installing over an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment.

Option you select	Next step
<p>Typical Installation (the default): installs WebSphere Process Server and optionally installs WebSphere Application Server Network Deployment using default installation selections and configurations. You can optionally install the WebSphere Process Server Samples. You can also create a stand-alone server, deployment manager, or custom profile, or bypass this option and later use the Profile Management Tool to create profiles.</p> <p>Important: If you select to create a stand-alone server profile during a Typical installation and enable security, the installer creates a sample Business Process Choreographer configuration for the profile. If you do not enable security, the sample configuration is not created. If you plan to federate the stand-alone server to a deployment manager, you will first have to delete this sample configuration.</p>	<p>The Features selection panel is displayed. Go to the topic “Installing WebSphere Process Server and creating a profile interactively” on page 84 for instructions to complete your installation.</p>
<p>Deployment Environment Installation: installs WebSphere Process Server and optionally installs WebSphere Application Server Network Deployment, and guides you through setting up a deployment environment. You can create a deployment manager and choose a deployment environment pattern for it or choose a cluster or clusters to apply to a managed node.</p>	<p>The Features selection panel is displayed. Go to the topic “Installing WebSphere Process Server with a deployment environment interactively” on page 90 for instructions to complete your installation.</p>

Option you select	Next step
<p>Client Installation: installs the WebSphere Process Server Client and optionally installs WebSphere Application Server Network Deployment using default installation selections and configurations. It allows you to run client applications that interact with WebSphere Process Server.</p>	<p>The panel that is displayed depends on whether or not you are installing over an existing WebSphere Application Server or WebSphere Application Server Network Deployment installation:</p> <ul style="list-style-type: none"> • If you are <i>not</i> installing over an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment, the Installation location panel is displayed. Go to the topic “Installing the WebSphere Process Server Client interactively” on page 101 for instructions to complete your installation. • If you <i>are</i> installing over an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment, the Installation summary panel is displayed. Go to the topic “Installing the WebSphere Process Server Client interactively” on page 101 for instructions to complete your installation. <p>Important: The user who installs WebSphere Process Server must be the same user who installed WebSphere Application Server or WebSphere Application Server Network Deployment.</p>

Results

You have identified any existing installations of WebSphere Process Server that might impact your new installation. If you have installations of other WebSphere products on your system, you have been directed to other topics that explain how to install the product with those existing installations. If you do not have additional WebSphere products installed on your system, you have chosen the type of installation you want to perform (Typical, Deployment environment, or Client).

What to do next

Continue your installation by following the instructions from the appropriate link depending on the choices you have made.

Installing with existing WebSphere Enterprise Service Bus or WebSphere Process Server Client installations

The installation wizard found an existing installation of WebSphere Enterprise Service Bus or WebSphere Process Server Client by itself or together with installations of other WebSphere products on your system. You must decide whether to install a new installation of WebSphere Process Server to coexist with the WebSphere Enterprise Service Bus or WebSphere Process Server Client installation or to instead add WebSphere Process Server functionality to the existing installation.

About this task

Perform the following procedure to make those choices. This topic assumes that you already have started the installation wizard, accepted the licensing agreement, and checked prerequisites, by following the procedure in “Installing WebSphere Process Server interactively” on page 79. The “Detected an installation of an existing product or component” panel is displayed.

Procedure

1. On the “Detected an installation of an existing product or component” panel, select an option based on how you want to handle your new WebSphere Process Server installation and click **Next**. The panel that is displayed and your next step depend on the option you select:

Option you select	Next step
<p>Install a new copy of WebSphere Process Server: installs a new copy of WebSphere Process Server to coexist with the WebSphere Enterprise Service Bus or WebSphere Process Server Client installation.</p> <p>Tip: Also choose this option if you want to install WebSphere Process Server over an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment. A succeeding detection panel will identify installations of those products and allow you to install over them.</p>	<p>The next panel depends on whether you have an existing installation of another WebSphere product on your system:</p> <ul style="list-style-type: none"> • If you have no other existing installations of WebSphere products, the Installation type panel is displayed. Go to step 2. • If you have an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment, the Detected WebSphere Application Server panel is displayed. Go to the topic “Installing with existing WebSphere Application Server or WebSphere Application Server Network Deployment installations” on page 318.
<p>Use an existing installation of WebSphere Enterprise Service Bus or Use an existing installation of Client: installs WebSphere Process Server over an existing installation of WebSphere Enterprise Service Bus or WebSphere Process Server Client, version 6.1.x you select from a drop-down list on the panel.</p>	<p>The Features selection panel is displayed. Go to the topic “Converting a WebSphere Enterprise Service Bus or WebSphere Process Server Client installation into a WebSphere Process Server installation” on page 106 for instructions to complete your installation.</p>

2. On the Installation type panel, select the type of installation you want to perform and click **Next**.
 The installation wizard provides a choice of installation paths (the choice of installation path is based on selections you made on previous panels). The next step depends on the type of installation you want and (in the case of the WebSphere Process Server Client) on whether you are installing over an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment.

Option you select	Next step
<p>Typical Installation (the default): installs WebSphere Process Server and optionally installs WebSphere Application Server Network Deployment using default installation selections and configurations. You can optionally install the WebSphere Process Server Samples. You can also create a stand-alone server, deployment manager, or custom profile, or bypass this option and later use the Profile Management Tool to create profiles.</p> <p>Important: If you select to create a stand-alone server profile during a Typical installation and enable security, the installer creates a sample Business Process Choreographer configuration for the profile. If you do not enable security, the sample configuration is not created. If you plan to federate the stand-alone server to a deployment manager, you will first have to delete this sample configuration.</p>	<p>The Features selection panel is displayed. Go to the topic “Installing WebSphere Process Server and creating a profile interactively” on page 84 for instructions to complete your installation.</p>
<p>Deployment Environment Installation: installs WebSphere Process Server and optionally installs WebSphere Application Server Network Deployment, and guides you through setting up a deployment environment. You can create a deployment manager and choose a deployment environment pattern for it or choose a cluster or clusters to apply to a managed node.</p>	<p>The Features selection panel is displayed. Go to the topic “Installing WebSphere Process Server with a deployment environment interactively” on page 90 for instructions to complete your installation.</p>
<p>Client Installation: installs the WebSphere Process Server Client and optionally installs WebSphere Application Server Network Deployment using default installation selections and configurations. It allows you to run client applications that interact with WebSphere Process Server.</p>	<p>The panel that is displayed depends on whether or not you are installing over an existing WebSphere Application Server or WebSphere Application Server Network Deployment installation:</p> <ul style="list-style-type: none"> • If you are <i>not</i> installing over an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment, the Installation location panel is displayed. Go to the topic “Installing the WebSphere Process Server Client interactively” on page 101 for instructions to complete your installation. • If you <i>are</i> installing over an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment, the Installation summary panel is displayed. Go to the topic “Installing the WebSphere Process Server Client interactively” on page 101 for instructions to complete your installation. <p>Important: The user who installs WebSphere Process Server must be the same user who installed WebSphere Application Server or WebSphere Application Server Network Deployment.</p>

Results

You have identified any existing installations of WebSphere Enterprise Service Bus or WebSphere Process Server Client that might impact your new installation. If you have installations of other WebSphere products on your system, you have been directed to other topics that explain how to install the product with those existing installations. If you do not have additional WebSphere products installed on your system, you have chosen the type of installation you want to perform (Typical, Deployment environment, or Client).

What to do next

Continue your installation by following the instructions from the appropriate link depending on the choices you have made.

Installing with existing WebSphere Application Server or WebSphere Application Server Network Deployment installations

The installation wizard found an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment. You must decide whether to install a new installation of WebSphere Process Server (with a new underlying installation of WebSphere Application Server Network Deployment) or to instead add WebSphere Process Server functionality to the WebSphere Application Server or WebSphere Application Server Network Deployment installation.


About this task

Perform the following procedure to make those choices. This topic assumes that you already have started the installation wizard, accepted the licensing agreement, and checked prerequisites, by following the procedure in “Installing WebSphere Process Server interactively” on page 79. The Detected WebSphere Application Server panel is displayed.

Procedure

1. On the Detected WebSphere Application Server panel, select an option based on how you want to handle your new WebSphere Process Server installation:
 - **Install a new copy of WebSphere Application Server Network Deployment:** installs a new copy of WebSphere Application Server Network Deployment during WebSphere Process Server installation.
 - **Use an existing installation of WebSphere Application Server Network Deployment or Use an existing installation of WebSphere Application Server:** installs WebSphere Process Server over an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment you select from a drop-down list on the panel.

Important: The user who installs WebSphere Process Server must be the same user who installed WebSphere Application Server or WebSphere Application Server Network Deployment.

Restriction:  If the selected WebSphere Application Server Network Deployment installation is at an earlier service level and the WebSphere Process Server installation is being done remotely from a Windows client,

then the WebSphere Application Server Network Deployment must be updated using a local silent install from the i5/OS system before continuing with this installation.

After you make your selection, click **Next**. The Installation type panel is displayed.

2. On the Installation type panel, select the type of installation you want to perform and click **Next**.

The installation wizard provides a choice of installation paths (the choice of installation path is based on selections you made on previous panels). The next step depends on the type of installation you want and (in the case of the WebSphere Process Server Client) on whether you are installing over an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment.

Option you select	Next step
<p>Typical Installation (the default): installs WebSphere Process Server and optionally installs WebSphere Application Server Network Deployment using default installation selections and configurations. You can optionally install the WebSphere Process Server Samples. You can also create a stand-alone server, deployment manager, or custom profile, or bypass this option and later use the Profile Management Tool to create profiles.</p> <p>Important: If you select to create a stand-alone server profile during a Typical installation and enable security, the installer creates a sample Business Process Choreographer configuration for the profile. If you do not enable security, the sample configuration is not created. If you plan to federate the stand-alone server to a deployment manager, you will first have to delete this sample configuration.</p>	<p>The Features selection panel is displayed. Go to the topic “Installing WebSphere Process Server and creating a profile interactively” on page 84 for instructions to complete your installation.</p>
<p>Deployment Environment Installation: installs WebSphere Process Server and optionally installs WebSphere Application Server Network Deployment, and guides you through setting up a deployment environment. You can create a deployment manager and choose a deployment environment pattern for it or choose a cluster or clusters to apply to a managed node.</p>	<p>The Features selection panel is displayed. Go to the topic “Installing WebSphere Process Server with a deployment environment interactively” on page 90 for instructions to complete your installation.</p>

Option you select	Next step
<p>Client Installation: installs the WebSphere Process Server Client and optionally installs WebSphere Application Server Network Deployment using default installation selections and configurations. It allows you to run client applications that interact with WebSphere Process Server.</p>	<p>The panel that is displayed depends on whether or not you are installing over an existing WebSphere Application Server or WebSphere Application Server Network Deployment installation:</p> <ul style="list-style-type: none"> • If you are <i>not</i> installing over an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment, the Installation location panel is displayed. Go to the topic “Installing the WebSphere Process Server Client interactively” on page 101 for instructions to complete your installation. • If you <i>are</i> installing over an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment, the Installation summary panel is displayed. Go to the topic “Installing the WebSphere Process Server Client interactively” on page 101 for instructions to complete your installation.

Results

You have identified any existing installations of WebSphere Application Server or WebSphere Application Server Network Deployment that might impact your new installation. You have also chosen the type of installation you want to perform (Typical, Deployment environment, or Client).

What to do next

Continue your installation by following the instructions from the appropriate link depending on the choices you have made.

Mounting disk drives on Linux and UNIX operating systems

Some Linux and UNIX operating systems require you to mount the drive before you can access data on the product CDs or DVD.

Before you begin

Insert the CD or DVD into the drive before mounting the drive. You must be a root user to mount disk drives.

About this task

Use these procedures to mount the product CDs or DVD for WebSphere Process Server.

- **AIX** **Mounting a CD or DVD on AIX systems.** To mount a CD or DVD on an AIX system using the System Management Interface Tool (SMIT), perform the following steps:
 1. Log in as a user with root authority.
 2. Insert the disk in the drive.

3. Create a disk mount point by entering the `mkdir -p /cdrom` command, where `cdrom` represents the disk mount point directory.
4. Allocate a disk file system using SMIT by entering the **smit storage** command.
5. After SMIT starts, select **System Storage™ Management (Physical & Logical Storage) > File Systems > Add / Change / Show / Delete File Systems > CDROM File Systems > Add CDROM File System**.
6. In the Add a CDROM File System window:
 - Enter a device name for your disk file system in the **DEVICE Name** field. Device names for disk file systems must be unique. If there is a duplicate device name, you might need to delete a previously defined disk file system or use another name for your directory. The example uses `/dev/cd0` as the device name.
 - Enter the disk mount point directory in the **MOUNT POINT** window. In our example, the mount point directory is `/cdrom`.
 - In the **Mount AUTOMATICALLY at system restart** field, select yes to enable automatic mounting of the file system.
 - Select **OK** to close the window, then select **Cancel** three times to exit SMIT.
7. Next, mount the disk file system by entering the **smit mountfs** command.
8. In the Mount a File System window, do the following:
 - Enter the device name for this disk file system in the **FILE SYSTEM name** field. In our example, the device name is `/dev/cd0`.
 - Enter the disk mount point in the **Directory over which to mount** field. In our example, the mount point is `/cdrom`.
 - Enter `cdrfs` in the **Type of Filesystem** field. To view the other kinds of file systems you can mount, select List.
 - In the **Mount as READ-ONLY system** field, select yes.
 - Accept the remaining default values and select **OK** to close the window.

Your disk file system is now mounted. To view the contents of the CD or DVD, place it in the drive and enter the `cd /cdrom` command where `cdrom` is the disk mount point directory.

- **HP-UX Mounting a CD or DVD on HP-UX systems.** Because WebSphere Process Server contains several files with long file names, the mount command can fail. The following steps let you mount your WebSphere Process Server product CDs or DVD on the HP-UX platform successfully:

1. Log in as a user with root authority.
2. In the `/etc` directory, add the following line to the `pfs_fstab` file:


```
/dev/dsk/c0t2d0 mount_point pfs-rrip ro,hard
```

where `mount_point` represents the mount point of the CD or DVD.

3. Start the `pfs` daemon by entering the following commands (if they are not already running):

```
/usr/sbin/pfs_mountd &
/usr/sbin/pfsd 4 &
```

4. Insert the CD or DVD in the drive and enter the following commands:

```
mkdir /cdrom
/usr/sbin/pfs_mount /cdrom
```

The `/cdrom` variable represents the mount point of the disk.

5. Log out.

- **Linux** **Mounting a CD or DVD on Linux systems.** To mount a CD or DVD on a Linux system, do the following:

1. Log in as a user with root authority.
2. Insert the disk in the drive and enter the following command:

```
mount -t iso9660 -o ro /dev/cdrom /cdrom
```

The `/cdrom` variable represents the mount point of the disk.

3. Log out.

Some window managers can automatically mount your CD or DVD for you. Consult your system documentation for more information.

- **Solaris** **Mounting a CD or DVD on Solaris systems.** To mount a CD or DVD on a Solaris system, do the following:

1. Log in as a user with root authority.
2. Insert the disk into the drive.
3. If the Volume Manager (vold) is not running on your system, enter the following commands to mount the disk:

```
mkdir -p /cdrom/unnamed_cdrom
```

```
mount -F hsfs -o ro /dev/dsk/c0t6d0s2 /cdrom/unnamed_cdrom
```

The `/cdrom/unnamed_cdrom` variable represents the disk mount directory and `/dev/dsk/c0t6d0s2` represents the disk drive device.

If you are mounting the disk drive from a remote system using NFS, the disk file system on the remote machine must be exported with root access. You must also mount that file system with root access on the local machine.

If the Volume Manager (vold) is running on your system, the disk is automatically mounted as:

```
/cdrom/unnamed_cdrom
```

4. Log out.

Default installation directories for the product, profiles, and tools

References in product information to `install_root`, `user_data_root`, `profile_root`, `updi_root`, and `cip_proc_server_root`, represent specific default directory locations for the product installation, profile configuration files, and tools. This topic describes the conventions in use for WebSphere Process Server. The meaning of these variables can differ based on whether you are installing the product on a clean server or on one with an existing installation of WebSphere Application Server, WebSphere Application Server Network Deployment, WebSphere Process Server or WebSphere Enterprise Service Bus. They can also differ depending on whether you are performing the installation as a root (Administrator on a Windows system) or non-root user.

Limitations of non-root installers

Linux **UNIX** **Windows** Root, Administrator, and non-root users can install the product. The default directories the installation wizard provides will differ based on whether the user has root (Administrator) privileges.

Linux **UNIX** **Windows** Root and Administrator users can register shared products and install into system-owned directories (globally shared resources that are available to all users), while non-root users cannot. Non-root users can install only into directories they own.

Variables used in the documentation

Several variables representing specific default directories are used throughout the documentation. These file paths are default locations. You can install the product and other components and create profiles in any directory for which you have write access. Multiple installations of WebSphere Process Server products or components, of course, require multiple locations.

Here are the main variables used in the documentation:

Note: **i5/OS** **On i5/OS platforms:** To perform an installation on an i5/OS system, you must have a user profile with *SECADM and *ALLOBJ special authorities.

Linux **UNIX** **Windows** **On Linux, UNIX, and Windows platforms:**

install_root

Installation location of WebSphere Process Server. WebSphere Process Server is always installed in the same location as the WebSphere Application Server Network Deployment installation with which it is associated.

i5/OS **On i5/OS platforms:** *user_data_root*

The default user data directory for WebSphere Process Server. The *user_data_root* is different from *install_root*, and they cannot be the same location. The profiles and profileRegistry subdirectories are created under this directory when you install the product.

profile_root

Location of a WebSphere Process Server profile.

updi_root

Installation location of the Update Installer for WebSphere Software.

cip_proc_server_root

Installation location of a customized installation package (CIP) produced by the Installation Factory. A CIP is a WebSphere Process Server product bundled with one or more maintenance packages and other optional files and scripts.

Default directories on a clean server

The following tables show the default installation locations of WebSphere Process Server, WebSphere Process Server profiles, the Update Installer for WebSphere Software, and a customized installation package (CIP) produced by the Installation Factory, when there is *not* an existing installation of any other WebSphere product.

Table 32 shows the default installation root directory into which the installation wizard installs both WebSphere Process Server and WebSphere Application Server Network Deployment for both root (Administrator) and non-root users:

Table 32. *install_root* default directory

Default <i>install_root</i> for root or Administrator users	Default <i>install_root</i> for non-root users
AIX On AIX platforms: /usr/IBM/WebSphere/ProcServer	AIX On AIX platforms: <i>user_home</i> /IBM/WebSphere/ProcServer

Table 32. *install_root* default directory (continued)

Default <i>install_root</i> for root or Administrator users	Default <i>install_root</i> for non-root users
HP-UX Solaris On HP-UX and Solaris platforms: /opt/IBM/WebSphere/ProcServer	HP-UX Solaris On HP-UX and Solaris platforms: <i>user_home</i> /IBM/WebSphere/ProcServer
Linux On Linux platforms: /opt/ibm/WebSphere/ProcServer	Linux On Linux platforms: <i>user_home</i> /ibm/WebSphere/ProcServer
Windows On Windows platforms: C:\Program Files\IBM\WebSphere\ProcServer	Windows On Windows platforms: C:\IBM\WebSphere\ProcServer

Table 33 shows the default installation directory for a profile named *profile_name* for both root (Administrator) and non-root users:

Table 33. *profile_root* default directory

Default <i>profile_root</i> for root or Administrator users	Default <i>profile_root</i> for non-root users
AIX On AIX platforms: /usr/IBM/WebSphere/ProcServer/profiles/ <i>profile_name</i>	AIX On AIX platforms: <i>user_home</i> /IBM/WebSphere/ProcServer/profiles/ <i>profile_name</i>
HP-UX Solaris On HP-UX and Solaris platforms: /opt/IBM/WebSphere/ProcServer/profiles/ <i>profile_name</i>	HP-UX Solaris On HP-UX and Solaris platforms: <i>user_home</i> /IBM/WebSphere/ProcServer/profiles/ <i>profile_name</i>
Linux On Linux platforms: /opt/ibm/WebSphere/ProcServer/profiles/ <i>profile_name</i>	Linux On Linux platforms: <i>user_home</i> /ibm/WebSphere/ProcServer/profiles/ <i>profile_name</i>
Windows On Windows platforms: C:\Program Files\IBM\WebSphere\ProcServer/profiles/ <i>profile_name</i>	Windows On Windows platforms: C:\IBM\WebSphere\ProcServer/profiles/ <i>profile_name</i>

Table 34 shows the default installation directory for the Update Installer for WebSphere Software for both root (Administrator) and non-root users:

Table 34. *updi_root* default directory

Default <i>updi_root</i> for root or Administrator users	Default <i>updi_root</i> for non-root users
AIX On AIX platforms: /usr/IBM/WebSphere/UpdateInstaller	AIX On AIX platforms: <i>user_home</i> /IBM/WebSphere/UpdateInstaller
HP-UX Linux Solaris On HP-UX, Linux, and Solaris platforms: /opt/IBM/WebSphere/UpdateInstaller	HP-UX Linux Solaris On HP-UX, Linux, and Solaris platforms: <i>user_home</i> /IBM/WebSphere/UpdateInstaller
Windows On Windows platforms: C:\Program Files\IBM\WebSphere\UpdateInstaller	Windows On Windows platforms: C:\IBM\WebSphere\UpdateInstaller

Linux **UNIX** **Windows** **On Linux, UNIX, and Windows platforms:** Table 35 on page 325 shows the default installation directory for both root (Administrator)

and non-root users for a customized installation package (CIP) produced by the Installation Factory. The *cip_uid* variable is the CIP unique ID generated during creation of the build definition file. You can override the generated value in the Build definition wizard. Use a unique value to allow multiple CIPs to install on the system.

Table 35. *cip_proc_server_root* default directory

Default <i>cip_proc_server_root</i> for root or Administrator users	Default <i>cip_proc_server_root</i> for non-root users
AIX On AIX platforms: /usr/IBM/WebSphere/ProcServer/cip/ <i>cip_uid</i>	AIX On AIX platforms: <i>user_home</i> /IBM/WebSphere/ProcServer/cip/ <i>cip_uid</i>
HP-UX Solaris On HP-UX and Solaris platforms: /opt/IBM/WebSphere/ProcServer/cip/ <i>cip_uid</i>	HP-UX Solaris On HP-UX and Solaris platforms: <i>user_home</i> /IBM/WebSphere/ProcServer/cip/ <i>cip_uid</i>
Linux On Linux platforms: /opt/ibm/WebSphere/ProcServer/cip/ <i>cip_uid</i>	Linux On Linux platforms: <i>user_home</i> /ibm/WebSphere/ProcServer/cip/ <i>cip_uid</i>
Windows On Windows platforms: C:\Program Files\IBM\WebSphere\ ProcServer\cip\ <i>cip_uid</i>	Windows On Windows platforms: C:\IBM\WebSphere\ProcServer\cip\ <i>cip_uid</i>

Table 36 shows the default directories for the i5/OS platform.

Table 36. *i5/OS* default directories on a clean server

Default directory variable	Default directory
<i>install_root</i>	i5/OS On i5/OS platforms: /QIBM/ProdData/WebSphere/ProcServer
<i>updi_root</i>	i5/OS On i5/OS platforms: /QIBM/ProdData/WebSphere/ UpdateInstaller
<i>user_data_root</i>	i5/OS On i5/OS platforms: /QIBM/UserData/WebSphere/ProcServer/
<i>profile_root</i>	i5/OS On i5/OS platforms: /QIBM/UserData/WebSphere/ProcServer/ profiles/ <i>profile_name</i>

Default directories when an installation of WebSphere Application Server or WebSphere Application Server Network Deployment exists

When an installation of a supported version of WebSphere Application Server or WebSphere Application Server Network Deployment exists on a server and you elect to install WebSphere Process Server on top of it, WebSphere Process Server is installed into the same location. Table 37 on page 326 shows the default installation root directory in such a case for both root (Administrator) and non-root users:

Table 37. *install_root* default directory when an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment exists

Default <i>install_root</i> for root or Administrator users	Default <i>install_root</i> for non-root users
AIX On AIX platforms: /usr/IBM/WebSphere/AppServer	AIX On AIX platforms: <i>user_home</i> /IBM/WebSphere/AppServer
HP-UX Linux Solaris On HP-UX, Linux, and Solaris platforms: /opt/IBM/WebSphere/AppServer	HP-UX Linux Solaris On HP-UX, Linux, and Solaris platforms: <i>user_home</i> /IBM/WebSphere/AppServer
Windows On Windows platforms: C:\Program Files\IBM\WebSphere\AppServer	Windows On Windows platforms: C:\IBM\WebSphere\AppServer

Default directories for *profile_root*, *updi_root*, and *cip_proc_server_root* are handled similarly.

Table 38 shows the default directories for the i5/OS platform.

Table 38. *i5/OS* default directories when an existing installation of WebSphere Application Server or WebSphere Application Server Network Deployment exists

Default directory variable	Default directory
<i>install_root</i>	i5/OS On i5/OS platforms: /QIBM/ProdData/WebSphere/Appserver/V61/ND
<i>user_data_root</i>	i5/OS On i5/OS platforms: /QIBM/UserData/WebSphere/Appserver/V61/ND
<i>profile_root</i>	i5/OS On i5/OS platforms: /QIBM/UserData/WebSphere/Appserver/V61/ND/profiles/ <i>profile_name01</i>

Default directories when a WebSphere Process Server installation exists

When an installation of WebSphere Process Server exists on a server, if you run the installation wizard to initiate a second installation of the product, the installation wizard detects the existing installation and appends a number to the second default directory. For instance, if WebSphere Process Server exists in the default directory /opt/IBM/WebSphere/ProcServer and you then run the installation wizard a second time, the wizard will offer the default installation location of /opt/IBM/WebSphere/ProcServer1 for the second product installation on the Installation location panel. Table 39 shows the default installation root directory in such a case for both root (Administrator) and non-root users:

Table 39. *install_root* default directory when an existing installation of WebSphere Process Server exists

Default <i>install_root</i> for root or Administrator users	Default <i>install_root</i> for non-root users
AIX On AIX platforms: /usr/IBM/WebSphere/ProcServer1	AIX On AIX platforms: <i>user_home</i> /IBM/WebSphere/ProcServer1

Table 39. *install_root* default directory when an existing installation of WebSphere Process Server exists (continued)

Default <i>install_root</i> for root or Administrator users	Default <i>install_root</i> for non-root users
<p>HP-UX Solaris On HP-UX and Solaris platforms: /opt/IBM/WebSphere/ProcServer1</p>	<p>HP-UX Solaris On HP-UX and Solaris platforms: <i>user_home</i>/IBM/WebSphere/ProcServer1</p>
<p>Linux On Linux platforms: /opt/ibm/WebSphere/ProcServer1</p>	<p>Linux On Linux platforms: <i>user_home</i>/ibm/WebSphere/ProcServer1</p>
<p>Windows On Windows platforms: C:\Program Files\IBM\WebSphere\ProcServer1</p>	<p>Windows On Windows platforms: C:\IBM\WebSphere\ProcServer1</p>

Important: This scenario assumes that a second installation of WebSphere Application Server Network Deployment without WebSphere Process Server already installed over it does *not* exist on the server. If one does, you can install WebSphere Process Server into that same directory (/opt/IBM/WebSphere/AppServer for instance) or you can install a new installation of both WebSphere Process Server and WebSphere Application Server Network Deployment into the directories as listed previously.

Table 40 shows the default directories for the i5/OS platform.

Table 40. *i5/OS* default directories when a WebSphere Process Server installation exists

Default directory variable	Default directory
<i>install_root</i>	<p>i5/OS On i5/OS platforms: /QIBM/ProdData/WebSphere/ProcServer1</p>
<i>user_data_root</i>	<p>i5/OS On i5/OS platforms: /QIBM/UserData/WebSphere/ProcServer1</p>
<i>profile_root</i>	<p>i5/OS On i5/OS platforms: /QIBM/UserData/WebSphere/ProcServer1/profiles/<i>profile_name</i>01</p>

Default directories when a WebSphere Enterprise Service Bus installation exists

When an installation of WebSphere Enterprise Service Bus exists on a server and you install WebSphere Process Server on top of it, WebSphere Process Server is installed into the same location. Table 41 shows the default installation root directory in such a case for both root (Administrator) and non-root users:

Table 41. *install_root* default directory when you install WebSphere Process Server over an existing installation of WebSphere Enterprise Service Bus

Default <i>install_root</i> for root or Administrator users	Default <i>install_root</i> for non-root users
<p>AIX On AIX platforms: /usr/IBM/WebSphere/ESB</p>	<p>AIX On AIX platforms: <i>user_home</i>/IBM/WebSphere/ESB</p>

Table 41. *install_root* default directory when you install WebSphere Process Server over an existing installation of WebSphere Enterprise Service Bus (continued)

Default <i>install_root</i> for root or Administrator users	Default <i>install_root</i> for non-root users
HP-UX Solaris On HP-UX and Solaris platforms: /opt/IBM/WebSphere/ESB	HP-UX Solaris On HP-UX and Solaris platforms: <i>user_home</i> /IBM/WebSphere/ESB
Linux On Linux platforms: /opt/ibm/WebSphere/ESB	Linux On Linux platforms: <i>user_home</i> /ibm/WebSphere/ESB
Windows On Windows platforms: C:\Program Files\IBM\WebSphere\ESB	Windows On Windows platforms: C:\IBM\WebSphere\ESB

Important: This scenario assumes that a second installation of WebSphere Application Server Network Deployment without WebSphere Process Server already installed over it does *not* exist on the server. If one does, you can install WebSphere Process Server into that same directory (/opt/IBM/WebSphere/AppServer for instance).

Default directories of *profile_root*, *updi_root*, and *cip_proc_server_root* are handled similarly.

Table 42 shows the default directories for the i5/OS platform.

Table 42. *i5/OS* default directories when a WebSphere Enterprise Service Bus installation exists

Default directory variable	Default directory
<i>install_root</i>	i5/OS On i5/OS platforms: /QIBM/ProdData/WebSphere/ESB1
<i>user_data_root</i>	i5/OS On i5/OS platforms: /QIBM/UserData/WebSphere/ESB1
<i>profile_root</i>	i5/OS On i5/OS platforms: QIBM/UserData/WebSphere/ESB1/profiles/ <i>profile_name</i> 01

Product components

This topic describes the features of WebSphere Process Server.

Table 43 on page 329 lists the features of WebSphere Process Server that can be installed. For better performance in either a development or production environment, do not install the WebSphere Process Server Samples.

Note: **i5/OS** **On i5/OS platforms:** The only component available for installation is the WebSphere Process Server Samples.

Table 43. Features of WebSphere Process Server

Feature	Description
Business Rule Beans (Deprecated)	Installs functionality used to create and modify rules that let you externalize business policy from your application so the application's core behavior and user interface objects remain unchanged as business needs evolve. This function has been carried forward from WebSphere Business Integration Server Foundation, version 5.1.1. It will not be supported in future versions of WebSphere Process Server.
Extended Messaging (Deprecated)	Installs functionality that provides enhanced support for handling messages and processing replies to these messages, by extending support for the base JMS, the EJB 2.0 message-driven beans, and the Enterprise Java Bean (EJB) component model, to use the existing container-managed persistence and transactional behavior. This function has been carried forward from WebSphere Business Integration Server Foundation, version 5.1.1. It will not be supported in future versions of WebSphere Process Server.
WebSphere Process Server Samples	Installs the sample applications for both WebSphere Process Server and WebSphere Application Server Network Deployment. Includes both source code files and integrated enterprise applications that demonstrate some of the latest Java 2 Platform, Enterprise Edition (J2EE) and WebSphere technologies. For more information about the samples, see Accessing the Samples (Samples Gallery) .

install command

The install command installs the product and most of the components in the product. When you install the product, the installer program installs the core product files and creates one or no profiles, depending on your installation selections. A silent parameter runs the installation wizard in silent mode without displaying the graphical user interface.

Purpose

This topic describes the command-line syntax for the install command. Start the install command module from the command line to install the product.

Before you begin installing the product

Prepare the operating system for installation. Follow the procedure in Chapter 5, "Preparing the operating system for installation," on page 41 to get started.

The command file resides in the root directory of the component on the product disk.

In an effort to simplify your task environment, WebSphere Process Server has adopted a common installation engine for WebSphere software components in the

Version 6.1 product package. The install command starts the installation program in almost all components in the product package:

- **i5/OS** On i5/OS platforms: install
- **Linux** **UNIX** On Linux and UNIX platforms: install
- **Windows** On Windows platforms: install.bat

If the command or an alternative command is not applicable for a component on a particular operating system, the N/A abbreviation is displayed in Table 44. A command is not applicable if the component cannot be installed on the operating system.

Table 44. WebSphere Application Server component installation commands

Operating System	Application Client	IBM HTTP Server	Web Server Plug-ins	Application Server Toolkit	Update Installer (UPDI)
AIX	install	install	install	N/A	/UpdateInstaller/ install
HP-UX	/AppClient/install	/IHS/install	/plugin/install	N/A	/UpdateInstaller/ install
i5/OS	install	N/A	install	install	/UpdateInstaller/ install
Linux	N/A	/IHS/install	/plugin/install	/install	/UpdateInstaller/ install
Solaris	N/A	install	install	N/A	/UpdateInstaller/ install
Windows	\AppClient\ install.exe	\IHS\install.exe	\plugin\install.exe	\install.exe	\UpdateInstaller\ install.exe

Table 45. Component installation commands

Operating System	WebSphere Process Server	IBM Installation Factory	IBM WebSphere Process Server Help System	IBM Support Assistant	Message Service Clients for C/C++	Message Service Clients for .NET
AIX	install	install			MsgClients/XMSCC/ setupAix.bin	
HP-UX	/WBI/install	/WBI/ install	/IEHS/ install.exe	/ISA/ install.bin		
i5/OS	install	install			N/A	N/A
Linux	/WBI/install	/WBI/ install	IEHS/ install.exe	/ISA/ install.bin	<ul style="list-style-type: none"> • 32-bit: MsgClients/ XMSCC/ setuplinuxia32 • 64-bit: MsgClients/ XMSCC/setuplinux- x86_64 	
Solaris	install	install			MsgClients/XMSCC/ setupsolaris	
Windows	\WBI\ install.bat	\WBI\ install.bat	\IEHS\install\ exe	\ISA\ install.exe	MsgClients\XMSCC\ setup.exe	MsgClients\XMSNET\ dotNETClientsetup.exe

Parameters and syntax

This section describes the command that starts the installation wizard.

- Issue the install command to start the installation wizard and display the graphical user interface:
`component_disc_directory/install`
- Issue the install -silent command to start the installation wizard in silent mode, without the graphical user interface:
`component_disc_directory/install -options "response_file_name" -silent`

Use the following install command options to install a new installation, add a feature to an existing installation, or configure an existing WebSphere Process Server product by creating a profile.

Use Table 46 to determine valid values for each option.

Table 46. WebSphere Process Server install command option values table

Option name (-OPT)	Values	Default	Description
silentInstallLicenseAcceptance	true/false	false	Choose whether to accept license agreements
installType	<ul style="list-style-type: none"> • installNew • addfeature • upgrade 	installNew	Choose a type of installation to perform
samplesSelected	<ul style="list-style-type: none"> • true - the feature is selected for installation • false - the feature is not selected for installation 	false	Choose the required value if you wish to use this feature.
brbeansSelected	<ul style="list-style-type: none"> • true - the feature is selected for installation • false - the feature is not selected for installation 	false	Choose the required value if you wish to use this feature. This feature is not supported on i5/OS.
extendedMessagingSelected	<ul style="list-style-type: none"> • true - the feature is selected for installation • false - the feature is not selected for installation 	false	Choose the required value if you wish to use this feature. This feature is not supported on i5/OS.
installLocation	Any valid installation location	Default location for the platform type	Choose the installation destination path
PROF_profilesInfo			Display a list of profile arguments.
allowNonRootSilentInstall	true/false	false	Choose to accept non-root user installation
PROF_enableAdminSecurity	true/false	true	Choose whether to enable out-of-box security. You must select 'true' if you are installing the samplesSelected option or for network deployment <i>dmgr</i> .
profileType	<ul style="list-style-type: none"> • standalone • deploymentManager • managed node • none 	standalone	Choose one of the four profile creation options

Table 46. WebSphere Process Server install command option values table (continued)

Option name (-OPT)	Values	Default	Description
profileLocation	Any valid user data location		Applicable to i5/OS only
traceLevel	<ul style="list-style-type: none"> • OFF 0 - no trace is produced • SEVERE 1 - Only severe errors are output to trace files • WARNING 2 - Messages regarding non-fatal exceptions and warnings are added to the trace file • INFO 3 - Informational messages are added to the trace files • CONFIG 4 - Configuration related messages are added to the trace file • FINE 5 - Tracing method calls for non-public methods • FINER 6 - Tracing method calls for non-public methods except getters and setters • FINEST 7 - Trace all method calls, trace entry and exit, and will include parameters and return value 	0	Choose the amount of trace information you wish to capture
traceFormat	<ul style="list-style-type: none"> • text - the trace file will be produced in plain text format for readability • XML - the trace files will be produced in standard Java logging XML format. 	Both formats are produced in two different trace files. If you require only one format to be produced choose the appropriate option	Choose the trace file output format
wpsInstallType	<ul style="list-style-type: none"> • typical • ndguided • client 	typical	Choose between a typical installation, a deployment environment installation, and a client installation.
ndGuidedInstallType	<ul style="list-style-type: none"> • deploymentManager • additionalRoles 	deployment Manager	Choose the type of a deployment environment installation to perform.
disableOSPrereqChecking	true/false	false	Choose whether you want to disable the operating system prerequisite checking.
disableNonBlockingPrereqChecking	true/false	false	Choose whether you want to disable non-blocking prerequisite checking.
createProfile	true/false	false	Choose whether to create a profile for an existing installation.

Table 46. WebSphere Process Server install command option values table (continued)

Option name (-OPT)	Values	Default	Description
PROF_topologyPattern	<ul style="list-style-type: none"> • Reference - Remote messaging and remote support • CondensedAsync - Remote messaging • CondensedSync - Single cluster 		Choose the deployment environment installation.
PROF_topologyRole	<ul style="list-style-type: none"> • ADT - Application Deployment Target • Messaging - Messaging infrastructure • Support - Support infrastructure 		Choose at least one cluster to assign this node to the deployment environment topology. For more than one selection, use comma (,) as the separator. The options available are dependant on your choice of deployment environment installation.
useExistingWAS	true/false	false	Choose whether you intend to use an existing installation of WebSphere Application Server. If you choose true you must set the installLocation option to the install root of the existing WebSphere Application Server installation.

Mozilla 1.7 support for national languages

Mozilla 1.7 might not be available on all native language and operating system combinations.

The WebSphere Process Server version 6.1.x distributed product is supported on these native languages:

- Brazilian-Portuguese
- Czech
- English
- French
- German
- Hungarian
- Italian
- Japanese
- Korean
- Polish
- Russian
- Spanish
- Simplified Chinese
- Traditional Chinese

Versions of Mozilla earlier than 1.7 have known security exposures. Details regarding these security exposures are available from the Mozilla Web site: <http://www.mozilla.org/projects/security/known-vulnerabilities.html>.

Mozilla frequently adds to the list of native languages and operating system combinations that are supported on Mozilla releases, so check their Web site for updates: <http://www.mozilla.org/releases/>

Special considerations when installing from Passport Advantage

If you plan to install from images obtained from Passport Advantage, you must review the downloading instructions provided with the images and observe certain guidelines concerning user permissions and directory setup.

Note: **i5/OS** **On i5/OS platforms:** The installation images obtained from Passport Advantage must be downloaded to a Windows workstation.

Images map one-for-one to the *WebSphere Process Server V6.1 Disk 1* or *WebSphere Process Server V6.1 DVD* and the *WebSphere Application Server CDs*. They are grouped by platform into electronic assemblies. Each assembly contains all the images for that platform, allowing you to quickly identify all software needed for the platform.

Observe the following guidelines when installing from images obtained from Passport Advantage:

- **Linux** **UNIX** **On Linux and UNIX platforms:** Ensure that the user who extracts the files with the `untar` command is the same user who will install the product. The product installer will not work properly if different users perform these tasks.
- Make sure that you extract the contents of the images for *WebSphere Process Server V6.1 Disk 1* or *WebSphere Process Server V6.1 DVD*, the *WebSphere Application Server Network Deployment Supplements V6.1 CD*, and the *WebSphere Application Server Toolkit V6.1.1 Disk 1 CD* into three separate directories. If you extract the files from the images into the same directory, errors will occur. Consider using three sibling directories, for example:
 - **i5/OS** **On i5/OS platforms:**
 - `%/downloads/WPS/image1`
 - `%/downloads/WPS/image2`
 - `%/downloads/WPS/image3`
 - **Linux** **UNIX** **On Linux and UNIX platforms:**
 - `%/downloads/WPS/image1`
 - `%/downloads/WPS/image2`
 - `%/downloads/WPS/image3`
 - **Windows** **On Windows platforms:**
 - `C:\downloads\WPS\image1`
 - `C:\downloads\WPS\image2`
 - `C:\downloads\WPS\image3`

Product library, directories, subsystem, job queue, job description, and output queues

An i5/OS platform uses different configurations than installations of WebSphere Process Server on other platforms. This topic describes the product library, directories, subsystems, job queue, job description, and output queues that WebSphere Process Server uses on the i5/OS platform.

Product library and directories

In a default installation, WebSphere Process Server for i5/OS uses the following library and directories:

QWBI61

The product library.

/QIBM/ProdData/WebSphere/ProcServer

The default root directory; it contains product data shared by all WebSphere Process Server profiles.

/QIBM/UserData/WebSphere/ProcServer

The default WebSphere Process Server user data root directory; all WebSphere Process Server profiles and profileRegistry subdirectories are created under this directory.

Subsystem

Installations of WebSphere Process Server for i5/OS can use one of the following subsystems:

QWAS61

The subsystem provided and configured by WebSphere Application Server. By default, the server runs in this subsystem.

QWBI61

A subsystem specific to WebSphere Process Server. In order to run your server in the QWBI61 subsystem, you must modify the startServer script and then restart the server.

Execute the startServer script with the following parameters:

- **-sbs** QWBI61/QWBI61
- **-jobq** QWBI61/QWBIJOBQ
- **-jobd** QWBI61/QWBIJOBQ
- **-outq** QWBI61/QWBIJOBQ

For more information, see [Configuring subsystems on i5/OS](#).

Job queue

WebSphere Process Server for i5/OS uses one of the following job queues for server, node agent, and deployment manager processes, depending on which subsystem is used:

- The QWASJOBQ queue is used with the QWAS61 subsystem.
- The QWBIJOBQ queue is used with the QWBI61 subsystem.

Job description

WebSphere Process Server for i5/OS uses one of the following job descriptions for server, node agent, and deployment manager processes, depending on which subsystem is used:

- The QWASJOB description is used with the QWAS61 subsystem.
- The QWBIJOB description is used with the QWBI61 subsystem.

Output queue

WebSphere Process Server for i5/OS uses one of the following output queues for server, node agent, and deployment manager processes, depending on which subsystem is used:

- The QWASOUTQ queue is used with the QWAS61 subsystem.
- The QWBIOUTQ queue is used with the QWBI61 subsystem.

Avoiding port conflicts

Avoid port conflicts that can occur when WebSphere Process Server coexists on the same machine with installations of other WebSphere products.

About this task

If you create a managed node on the same WebSphere Process Server system on which a managed node of another WebSphere product exists, and you check the **generate unique HTTP ports** checkbox, the `addNode` command automatically increments the port assignments of the second node agent process so that no conflicts occur. The `addNode` command increments port assignments automatically when the existing profile is one of the following types:

- WebSphere Process Server
- WebSphere Enterprise Service Bus
- WebSphere Application Server, version 6.0 or later
- WebSphere Application Server Network Deployment, version 6.0 or later

The Profile Management Tool also handles the port assignments successfully when you federate a WebSphere Process Server custom profile during its creation.

The `addNode` command does *not* increment port assignments automatically when the existing instance is one of the following types:

- WebSphere Business Integration Server Foundation
- WebSphere Application Server Enterprise
- WebSphere Application Server, versions prior to version 6.0
- WebSphere Application Server Network Deployment, versions prior to version 6.0

In this case, neither the `addNode` command nor the Profile Management Tool has a record of the port assignments given to these instances. Port assignments on the second WebSphere Process Server node agent process are not incremented and conflicts can occur.

These conflicts can prevent the second node from starting. For instance, if you start the existing managed node first, the WebSphere Process Server node cannot start. If you start the WebSphere Process Server node first, the existing node cannot start.

In those cases in which the `addNode` command does not increment port assignments automatically, you must perform the following procedure to create a WebSphere Process Server managed node with non-conflicting ports.

Procedure

1. Create the WebSphere Process Server stand-alone server or custom profile.
Use the Profile Management Tool to create the profile. In the Profile creation options panel, choose to perform a Typical or an Advanced profile creation. If you are creating a custom profile, do not federate it as you create it. Select the check box on the Profile Management Tool panel to federate the profile later.
2. Check for ports in use to determine a starting port number for the WebSphere Process Server node agent process.
Use the `netstat -a` command to check existing port assignments. Analyze the port assignments to determine twelve sequential free ports.

Note: i5/OS On i5/OS systems, the command is `netstat *cnn`, a CL command that must be run from the i5/OS command line.

3. Update the ports. If you are unfamiliar with how to do this, refer to the information in Configuring ports.

Port number settings

Prevent port conflicts from occurring when you want an installation of WebSphere Process Server to coexist with another installation of WebSphere Process Server, or with an installation of WebSphere Enterprise Service Bus, WebSphere Application Server, WebSphere Business Integration Server Foundation, or WebSphere Application Server Network Deployment.

Because WebSphere Process Server is based on WebSphere Application Server, the port settings are the same for both products. Use the tables in Port number settings in WebSphere Application Server versions to help you determine which ports may already be in use within your various servers, allowing you to prevent port collisions. The values in those tables are the default port numbers and you must increment the values to avoid conflicts.

If you installed WebSphere Process Server over an installation of WebSphere Application Server, use values in the column with the heading **Application Server**. If you installed WebSphere Process Server over an installation of WebSphere Application Server Network Deployment, or installed WebSphere Application Server Network Deployment as part of your WebSphere Process Server installation, use values in the column with the heading **Deployment Manager**.

In those tables, the column with the heading **Application Server** denotes the values used for either a stand-alone or a managed server.

Note: The values for WebSphere Application Server version 5.x and WebSphere Application Server Network Deployment version 5.x also apply for WebSphere Business Integration Server Foundation version 5.x.

manageprofiles command

The `manageprofiles` command creates a profile, which is the set of files that define the runtime environment for a deployment manager, a managed node, or a stand-alone server.

The profile defines the runtime environment and includes all of the files that the server processes can change during runtime.

The `manageprofiles` command and its graphical user interface, the Profile Management Tool, are the only ways to create profiles, or the only ways to create runtime environments. You can also augment profiles and delete profiles with the `manageprofiles` command.

The command file is located in the `install_root/bin` directory. The command file is a script named `manageprofiles` for i5/OS platforms, `manageprofiles.sh` for Linux and UNIX platforms or `manageprofiles.bat` for Windows platforms.

The `manageprofiles` command creates a log for every profile that it creates, deletes, or augments. The logs are in the `install_root/logs/manageprofiles` directory.

Note: i5/OS The `manageprofiles` folder is under `user_data_root/profileRegistry/logs/manageprofiles` directory.

The files are named as follows:

- `profile_name_create.log`
- `profile_name_augment.log`
- `profile_name_delete.log`

Templates for each profile are located in the `install_root/profileTemplates` directory. Within this directory are various directories that correspond to different profile types. The directories are the paths that you indicate while using the `manageprofiles` command with the `-templatePath` option. You can also specify profile templates that lie outside the installation root if they exist. Use the following templates with WebSphere Process Server:

- `default.wbiserver`: for a WebSphere Process Server stand-alone server profile, which defines a Stand-alone server.
- `dmgr.wbiserver`: for a WebSphere Process Server deployment manager profile, which defines a Deployment manager.
- `managed.wbiserver`: for a WebSphere Process Server custom profile, which, when federated to a deployment manager, defines a Managed node.
- `default.esbserver`: for a WebSphere Enterprise Service Bus stand-alone server profile, which defines a Stand-alone server.
- `dmgr.esbserver`: for a WebSphere Enterprise Service Bus deployment manager profile, which defines a Deployment manager.
- `managed.esbserver`: for a WebSphere Enterprise Service Bus custom profile, which, when federated to a deployment manager, defines a Managed node.

Syntax

The `manageprofiles` command is used to perform the following tasks:

- Creating a profile (`-create` parameter).
Follow the instructions in `manageprofiles` command.
- Augmenting a profile (`-augment` parameter).
Follow the instructions in “Augmenting profiles using the `manageprofiles` command” on page 176.

Note: Using profiles that have been unaugmented (`-unaugment` parameter) is not supported.

- Deleting a profile (`-delete` parameter).

Follow the instructions in “Deleting profiles using the manageprofiles command” on page 179.

- Deleting all profiles (**-deleteAll** parameter)
- Listing all profiles (**-listProfiles** parameter)
- Getting the name of an existing profile from its name (**-getName** parameter)
- Getting the name of an existing profile from its path (**-getPath** parameter)
- Validating a profile registry (**-validateRegistry** parameter)
- Validating and updating a profile registry (**-validateAndUpdateRegistry** parameter)
- Getting the default profile name (**-getDefaultName** parameter)
- Setting the default profile name (**-setDefaultName** parameter)
- Backing up a profile (**-backupProfile** parameter)
- Restoring a profile (**-restoreProfile** parameter)
- Using a response file containing the information required to run a manageprofiles command (**-response** parameter)

For detailed help including the required parameters for each of the tasks accomplished with the manageprofiles command, use the **-help** parameter. The following is an example of using the help parameter with the manageprofiles command **-augment** parameter on Windows operating systems: `manageprofiles.bat -augment -help`. The output specifies which parameters are required and which are optional.

Parameters

Depending on the operation that you want to perform with the manageprofiles command, you might need to provide one or more of the parameters described in “manageprofiles command parameters.” The Profile Management Tool validates that the required parameters are provided and the values entered for those parameters are valid. Be sure to type the name of the parameters with the correct case, because the command line does not validate the case of the parameter name. Incorrect results can occur when the parameter case is not typed correctly.

Command output

On completion, the command displays a statement similar to one of the following messages. (Exact wording varies depending on whether you created, deleted or augmented a profile.)

- `INSTCONFSUCCESS: Profile creation succeeded.`
- `INSTCONFFAILED: Profile creation failed.`
- `INSTCONFPARTIALSUCCESS: Some non-critical post installation configuration actions did not succeed.`

In some cases, the statement is displayed more than once. For example, the `INSTCONFSUCCESS` line is displayed three times at the command line.

manageprofiles command parameters

Use the following parameters with the manageprofiles command for WebSphere Process Server.

The manageprofiles command file is located in the *install_root/bin* directory. The command file is a script named manageprofiles for i5/OS platforms, manageprofiles.sh for Linux and UNIX platforms, or manageprofiles.bat for Windows platforms.

Attention: When creating a WebSphere Process Server profile, use only the parameters that are documented in the information center for WebSphere Process Server.

Note: All parameters are case-sensitive.

The following options are available for the manageprofiles command:

-adminUserName *adminUser_ID*

Specify the user ID that is used for administrative security. For augmenting an existing profile that has administrative security enabled, this parameter is required.

-adminPassword *adminPassword*

Specify the password for the administrative security user ID specified with the -adminUserName parameter. For augmenting an existing profile that has administrative security enabled, this parameter is required.

-appSchedulerServerName

The name of the server where the WebSphere Process Server Application Scheduler is configured to run. This parameter is valid for profile augmentation when the profile has multiple servers defined.

-augment

Use the augment parameter to make changes to an existing profile with an augmentation template. The augment parameter causes the manageprofiles command to update or augment the profile identified in the **-profileName** parameter using the template in the **-templatePath** parameter. The augmentation templates that you can use are determined by which IBM products and versions are installed in your environment.

Note: Do not manually modify the files that are located in the *install_dir/profileTemplates* directory. For example, if you are changing the ports during profile creation, use the Profile Management Tool or the -startingPort or -portsFile arguments on the manageprofiles command instead of modifying the file in the profile template directory.

Specify the fully qualified file path for **-templatePath**. For example:

```
manageprofiles(.bat)(.sh) -augment -profileName profile_name  
-templatePath fully_qualified_template_path
```

-backupProfile

Performs a file system back up of a profile folder and the profile metadata from the profile registry file.

This parameter is not supported with WebSphere Process Server.

-backupFile *backupFile_name*

Backs up the profile registry file to the specified file. You must provide a fully qualified file path for the *backupFile_name*.

-cbeServerName

The name of the server where the WebSphere Process Server Common Base Event Browser is configured to run.

-ceiBufferPool4k

Specifies the name of the 4K buffer pool for the Common Event Infrastructure. This buffer pool must be active before the database DDL scripts can be run.

-ceiBufferPool8k

Specifies the name of the 8K buffer pool for the Common Event Infrastructure. This buffer pool must be active before the database DDL scripts can be run.

-ceiBufferPool16k

Specifies the name of the 16K buffer pool for the Common Event Infrastructure. This buffer pool must be active before the database DDL scripts can be run.

i5/OS**-ceiCollection**

DB2 iSeries library SQL collection for the Common Event Infrastructure. The maximum length for the collection name is 10 characters. The default value is event if not specified.

-ceiDbExecuteScripts

Indicates whether the administrative command should create and run the Common Event Infrastructure event database configuration scripts. The command generates the DDL database scripts and creates the database when this parameter is set to true. If this parameter is set to false, the scripts are generated but are not run. You must then run the database configuration scripts to complete the database configuration. To create the database, the current system must be already configured to run the database commands.

The default value is dependent on the platform and which **-ceiDbProduct** value is specified for the Common Event Infrastructure database. The default value is false if the profile is created on all platforms except i5/OS, and the **-ceiDbProduct** is set as iSeries Toolbox or iSeries Native. Otherwise the default is true.

-ceiDbHostName

The host name of the machine where the Common Event Infrastructure event database server is installed. This parameter is required on DB2 and Informix databases. On i5/OS platforms, this parameter is required if you are using the Toolbox for Java JDBC driver. To create a Derby Network database, specify this parameter and the **-ceiDbPort** parameter, but to create a Derby local database, do not specify the parameters.

-ceiDbInformixDir

The directory where the Informix database software is installed for the Common Event Infrastructure. This parameter is required only if you specified true for the **ceiDbExecuteScripts** parameter.

-ceiDbInstallDir

The directory where the database is installed for the Common Event Infrastructure. This parameter is required only if you specified true for the **ceiDbExecuteScripts** parameter.

-ceiDbName

The name of the Common Event Infrastructure event database to be created. For DB2 databases, Derby databases, Informix databases, and Microsoft SQL Server databases, the default value is event if not specified. For DB2 iSeries Native databases, the default value is *LOCAL if not specified. For DB2 iSeries Toolbox databases, the default value is *SYSBAS if not specified.

For Oracle databases, the Oracle System Identifier (SID) must have been already created and available for the event service command to create the tables and populate the tables with data. The default value is `orcl` if not specified.

-ceiDbNodeName

The DB2 node name (must be 8 characters or less) for the Common Event Infrastructure. This node must be already cataloged and configured to communicate with the DB2 server. This parameter must be set if the current machine is configured as a DB2 client and the parameter **ceiDbExecuteScripts** is set to true.

-ceiDbPassword

Specifies the password for the Common Event Infrastructure database or schema.

For DB2 databases, this parameter is required.

For Derby databases, this parameter is optional when security is disabled and required when security is enabled. If you specify this parameter, you must specify the **ceiDbUser** parameter.

For Informix databases, this parameter is required. It is the password of the schema user ID that owns the Event Service Informix tables. The WebSphere data source uses this password to authenticate the Informix database connection.

For Oracle databases, this parameter is required. It is the password of the schema user ID, created during the database creation, and the WebSphere data source uses this password to authenticate the Oracle database connection.

For SQL Server databases, this parameter is required. It is the password of the SQL Server user ID specified by the **ceiDbUser** parameter.

-ceiDbPort

Specifies the port number of the Common Event Infrastructure event database instance.

For DB2 databases, the default value is 50000 if not specified.

For Derby databases, the default value is 1526 if not specified. To create the Derby Network data source, specify this parameter and the `dbHostName` parameter. To create the Derby local data source, do not specify those parameters.

For Informix, the default value is 1526 if not specified.

For Oracle, the default value is 1521 if not specified.

For SQL Server, the default value is 1433 if not specified.

-ceiDbProduct

The database product used for the Common Event Infrastructure event database. Possible values are: `CEI_DB_DERBY_EMBEDDED` for Derby Embedded, `CEI_DB_DB2` for IBM DB2, `CEI_DB2_ZOS` for IBM DB2 z/OS, `CEI_DB_ISERIES_NATIVE` for iSeries Native, `CEI_DB_DERBY_NETWORKSERVER` for Derby Network Server, `CEI_DB_ISERIES_TOOLBOX` for iSeries Toolbox, `CEI_DB_INFORMIX` for Informix, `CEI_DB_ORACLE` for Oracle, and `CEI_DB_SQL_SERVER` for Microsoft SQL Server.

-ceiDbServerName

The server instance name for the Common Event Infrastructure event database.

When you are using Informix, this parameter is required. When you are using Microsoft SQL Server, this parameter must be set when the parameter `ceiDbExecuteScripts` is set to true.

-ceiDbSubSystemName

The DB2 z/OS subsystem name for the Common Event Infrastructure database. This parameter is required.

-ceiDbSysPassword

The password for the user specified by the `ceiDbSysUser` parameter. This parameter is only valid if you are using Oracle for the Common Event Infrastructure event database. The default value is empty string if not specified.

-ceiDbSysUser

The Oracle SYSUSER user ID for the Common Event Infrastructure event database. This user ID must have SYSDBA privileges.

-ceiDbUser

Specifies the user ID to use for the Common Event Infrastructure event database.

For DB2 databases, the default value is `db2inst1` if not specified.

i5/OS For i5/OS databases, it specifies the user ID that has privileges to create and drop the databases. This parameter is required.

For Derby databases, it is the user ID used by the data source for the Derby database authentication. This parameter is optional when the WebSphere domain security is disabled and is required when the WebSphere domain security is enabled. If you specify this parameter, you also must specify the `ceiDbPassword` parameter.

For Informix databases, it specifies the Informix database schema user ID that will own the event service database tables. The WebSphere data source uses this user ID to authenticate the Informix database connection. This parameter is required.

For Oracle databases, it specifies the Oracle schema user ID that will own the event service Oracle tables. The user ID will be created during the database creation and the WebSphere data source uses this user ID to authenticate the Oracle database connection. The default value is `ceiuser` if not specified.

For Microsoft SQL Server databases, it specifies the SQL Server user ID that will own the event service tables. The default value is `ceiuser` if not specified.

-ceiInstancePrefix

For Informix, Oracle, and Microsoft SQL Server databases, the command uses the Common Event Infrastructure event database instance name to group the database files in a directory with unique names. The default value is `ceiinst1` if not specified.

-ceiJdbcClassPath

For Informix, Oracle, and DB2 databases, specifies the path to the JDBC driver for the Common Event Infrastructure. Specify only the path to the driver file; do not specify the file name.

-ceiNativeJdbcClassPath

The path to the DB2 for iSeries native JDBC driver for the Common Event Infrastructure. Use this parameter only if you want to use the native JDBC driver instead of the Toolbox for Java driver. Specify only the path to the driver file; do not include the file name.

-ceiOracleHome

The directory of the ORACLE_HOME. This parameter is required when the parameter **ceiDbExecuteScripts** is set to true.

-ceiOutputScriptDir

Location for the generated database configuration scripts, which you can use to manually configure the event database at any time.

-ceiOverrideDataSource

When this parameter is set to true, the command removes any existing Common Event Infrastructure service data source at the specified scope before creating a new one. When this parameter is set to false, the command does not create an event service data source at the specified scope if another event service data source is found at the same scope. The default value is false if not specified.

-ceiSaUser

The Microsoft SQL Server ID that has privileges to create tables, devices, and caches for the Common Event Infrastructure. This parameter is required if the **ceiDbExecuteScripts** parameter is set to true.

-ceiSaPassword

The password for the Microsoft SQL Server ID that has privileges to create tables, devices, and caches for the Common Event Infrastructure. This parameter is required if you specify a value for the **ceiSaUser** parameter, unless the sa user ID does not have a password.

-ceiServerName

The name of the server where the Common Event Infrastructure service should be deployed in the runtime environment. The value must be a valid server for the profile. If you supply a value, it will be defaulted to the server you are creating when you creating a profile, or to the first server found when augmenting an existing profile.

-ceiToolBoxJdbcClassPath

The path to the IBM Toolbox for Java DB2 JDBC driver for the Common Event Infrastructure. Use this parameter only if you want to use the Toolbox for Java driver instead of the native JDBC driver. Specify only the path to the driver file; do not include the file name.

-cellName *cell_name*

Specifies the cell name of the profile for the Common Event Infrastructure. Use a unique cell name for each profile. This parameter is for profile creation only. Do not supply this parameter when augmenting an existing profile.

The default value for this parameter is based on a combination of the short host name, the constant cell, and a trailing number, for example:

```
if (DMgr)
  shortHostNameCellCellNumber
else
  shortHostNameNodeNodeNumberCell
```

where *CellNumber* is a sequential number starting at 01 and *NodeNumber* is the node number that you used to define the node name.

The value for this parameter must not contain spaces or any characters that are not valid such as the following: *, ?, ", <, >, ,, /, \, and |.

-configureBPC true | false

Determines whether the Business Process Choreographer sample configuration is created. If you set this parameter to true, the **-adminUserName** and

-adminPassword parameters also must be set. The default for this parameter is the same value as the **-enableAdminSecurity** parameter.

Note: The Business Process Choreographer sample configuration does not use the common database (WPRCSDB). It always uses a Derby database, which is not supported in an ND environment. If you plan to federate this stand-alone profile later, do not set **-configureBPC** to true.

-configureBRM true | false

Configures the business rules manager. The default value is false.

-create

Creates the profile.

Specify `manageprofiles -create -templatePath fully_qualified_file_path_to_template -help` for specific information about creating a profile. Available templates include:

- `default.wbiserver`: for a WebSphere Process Server stand-alone server profile, which defines a stand-alone server.
- `dmgr.wbiserver`: for a WebSphere Process Server deployment manager profile, which defines a deployment manager.
- `managed.wbiserver`: for a WebSphere Process Server custom profile, which, when federated to a deployment manager, defines a managed node.
- `default.esbserver`: for a WebSphere Enterprise Service Bus stand-alone server profile, which defines a stand-alone server.
- `dmgr.esbserver`: for a WebSphere Enterprise Service Bus deployment manager profile, which defines a deployment manager.
- `managed.esbserver`: for a WebSphere Enterprise Service Bus custom profile, which, when federated to a deployment manager, defines a managed node.

-dbCommonForME

Indicates whether to use the Common database for messaging engines. For DB2 z/OS databases, the default value is true. For all other databases, the default value is false. If this parameter is set to false, the messaging engines will use a file store data store.

-dbConnectionLocation

The location of DB2 z/OS database.

-dbCreateNew

Indicates if you will create or reuse a database. Valid values are true or false.

-dbDelayConfig

Indicates if you will postpone table creation until after the profile is created. Valid values are true or false. The parameter is set to false by default.

-dbDriverType

The database driver type. For Oracle databases, valid values are THIN or OCI. For DB2 databases, valid values are 2 or 4.

-dbHostName

The database server host name or IP address. The default value is localhost.

-dbInstance

The database instance name for Informix databases.

-dbJDBCClasspath

The location of JDBC driver files.

-dbLocation

Indicates the database installation directory if you are using Informix databases. You can only use this parameter if the **dbCreateNew** parameter is set to true.

-dbName

The name of the database. The value is set to WPRCSDB by default.

-dbOutputScriptDir

The location for exported database scripts.

-dbPassword

The password required for database authentication. This parameter is required for all databases except Derby Embedded.

-dbSchemaName

The database schema name.

-dbServerPort

The database server port number. Depending on the database you are using, you can specify a different port number instead of the default port number.

-dbStorageGroup

The storage group name for DB2 z/OS databases.

-dbType

The database type.

Set one of the following values for the type of database product you are using with WebSphere Process Server.

- DERBY_EMBEDDED for a Derby Embedded database
- DERBY_NETWORKSERVER for a Derby Network Server database
- DB2_UNIVERSAL for a DB2 Universal database
- DB2UDBOS390_V7_1 for a DB2 for z/OS and OS/390 v7 database
- DB2UDBOS390_V8_1 for a DB2 for z/OS v8 database
- DB2UDBISERIES_NATIVE for a DB2 for i5/OS Native Driver database
- DB2UDBISERIES_TOOLBOX for a DB2 for i5/OS Toolbox Driver database
- DB2_CLI for a DB2 Universal Runtime Client database
- INFORMIX for an Informix Dynamic Server database
- MSSQLSERVER_EMBEDDED for a Microsoft SQL Server database using an Embedded driver
- MSSQLSERVER_DATADIRECT for a Microsoft SQL Server database using a DataDirect driver
- ORACLE9I for an Oracle 9i database
- ORACLE10G for an Oracle 10g database

-dbUserId

The user ID required for database authentication. This parameter is required for all databases except Derby Embedded.

-debug

Turns on the debug function of the Apache Ant utility, which the manageprofiles command uses.

-defaultPorts

Assigns the default or base port values to the profile.

Do not use this parameter when using the **-startingPort** or **-portsFile** parameter.

During profile creation, the `manageprofiles` command uses an automatically generated set of recommended ports if you do not specify the `-startingPort` parameter, the `-defaultPorts` parameter or the `-portsFile` parameter. The recommended port values can be different than the default port values based on the availability of the default ports.

Note: Do not use this parameter if you are using the managed profile template.

-delete

Deletes the profile.

Deleting a profile does not delete the profile directory. For example, if you create a profile in the `/usr/WebSphere/ProcServer/profiles/managedProfile` directory or on i5/OS platforms, in the `QIBM/UserData/WebSphere/ProcServer/profiles/managedProfile` directory, the directory remains after you delete the profile.

You can delete or leave the directory. However, the `profile_root/logs` directory contains information about uninstalling the profile. For example, you might retain the `_nodeuninst.log` file to determine the cause of any problem during the uninstallation procedure.

If you delete a profile that has augmenting templates registered to it in the profile registry, then unaugment actions are performed automatically.

-deleteAll

Deletes all registered profiles.

Deleting a profile does not delete the profile directory. For example, suppose that you create a profile in the `/usr/WebSphere/ProcServer/profiles/managedProfile` directory or on i5/OS platforms, in the `QIBM/UserData/WebSphere/ProcServer/profiles/managedProfile` directory. The directory remains after you delete the profile.

You can delete or leave the directory. However, the `profile_root/logs` directory contains information about uninstalling the profile. For example, you might retain the `_nodeuninst.log` file to determine the cause of any problem during the uninstallation procedure.

If you delete a profile that has augmenting templates registered to it in the profile registry, then unaugment actions are performed automatically.

-dmgrHost *dmgr_host_name*

Identifies the machine where the deployment manager is running. Specify this parameter and the **dmgrPort** parameter to federate a custom profile as it is created or augmented. This parameter is available with the `managed.wbiserver` and `managed.esbserver` profile templates.

The host name can be the long or short DNS name or the IP address of the deployment manager machine.

Specifying this optional parameter directs the `manageprofiles` command to attempt to federate the custom node into the deployment manager cell as it creates the custom profile. This parameter is ignored when creating a deployment manager profile or stand-alone server profile.

If you federate a custom node when the deployment manager is not running, the installation indicator in the logs is `INSTCONFFAILED` to indicate a complete failure. The resulting custom profile is unusable. You must move the

custom profile directory out of the profile repository (the profile's installation root directory) before creating another custom profile with the same profile name.

If you have enabled security or changed the default JMX connector type, you cannot federate with the `manageprofiles` command. Use the `addNode` command instead.

The default value for this parameter is `localhost`. The value for this parameter must be a properly formed host name and must not contain spaces or characters that are not valid such as the following: `*`, `?`, `"`, `<`, `>`, `,`, `/`, `\`, and `|`. A connection to the deployment manager must also be available in conjunction with the `dmgrPort` parameter.

-dmgrPort *dmgr_port_number*

Identifies the SOAP port of the deployment manager. Specify this parameter and the **dmgrHost** parameter to federate a custom profile as it is created or augmented. The deployment manager must be running and accessible.

If you have enabled security or changed the default JMX connector type, you cannot federate with the `manageprofiles` command. Use the `addNode` command instead.

The default value for this parameter is `8879`. The port that you indicate must be a positive integer and a connection to the deployment manager must be available in conjunction with the `dmgrHost` parameter.

-enableAdminSecurity true | false

Enables administrative security. Valid values include `true` or `false`. The default value is `false`. Use this parameter when creating profiles only. Do not supply this parameter when augmenting an existing profile.

When `enableAdminSecurity` is set to `true`, you must also specify the parameters `-adminUserName` and `-adminPassword` along with the values for these parameters. If samples were installed during the application server installation, you must also specify the `-samplesPassword` parameter when creating a profile for which administrative security is enabled. If the `-samplesPassword` parameter is not specified when administrative security is enabled, the profile is created successfully, but when you attempt to run the samples, exceptions and failures will be put in the server system out log.

Linux -enableService true | false

Enables the creation of a Linux service. Valid values include `true` or `false`. The default value for this parameter is `false`. Use this parameter when creating profiles only. Do not supply this parameter when augmenting an existing profile.

When the `manageprofiles` command is run with the `-enableService` option set to `true`, the Linux service is created with the profile when the command is run by the root user. When a non-root user runs the `manageprofiles` command, the profile is created, but the Linux service is not. The Linux service is not created because the non-root user does not have sufficient permission to set up the service. An `INSTCONPARTIALSUCCESS` result is displayed at the end of the profile creation and the profile creation log `install_root/logs/manageprofiles/profile_name_create.log` contains a message indicating the current user does not have sufficient permission to set up the Linux service.

-federateLater true | false

Indicates if the managed profile will be federated during profile creation or if

you will federate it later using the `addNode` command. If you are creating a WebSphere Process Server profile, do not supply a value; use the default of `true`.

-federateLaterProcServer true | false

Indicates if the managed profile will be federated later using the `managed.wbiserver` template. Valid values are `true` or `false`. If the `dmgrHost`, `dmgrPort`, `dmgrAdminUserName` and `dmgrAdminPassword` parameters are not set, the default value for this parameter is `true`.

-federateLaterWESB true | false

Indicates if the managed profile will be federated later using the `managed.wesbserver` template. Valid values are `true` or `false`. If the `dmgrHost`, `dmgrPort`, `dmgrAdminUserName` and `dmgrAdminPassword` parameters are not set, the default value for this parameter is `true`.

-fileStoreForME true | false

If set to `true`, the file store data store will be used for the messaging engines. The default value for this parameter is `false`.

Note: The `-dbCommonForME` and `-fileStoreForME` parameters cannot both be set to `true`. This causes a validation error.

-getDefaultName

Returns the name of the default profile.

-getName

Gets the name for a profile registered at a given `-profilePath` parameter.

-getPath

Gets the file system location for a profile of a given name. Requires the `-profileName` parameter.

-help

Displays command syntax.

-hostName *host_name*

Specifies the host name where you are creating the profile. Do not supply this parameter when augmenting an existing profile. This should match the host name that you specified during installation of the initial product. The default value for this parameter is the long form of the domain name system. This parameter is required for profile creation only. The value for this parameter must be a valid IPv6 host name and must not contain spaces or any characters that are not valid such as the following: `*`, `?`, `"`, `<`, `>`, `,`, `/`, `\`, and `|`.

-ignoreStack

An optional parameter that is used with the `-templatePath` parameter to unaugment a particular profile that has been augmented.

Note: Using profiles that have been unaugmented (`-unaugment` parameter) is not supported for WebSphere Process Server.

-isDefault

Specifies that the profile identified by the accompanying `-profileName` parameter is to be the default profile once it is registered. When issuing commands that address the default profile, it is not necessary to use the `-profileName` attribute of the command.

-isDeveloperServer

Specifies whether the server is intended for development purposes only. This parameter is useful when creating profiles to test applications on a

non-production server prior to deploying the applications on their production application servers. This parameter is valid only for creating profiles on WebSphere Process Server.

If **-isDeveloperServer** is set when creating a WebSphere Process Server profile, then a preconfigured VMM file repository is installed. This file repository contains a sample organization that can be used to test Business Process Choreographer people resolution, ready for you to use as is.

-listProfiles

Lists all defined profiles.

-ndTopology

Indicates if you want to use the deployment environment path for creating the profile. Valid values are true or false.

-nodeName *node_name*

Specifies the node name for the node that is created with the new profile. Do not supply this parameter when augmenting an existing profile. Use a unique value within the cell or on the machine. Each profile that shares the same set of product binaries must have a unique node name. This parameter is required for profile creation only with the default.wbiserver, dmgr.wbiserver, and managed.wbiserver templates.

Linux **UNIX** **Windows** The default value for this parameter is based on the short host name, profile type, and a trailing number, for example:

```
if (DMgr)
  shortHostNameCellManagerNodeNumber
else
  shortHostNameNodeNodeNumber
```

where *NodeNumber* is a sequential number starting at 01.

i5/OS The default node names are as follows:

- dmgr template: *profilenameManager*
- default template: *shorthostname_profilename*
- managed template: *shorthostname_profilename*
- cell: See the previous dmgr and default template examples and apply as appropriate to the two profiles that are created.

The value for this parameter must not contain spaces or any characters that are not valid such as the following: *, ?, ", <, >, ,, /, \, and |, .

-omitAction *feature1 feature2... featureN*

An optional parameter that excludes profile features.

Each profile template comes predefined with certain optional features. The `samplesInstallAndConfig` option is only available when the product is installed with samples applications selected. The following optional features can be used with the `-omitAction` parameter for the following profile templates:

- **default** - Application server
 - `deployAdminConsole`
 - `samplesInstallAndConfig`
 - `defaultAppDeployAndConfig`
- **dmgr** - Deployment manager
 - `deployAdminConsole`

-portsFile *file_path*

An optional parameter that specifies the path to a file that defines port settings for the new profile. Do not supply this parameter when augmenting an existing profile.

Do not use this parameter when using the `-startingPort` or `-defaultPorts` parameter.

During profile creation, the `manageprofiles` command uses an automatically generated set of recommended ports if you do not specify the `-startingPort` parameter, the `-defaultPorts` parameter or the `-portsFile` parameter. The recommended port values can be different than the default port values based on the availability of the default ports.

-profileName *profile_name*

Specifies the name of the profile. Use a unique value when creating a profile.

Each profile that shares the same set of product binaries must have a unique name. The default profile name is based on the profile type and a trailing number, for example:

profileType ProfileNumber

where *profileType* is a value such as `ProcSrv`, `Dmgr`, or `Custom` and *ProfileNumber* is a sequential number that creates a unique profile name.

The value for this parameter must not contain spaces or characters that are not valid such as the following: `*`, `?`, `"`, `<`, `>`, `,`, `/`, `\`, and `|`. The profile name that you choose must not be in use.

-profilePath *profile_root*

Specifies the fully qualified path to the profile, which is referred to throughout the information center as the *profile_root*.

For example:

`-profilePath profile_root`

Use this parameter when creating profiles only. Do not set this parameter for augmenting an existing profile.

Windows

On Windows platforms: If the fully qualified path contains spaces, enclose the value in quotation marks.

The default value is based on the *install_root* directory, the profiles subdirectory, and the name of the file.

For example, the default for profile creation is:

`WS_WSPROFILE_DEFAULT_PROFILE_HOME/profileName`

where `WS_WSPROFILE_DEFAULT_PROFILE_HOME` is defined in the `wasprofile.properties` file in the *install_root/properties* directory.

The value for this parameter must be a valid path for the target system and must not be currently in use.

You must have permissions to write to the directory.

-response *response_file*

Accesses all API functions from the command line using the `manageprofiles` command.

The command line interface can be driven by a response file that contains the input arguments for a given command in the properties file in key and value format. The following is an example response file for a create operation:


```

create
profileName=testResponseFileCreate
profilePath=profile_root
templatePath=install_root/profileTemplates/default
nodeName=myNodeName
cellName=myCellName
hostName=myHostName
omitAction=myOptionalAction1, myOptionalAction2

```

Windows **On Windows platforms:** The path statement in the Windows operating system can use either forward slashes (/) or back slashes (\). If the path statement uses back slashes, then the response file requires double back slashes for the response file to correctly understand the path. Here is an example of a response file for a create operation that uses the double back slashes:

```

create
templatePath=C:\\WebSphere\\ProcServer\\profileTemplates\\default

```

To determine which input arguments are required for the various types of profile templates and action, use the manageprofiles command with the **-help** parameter.

-restoreProfile

Restores a profile backup. Must be used with the **-backupFile** parameter. This parameter is not supported for WebSphere Process Server.

-samplesPassword *samplesPassword*

Creates a password to be used for samples. The password is used to restrict access to Web application samples installed during the installation of the application server.

Linux **-serviceUserName** *service_user_ID*

Specify the user ID that is used during the creation of the Linux service so that the Linux service will run under this user ID. The Linux service runs whenever the user ID is logged on.

-setDefaultName

Sets the default profile to one of the existing profiles. Must be used with the **-profileName** parameter, for example:

```
manageprofiles(.bat)(.sh) -setDefaultName -profileName profile_name
```

-startingPort *startingPort*

Specifies the starting port number for generating and assigning all ports for the profile.

Do not set this parameter if you are augmenting an existing profile. Port values are assigned sequentially from the **-startingPort** value, omitting those ports that are already in use. On all systems, except i5/OS, the system recognizes and resolves ports that are currently in use and determines the port assignments to avoid port conflicts.

Do not use this parameter with the **-defaultPorts** or **-portsFile** parameters.

During profile creation, the manageprofiles command uses an automatically generated set of recommended ports if you do not specify the **-startingPort** parameter, the **-defaultPorts** parameter or the **-portsFile** parameter. The recommended port values can be different than the default port values based on the availability of the default ports.

Note: Do not use this parameter if you are using the managed profile template.

-templatePath *template_path*

Specifies the directory path to the template files in the installation root directory. Within the profileTemplates directory are various directories that correspond to different profile types and that vary with the type of product installed. The profile directories are the paths that you indicate while using the **-templatePath** option. You can specify profile templates that lie outside the installation root, if you have any.

Use absolute paths. This parameter must exist as a directory and point to a valid template directory. Use the following templates with WebSphere Process Server:

- default.wbiserver: for a WebSphere Process Server stand-alone server profile, which defines a stand-alone server.
- dmgr.wbiserver: for a WebSphere Process Server deployment manager profile, which defines a deployment manager.
- managed.wbiserver: for a WebSphere Process Server custom profile, which, when federated to a deployment manager, defines a managed node.
- default.esbserver: for a WebSphere Enterprise Service Bus stand-alone server profile, which defines a stand-alone server.
- dmgr.esbserver: for a WebSphere Enterprise Service Bus deployment manager profile, which defines a deployment manager.
- managed.esbserver: for a WebSphere Enterprise Service Bus custom profile, which, when federated to a deployment manager, defines a managed node.

-topologyPattern

Determines the deployment environment patterns for the deployment manager you are creating. Valid values are CondensedSync, CondensedAsync or Reference.

-topologyRole

Indicates the function that the profile will play in the deployment environment, when you are federating a profile that has been created. Valid values are ADT for a deployment target, Messaging for host messaging or Support for supporting services. You can indicate one value or more than one value, each separated by a space, for example AD Messaging Support or Messaging or AD Support.

-unaugment

Note: Using profiles that have been unaugmented (**-unaugment** parameter) is not supported for WebSphere Process Server.

-validateAndUpdateRegistry

Checks all of the profiles that are listed in the profile registry to see if the profiles are present on the file system. Removes any missing profiles from the registry. Returns a list of the missing profiles that were deleted from the registry.

-validateRegistry

Checks all of the profiles that are listed in the profile registry to see if the profiles are present on the file system. Returns a list of missing profiles.

-validatePorts

Specifies the ports should be validated to ensure they are not reserved or in use. This parameter helps you to identify ports that are not being used. If a port is determined to be in use, the profile creation stops and an error message displays. You can use this parameter at any time on the create command line. It is recommended to use this parameter with the **-portsFile** parameter.

-webServerCheck true | false

Indicates if you want to set up Web server definitions. Valid values include

true or false. The default value for this parameter is false. Use this parameter when creating profiles only. Do not supply this parameter when augmenting an existing profile.

-webServerHostname *webserver_host_name*

The host name of the server. The default value for this parameter is the long host name of the local machine. Use this parameter when creating profiles only. Do not supply this parameter when augmenting an existing profile.

-webServerInstallPath *webserver_installpath_name*

The installation path of the Web server, local or remote. Use this parameter when creating profiles only. Do not supply this parameter when augmenting an existing profile.

The default value for this parameter is dependent on the operating system of the local machine and the value of the `webServerType` parameter. For example:

AIX

```
webServerType=IHS: webServerInstallPath defaulted to "/usr/IBM/HTTPServer"
webServerType=IIS: webServerInstallPath defaulted to "n\a"
webServerType=SUNJAVASYSTEM: webServerInstallPath defaulted to "/opt/sun/webserver"
webServerType=DOMINO: webServerInstallPath defaulted to "?"
webServerType=APACHE: webServerInstallPath defaulted to "?"
webServerType=HTTPSERVER_ZOS: webServerInstallPath defaulted to "n/a"
```

HP-UX

```
webServerType=IHS: webServerInstallPath defaulted to "/opt/IBM/HTTPServer"
webServerType=IIS: webServerInstallPath defaulted to "n\a"
webServerType=SUNJAVASYSTEM: webServerInstallPath defaulted to "/opt/sun/webserver"
webServerType=DOMINO: webServerInstallPath defaulted to ""
webServerType=APACHE: webServerInstallPath defaulted to ""
webServerType=HTTPSERVER_ZOS: webServerInstallPath defaulted to "n/a"
```

Linux

```
webServerType=IHS: webServerInstallPath defaulted to "/opt/IBM/HTTPServer"
webServerType=IIS: webServerInstallPath defaulted to "n\a"
webServerType=SUNJAVASYSTEM: webServerInstallPath defaulted to "/opt/sun/webserver"
webServerType=DOMINO: webServerInstallPath defaulted to ""
webServerType=APACHE: webServerInstallPath defaulted to ""
webServerType=HTTPSERVER_ZOS: webServerInstallPath defaulted to "n/a"
```

Solaris

```
webServerType=IHS: webServerInstallPath defaulted to "/opt/IBM/HTTPServer"
webServerType=IIS: webServerInstallPath defaulted to "n\a"
webServerType=SUNJAVASYSTEM: webServerInstallPath defaulted to "/opt/sun/webserver"
webServerType=DOMINO: webServerInstallPath defaulted to ""
webServerType=APACHE: webServerInstallPath defaulted to ""
webServerType=HTTPSERVER_ZOS: webServerInstallPath defaulted to "n/a"
```

Windows

```
webServerType=IHS: webServerInstallPath defaulted to "C:\Program Files\IBM\HTTPServer"
webServerType=IIS: webServerInstallPath defaulted to "C:\\"
webServerType=SUNJAVASYSTEM: webServerInstallPath defaulted to "C:\\"
webServerType=DOMINO: webServerInstallPath defaulted to ""
webServerType=APACHE: webServerInstallPath defaulted to ""
webServerType=HTTPSERVER_ZOS: webServerInstallPath defaulted to "n/a"
```

-webServerName *webserver_name*

The name of the Web server. The default value for this parameter is `webserver1`. Use this parameter when creating profiles only. Do not supply this parameter when augmenting an existing profile.

-webServerOS *webserv_operating_system*

The operating system from where the Web server resides. Valid values include: windows, linux, solaris, aix, hpux, os390, and os400. Use this parameter with the **webServerType** parameter.

Use this parameter when creating profiles only. Do not supply this parameter when augmenting an existing profile.

-webServerPluginPath *webserv_pluginpath*

The path to the plug-ins that the Web server uses. The default value for this parameter is *install_root/plugins*. Use this parameter when creating profiles only. Do not supply this parameter when augmenting an existing profile.

-webServerPort *webserv_port*

Indicates the port from where the Web server will be accessed. The default value for this parameter is 80. Use this parameter when creating profiles only. Do not supply this parameter when augmenting an existing profile.

-webServerType *webserv_type*

The type of the Web server. Valid values include: IHS, SUNJAVASYSTEM, IIS, DOMINO, APACHE, and HTTPSERVER_ZOS. Use this parameter with the **webServerOS** parameter. Use this parameter when creating profiles only. Do not supply this parameter when augmenting an existing profile.

Windows **-winserviceAccountType** *specifieduser* | **localsystem**

The type of the owner account of the Windows service created for the profile. Use this parameter when creating profiles only. Do not supply this parameter when augmenting an existing profile.

Valid values include *specifieduser* or *localsystem*. The *localsystem* value runs the Windows service under the local account of the user who creates the profile. The default value for this parameter is *system*.

Windows **-winserviceCheck** **true** | **false**

The value can be either **true** or **false**. Specify **true** to create a Windows service for the server process that is created within the profile. Specify **false** to not create the Windows service. The default value for this parameter is **false**.

Use this parameter when creating profiles only. Do not supply this parameter when augmenting an existing profile.

Windows **-winservicePassword** *winservice_password*

Specify the password for the specified user or the local account that is to own the Windows service. Use this parameter when creating profiles only. Do not supply this parameter when augmenting an existing profile.

Windows **-winserviceStartupType** **manual** | **automatic** | **disabled**

Possible values for Windows service startup are:

- manual
- automatic
- disabled

The default value for this parameter is *automatic*.

Use this parameter when creating profiles only. Do not supply this parameter when augmenting an existing profile.

Windows **-winserviceUserName** *winservice_user_ID*

Specify your user ID so that the Windows operating system can verify you as

an ID that is capable of creating a Windows service. Your user ID must belong to the Administrator group and have the following advanced user rights:

- Act as part of the operating system
- Log on as a service

The default value for this parameter is the current user name. The value for this parameter must not contain spaces or characters that are not valid such as the following: *, ?, ", <, >, ,, /, \, and |. The user that you specify must have the proper permissions to create a Windows service. You must specify the correct password for the user name that you choose.

Use this parameter when creating profiles only. Do not supply this parameter when augmenting an existing profile.

Naming considerations for profiles, nodes, hosts, and cells

This topic discusses reserved terms and issues you must consider when naming your profile, node, host and cell (if applicable).

Profile naming considerations

The profile name can be any unique name with the following restrictions. Do not use any of the following characters when naming your profile:

- Spaces
- Illegal special characters that are not allowed within the name of a directory on your operating system, such as *, &, or ?.
- Slashes (/) or back slashes (\)

Double-byte characters are allowed.

Restriction: i5/OS **On i5/OS platforms:** The i5/OS operating system limits the length of each component of a path name to a maximum of 255 characters. IBM recommends that you keep the path name of the profile root directory as short as possible.

Node, host, and cell naming considerations

Reserved names: Avoid using reserved folder names as field values. The use of reserved folder names can cause unpredictable results. The following words are reserved:

- buses
- cells
- nodes
- servers
- clusters
- applications
- deployments

Descriptions of fields on the Node and hosts names and Node, host, and cell names panels: Table 47 on page 357 describes the fields found on the Node and host names and Node, host, and cell names panels of the Profile Management Tool, including the field names, default values, and constraints. Use this information as a guide when you are creating profiles.

Table 47. Naming guidelines for nodes, hosts, and cells

Field name	Default value	Constraints	Description
Stand-alone server profiles			
Node name	<p><i>shortHostName</i> Node <i>NodeNumber</i> where:</p> <ul style="list-style-type: none"> • <i>shortHostName</i> is the short host name. • <i>NodeNumber</i> is a sequential number starting at 01. 	Avoid using the reserved names.	Pick any name you want. To help organize your installation, use a unique name if you plan to create more than one server on the system.
Host name	The long form of the domain name server (DNS) name.	The host name must be addressable through your network.	Use the actual DNS name or IP address of your workstation to enable communication with it. See additional information about the host name following this table.

Table 47. Naming guidelines for nodes, hosts, and cells (continued)

Field name	Default value	Constraints	Description
Cell name	<p><i>shortHostName</i> Cell <i>CellNumber</i> where:</p> <ul style="list-style-type: none"> • <i>shortHostName</i> is the short host name. • <i>CellNumber</i> is a sequential number starting at 01. 	<p>Use a unique name for the deployment manager cell. A cell name must be unique in any circumstance in which the product is running on the same physical workstation or cluster of workstations, such as a sysplex. Additionally, a cell name must be unique in any circumstance in which network connectivity between entities is required either between the cells or from a client that must communicate with each of the cells. Cell names also must be unique if their name spaces are going to be federated. Otherwise, you might encounter symptoms such as a <code>javax.naming.NameNotFoundException</code> exception, in which case, you need to create uniquely named cells.</p>	<p>All federated nodes become members of the deployment manager cell, which you name in the Node, host, and cell names panel of the Profile Management Tool.</p>
Deployment manager profiles			
Node name	<p><i>shortHostName</i> Cell ManagerNode Number where:</p> <ul style="list-style-type: none"> • <i>shortHostName</i> is the short host name. • <i>NodeNumber</i> is a sequential number starting at 01. 	<p>Use a unique name for the deployment manager. Avoid using the reserved names.</p>	<p>The name is used for administration within the deployment manager cell.</p>

Table 47. Naming guidelines for nodes, hosts, and cells (continued)

Field name	Default value	Constraints	Description
Host name	The long form of the domain name server (DNS) name.	The host name must be addressable through your network. Avoid using the reserved names.	Use the actual DNS name or IP address of your workstation to enable communication with it. See additional information about the host name following this table.
Cell name	<p><i>shortHostName</i> Cell <i>CellNumber</i> where:</p> <ul style="list-style-type: none"> • <i>shortHostName</i> is the short host name. • <i>CellNumber</i> is a sequential number starting at 01. 	<p>Use a unique name for the deployment manager cell. A cell name must be unique in any circumstance in which the product is running on the same physical workstation or cluster of workstations, such as a sysplex. Additionally, a cell name must be unique in any circumstance in which network connectivity between entities is required either between the cells or from a client that must communicate with each of the cells. Cell names also must be unique if their name spaces are going to be federated. Otherwise, you might encounter symptoms such as a <code>javax.naming.NameNotFoundException</code> exception, in which case, you need to create uniquely named cells.</p>	All federated nodes become members of the deployment manager cell, which you name in the Node, host, and cell names panel of the Profile Management Tool.
Custom profiles			

Table 47. Naming guidelines for nodes, hosts, and cells (continued)

Field name	Default value	Constraints	Description
Node name	<i>shortHostName</i> Node <i>NodeNumber</i> where: <ul style="list-style-type: none"> • <i>shortHostName</i> is the short host name. • <i>NodeNumber</i> is a sequential number starting at 01. 	Avoid using the reserved names. Use a unique name within the deployment manager cell.	The name is used for administration within the deployment manager cell to which the custom profile is added. Use a unique name within the deployment manager cell.
Host name	The long form of the domain name server (DNS) name.	The host name must be addressable through your network.	Use the actual DNS name or IP address of your workstation to enable communication with it. See additional information about the host name following this table.

Host name considerations:

The host name is the network name for the physical workstation on which the node is installed. The host name must resolve to a physical network node on the server. When multiple network cards exist in the server, the host name or IP address must resolve to one of the network cards. Remote nodes use the host name to connect to and to communicate with this node.

WebSphere Process Server is compliant to both Internet Protocol version 4 (IPv4) and version 6 (IPv6). Wherever you can enter IP addresses in the administrative console, or elsewhere, you can do so in either format. Note that if IPv6 is implemented on your system you must enter the IP address in IPv6 format, and conversely, if IPv6 is not yet available to you, enter IP addresses in IPv4 format. For more information on IPv6 see the Official IPv6 website.

The following guidelines can help in determining the appropriate host name for your machine:

- Select a host name that other workstations can reach within your network.
- Do not use the generic identifier, localhost, for this value.
- Do not attempt to install WebSphere Process Server products on a server with a host name that uses characters from the double-byte character set (DBCS). DBCS characters are not supported when used in the host name.
- Avoid using the underscore (_) character in server names. Internet standards dictate that domain names conform to the host name requirements described in Internet Official Protocol Standards RFC 952 and RFC 1123. Domain names must contain only letters (upper or lower case) and digits. Domain names can also contain dash characters (-) as long as the dashes are not on the ends of the name. Underscore characters (_) are not supported in the host name. If you have installed WebSphere Process Server on a server with an underscore character in the server name, access the server with its IP address until you rename it.

If you define coexisting nodes on the same computer with unique IP addresses, define each IP address in a domain name server (DNS) look-up table. Configuration files for stand-alone servers do not provide domain name resolution for multiple IP addresses on a workstation with a single network address.

The value that you specify for the host name is used as the value of the `hostName` property in configuration documents. Specify the host name value in one of the following formats:

- Fully qualified domain name servers (DNS) host name string, such as `xmachine.manhattan.ibm.com`
- The default short DNS host name string, such as `xmachine`
- Numeric IP address, such as `127.1.255.3`

The fully qualified DNS host name has the advantage of being totally unambiguous and also flexible. You have the flexibility of changing the actual IP address for the host system without having to change the stand-alone server configuration. This value for host name is particularly useful if you plan to change the IP address frequently when using Dynamic Host Configuration Protocol (DHCP) to assign IP addresses. A format disadvantage is being dependent on DNS. If DNS is not available, then connectivity is compromised.

The short host name is also dynamically resolvable. A short name format has the added ability of being redefined in the local hosts file so that the system can run the stand-alone server even when disconnected from the network. Define the short name to `127.0.0.1` (local loopback) in the hosts file to run disconnected. A disadvantage of the short name format is being dependent on DNS for remote access. If DNS is not available, then connectivity is compromised.

A numeric IP address has the advantage of not requiring name resolution through DNS. A remote node can connect to the node you name with a numeric IP address without DNS being available. A format disadvantage is that the numeric IP address is fixed. You must change the setting of the `hostName` property in configuration documents whenever you change the workstation IP address. Therefore, do not use a numeric IP address if you use DHCP, or if you change IP addresses regularly. Another format disadvantage is that you cannot use the node if the host is disconnected from the network.

Profile commands in a multiprofile environment

When two or more profiles exist on a server, certain commands require that you specify the profile to which the command applies. These commands use the `-profileName` attribute to identify which profile to address. To overcome having to specify the `-profileName` attribute for each command, use the versions of the commands that exist in the `bin` directory of each profile.

The first profile that you create within one installation of WebSphere Process Server is the default profile. The default profile is the default target for commands issued from the `bin` directory in the directory where WebSphere Process Server is installed. If only one profile exists on a system, every command operates on that profile. To target a command to a profile other than the default, you must issue the command as follows:

- If you want to issue the command from any directory, follow the command with the `-profileName` attribute and the fully qualified path to the profile to address. For example:

```
startServer -profileName server1
```

- To overcome having to specify the `-profileName` attribute for a command, use the version of the command that exists in the `bin` directory of the profile to address. The directory is `profile_root/bin` on i5/OS, Linux, and UNIX platforms or `profile_root\bin` on Windows platforms.

Configuring profiles with default values

Learn how to create or augment profiles using the Profile Management Tool with default configuration settings.

Before you begin

The topics in this section assume that you are using the Profile Management Tool to create or augment profiles and are following the procedure in either “Creating profiles using the Profile Management Tool” on page 165 or “Augmenting profiles using the Profile Management Tool” on page 172. As a result, it is assumed that you have started the Profile Management Tool, have chosen to create or augment a stand-alone server, deployment manager, or custom profile, and have selected the **Typical** profile creation or augmentation option.

About this task

When you choose to configure profiles with default values, the Profile Management Tool assigns default values to ports, profile location, profile names, node, host, and cell (when applicable), and also to any required database configurations.

For stand-alone server profiles, the Profile Management Tool also does the following tasks:

- Installs the administrative console.
- Lets you enable administrative security.
- If you enable administrative security, creates a sample Business Process Choreographer configuration.
- Creates a system service to run the server if your operating system and the privileges of your user account permit the creation of services.
- Installs the default application (which contains the Snoop, Hello, and HitCount applications).

For deployment manager profiles, the Profile Management Tool also creates a system service to run the server if your operating system and the privileges of your user account permit the creation of services.

For custom profiles, the Profile Management Tool also lets you federate the node to an existing deployment manager during the creation or augmentation process, or federate it later using the `addNode` command.

The following sub-topics explain how to configure a profile, depending on the profile type:

- “Configuring stand-alone server profiles using default values” on page 363
- “Configuring deployment manager profiles using default values” on page 365
- “Configuring custom profiles (managed nodes) using default values” on page 368

Configuring stand-alone server profiles using default values

Learn how to use the Profile Management Tool to create and configure a WebSphere Process Server or WebSphere Enterprise Service Bus stand-alone server profile with default configuration settings.

Before you begin

This topic assumes that you are using the Profile Management Tool to create or augment profiles and are following the procedure in either “Creating profiles using the Profile Management Tool” on page 165 or “Augmenting profiles using the Profile Management Tool” on page 172. As a result, it is assumed that you have started the Profile Management Tool, have chosen to create or augment a stand-alone server profile, and have selected the **Typical** profile creation or augmentation option.

About this task

Selecting the **Typical** profile creation or augmentation option creates or augments a profile with default configuration settings. In this type of configuration, the Profile Management Tool assigns default values to ports, to the location of the profile, and to the names of the profile, node, host, and cell. The administrative console and default application (which contains the Snoop, Hello, and HitCount applications) are installed. You can optionally enable administrative security (unless you are augmenting a profile that has security enabled – then you must re-enter the administrative user ID and password of that profile to augment it to a WebSphere Process Server or WebSphere Enterprise Service Bus profile). If your operating system and the privileges of your user account permit, the tool creates a system service to run the server. The Common Event Infrastructure and Common database configurations are set to Derby Embedded.

If you enable security, the installer creates a sample Business Process Choreographer configuration for the profile. If you do not enable security, the sample configuration is not created.

Restriction: If you plan to federate this stand-alone server profile to a deployment manager, do not use the **Typical** option to create it. The default values for messaging engine storage and database type provided in a **Typical** profile creation or augmentation are not suitable deployment environment installations. Use the **Advanced** option to create or augment the profile instead. See “Configuring stand-alone server profiles using customized values” on page 371 for instructions.

As a result of following the procedure in either “Augmenting profiles using the Profile Management Tool” on page 172 or “Creating profiles using the Profile Management Tool” on page 165, you are viewing either the Administrative security panel or the Profile summary panel. Complete the following steps to configure a new stand-alone server profile with default configuration values.

Procedure

1. The panel you see displayed in the Profile Management Tool depends on whether you are creating or augmenting a profile. If you are augmenting a profile, it also depends on whether security is enabled on that profile.

If you are performing	First step
Typical profile augmentation and administrative security <i>is</i> enabled on the profile you are augmenting.	The Administrative security panel is displayed. Proceed to step 2.
Typical profile augmentation and administrative security <i>is not</i> enabled on the profile you are augmenting.	The Profile summary panel is displayed. Proceed to step 3.
Typical profile creation	The Administrative security panel is displayed. Proceed to step 2.

2. Enable administrative security.

This screen differs depending on whether you are creating or augmenting a profile.

If you are creating a profile, you can enable administrative security now, or later from the administrative console. To enable administrative security now, leave the **Enable administrative security** check box selected, supply a user name and password to log onto the administrative console, and click **Next**. To disable administrative security, clear the check box. To enable administrative security later from the administrative console, open the console and select **Security > Business Integration Security**.

Important: If you want the Profile Management Tool to create a Business Process Choreographer sample configuration, you must enable administrative security.

If you are augmenting a profile and see this panel, the profile you are augmenting has security enabled. You must re-enter the administrative user ID and password for that profile.

The Profile summary panel is displayed.

3. In the Profile summary panel, click **Create** or **Augment** to create or augment the profile or **Back** to change the characteristics of the profile.

When the profile creation or augmentation is complete, the Profile complete panel is displayed with the message **The Profile Management tool created the profile successfully** or **The Profile Management tool augmented the profile successfully**.

Attention: If errors are detected during profile creation or augmentation, other messages might appear in place of the success message, for example:

- **The Profile Management tool created the profile but errors occurred**, which indicates that profile creation completed but errors were generated.
- **The Profile Management tool cannot create the profile**, which indicates that profile creation failed completely.
- **The Profile Management tool augmented the profile but errors occurred**, which indicates that profile augmentation completed but errors were generated.
- **The Profile Management tool cannot augment the profile**, which indicates that profile augmentation failed completely.

The Profile complete panel identifies the log file to reference in order to troubleshoot the problems. See the descriptions of relevant log files listed in “Log files” on page 299.

You can review other useful troubleshooting information in the following topics:

- Chapter 15, “Troubleshooting installation and configuration,” on page 287
 - “Troubleshooting the launchpad application” on page 290
 - “Troubleshooting a silent installation” on page 291
 - “i5/OS installation troubleshooting tips” on page 292
 - “Diagnosing a failing Ant configuration script” on page 293
 - “Messages: installation and profile creation” on page 294
 - “Recovering from profile creation or augmentation failure” on page 304
4. In the Profile complete panel, select **Launch the First steps console, Create another profile**, or both; click **Finish** to exit. Use the First steps console to start the server. Use the **Create another profile** option to restart the Profile Management Tool to create additional profiles.

Results

You have completed one of the following tasks:

- Created a WebSphere Process Server or WebSphere Enterprise Service Bus profile.
- Augmented a WebSphere Application Server, WebSphere Application Server Network Deployment, or WebSphere Enterprise Service Bus profile into a Websphere Process Server profile.
- Augmented a WebSphere Application Server or WebSphere Application Server Network Deployment profile into a WebSphere Enterprise Service Bus profile.

The node within the profile has a server named server1 for Linux, UNIX, and Windows platforms or servename for i5/OS platforms and the number is incremented if there is more than one WebSphere Process Server installation.

What to do next

Check the server operation by selecting **Start the server** from the First steps console. An output window opens. If you see a message similar to the following, your server is operating properly:

```
ADMU3000I: Server server1 open for e-business; process id is 3348
```

Configuring deployment manager profiles using default values

Learn how to use the Profile Management Tool to create and configure a WebSphere Process Server or WebSphere Enterprise Service Bus deployment manager profile using default configuration values.

Before you begin

This topic assumes that you are using the Profile Management Tool to create or augment profiles and are following the procedure in either “Creating profiles using the Profile Management Tool” on page 165 or “Augmenting profiles using the Profile Management Tool” on page 172. As a result, it is assumed that you have started the Profile Management Tool, have chosen to create or augment a deployment manager profile, and have selected the **Typical** profile creation or augmentation option.

About this task

Selecting the **Typical** profile creation or augmentation option creates or augments a profile with default configuration settings. In this type of configuration, the Profile

Management Tool assigns default values to ports, to the location of the profile, and to the names of the profile, node, host, and cell. The administrative console is installed. You can optionally enable administrative security (unless you are augmenting a profile that has security enabled – then you must re-enter the administrative user ID and password of that profile to augment it to a WebSphere Process Server or WebSphere Enterprise Service Bus profile). If your operating system and the privileges of your user account permit, the tool creates a system service to run the server. The Common database configuration is set to Derby Network Server.

As a result of following the procedure in either “Augmenting profiles using the Profile Management Tool” on page 172 or “Creating profiles using the Profile Management Tool” on page 165, you are viewing the Administrative security panel or the Profile summary panel. Complete the following steps to configure a new deployment manager profile using default values.

Procedure

1. The panel you see in the Profile Management Tool depends on whether you are creating or augmenting a profile, and if you are augmenting, on whether administrative security is enabled on the profile.

If you are performing	First step
Typical profile augmentation and administrative security <i>is</i> enabled on the profile you are augmenting.	The Administrative security panel is displayed. Proceed to step 2.
Typical profile augmentation and administrative security is <i>not</i> enabled on the profile you are augmenting.	The Profile summary panel is displayed. Proceed to step 3.
Typical profile creation	The Administrative security panel is displayed. Proceed to step 2.

2. Enable administrative security.

This screen differs depending on whether you are creating or augmenting a profile.

If you are creating a profile, you can enable administrative security now, or later from the administrative console. To enable administrative security now, leave the **Enable administrative security** check box selected, supply a user name and password to log onto the administrative console, and click **Next**. To disable administrative security, clear the check box. To enable administrative security later from the administrative console, open the console and click **Security > Business Integration Security**.

If you are augmenting a profile and see this panel, the profile you are augmenting has security enabled. You must re-enter the administrative user ID and password for that profile.

The Profile summary panel is displayed.

3. In the Profile summary panel, click **Create** or **Augment** to create or augment the profile or **Back** to change the characteristics of the profile.

When the profile creation or augmentation is complete, the Profile complete panel is displayed with the message **The Profile Management tool created the profile successfully** or **The Profile Management tool augmented the profile successfully**.

Attention: If errors are detected during profile creation or augmentation, other messages might appear in place of the success message, for example:

- **The Profile Management tool created the profile but errors occurred**, which indicates that profile creation completed but errors were generated.
- **The Profile Management tool cannot create the profile**, which indicates that profile creation failed completely.
- **The Profile Management tool augmented the profile but errors occurred**, which indicates that profile augmentation completed but errors were generated.
- **The Profile Management tool cannot augment the profile**, which indicates that profile augmentation failed completely.

The Profile complete panel identifies the log file to reference in order to troubleshoot the problems. See the descriptions of relevant log files listed in “Log files” on page 299.

You can review other useful troubleshooting information in the following topics:

- Chapter 15, “Troubleshooting installation and configuration,” on page 287
 - “Troubleshooting the launchpad application” on page 290
 - “Troubleshooting a silent installation” on page 291
 - “i5/OS installation troubleshooting tips” on page 292
 - “Diagnosing a failing Ant configuration script” on page 293
 - “Messages: installation and profile creation” on page 294
 - “Recovering from profile creation or augmentation failure” on page 304
4. In the Profile complete panel, select **Launch the First steps console, Create another profile**, or both; click **Finish** to exit. Use the First steps console start the server. Use the **Create another profile** option to restart the Profile Management Tool to create additional profiles.
 5. If you plan to use the Business Process Choreographer component in your environment, you must configure it. You might need your DBA to create and configure the Business Process Choreographer database.

For more information, see the topics under Configuring Business Process Choreographer.

Results

You have completed one of the following tasks:

- Created a WebSphere Process Server or a Websphere Enterprise Service Bus profile.
- Augmented a WebSphere Application Server Network Deployment or WebSphere Enterprise Service Bus profile into a WebSphere Process Server profile.
- Augmented a WebSphere Application Server Network Deployment profile into a WebSphere Enterprise Service Bus profile.

The node defined by the profile has a deployment manager named Dmgr.

Check the server operation by selecting **Start the deployment manager** from the First steps console. An output window opens. If you see a message similar to the following, your deployment manager is operating properly:

```
ADMU3000I: Server dmgr open for e-business; process id is 3072
```

In a deployment environment, you must create and configure other databases, create custom profiles and federate them to your deployment manager, create servers, create clusters if you desire workload management capabilities, and perform other tasks specific to your planned installation environment. Your planned environment dictates which tasks you must perform and the order in which you perform them.

For more information on planning your installation and on the databases required by WebSphere Process Server, see the topics under Planning for WebSphere Process Server.

Configuring custom profiles (managed nodes) using default values

Learn how to use the Profile Management Tool to create and configure a custom profile using default configuration values.

Before you begin

This topic assumes that you are using the Profile Management Tool to create or augment profiles and are following the procedure in either “Creating profiles using the Profile Management Tool” on page 165 or “Augmenting profiles using the Profile Management Tool” on page 172. As a result, it is assumed that you have started the Profile Management Tool, have chosen to create or augment a custom profile, and have selected the **Typical** profile creation or augmentation option.

About this task

In this type of configuration, the Profile Management Tool assigns default values to ports, to the location of the profile, and to the names of the profile, node, and host. You can choose to federate the node to an existing deployment manager during the creation or augmentation process, or federate it later using the `addNode` command. If you decide to federate the profile during the creation or augmentation process, the tool sets the Common database configuration to the same database as the deployment manager. If you decide not to federate, the database configuration is left unconfigured.

As a result of following the procedure in either “Creating profiles using the Profile Management Tool” on page 165 or “Augmenting profiles using the Profile Management Tool” on page 172, the Federation panel is displayed. Complete the following steps to configure a new custom profile using default values.

Procedure

1. In the Federation panel, choose to federate the node into the deployment manager now as part of the profile creation or augmentation, or at a later time and apart from profile creation or augmentation.
 - If you choose to federate the node as part of the profile creation or augmentation, specify the host name or IP address and SOAP port of the deployment manager, and an authentication user ID and password if administrative security is enabled on the deployment manager. Leave the **Federate this node later** check box unselected. Then click **Next**.

The Profile Management Tool verifies that the deployment manager exists and can be contacted, and that the authentication user ID and password are valid for that deployment manager (if it is secured).

Attention: Federate the custom node during profile creation or augmentation only if all of the following conditions are true:

- You do not plan to use this custom node as a migration target.
- No other node is being federated. (Node federation must be serialized.)
- The deployment manager is running.
- The deployment manager is a WebSphere Process Server deployment manager. WebSphere Process Server profiles cannot use a WebSphere Enterprise Service Bus deployment manager, but WebSphere Enterprise Service Bus profiles can use a WebSphere Process Server deployment manager.
- The deployment manager is at a release level the same or higher than that of the custom profile you are creating or augmenting.
- The deployment manager has a JMX administrative port enabled. The default protocol is SOAP.

Do *not* federate the custom node during profile creation or augmentation if any one of the following conditions are true:

- You plan to use this custom node as a migration target.
- Another profile is being federated. (Node federation must be serialized.)
- The deployment manager is not running or you are not sure if it is running.
- The deployment manager has not yet been augmented into a WebSphere Process Server deployment manager.
- The deployment manager is not at a release level the same or higher than that of the custom profile you are creating or augmenting.
- The deployment manager does not have a JMX administrative port enabled.
- The deployment manager is reconfigured to use the non-default remote method invocation (RMI) as the preferred Java Management Extensions (JMX) connector. (Click **System administration > Deployment manager > Administration services** in the administrative console of the deployment manager to verify the preferred connector type.)

If you attempt to federate a custom node when the deployment manager is not running or is not available for other reasons, a warning panel prevents you from continuing. If this warning panel appears, click **OK** to exit from it, and then make different selections on the Federation panel.

- If you choose to federate the node at a later time and apart from profile creation or augmentation, select the **Federate this node later** check box and click **Next**.

See “Federating custom nodes to a deployment manager” on page 428 for more information on how to federate a node by using the `addNode` command. Read more about this command in the `addNode` command topic in the WebSphere Application Server Network Deployment, version 6.1, information center.

The Profile summary panel is displayed.

2. In the Profile summary panel, click **Create** or **Augment** to create or augment the profile or **Back** to change the characteristics of the profile.

When the profile creation or augmentation is complete, the Profile complete panel is displayed with the message **The Profile Management tool created the profile successfully** or **The Profile Management tool augmented the profile successfully**.

Attention: If errors are detected during profile creation or augmentation, other messages might appear in place of the success message, for example:

- **The Profile Management tool created the profile but errors occurred**, which indicates that profile creation completed but errors were generated.
- **The Profile Management tool cannot create the profile**, which indicates that profile creation failed completely.
- **The Profile Management tool augmented the profile but errors occurred**, which indicates that profile augmentation completed but errors were generated.
- **The Profile Management tool cannot augment the profile**, which indicates that profile augmentation failed completely.

The Profile complete panel identifies the log file to reference in order to troubleshoot the problems. See the descriptions of relevant log files listed in “Log files” on page 299.

You can review other useful troubleshooting information in the following topics:

- Chapter 15, “Troubleshooting installation and configuration,” on page 287
 - “Troubleshooting the launchpad application” on page 290
 - “Troubleshooting a silent installation” on page 291
 - “i5/OS installation troubleshooting tips” on page 292
 - “Diagnosing a failing Ant configuration script” on page 293
 - “Messages: installation and profile creation” on page 294
 - “Recovering from profile creation or augmentation failure” on page 304
3. In the Profile complete panel, select **Launch the First steps console**, **Create another profile**, or both; click **Finish** to exit. Use the First steps console access the product documentation. Use the **Create another profile** option to restart the Profile Management Tool to create additional profiles.

Results

You have completed one of the following tasks:

- Created a WebSphere Process Server or WebSphere Enterprise Service Bus profile.
- Augmented a WebSphere Application Server Network Deployment or WebSphere Enterprise Service Bus profile into a WebSphere Process Server profile.
- Augmented a WebSphere Application Server Network Deployment profile into a WebSphere Enterprise Service Bus profile.

What to do next

If you did not federate the profile during profile creation or augmentation, federate it now. The node within the profile is empty until you federate the node and use the deployment manager to customize the node.

Configuring profiles with customized values

Learn how to create or augment a profile with customized configuration settings using the Profile Management Tool.

Before you begin

In this topic, it is assumed that you are using the Profile Management Tool to create or augment profiles and are following the procedure in either “Creating profiles using the Profile Management Tool” on page 165 or “Augmenting profiles using the Profile Management Tool” on page 172. As a result, it is assumed you have started the Profile Management Tool, have chosen to create or augment a stand-alone server, deployment manager, or custom profile, and have selected the **Advanced** profile creation or augmentation option.

About this task

When you choose to configure profiles with customized values, you can assign customized values to ports, to the location of the profile, to the names of the profile, node, host, and cell (when applicable), and to any required database configurations.

For stand-alone server profiles, the Profile Management Tool also lets you perform the following tasks:

- Configure the Common Event Infrastructure.
- Configure the Common database.
- Install the administrative console and create a Web server definition.
- Enable administrative security.
- Create a system service to run the server, if your operating system and the privileges of your user account permit the creation of services.
- Deploy the default application (which contains the Snoop, Hello, and HitCount applications) and WebSphere Application Server sample application.
- Configure the Business Rules Manager and create a Business Process Choreographer sample configuration.

For deployment manager profiles, the Profile Management Tool also lets you perform the following tasks:

- Configure the Common database.
- Install the administrative console.
- Enable administrative security.
- Create a system service to run the server, if your operating system and the privileges of your user account permit the creation of services.

For custom profiles, the Profile Management Tool also lets you federate the node to an existing deployment manager during the creation or augmentation process, or federate it later using the `addNode` command.

The following sub-topics explain how to configure a profile, depending on the profile type:

- “Configuring stand-alone server profiles using customized values”
- “Configuring deployment manager profiles using customized values” on page 404
- “Configuring custom profiles (managed nodes) using customized values” on page 423

Configuring stand-alone server profiles using customized values

Learn how to use the Profile Management Tool to create and configure a WebSphere Process Server or WebSphere Enterprise Service Bus stand-alone server profile with customized configuration settings.

Before you begin

This topic assumes that you are using the Profile Management Tool to create or augment profiles and are following the procedure in either “Creating profiles using the Profile Management Tool” on page 165 or “Augmenting profiles using the Profile Management Tool” on page 172. As a result, it is assumed that you have started the Profile Management Tool, have chosen to create or augment a stand-alone server profile, and have selected the **Advanced** profile creation or augmentation option.

About this task

By selecting the **Advanced** option, you can specify your own values for settings such as ports, the location of the profile, and the names for the profile, node, host, and cell. You can optionally choose whether to deploy the administrative console, the default application (which contains the Snoop, Hello, and HitCount Servlets), the WebSphere Application Server sample application, or create a Web server definition. You can optionally enable administrative security. If your operating system and the privileges of your user account permit, you can create a system service to run the server. You can also specify your own configuration values for the Common Event Infrastructure and Common databases and optionally configure the Business Rules Manager and create a Business Process Choreographer sample configuration.

Important: If you plan to federate the profile to a deployment manager, do not select the file store option for the messaging engines or Derby Embedded for the Common Event Infrastructure, Business Process Choreographer, or Common databases. The file store option and Derby Embedded database cannot be used in a deployment environment configuration.

As a result of following the procedure in either “Augmenting profiles using the Profile Management Tool” on page 172 or “Creating profiles using the Profile Management Tool” on page 165, you are viewing either the Administrative security panel or the Optional application deployment panel. Complete the following steps to configure a new stand-alone server profile with customized configuration values.

Procedure

1. The panel you see displayed in the Profile Management Tool depends on whether you are creating or augmenting a profile. If you are augmenting a profile, it also depends on whether security is enabled on that profile and on whether the Common Event Infrastructure is configured on the system.

If you are performing	First step
Advanced profile augmentation of a WebSphere Process Server or WebSphere Enterprise Service Bus profile and: <ul style="list-style-type: none">• Security <i>is</i> enabled on the profile you are augmenting	The Administrative security panel is displayed. Proceed to step 5 on page 374.

If you are performing	First step
Advanced profile augmentation of a WebSphere Process Server or WebSphere Enterprise Service Bus profile and: <ul style="list-style-type: none"> • Security is <i>not</i> enabled on the profile you are augmenting • Common Event Infrastructure is <i>not</i> already configured on your system 	The Common Event Infrastructure configuration panel is displayed. Proceed to step 10 on page 378.
Advanced profile augmentation of a WebSphere Process Server profile and: <ul style="list-style-type: none"> • Security is <i>not</i> enabled on the profile you are augmenting • Common Event Infrastructure <i>is</i> already configured on your system 	The Business Process Choreographer sample configuration panel is displayed. Proceed to step 11 on page 378.
Advanced profile augmentation of a WebSphere Enterprise Service Bus profile and: <ul style="list-style-type: none"> • Security is <i>not</i> enabled on the profile you are augmenting • Common Event Infrastructure <i>is</i> already configured on your system 	The Database configuration panel is displayed. Proceed to step 14 on page 379.
Advanced profile creation	The Optional application deployment panel is displayed. Proceed to step 2.

2. **For Advanced profile creation only:** In the Optional application deployment panel, select the applications that you want to deploy to the stand-alone server profile environment you are creating, then click **Next**.

To choose an application from the following list, leave the check box beside the application selected. Clear the check box to deselect an application.

- **Deploy the administrative console (recommended):** Installs a Web-based administrative console that manages the server.
- **Deploy the default application:** Installs the default application that contains the Snoop, Hello, and HitCount Servlets.
- **Deploy the Sample application:** Installs the WebSphere Application Server sample application. The WebSphere Application Server sample application is not recommended for deployment to production environments.

Note: The WebSphere Process Server Samples are *not* deployed when you select this check box.

The Profile name and location panel is displayed.

3. **For Advanced profile creation only:** In the Profile name and location panel, perform the following steps.

- a. Specify a unique name and directory path for the profile, or accept the defaults.

Each profile that you create must have a name. When you have more than one profile, you can tell them apart at their highest level by this name. If you elect not to use the default name, see “Naming considerations for profiles, nodes, hosts, and cells” on page 356 for information about issues you must consider when naming the profile, such as restrictions on the length of the directory name.

The directory you specify will contain the files that define the runtime environment, such as commands, configuration files, and log files. The default directory is dependent on platform:

- **Linux** **UNIX** `install_root/profiles/profile_name`
- **Windows** `install_root\profiles\profile_name`

where `profile_name` is the name you specified. An error message is displayed if:

- The `profile_name` you specify is not unique.
 - The directory you specify is not empty.
 - Your user ID does not have sufficient permissions for the directory.
 - There is not sufficient space to create the profile.
- b. To create the stand-alone server with configuration settings optimized for development environments, select the **Create the server using the development template** check box. The development template reduces startup time and allows the server to run on less powerful hardware. Do not use this option for production servers.
- c. You can make the profile you are creating the default profile (so commands work automatically with it) by selecting the **Make this profile the default** check box. This check box appears only if you have an existing profile on your system.

The first profile that you create on a machine is the default profile.

The default profile is the default target for commands that are issued from the `bin` directory in the product installation root. When only one profile exists on a machine, every command operates on that profile. If more than one profile exists, certain commands require that you specify the profile to which the command applies. See “Profile commands in a multiprofile environment” on page 361 for more information.

- d. Click **Next**. (If you click **Back** and change the name of the profile, you might have to manually change the name on this panel when it is displayed again.)

The Node, host, and cell names panel is displayed.

4. **For Advanced profile creation only:** In the Node, host, and cell names panel, specify the node, host, and cell names for the stand-alone server profile, or accept the defaults and click **Next**. Try to keep the node name as short as possible, but ensure that node names are unique within your deployment environment. See “Naming considerations for profiles, nodes, hosts, and cells” on page 356 for information about reserved terms and other issues you must consider when naming the node, host, and cell.

The Administrative security panel is displayed.

5. Enable administrative security.

This screen differs depending on whether you are creating or augmenting a profile.

If you are creating a profile, you can enable administrative security now, or later from the administrative console. To enable administrative security now, leave the **Enable administrative security** check box selected, supply a user name and password to log onto the administrative console, and click **Next**. To disable administrative security, clear the check box. To enable administrative security later from the administrative console, open the console and click **Security > Business Integration Security**.

Important: If you plan to create a Business Process Choreographer sample configuration in step 11 on page 378, you must enable administrative security. If you chose to deploy the WebSphere Application Server sample application from the Optional application deployment panel in step 2 on page 373, it requires an account under which to run. Supply the password for the account. You cannot change the user name of the account.

If you are augmenting a profile and see this panel, the profile you are augmenting has security enabled. You must re-enter the administrative user ID and password for that profile.

The next step depends on the following conditions:

- Whether you are performing a profile creation or augmentation.
- Whether the Common Event Infrastructure is already configured on your system.
- If you are augmenting, whether the profile is a WebSphere Process Server or WebSphere Enterprise Service Bus profile.

If you are performing	Next step
Advanced profile augmentation of a WebSphere Process Server profile and the Common Event Infrastructure <i>is</i> already configured on your system	The Business Process Choreographer sample configuration panel is displayed. Proceed to step 11 on page 378.
Advanced profile augmentation of a WebSphere Enterprise Service Bus profile and the Common Event Infrastructure <i>is</i> already configured on your system	The Database configuration panel is displayed. Proceed to step 14 on page 379.
Advanced profile augmentation of any profile and the Common Event Infrastructure is <i>not</i> already configured on your system	The Common Event Infrastructure configuration panel is displayed. Proceed to step 10 on page 378.
Advanced profile creation	The Port values assignment panel is displayed. Proceed to step 6.

6. For Advanced profile creation only: Verify that the ports specified for the profile are unique and click **Next**.

The Profile Management Tool detects ports currently used by other WebSphere products and displays recommended port values that do not conflict with existing ones. If you have applications other than WebSphere ones that use specified ports, verify that the ports do not conflict. If you chose not to deploy the administrative console on the Optional application deployment panel in step 2 on page 373, the administrative console ports are not available on the Port values assignment panel.

Ports are recognized as being in use if the following conditions are satisfied:

- The ports are assigned to a profile created under an installation performed by the current user.
- The ports are currently in use.

Although the tool validates ports when you access the Port values assignment panel, port conflicts can still occur resulting from selections you make on subsequent Profile Management Tool panels. Ports are not assigned until profile creation completes.

If you suspect a port conflict, you can investigate it after the profile is created. Determine the ports used during profile creation by examining the following file:

- `i5/OS profile_root/properties/portdef.props`

- **Linux** **UNIX** `profile_root/properties/portdef.props`
- **Windows** `profile_root\properties\portdef.props`

Included in this file are the keys and values used in setting the ports. If you discover port conflicts, you can reassign ports manually. To reassign ports, see the topic Updating ports in an existing profile in the WebSphere Application Server Network Deployment, version 6.1 information center and run the `updatePorts.ant` file through the **ws_ant** script.

The next step depends on your platform and whether you are installing as a root (Administrator) or non-root user.

If you are installing	Next step
On a Linux platform <i>and are running the Profile Management Tool as the root user</i>	The Linux service definition panel is displayed. Proceed to step 8 on page 377.
On a Windows platform <i>and have Administrator group privileges</i>	The Windows service definition panel is displayed. Proceed to step 7.
On any other platform or as a non-root user on a Linux or Windows platform.	The Web server definition panel is displayed. Proceed to step 9 on page 377.

7. **Windows** **For Advanced profile creation only:** Choose whether to run the server as a Windows service and click **Next**.

The Windows service definition panel is displayed for the Windows platform only if the ID that installs the Windows service has the Administrator group privilege. If the profile is configured as a Windows service, the product starts Windows services for server processes started by a **startServer** command. For example, if you configure a server as a Windows service and issue the **startServer** command, the **wasservice** command starts the defined service.

Important: If you choose to log on as a specified user account, you must specify the user ID and the password for the user who is to run the service, and the startup type (default is Automatic). The user ID must not have spaces in its name, it must belong to the Administrator group, and it must have the advanced user rights *Log on as a service* and *Act as part of the operating system*. If the user ID belongs to the Administrator group, the Profile Management Tool grants it the advanced user rights if it does not already have them.

During profile deletion you can remove the Windows service that is added during profile creation.

IPv6 considerations when running profiles as Windows services

Profiles created to run as a Windows service fail to start when using IPv6 if the service is configured to run as Local System. Create a user-specific environment variable to enable IPv6. Because this environment variable is a user variable instead of a Local System variable, only a Windows service that runs as that specific user can access this environment variable. By default, when a new profile is created and configured to run as a Windows service, the service is set to run as Local System. When the WebSphere Process Server or WebSphere Enterprise Bus Windows service tries to run, the service is unable to access the user environment variable that specifies IPv6, and thus tries to start as IPv4. The server does not start correctly in this case. To resolve the problem, when creating the profile specify that the WebSphere Process Server or WebSphere Enterprise Bus Windows service runs as the same user ID under which the environment variable that specifies IPv6 is defined, instead of as Local System.

The Web server definition panel is displayed.

8. **Linux** **For Advanced profile creation only:** Choose whether to run the server as a Linux service and click **Next**.

The Linux service definition panel is displayed only if the current operating system is a supported version of Linux and the current user has the appropriate permissions.

WebSphere Process Server attempts to start Linux services for server processes that are started by a **startServer** command. For example, if you configure a server as a Linux service and issue the **startServer** command, the **wasservice** command attempts to start the defined service.

By default, WebSphere Process Server is not selected to run as a Linux service.

To create the service, the user who runs the Profile Management Tool must be the root user. If you run the Profile Management Tool with a non-root user ID, the Linux service definition panel is not displayed, and no service is created.

You must specify a user name under which the service runs.

To delete a Linux service, the user must be the root user or have proper privileges for deleting the service. Otherwise, a removal script is created that the root user can run to delete the service on the user's behalf.

The Web server definition panel is displayed.

9. **For Advanced profile creation only:** If you want to include a Web server definition in the profile now, perform the following steps:
- Select the **Create a Web server definition** check box.
 - Specify the Web server characteristics on the panel, and click **Next**.
 - Specify the Web server characteristics on Part 2 of the panel and click **Next**.

If you use a Web server to route requests to WebSphere Process Server or WebSphere Enterprise Bus, you need to include a Web server definition. You can include the definition now, or define the Web server to WebSphere Process Server or WebSphere Enterprise Bus later. If you define the Web server definition during the creation of this profile, you can install the Web server and its plug-in after you create the profile. However, you must install both to the paths that you specify on the Web server definition panels. If you define the Web server to WebSphere Process Server or WebSphere Enterprise Service Bus after you create this profile, you must define the Web server in a separate profile.

The next step depends on the following conditions:

- Whether the Common Event Infrastructure is already configured on your system.
- If the Common Event Infrastructure is already configured on your system, whether the profile you are creating is a WebSphere Process Server or WebSphere Enterprise Service Bus profile.

If you are	Next step
Creating a WebSphere Process Server or WebSphere Enterprise Bus profile and the Common Event Infrastructure is <i>not</i> already configured on your system	The Common Event Infrastructure configuration panel is displayed. Proceed to step 10 on page 378.
Creating a WebSphere Process Server profile and the Common Event Infrastructure <i>is</i> already configured on your system	The Business Process Choreographer sample configuration panel is displayed. Proceed to step 11 on page 378.

If you are	Next step
Creating a WebSphere Enterprise Service Bus profile and the Common Event Infrastructure is already configured on your system	The Database configuration panel is displayed. Proceed to step 14 on page 379.

10. In the Common Event Infrastructure configuration panel, configure the database used by the Common Event Infrastructure component.
- This panel is displayed only if the Common Event Infrastructure is not already configured. Refer to the topic “Configuring the Common Event Infrastructure database using the Profile Management Tool” on page 381 for details and return to this step when you have completed the fields on the Common Event Infrastructure configuration panel and the Common Event Infrastructure configuration (Part 2) panel.
- The next step can differ depending on whether you are working on a WebSphere Process Server or WebSphere Enterprise Bus profile.

Profile type	Next step
WebSphere Process Server	The Business Process Choreographer sample configuration panel is displayed. Proceed to step 11.
WebSphere Enterprise Service Bus	The Database configuration panel is displayed. Proceed to step 14 on page 379.

11. Choose whether to create a Business Process Choreographer sample configuration.

Restriction: Do not create a Business Process Choreographer sample configuration if you plan to use this component in a production environment or federate this stand-alone server profile to a deployment manager. The sample configuration is for development use only. For instructions on how to set up this component in a production setting, see the topics under Configuring Business Process Choreographer.

To create a sample configuration, select the **Configure a sample Business Process Choreographer** check box and click **Next**.

The Business Rules Manager configuration panel is displayed.

12. Select whether to configure a Business Rules Manager for the installation and then click **Next**. Business Rules Manager is a Web application that customizes the business rules templates for your business application needs.

The next step depends on whether you are creating or augmenting a profile and if multiple servers are defined on your system.

If you are	Next step
<ul style="list-style-type: none"> • Creating a profile • Augmenting a profile and multiple servers are <i>not</i> defined on your system 	The Database configuration panel is displayed. Proceed to step 14 on page 379.
<ul style="list-style-type: none"> • Augmenting a profile and multiple servers are defined on your system 	The Application Scheduler configuration panel is displayed. Proceed to step 13.

13. **For Advanced profile augmentation only:** In the Application Scheduler configuration panel, accept the default value of server1 for the name of the server on the node from the drop-down list and click **Next**.

For more information on the Application Scheduler component, see the topic Application Scheduler.

The Database configuration panel is displayed.

14. In the Database configuration panel, configure the Common database used by selected WebSphere Process Server and WebSphere Enterprise Bus components.

Refer to the topic “Configuring the Common database using the Profile Management Tool” on page 390 for details and return to this step when you have completed the fields on the Database configuration panel and the Database configuration (part 2) information panel.

The Profile summary panel is displayed.

15. In the Profile summary panel, click **Create** or **Augment** to create or augment the profile or **Back** to change the characteristics of the profile.

When the profile creation or augmentation is complete, the Profile complete panel is displayed with the message **The Profile Management tool created the profile successfully** or **The Profile Management tool augmented the profile successfully**.

Attention: If errors are detected during profile creation or augmentation, other messages might appear in place of the success message, for example:

- **The Profile Management tool created the profile but errors occurred**, which indicates that profile creation completed but errors were generated.
- **The Profile Management tool cannot create the profile**, which indicates that profile creation failed completely.
- **The Profile Management tool augmented the profile but errors occurred**, which indicates that profile augmentation completed but errors were generated.
- **The Profile Management tool cannot augment the profile**, which indicates that profile augmentation failed completely.

The Profile complete panel identifies the log file to reference in order to troubleshoot the problems. See the descriptions of relevant log files listed in “Log files” on page 299.

You can review other useful troubleshooting information in the following topics:

- Chapter 15, “Troubleshooting installation and configuration,” on page 287
 - “Troubleshooting the launchpad application” on page 290
 - “Troubleshooting a silent installation” on page 291
 - “i5/OS installation troubleshooting tips” on page 292
 - “Diagnosing a failing Ant configuration script” on page 293
 - “Messages: installation and profile creation” on page 294
 - “Recovering from profile creation or augmentation failure” on page 304
16. Complete the stand-alone server profile configuration by doing one of the following, depending on whether you must manually configure the Common Event Infrastructure and Common databases.
 - If you completed configuration of the Common Event Infrastructure and Common databases using the Profile Management Tool, select **Launch the First steps console**, **Create another profile**, or both; click **Finish** to exit. Use the First steps console to start the server. Use the **Create another profile** option to restart the Profile Management Tool to create additional profiles.

- If you chose to postpone actual database configuration by producing scripts to be run manually, perform the following steps:
 - a. Clear the check box to launch the First steps console and click **Finish** to close the Profile Management Tool.
 - b. Use your site's standard database definition tools and procedures to edit and run the scripts the Profile Management Tool generated to create, or create and configure, the event, eventcat, and WPRCSDB databases (or their equivalents if they have different names on your system). You identified the location for these scripts, as follows:
 - For the Common Event Infrastructure databases: in step 2 on page 381 of the topic “Configuring the Common Event Infrastructure database using the Profile Management Tool” on page 381.
 - For the Common database: in step 2 on page 391 of the topic “Configuring the Common database using the Profile Management Tool” on page 390.

Also see the topics that describe manually creating new databases or new tables in existing databases:

- For the Common Event Infrastructure database: Configuring the event database and its subtopics.
- For the Common database: “Creating the Common database and tables after profile creation or augmentation” on page 180 or “Creating tables on an existing Common database after profile creation or augmentation” on page 181.

When the databases are configured, start the First steps console associated with the profile, as described in “Starting the First steps console” on page 116.

17. If you plan to use the Business Process Choreographer component in your environment, you might need your DBA to create and configure the Business Process Choreographer database.

For more information, see the topics under Configuring Business Process Choreographer.

Results

You have completed one of the following tasks:

- Created a WebSphere Process Server or WebSphere Enterprise Service Bus profile.
- Augmented a WebSphere Application Server, WebSphere Application Server Network Deployment, or WebSphere Enterprise Service Bus profile into a WebSphere Process Server profile.
- Augmented a WebSphere Application Server or WebSphere Application Server Network Deployment profile into a WebSphere Enterprise Service Bus profile.

The node within the profile has a server named server1.

What to do next

Check server operation by selecting **Start the server** from the First steps console. An output window opens. If you see a message similar to the following message, your server is operating properly:

```
ADMU3000I: Server server1 open for e-business; process id is 3348
```

Configuring the Common Event Infrastructure database using the Profile Management Tool

Using values you provide on the Common Event Infrastructure configuration panels, the Profile Management Tool can automatically create and configure a new local database for use with this component, or generate scripts so that you or your database administrator can perform these tasks later. You must create and configure this database to have a working installation. (Database configuration for the Business Process Choreographer and the Common databases is performed separately.)

Before you begin

Note: i5/OS **On i5/OS platforms:** The reference to database refers to a database collection.

This procedure assumes that you have started the Profile Management Tool and have chosen to create or augment a stand-alone server profile through the Advanced profile creation or augmentation option. In the topic “Configuring stand-alone server profiles using customized values” on page 371, you are at the step in the procedure that asks you to configure the Common Event Infrastructure database.

About this task

For more information on the various databases and database tables the WebSphere Process Server product uses, see Choosing a database.

Complete the following steps to enter the required data in the Common Event Infrastructure database configuration panel:

Procedure

1. In the **Choose a database product** field, select the database product you want to use, or accept the default value of Derby Embedded.

Select from the following entries (each entry is followed by the database it represents):

Note: i5/OS **On i5/OS platforms:** DB2 UDB for iSeries (Native) and Derby Embedded can be used only *locally* as a database on i5/OS. Derby Network Server and DB2 for iSeries (Toolbox) can be used both locally and remotely on i5/OS. All other databases listed can be used with i5/OS only as remote databases provided the proper remote database driver is used.

- Derby Embedded (Derby Embedded)
 - Derby Network Server (Derby Network Server)
 - DB2 Universal (DB2 Universal Database)
 - DB2 UDB for z/OS (DB2 UDB for z/OS)
 - DB2 UDB for iSeries (Toolbox) (DB2 UDB for iSeries (Toolbox))
 - i5/OS DB2 UDB for iSeries (Native) (DB2 UDB for iSeries (Native))
 - Informix (Informix Dynamic Server)
 - Oracle (Oracle)
 - MSSQL Server (Microsoft SQL Server)
2. To store the database creation and configuration scripts that the Profile Management Tool will create in a location other than the default location in the **Database script output directory** field, select the **Override the destination directory for generated scripts** check box and designate your new location in

the **Database script output directory** field. The profile creation or augmentation process will create scripts that you or the database administrator can run manually to create a new database and its required tables, if you elect not to have the Profile Management Tool do this automatically. (You prevent automatic creation and configuration of this database by selecting the **Delay execution of database scripts** check box in this panel, described in step 4.)

3. Enter your database name or accept the default value in the **Database name** field.

Default database names differ based on the database product:

- event for Derby Embedded, Derby Network Server, DB2 Universal Database, DB2 UDB for z/OS, Informix Dynamic Server, and Microsoft SQL Server
- *SYSBAS for DB2 UDB for iSeries (Toolbox)
- **i5/OS** *LOCAL for DB2 UDB for iSeries (Native)
- orcl for Oracle

i5/OS **On i5/OS platforms:** The name of the database on i5/OS using Independent Auxiliary Storage Pools (IASPs) can be the name of the IASP.

If the default name is already associated with another WebSphere Process Server profile, you must use a different database name.

4. Select the **Delay execution of database scripts** check box if you do not want the Profile Management Tool to create and configure the database automatically. If you select this option, you or the database administrator must manually run the scripts that the Profile Management Tool creates and stores in the location specified in the **Database script output directory** field on this panel. You must create and configure this database, either using the Profile Management Tool or manually, to have a working installation. The database can exist on either the local or a remote workstation.
5. Select the **Override data source** check box to remove any existing Events service data source at the specified scope and create a new data source. The profile creation or augmentation process always creates the data source. If you do not select this check box, an Events service data source is not created if another one exists at the same scope.
6. Click **Next**. The next step depends on the database product you chose and, if you chose Derby Embedded, on whether administrative security is enabled for the profile.


If you selected	Next step
<ul style="list-style-type: none"> • Derby Embedded without administrative security enabled for the profile 	<p>The Business Process Choreographer configuration panel is displayed. Return to step 10 on page 378 in the topic “Configuring stand-alone server profiles using customized values” on page 371.</p>
<ul style="list-style-type: none"> • Derby Embedded with administrative security enabled for the profile • Any other database product with or without administrative security enabled for the profile 	<p>The Common Event Infrastructure configuration (Part 2) panel is displayed, with fields specific to the database product you selected. Review the topic “Common Event Infrastructure configuration (Part 2) panel” on page 383 for information about how to complete this panel. When you have completed entering information on this panel, click Next.</p>

Common Event Infrastructure configuration (Part 2) panel:

When you select any database product from the Common Event Infrastructure configuration panel in the Profile Management Tool, a follow-up panel asks you for database-specific information. This panel, called the Common Event Infrastructure configuration (Part 2) panel, contains slightly different fields and default values, depending on the database product you selected. One exception is, if you did not enable security for the profile and chose the Derby Embedded database product, this panel is not displayed.

Important: You must complete this panel even if you chose to postpone creating a new database by selecting the **Delay execution of database scripts** check box on the previous panel. The values you choose on this panel are added to the database configuration scripts that the Profile Management Tool creates and stores in the directory you specified in the **Database script output directory** field on the previous panel.

Choose the link for your database product from the following list to determine how to complete the Common Event Infrastructure configuration (Part 2) panel:

- “Derby Embedded”
- “Derby Network Server” on page 384
- “DB2 Universal Database” on page 384
- “DB2 UDB for z/OS” on page 385
- “DB2 UDB for iSeries (Toolbox)” on page 386
-  “DB2 UDB for iSeries (Native)” on page 387
- “Informix” on page 387
- “Oracle” on page 388
- “Microsoft SQL Server” on page 389

When you have completed the Common Event Infrastructure configuration (Part 2) panel, click **Next**. The panel that is displayed depends on whether you are creating a WebSphere Process Server or WebSphere Enterprise Service Bus profile.

Table 48. Next step after Common Event Infrastructure configuration panel

Profile type	Next step
WebSphere Process Server	The Business Process Choreographer configuration panel is displayed. Return to step 11 on page 378 in the topic “Configuring stand-alone server profiles using customized values” on page 371.
WebSphere Enterprise Service Bus	The Database configuration panel is displayed. Return to step 14 on page 379 in the topic “Configuring stand-alone server profiles using customized values” on page 371.

Derby Embedded

Table 49 on page 384 lists the fields you must complete on the Common Event Infrastructure configuration (Part 2) panel when you choose Derby Embedded as your database product.

Table 49. Required Common Event Infrastructure database configuration fields for Derby Embedded

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.

Derby Network Server

Table 50 lists the fields you must complete on the Common Event Infrastructure configuration (Part 2) panel when you select Derby Network Server as your database product.

Table 50. Required Common Event Infrastructure database configuration fields for Derby Network Server

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Database server host name (for example IP address)	Enter the database server host name.
Server port	Enter the server port number.

DB2 Universal Database

Table 51 lists the fields you must complete on the Common Event Infrastructure configuration (Part 2) panel when you select DB2 Universal Database as your database product.

Table 51. Required Common Event Infrastructure database configuration fields for DB2 Universal Database

Field	Action needed
User name to authenticate with the database	Accept the default value of db2inst1 or enter the correct user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.

Table 51. Required Common Event Infrastructure database configuration fields for DB2 Universal Database (continued)

Field	Action needed
Location (directory) of JDBC driver classpath files	Accept the default value of <i>install_root/universalDriver_wbi/lib</i> on Linux, UNIX or i5/OS platforms, or <i>install_root\universalDriver_wbi\lib</i> on Windows platforms, or browse to the location on your system that contains the following files: <ul style="list-style-type: none"> • db2jcc.jar • db2jcc_license_cu.jar or db2jcc_license_cisuz.jar An error message is displayed if the files cannot be found at the specified location.
Database server host name (for example IP address)	Enter the database server host name.
Server port	Accept the default value of 50000 or enter the correct server port number.
Current member is configured as a DB2 client	If your DB2 installation is a client rather than a server installation, select the Current member is configured as a DB2 client check box and enter the DB2 node name in the DB2 node name field.
DB2 node name	Needed only if you selected the Current member is configured as a DB2 client check box. Enter the DB2 node name. It must be 1-8 characters in length.

DB2 UDB for z/OS

Table 52 lists the fields you must complete on the Common Event Infrastructure configuration (Part 2) panel when you select DB2 UDB for z/OS as your database product.

Table 52. Required Common Event Infrastructure database configuration fields for DB2 UDB for z/OS

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.

Table 52. Required Common Event Infrastructure database configuration fields for DB2 UDB for z/OS (continued)

Field	Action needed
Location (directory) of JDBC driver classpath files	Accept the default value of <i>install_root/universalDriver_wbi/lib</i> on Linux and UNIX platforms, or <i>install_root\universalDriver_wbi\lib</i> on Windows platforms, or browse to the location on your system that contains the following files: <ul style="list-style-type: none"> • db2jcc.jar • db2jcc_license_cisuz.jar An error message is displayed if the files cannot be found at the specified location.
Database server host name (for example IP address)	Enter the database server host name.
Database alias name	Enter the database alias name.
Server port	Accept the default value of 5027 or enter the correct server port number.
Database storage group name	Enter the database storage group name.
Database subsystem name	Enter the database subsystem name.
4K buffer pool name	Enter the 4K buffer pool name.
8K buffer pool name	Enter the 8K buffer pool name.
16K buffer pool name	Enter the 16K buffer pool name.
Specify disk size of the event service database	If you want to specify the disk size of the database, select this check box and enter the size in MB in the Disk size (MB) field.
Disk size (MB)	Needed only if you selected the Specify disk size of the event service database check box. Enter the size of the database in MB. The database must be at least 10 MB in size.

DB2 UDB for iSeries (Toolbox)

Table 53 lists the fields you must complete on the Common Event Infrastructure configuration (Part 2) panel when you select DB2 UDB for iSeries (Toolbox) as your database product.

Table 53. Required Common Event Infrastructure database configuration fields for DB2 UDB for iSeries (Toolbox)

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.

Table 53. Required Common Event Infrastructure database configuration fields for DB2 UDB for iSeries (Toolbox) (continued)

Field	Action needed
Location (directory) of JDBC driver classpath files	Accept the default value of /QIBM/ProdData/HTTP/Public/jt400/lib on i5/OS platforms, or browse to the location on your system that contains the following file: <ul style="list-style-type: none"> • jt400.jar An error message is displayed if the file cannot be found at the specified location.
Database server host name (for example IP address)	Enter the database server host name.
Database collection name	Accept the default value of event or enter the correct database collection name. The name must be 1-10 characters in length.

DB2 UDB for iSeries (Native)

Restriction: i5/OS This database configuration applies only to i5/OS.

Table 54 lists the fields you must complete on the Common Event Infrastructure configuration (Part 2) panel when you select DB2 UDB for iSeries (Native) as your database product.

Table 54. Required Common Event Infrastructure database configuration fields for DB2 UDB for iSeries (Native)

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Accept the default value of /QIBM/ProdData/Java400/ext on i5/OS platforms or browse to the location on your system that contains the following file: <ul style="list-style-type: none"> • db2_classes.jar An error message is displayed if the file cannot be found at the specified location.
Database collection name	Accept the default value of WPRCSDB or enter the correct schema name. To prevent naming conflicts within the specified database, specify a schema name whose first three characters are unique from the names of other schemas residing in the database.

Informix

Table 55 on page 388 lists the fields you must complete on the Common Event Infrastructure configuration (Part 2) panel when you select Informix as your database product.

Table 55. Required Common Event Infrastructure database configuration fields for Informix

Field	Action needed
Directory of database server installation	Enter the directory of the database server installation.
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Enter the location on your system that contains the following files: <ul style="list-style-type: none"> • ifxjdbc.jar • ifxjdbcx.jar An error message is displayed if the files cannot be found at the specified location.
Database server host name (for example IP address)	Enter the database server host name.
Database server name	Enter the database server name.
Server port	Accept the default value of 1526 or enter the correct server port number.
Event service instance name	Accept the default value of ceinst1 or enter the correct event service instance name.

Oracle

Table 56 lists the fields you must complete on the Common Event Infrastructure configuration (Part 2) panel when you select Oracle as your database product.

Table 56. Required Common Event Infrastructure database configuration fields for Oracle

Field	Action needed
Directory of database server installation	Enter the directory of the database server installation. (If you select Delay execution of database scripts on the previous panel, this field is not displayed.)
User name to authenticate with the database	Enter the correct user name to authenticate with the database. This ID must have SYSDBA privileges and permission to create schemas in the Oracle database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Enter the location on your system that contains the file ojdbc14.jar. An error message is displayed if the files cannot be found at the specified location.
Database server host name (for example IP address)	Accept the default value of <i>your workstation name</i> or enter the correct database server host name.
Server port	Accept the default value of 1521 or enter the correct server port number.

Table 56. Required Common Event Infrastructure database configuration fields for Oracle (continued)

Field	Action needed
Event service instance name	Accept the default value of <code>ceiinst1</code> or enter the correct event service instance name.
Admin user name	Accept the default value of <code>sys</code> or enter the correct admin user name.
Password	Enter a password for the admin user name.
Confirm password	Confirm the password.

Microsoft SQL Server

Table 57 lists the fields you must complete on the Common Event Infrastructure configuration (Part 2) panel when you select Microsoft SQL Server as your database product.

Table 57. Required Common Event Infrastructure database configuration fields for Microsoft SQL Server

Field	Action needed
User name to authenticate with the database	Accept the default value of <code>ceiuser</code> or enter the correct user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	<p>Enter the location on your system that contains the following files:</p> <ul style="list-style-type: none"> • <code>sqlserver.jar</code> • <code>base.jar</code> • <code>util.jar</code> <p>Also, the file <code>spy.jar</code> must be available in the following location relative to the location of the JDBC driver classpath files:</p> <ul style="list-style-type: none"> • Linux UNIX On Linux and UNIX platforms: <code>../spy/spy.jar</code> • Windows On Windows platforms: <code>..\spy\spy.jar</code> <p>An error message is displayed if the files cannot be found at the specified location.</p>
Database server host name (for example IP address)	Enter the database server host name.
Database server name	Enter the database server name.
Server port	Accept the default value of 1433 or enter the correct server port number.
Event service instance name	Accept the default value of <code>ceiinst1</code> or enter the correct event service instance name.
Admin user name	Accept the default value of <code>sa</code> or enter the correct admin user name.

Table 57. Required Common Event Infrastructure database configuration fields for Microsoft SQL Server (continued)

Field	Action needed
Password	Enter a password for the admin user name.
Confirm password	Confirm the password.

Configuring the Common database using the Profile Management Tool

Selected WebSphere Process Server components require a database, called the *Common* database, to operate. Using values you provide on the database configuration panels, the Profile Management Tool can automatically create this database and the required tables locally, in an existing local or remote database. You can also choose not to have the tool create the database or tables automatically. The tool generates scripts so that you or your database administrator can perform these functions manually after profile creation or augmentation. You must configure this database to have a working installation. (Database configuration for the Common Event Infrastructure and Business Process Choreographer components is performed separately.)

Before you begin

Note: i5/OS **On i5/OS platforms:** The reference to database refers to a database collection.

This procedure assumes that you have started the Profile Management Tool and have chosen to create or augment a profile through either the Advanced or Deployment environment profile creation or augmentation option. You are performing the procedure in one of the following topics:

- “Configuring stand-alone server profiles using customized values” on page 371
- “Configuring deployment manager profiles using customized values” on page 404
- “Configuring deployment manager profiles for a deployment environment” on page 431

In the topic, you are at the step in the procedure that asks you to configure the Common database by completing the Database configuration panel.

About this task

The following WebSphere Process Server components use the Common database:

- Application Scheduler
- Business rule group
- Mediation
- Recovery
- Relationship service
- Selector
- Event Sequencing (Lock Manager)
- Enterprise Service Bus Logger Mediation Primitive
- Messaging Engines (if you selected the **Use this database for Messaging Engines (MEs)** check box detailed in step 6 on page 393).

For more information on the various databases and database tables the WebSphere Process Server product uses, see Choosing a database.

Important: If you choose Derby Network Server as your database product, after profile creation or augmentation completes, ensure that the server is running on the host and port you specified during profile creation or augmentation, even if the database host is local.

Complete the following steps to enter the required data in the Database configuration panel.

Procedure

1. In the **Choose a database product** field, select the database product you want to use, or accept the default value of Derby Embedded (for stand-alone server profiles) or Derby Network Server (for deployment manager profiles).

Restrictions:

- Informix Dynamic Server, Microsoft SQL Server Data Direct, and Microsoft SQL Server Embedded are not supported on deployment managers using the deployment environment configuration.
- **i5/OS** **On i5/OS platforms:** DB2 UDB for iSeries (Native) and Derby Embedded can be used only *locally* as a database on i5/OS. Derby Network Server and DB2 for iSeries (Toolbox) can be used both locally and remotely on i5/OS. All other databases listed here can be used with i5/OS only as remote databases provided the proper remote database driver is used.

Select a supported database product from the following (each entry is followed by the database it represents):

- Derby Embedded (Derby Embedded): supported for stand-alone server profiles only
 - Derby Network Server (Derby Network Server)
 - DB2 Universal (DB2 Universal Database)
 - DB2 UDB for z/OS and OS/390 V7 (DB2 UDB for z/OS and OS/390 V7)
 - DB2 UDB for z/OS V8 (DB2 UDB for z/OS V8)
 - DB2 UDB for iSeries (Toolbox) (DB2 UDB for iSeries (Toolbox))
 - **i5/OS** **On i5/OS platforms:** DB2 UDB for iSeries (Native) (DB2 UDB for iSeries (Native))
 - DB2_CLI (DB2 Call Level Interface)
 - Informix (Informix Dynamic Server)
 - MSSQL Server Data Direct (Microsoft SQL Server Data Direct)
 - MSSQL Server Embedded (Microsoft SQL Server Embedded)
 - Oracle 9i (Oracle 9i)
 - Oracle 10g (Oracle 10g)
2. To store the database creation and configuration scripts that the Profile Management Tool will create in a location other than the default location in the **Database script output directory** field, select the **Override the destination directory for generated scripts** check box and designate your new location in the **Database script output directory** field. The profile creation or augmentation process will create scripts that you or the database administrator can run manually to create a new database and its required tables, if you elect not to have the Profile Management Tool do this automatically. (You prevent automatic creation and configuration of this database by selecting the **Delay execution of database scripts for new or existing database** check box in this panel, described in step 5 on page 392.)
 3. Choose whether to create a new local database or use an existing local or remote one by selecting the appropriate radio button:

- **Create a new local database:** the profile creation or augmentation process creates a new database and the required tables on the local machine. No other database by the same name can exist or the procedure will fail.

Restrictions:

- You cannot create a new database if you are using DB2 UDB for z/OS and OS/390 V7, DB2 UDB for z/OS V8, Oracle 9i, or Oracle 10g. If you select one of these databases and the option **Create a new local database**, the **Next** button cannot be selected. Make different selections on the Database configuration panel.
- If you use Derby Embedded or Derby Network Server, you must create a new local database.
- Linux UNIX Windows **On Linux, UNIX, and Windows platforms:** **Use an existing database:** the profile creation or augmentation process creates the required tables in an existing database on either the local or a remote machine.

Note: i5/OS **On i5/OS platforms:** The profile creation or augmentation process associates an existing database on either the local or a remote machine.

You must choose one of these options even if you want to postpone creating a new database or adding tables to an existing one. To postpone database creation or configuration, select the **Delay execution of database scripts for new or existing database** check box described in step 5.

4. Enter your database name or accept the default value.

i5/OS **On i5/OS platforms:** The name of the database on i5/OS using Independent Auxiliary Storage Pools (IASPs) can be the name of the IASP. Default database names differ based on the database product:

- i5/OS **On i5/OS platforms:** *LOCAL for DB2 UDB for iSeries (Native)
- i5/OS **On i5/OS platforms:** *SYSBAS for DB2 UDB for iSeries (Toolbox)
- WPRCSDB for all other database products

If you plan to use an existing database, this name must match the name of that database. If you plan to create a new database and the name you specify is already associated with another WebSphere Process Server profile, you must use a different database name.

Note: i5/OS **On i5/OS platforms:** This does not apply to i5/OS. All profiles on i5/OS will use the same database name.

5. Select the **Delay execution of database scripts for new or existing database** check box if you do not want the Profile Management Tool to create and configure a local database automatically or create tables in an existing one during profile creation or augmentation. If you select this option, you or the database administrator must manually run the scripts that the Profile Management Tool creates and stores in the location specified in the **Database script output directory** field on this panel. For instructions on manually creating and configuring a new Common database or creating tables in an existing one, see “Creating the Common database and tables after profile creation or augmentation” on page 180 or “Creating tables on an existing Common database after profile creation or augmentation” on page 181.

Important: Do not use the scripts located in the following directories (where the variable *db_type* represents the supported database product):

- **Linux** **UNIX** *install_root/dbscripts/CommonDB/db_type*
- **Windows** *install_root\dbscripts\CommonDB\db_type*

These default scripts have not been updated by the Profile Management Tool.

Restriction: This option is not available if you chose the Derby Embedded or Derby Network Server product.

The next step depends on whether you are creating or augmenting a stand-alone server or deployment manager profile.

Type of profile you are creating or augmenting	Next step
Stand-alone server	Proceed to step 6.
Deployment manager	Proceed to step 8.

6. **For stand-alone server profiles only:** Select the **Use a file store for Messaging Engines (MEs)** check box to use a file store for messaging engines. If you select this check box, the messaging engines are created and configured on a file store (except for the Common Event Infrastructure messaging engine, which uses a Derby Embedded local database even if this option is selected). If you do not select this check box, and do not select the **Use this database for Messaging Engines (MEs)** check box detailed in step 7, the messaging engines are created and configured on the default Derby Embedded database. Derby Embedded databases cannot be created on remote workstations. For more information on file stores, see File stores in the WebSphere Application Server Network Deployment, version 6.1 information center.
7. **For stand-alone server profiles only:** Select the **Use this database for Messaging Engines (MEs)** check box to use the Common database for messaging engines. If you do not select this check box, and do not select the **Use a file store for Messaging Engines (MEs)** check box detailed in step 6, the messaging engines are created and configured on the default Derby Embedded database. Derby Embedded databases cannot be created on remote workstations. For more information on data stores, see Data stores in the WebSphere Application Server Network Deployment, version 6.1 information center.

Restriction: This option is not available if you chose the Derby Embedded product.

8. Click **Next**. The next step depends on the type of profile you are creating or augmenting and on the database product you chose.

Selection	Next step
Stand-alone server profile and the default value of Derby Embedded.	The Profile summary panel is displayed. Return to step 15 on page 379 in the topic “Configuring stand-alone server profiles using customized values” on page 371.

Selection	Next step
<ul style="list-style-type: none"> • Stand-alone server profile and any database product selection other than Derby Embedded. • Deployment manager profile and any database product selection. 	<p>The Database configuration (Part 2) panel is displayed with fields specific to the database product you selected. Review the topic “Database configuration (Part 2) panel for Common database configuration” for information on how to complete this panel. When you’ve completed entering information on this panel, click Next. The tool checks that a valid database connection exists. If the database connection does not exist, you need to correct the problem either by starting up the database or altering the specified parameters before continuing. The Profile summary panel is displayed. Depending on the topic from which you accessed this one, return to one of the following steps:</p> <ul style="list-style-type: none"> • Step 15 on page 379 in the topic “Configuring stand-alone server profiles using customized values” on page 371 • Step 10 on page 409 in the topic “Configuring deployment manager profiles using customized values” on page 404 • Step 9 on page 436 in the topic “Configuring deployment manager profiles for a deployment environment” on page 431

Database configuration (Part 2) panel for Common database configuration:

When you select your database product on the Database configuration panel in the Profile Management Tool, a follow-up panel asks you for database-specific information. (This panel does not appear if you selected Derby Embedded when configuring a stand-alone server profile.) This panel, called the Database configuration (Part 2) panel, contains slightly different fields and default values, depending on your database product selection.

You must complete this panel even if you chose to postpone creating a new database or adding tables to an existing one by selecting the **Delay execution of database scripts for new or existing database** check box on the previous panel. The values you choose on this panel are added to the database configuration scripts that the Profile Management Tool creates and stores in the directory you specified in the **Database script output directory** field on the previous panel.

Restriction: You cannot create a new database if you are using DB2 UDB for z/OS and OS/390 V7, DB2 UDB for z/OS V8, Oracle 9i, or Oracle 10g. If you select one of these databases and the option **Create a new local database**, the **Next** button cannot be selected. Make different selections on the Database configuration panel.

Choose the link for your database product from the following list to determine how to complete the Database configuration (Part 2) panel:

- “Derby Network Server” on page 395
- “DB2 Universal Database” on page 396

- “DB2 UDB for z/OS and OS/390 V7” on page 396
- “DB2 UDB for z/OS V8” on page 397
- “DB2 UDB for iSeries (Toolbox)” on page 397
- **i5/OS** “DB2 UDB for iSeries (Native)” on page 398
- “DB2 CLI” on page 399
- “Informix” on page 399
- “Microsoft SQL Server Embedded” on page 400
- “Microsoft SQL Server Data Direct ” on page 400
- “Oracle 9i” on page 401
- “Oracle 10g” on page 401

Important: If you are creating or augmenting a stand-alone server profile and selected the Derby Embedded database product, no additional database configuration is necessary.

When you have completed the Database configuration (Part 2) panel, click **Next**. The tool checks that a valid database connection exists. If the tool identifies an error, you must correct the problem before continuing by either making sure the database is up and running or altering parameters in order to make a good connection.

The Profile summary panel is displayed. Depending on the topic from which you accessed this one, return to one of the following steps:

- Step 15 on page 379 in the topic “Configuring stand-alone server profiles using customized values” on page 371
- Step 10 on page 409 in the topic “Configuring deployment manager profiles using customized values” on page 404
- Step 9 on page 436 in the topic “Configuring deployment manager profiles for a deployment environment” on page 431

Derby Network Server

Table 58 lists the fields you must complete on the Database configuration (Part 2) panel when you select Derby Network Server as your database product.

Important: If you choose Derby Network Server as your database product, after profile creation or augmentation completes, ensure that the server is running on the host and port you specified during profile creation, even if the database host is local.

Table 58. Required Common database configuration fields for Derby Network Server

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Database server host name (for example IP address)	Accept the default value of localhost or enter the correct database server host name.
Server port	Accept the default value of 1527 or enter the correct server port number.

DB2 Universal Database

Table 59 lists the fields you must complete on the Database configuration (Part 2) panel when you select DB2 Universal Database as your database product.

Table 59. Required Common database configuration fields for DB2 Universal Database

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Accept the default value of <i>install_root/universalDriver_wbi/lib</i> on Linux, UNIX or i5/OS platforms, or <i>install_root\universalDriver_wbi\lib</i> on Windows platforms, or browse to the location on your system that contains the following files: <ul style="list-style-type: none">• db2jcc.jar• db2jcc_license_cu.jar or db2jcc_license_cisuz.jar An error message is displayed if the files cannot be found at the specified location.
JDBC driver type	Accept the default value of 4 or select the radio button beside the correct JDBC driver type.
Database server host name (for example IP address)	Accept the default value of localhost or enter the correct database server host name.
Server port	Accept the default value of 50000 or enter the correct server port number.

DB2 UDB for z/OS and OS/390 V7

Table 60 lists the fields you must complete on the Database configuration (Part 2) panel when you select DB2 UDB for z/OS and OS/390 V7 as your database product.

Table 60. Required Common database configuration fields for DB2 UDB for z/OS and OS/390 V7

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.

Table 60. Required Common database configuration fields for DB2 UDB for z/OS and OS/390 V7 (continued)

Field	Action needed
Location (directory) of JDBC driver classpath files	Enter the location on your system that contains the following files: <ul style="list-style-type: none"> • db2jcc.jar • db2jcc_license_cisuz.jar An error message is displayed if the files cannot be found at the specified location.
Database server host name (for example IP address)	Enter the database server host name.
Server port	Accept the default value of 446 or enter the correct server port number.
Database alias name	Enter the database alias name.
Connection location	Enter the connection location.
Storage group name	Enter the storage group name.

DB2 UDB for z/OS V8

Table 61 lists the fields you must complete on the Database configuration (Part 2) panel when you select DB2 UDB for z/OS V8 as your database product.

Table 61. Required Common database configuration fields for DB2 UDB for z/OS V8

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Enter the location on your system that contains the following files: <ul style="list-style-type: none"> • db2jcc.jar • db2jcc_license_cisuz.jar An error message is displayed if the files cannot be found at the specified location.
Database server host name (for example IP address)	Enter the database server host name.
Server port	Accept the default value of 446 or enter the correct server port number.
Database alias name	Enter the database alias name.
Connection location	Enter the connection location.
Storage group name	Enter the storage group name.

DB2 UDB for iSeries (Toolbox)

Table 62 on page 398 lists the fields you must complete on the Database configuration (Part 2) panel when you select DB2 UDB for iSeries (Toolbox) as your database product.

Table 62. Required Common database configuration fields for DB2 UDB for iSeries (Toolbox)

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Accept the default value of /QIBM/ProdData/HTTP/Public/jt400/lib on i5/OS platforms, or browse to the location on your system that contains the following file: <ul style="list-style-type: none"> • jt400.jar An error message is displayed if the file cannot be found at the specified location.
Database collection name	Accept the default value of WPRCSDB or enter the correct schema name. To prevent naming conflicts within the specified database, specify a schema name whose first three characters are unique from the names of other schemas residing in the database.

DB2 UDB for iSeries (Native)

Note: i5/OS On i5/OS platforms: This database configuration applies only to i5/OS platforms.

Table 63 lists the fields you must complete on the Database configuration (Part 2) panel when you select DB2 UDB for iSeries (Native) as your database product.

Table 63. Required Common database configuration fields for DB2 UDB for iSeries (Native)

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Accept the default value of /QIBM/ProdData/Java400/ext on i5/OS platforms, or browse to the location on your system that contains the following file: <ul style="list-style-type: none"> • db2_classes.jar An error message is displayed if the file cannot be found at the specified location.
Database server host name (for example IP address)	Enter the database server host name.

Table 63. Required Common database configuration fields for DB2 UDB for iSeries (Native) (continued)

Field	Action needed
Database collection name	Accept the default value of WPRCSDB or enter the correct schema name. To prevent naming conflicts within the specified database, specify a schema name whose first three characters are unique from the names of other schemas residing in the database.

DB2 CLI

Table 64 lists the fields you must complete on the Database configuration (Part 2) panel when you select DB2 CLI as your database product.

Table 64. Required Common database configuration fields for DB2 CLI

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Enter the location on your system that contains the db2java.zip file. An error message is displayed if the file cannot be found at the specified location.

Informix

Table 65 lists the fields you must complete on the Database configuration (Part 2) panel when you select Informix as your database product.

Table 65. Required Common database configuration fields for Informix

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Enter the location on your system that contains the following files: <ul style="list-style-type: none"> • ifxjdbc.jar • ifxjdbcx.jar An error message is displayed if the files cannot be found at the specified location.
Database server host name (for example IP address)	Accept the default value of localhost or enter the correct database server host name.
Server port	Accept the default value of 1526 or enter the correct server port number.

Table 65. Required Common database configuration fields for Informix (continued)

Field	Action needed
Event service instance name	Enter the correct event service instance name.

Microsoft SQL Server Embedded

Table 66 lists the fields you must complete on the Database configuration (Part 2) panel when you select Microsoft SQL Server Embedded as your database product.

Table 66. Required Common database configuration fields for Microsoft SQL Server Embedded

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Database server host name (for example IP address)	Accept the default value of localhost or enter the correct database server host name.
Server port	Accept the default value of 1433 or enter the correct server port number.

Microsoft SQL Server Data Direct

Table 67 lists the fields you must complete on the Database configuration (Part 2) panel when you select Microsoft SQL Server Data Direct as your database product.

Table 67. Required Common database configuration fields for Microsoft SQL Server Data Direct

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	<p>Enter the location on your system that contains the following files:</p> <ul style="list-style-type: none"> sqlserver.jar base.jar util.jar <p>Also, the file spy.jar must be available in the following location relative to the location of the JDBC driver classpath files:</p> <ul style="list-style-type: none"> Linux UNIX ../spy/spy.jar Windows ..\spy\spy.jar <p>An error message is displayed if the files cannot be found at the specified location.</p>

Table 67. Required Common database configuration fields for Microsoft SQL Server Data Direct (continued)

Field	Action needed
Database server host name (for example IP address)	Accept the default value of localhost or enter the correct database server host name.
Server port	Accept the default value of 1433 or enter the correct server port number.

Oracle 9i

Table 68 lists the fields you must complete on the Database configuration (Part 2) panel when you select Oracle 9i as your database product.

Table 68. Required Common database configuration fields for Oracle 9i

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database. This ID must have SYSDBA privileges and permission to create schemas in the Oracle database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Enter the location on your system that contains the file ojdbc14.jar. An error message is displayed if the files cannot be found at the specified location.
JDBC driver type	Click OCI or Thin .
Database server host name (for example IP address)	Accept the default value of localhost or enter the correct database server host name.
Server port	Accept the default value of 1521 or enter the correct server port number.

Oracle 10g

Table 69 lists the fields you must complete on the Database configuration (Part 2) panel when you select Oracle 10g as your database product.

Table 69. Required Common database configuration fields for Oracle 10g

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database. This ID must have SYSDBA privileges and permission to create schemas in the Oracle database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Enter the location on your system that contains the file ojdbc14.jar. An error message is displayed if the files cannot be found at the specified location.

Table 69. Required Common database configuration fields for Oracle 10g (continued)

Field	Action needed
JDBC driver type	Click OCI or Thin .
Database server host name (for example IP address)	Accept the default value of localhost or enter the correct database server host name.
Server port	Accept the default value of 1521 or enter the correct server port number.

Federating stand-alone server profiles to a deployment manager

Learn how to use the `addNode` command to federate a stand-alone server profile into a deployment manager cell. After federation, a node agent process is created. Both this node agent and the server process are managed by the deployment manager. If you federate a stand-alone server profile and include all of its applications, the act of federation installs the applications on the deployment manager. A stand-alone server profile can be federated only if there are no other federated profiles.

Before you begin

Ensure that the following prerequisites are met:

- You have installed WebSphere Process Server and created a WebSphere Process Server deployment manager.
- The stand-alone server profile is a WebSphere Process Server profile. If, instead, it is a WebSphere Application Server or WebSphere Application Server Network Deployment profile and it is federated, you must first unfederate it and augment it into a WebSphere Process Server profile before federating it to a WebSphere Process Server deployment manager.
- The stand-alone server profile does not use file store or Derby Embedded data store for its messaging engines. If you created the profile using the Typical option in the Profile Management Tool, the profile uses these options. You cannot federate it to a deployment manager.
- The stand-alone server uses a database driver that supports remote access, such as Derby Network or Java toolbox JDBC.
- The deployment manager is running. If it is not, start it either by selecting **Start the deployment manager** from its First steps console or by entering the following command, where *profile_root* represents the installation location of the deployment manager profile:
 - `i5/OS profile_root/bin/startManager`
 - `Linux UNIX profile_root/bin/startManager.sh`
 - `Windows profile_root\bin\startManager.bat`
- The stand-alone server is *not* running. If it is, stop it either by selecting **Stop the server** from its First steps console or by entering the following command, where *profile_root* represents the installation location of the stand-alone server profile (by default, /QIBM/UserData/WebSphere/ProcServer on i5/OS platforms):
 - `i5/OS profile_root/bin/stopServer`
 - `Linux UNIX profile_root/bin/stopServer.sh`
 - `Windows profile_root\bin\stopServer.bat`
- The deployment manager has been augmented into a WebSphere Process Server deployment manager. WebSphere Process Server profiles cannot use a

WebSphere Enterprise Service Bus deployment manager, but WebSphere Enterprise Service Bus profiles can use a WebSphere Process Server deployment manager.

- The deployment manager is at the same release level or higher than the custom profile you created or augmented.
- The deployment manager has a JMX administrative port enabled. The default protocol is SOAP.
- No other nodes are federated to the deployment manager.

Attention: Do *not* federate a stand-alone server profile at this time if any one of the following is true:

- The deployment manager is not running or you are not sure if it is running.
- The stand-alone server is running or you are not sure if it is stopped.
- The stand-alone server does *not* use a database driver that supports remote access, such as Derby Network or Java toolbox JDBC.
- The deployment manager has not yet been augmented into a WebSphere Process Server deployment manager. WebSphere Process Server profiles cannot use a WebSphere Enterprise Service Bus deployment manager, but WebSphere Enterprise Service Bus profiles can use a WebSphere Process Server deployment manager.
- The deployment manager is not at the same release level or higher than the stand-alone server profile you created or augmented.
- The deployment manager does not have a JMX administrative port enabled.
- The deployment manager is reconfigured to use the non-default remote method invocation (RMI) as the preferred Java Management Extensions (JMX) connector. (Select **System administration** > **Deployment manager** > **Administration services** in the administrative console of the deployment manager to verify the preferred connector type.)
- Another node has already been federated to the deployment manager.

If you federate a stand-alone server profile when the deployment manager is not running or is not available for other reasons, profile federation will fail and the resulting profile will be unusable. You must then move this stand-alone server profile directory out of the profile repository before creating another profile with the same profile name.

About this task

Perform this task when you have an existing stand-alone server profile and you need to add the capabilities that network deployment offers to that server (central management or clustering). This function provides a growth path for an existing stand-alone server profile. However, you will be limited to a single cluster configuration for this deployment environment. See Deployment environment patterns for a description of the single cluster pattern.

Perform this task once for each cell and only for the first profile federated to the cell. Do not perform this task if the cell already has federated nodes. When you create an environment where you do not have an existing stand-alone server profile, create the environment using custom profiles. See “Creating profiles” on page 164 for information on creating custom profiles.

Use the **addNode** command to federate a stand-alone server profile’s node into a deployment manager cell by performing the following steps.

Procedure

1. Go to the bin directory of the stand-alone server profile you want to federate. Open a command window and go to one of the following directories, depending on platform, where *profile_root* represents the installation location of the stand-alone server profile. By default, the directory is /QIBM/UserData/WebSphere/ProcServer on i5/OS platforms:

- **i5/OS** `profile_root/bin/`
- **Linux** **UNIX** `profile_root/bin`
- **Windows** `profile_root\bin`

2. Issue the **addNode** command.

Issue one of following commands if security is not enabled. The port parameter is optional and can be omitted if you used the default port numbers when creating the deployment manager profile:

- **i5/OS** `addNode deployment_manager_host deployment_manager_SOAP_port -includeapps -includebuses`
- **Linux** **UNIX** `./addNode.sh deployment_manager_host deployment_manager_SOAP_port -includeapps -includebuses`
- **Windows** `addNode.bat deployment_manager_host deployment_manager_SOAP_port -includeapps -includebuses`

Issue one of the following commands if security is enabled:

- **i5/OS** `addNode deployment_manager_host deployment_manager_SOAP_port -username userID_for_authentication -password password_for_authentication -localusername localuserID_for_authentication -localpassword localpassword_for_authentication -includeapps -includebuses`
- **Linux** **UNIX** `./addNode.sh deployment_manager_host deployment_manager_SOAP_port -username userID_for_authentication -password password_for_authentication -localusername localuserID_for_authentication -localpassword localpassword_for_authentication -includeapps -includebuses`
- **Windows** `addNode.bat deployment_manager_host deployment_manager_SOAP_port -username userID_for_authentication -password password_for_authentication -localusername localuserID_for_authentication -localpassword localpassword_for_authentication -includeapps -includebuses`

An output window opens. If you see a message similar to the following, your stand-alone server profile was federated successfully:

```
ADMU0003I: Node DMNDID2Node02 has been successfully federated.
```

Results

The stand-alone server profile is federated into the deployment manager. For more information on the **addNode** command and its parameters, see the topic `addNode` command in the WebSphere Application Server Network Deployment, version 6.1.x, information center.

Configuring deployment manager profiles using customized values

Learn how to use the Profile Management Tool to create and configure a WebSphere Process Server or WebSphere Enterprise Service Bus deployment manager profile with customized configuration settings.

Before you begin

Important: This topic assumes that you are using the Profile Management Tool to create or augment profiles and are following the procedure in either “Creating profiles using the Profile Management Tool” on page 165 or “Augmenting profiles using the Profile Management Tool” on page 172. As a result, you have started the Profile Management Tool, have selected to create or augment a deployment manager profile, and have chosen the **Advanced** profile creation or augmentation option.

About this task

In this type of configuration, you can specify your own values for settings such as ports, the location of the profile, and names for the profile, node, host, and cell. You can optionally choose whether to deploy the administrative console or enable administrative security. If your operating system and the privileges of your user account permit, you can create a system service to run the server. You can also specify your own configuration values for the Common database.

As a result of following the procedure in either “Augmenting profiles using the Profile Management Tool” on page 172 or “Creating profiles using the Profile Management Tool” on page 165, you are viewing the Administrative security panel, the Database configuration panel, or the Optional application deployment panel. Complete the following steps to configure a new deployment manager profile with customized configuration values.

Procedure

1. The panel you see in the Profile Management Tool depends on whether you are creating or augmenting a profile, and if you are augmenting, on whether administrative security is enabled on the profile.

If you are performing	First step
Advanced profile augmentation and administrative security <i>is</i> enabled on the profile you are augmenting.	The Administrative security panel is displayed. Proceed to step 5 on page 406.
Advanced profile augmentation and administrative security <i>is not</i> enabled on the profile you are augmenting.	The Database configuration panel is displayed. Proceed to step 9 on page 409.
Advanced profile creation	The Optional application deployment panel is displayed. Proceed to step 2.

2. **For Advanced profile creation only:** In the Optional application deployment panel, select whether to deploy the administrative console to the profile environment you are creating, then select **Next**.

The administrative console is a Web-based tool that manages the server. To choose to deploy the administrative console, leave the **Deploy the administrative console (recommended)** check box selected. Clear the check box to unselect it.

The Profile name and location panel is displayed.

3. **For Advanced profile creation only:** In the Profile name and location panel, perform the following steps.
 - a. Specify a unique name and directory path for the profile, or accept the defaults.

Each profile that you create must have a name. When you have more than one profile, you can tell them apart at their highest level by this name. If you elect not to use the default name, see “Naming considerations for profiles, nodes, hosts, and cells” on page 356 for information about issues you must consider when naming the profile, such as restrictions on the length of the directory name.

The directory you specify will contain the files that define the runtime environment, such as commands, configuration files, and log files. By default, this directory location is:

- **i5/OS** On i5/OS platforms: `user_data_root/profiles/profile_name`
- **Linux** **UNIX** On Linux and UNIX platforms: `install_root/profiles/profile_name`
- **Windows** On Windows platforms: `install_root\profiles\profile_name`

where `profile_name` is the name you specified. An error message is displayed if:

- The `profile_name` you specify is not unique.
 - The directory you specify is not empty.
 - Your user ID does not have sufficient permissions for the directory.
 - There is not sufficient space to create the profile.
- b. You can make the profile you are creating the default profile (so that commands work automatically with it) by selecting the **Make this profile the default** check box. This check box appears only if you have an existing profile on your system.

The first profile that you create on a machine is the default profile.

The default profile is the default target for commands that are issued from the `bin` directory in the product installation root. When only one profile exists on a machine, every command operates on that profile. If more than one profile exists, certain commands require that you specify the profile to which the command applies. See “Profile commands in a multiprofile environment” on page 361 for more information.

- c. Select **Next**. (If you select **Back** and change the name of the profile, you might have to manually change the name on this panel when it is displayed again.)

The Node, host, and cell names panel is displayed.

4. **For Advanced profile creation only:** In the Node, host, and cell names panel, specify the node, host, and cell names for the deployment manager, or accept the defaults and select **Next**. Try to keep the node name as short as possible, but ensure that node names are unique within your deployment environment. See “Naming considerations for profiles, nodes, hosts, and cells” on page 356 for information about reserved terms and other issues you must consider when naming the node and host.

The Administrative security panel is displayed.

5. Enable administrative security.

This screen differs depending on whether you are creating or augmenting a profile.

If you are creating a profile, you can enable administrative security now, or later from the administrative console. To enable administrative security now, leave the **Enable administrative security** check box selected, supply a user name and password to log onto the administrative console, and select **Next**.

To disable administrative security, clear the check box. To enable administrative security later from the administrative console, open the console and select **Security > Business Integration Security**.

If you are augmenting a profile and see this panel, the profile you are augmenting has security enabled. You must re-enter the administrative user ID and password for that profile.

The next step depends on whether you creating or augmenting a profile.

If you are performing	Next step
Advanced profile augmentation	The Database configuration panel is displayed. Proceed to step 9 on page 409.
Advanced profile creation	The Port values assignment panel is displayed. Proceed to step 6.

6. For Advanced profile creation only: Verify that the ports specified for the profile are unique and select **Next**.

The Profile Management Tool detects ports currently used by other WebSphere products and displays recommended port values that do not conflict with existing ones. If you have applications other than WebSphere ones that use specified ports, verify that the ports do not conflict. If you chose not to deploy the administrative console on the Optional application deployment panel in step 2 on page 405, the administrative console ports are not available on the Port values assignment panel.

Ports are recognized as being in use if:

- They are assigned to a profile created under an installation performed by the current user.
- They are currently in use.

Although the tool validates ports when you access the Port values assignment panel, port conflicts can still occur resulting from selections you make on succeeding Profile Management Tool panels. Ports are not assigned until profile creation completes.

If you suspect a port conflict, you can investigate it after the profile is created. Determine the ports used during profile creation by examining the following file:

- **i5/OS** On **i5/OS platforms:** `profile_root/properties/portdef.props`
- **Linux** **UNIX** On **Linux and UNIX platforms:** `profile_root/properties/portdef.props`
- **Windows** On **Windows platforms:** `profile_root\properties\portdef.props`

Included in this file are the keys and values used in setting the ports. If you discover port conflicts, you can reassign ports manually. To reassign ports, see the topic Updating ports in an existing profile in the WebSphere Application Server Network Deployment, version 6.1 information center and run the `updatePorts.ant` file through the **ws_ant** script.

The next step depends on your platform and whether you are installing as a root (Administrator) or non-root user.

If you are installing	Next step
On a Linux platform <i>and are running the Profile Management Tool as the root user</i>	The Linux service definition panel is displayed. Proceed to step 8 on page 408.

If you are installing	Next step
On a Windows platform <i>and have Administrator group privileges</i>	The Windows service definition panel is displayed. Proceed to step 7.
On any other platform or as a non-root user on a Linux or Windows platform.	The Database configuration panel is displayed. Proceed to step 9 on page 409.

7. **Windows** **On Windows platforms: For Advanced profile creation only:**

Choose whether to run the server as a Windows service and select **Next**.

The Windows service definition panel is displayed for the Windows platform only if the ID that installs the Windows service has the Administrator group privilege. If the profile is configured as a Windows service, the product starts Windows services for server processes started by a **startManager** command. For example, if you configure a server as a Windows service and issue the **startManager** command, the **wasservice** command starts the defined service.

Important: If you choose to log on as a specified user account, you must specify the user ID and the password for the user who is to run the service, and the startup type (default is Automatic). The user ID must not have spaces in its name, it must belong to the Administrator group, and it must have the advanced user rights *Log on as a service* and *Act as part of the operating system*. If the user ID belongs to the Administrator group, the Profile Management Tool grants it the advanced user rights if it does not already have them.

You can remove the Windows service that is added during profile creation during profile deletion.

IPv6 considerations when running profiles as Windows services

Servers created to run as a Windows service fail to start when using IPv6 if the service is configured to run as *Local System*. Create a user-specific environment variable to enable IPv6. Because this environment variable is a user variable instead of a *Local System* variable, only a Windows service that runs as that specific user can access this environment variable. By default, when a new profile is created and configured to run as a Windows service, the service is set to run as *Local System*. When the WebSphere Process Server service tries to run, the service is unable to access the user environment variable that specifies IPv6, and thus tries to start as IPv4. The server does not start correctly in this case. To resolve the problem, when creating the profile, specify that the WebSphere Process Server service runs as the same user ID under which the environment variable that specifies IPv6 is defined, instead of as *Local System*.

The Database configuration panel is displayed.

8. **Linux** **On Linux platforms: For Advanced profile creation only:** Choose whether to run the server as a Linux service and select **Next**.

The Linux service definition panel is displayed only if the current operating system is a supported version of Linux and the current user has the appropriate permissions.

WebSphere Process Server attempts to start Linux services for server processes that are started by a **startManager** command. For example, if you configure a server as a Linux service and issue the **startManager** command, the **wasservice** command attempts to start the defined service.

By default, WebSphere Process Server is not selected to run as a Linux service.

To create the service, the user that runs the Profile Management Tool must be the root user. If you run the Profile Management Tool with a non-root user ID, the Linux service definition panel is not displayed, and no service is created.

You must specify a user name under which the service runs.

To delete a Linux service, the user must be the root user or have proper privileges for deleting the service. Otherwise, a removal script is created that the root user can run to delete the service on the user's behalf.

The Database configuration panel is displayed.

9. In the Database configuration panel, configure the Common database used by the selected product components.

See the topic "Configuring the Common database using the Profile Management Tool" on page 390 for details and return to this step when you have completed the fields on the Database configuration and Database configuration (Part 2) panels. The Profile summary panel is displayed.

10. In the Profile summary panel, select **Create** or **Augment** to create or augment the profile or **Back** to change the characteristics of the profile.

When the profile creation or augmentation is complete, the Profile complete panel is displayed with the message **The Profile Management tool created the profile successfully** or **The Profile Management tool augmented the profile successfully**.

Attention: If errors are detected during profile creation or augmentation, other messages might appear in place of the success message, for example:

- **The Profile Management tool created the profile but errors occurred**, which indicates that profile creation completed but errors were generated.
- **The Profile Management tool cannot create the profile**, which indicates that profile creation failed completely.
- **The Profile Management tool augmented the profile but errors occurred**, which indicates that profile augmentation completed but errors were generated.
- **The Profile Management tool cannot augment the profile**, which indicates that profile augmentation failed completely.

The Profile complete panel identifies the log file to reference in order to troubleshoot the problems. See the descriptions of relevant log files listed in "Log files" on page 299.

You can review other useful troubleshooting information in the following topics:

- Chapter 15, "Troubleshooting installation and configuration," on page 287
 - "Troubleshooting the launchpad application" on page 290
 - "Troubleshooting a silent installation" on page 291
 - "i5/OS installation troubleshooting tips" on page 292
 - "Diagnosing a failing Ant configuration script" on page 293
 - "Messages: installation and profile creation" on page 294
 - "Recovering from profile creation or augmentation failure" on page 304
11. Complete the profile configuration by doing one of the following, depending on whether you must manually configure the Common database.
 - If you completed configuration of the Common database using the Profile Management Tool, select **Launch the First steps console**, **Create another profile**, or both; select **Finish** to exit. Use the First steps console to start the server. Use the **Create another profile** option to restart the Profile Management Tool to create additional profiles.

- If you elected to postpone actual database configuration by producing scripts to be run manually, do the following:
 - a. Clear the check box to start the First steps console and select **Finish** to close the Profile Management Tool.
 - b. You or your DBA must now use your site's standard database definition tools and procedures to edit and run the scripts the Profile Management Tool generated to create or create and configure the WPRCSDB database (or its equivalent if it has a different name on your system). You identified the location for this script in step 2 on page 391 of the topic "Configuring the Common database using the Profile Management Tool" on page 390. Also see the topics that describe manually creating a new Common database or tables in an existing Common database in "Creating the Common database and tables after profile creation or augmentation" on page 180 or "Creating tables on an existing Common database after profile creation or augmentation" on page 181. When you have completed configuring the databases, start the First steps console associated with the profile, as instructed in "Starting the First steps console" on page 116.

Results

You have completed one of the following:

- Created a WebSphere Process Server profile.
- Augmented a WebSphere Application Server, WebSphere Application Server Network Deployment, or WebSphere Enterprise Service Bus profile into a WebSphere Process Server profile.
- Augmented a WebSphere Application Server or WebSphere Application Server Network Deployment profile into a WebSphere Enterprise Service Bus profile.

Check server operation by selecting **Start the deployment manager** from the First steps console. An output window opens. If you see a message similar to the following, your deployment manager is operating properly:

```
ADMU3000I: Server dmgr open for e-business; process id is 3072
```

In a deployment environment, you must create and configure other databases, create custom profiles and federate them to your deployment manager, create servers, create clusters if you want workload management capabilities, and perform other tasks specific to your planned installation environment. Your planned environment dictates which tasks you must perform and the order in which you perform them.

For more information about planning your installation and on the databases required by WebSphere Process Server, see the topics under *Planning for WebSphere Process Server* in the *WebSphere Process Server for Multiplatforms, version 6.1 Planning* PDF. Or view the topics in the WebSphere Process Server for Multiplatforms, version 6.1 online information center at <http://publib.boulder.ibm.com/infocenter/dmndhelp/v6r1mx/> by navigating to **Planning for WebSphere Process Server**.

Configuring the Common database using the Profile Management Tool

Selected WebSphere Process Server components require a database, called the *Common* database, to operate. Using values you provide on the database configuration panels, the Profile Management Tool can automatically create this database and the required tables locally, in an existing local or remote database. You can also choose not to have the tool create the database or tables

automatically. The tool generates scripts so that you or your database administrator can perform these functions manually after profile creation or augmentation. You must configure this database to have a working installation. (Database configuration for the Common Event Infrastructure and Business Process Choreographer components is performed separately.)

Before you begin

Note: i5/OS **On i5/OS platforms:** The reference to database refers to a database collection.

This procedure assumes that you have started the Profile Management Tool and have chosen to create or augment a profile through either the Advanced or Deployment environment profile creation or augmentation option. You are performing the procedure in one of the following topics:

- “Configuring stand-alone server profiles using customized values” on page 371
- “Configuring deployment manager profiles using customized values” on page 404
- “Configuring deployment manager profiles for a deployment environment” on page 431

In the topic, you are at the step in the procedure that asks you to configure the Common database by completing the Database configuration panel.

About this task

The following WebSphere Process Server components use the Common database:

- Application Scheduler
- Business rule group
- Mediation
- Recovery
- Relationship service
- Selector
- Event Sequencing (Lock Manager)
- Enterprise Service Bus Logger Mediation Primitive
- Messaging Engines (if you selected the **Use this database for Messaging Engines (MEs)** check box detailed in step 6 on page 393).

For more information on the various databases and database tables the WebSphere Process Server product uses, see Choosing a database.

Important: If you choose Derby Network Server as your database product, after profile creation or augmentation completes, ensure that the server is running on the host and port you specified during profile creation or augmentation, even if the database host is local.

Complete the following steps to enter the required data in the Database configuration panel.

Procedure

1. In the **Choose a database product** field, select the database product you want to use, or accept the default value of Derby Embedded (for stand-alone server profiles) or Derby Network Server (for deployment manager profiles).

Restrictions:

- Informix Dynamic Server, Microsoft SQL Server Data Direct, and Microsoft SQL Server Embedded are not supported on deployment managers using the deployment environment configuration.
- **i5/OS** **On i5/OS platforms:** DB2 UDB for iSeries (Native) and Derby Embedded can be used only *locally* as a database on i5/OS. Derby Network Server and DB2 for iSeries (Toolbox) can be used both locally and remotely on i5/OS. All other databases listed here can be used with i5/OS only as remote databases provided the proper remote database driver is used.

Select a supported database product from the following (each entry is followed by the database it represents):

- Derby Embedded (Derby Embedded): supported for stand-alone server profiles only
 - Derby Network Server (Derby Network Server)
 - DB2 Universal (DB2 Universal Database)
 - DB2 UDB for z/OS and OS/390 V7 (DB2 UDB for z/OS and OS/390 V7)
 - DB2 UDB for z/OS V8 (DB2 UDB for z/OS V8)
 - DB2 UDB for iSeries (Toolbox) (DB2 UDB for iSeries (Toolbox))
 - **i5/OS** **On i5/OS platforms:** DB2 UDB for iSeries (Native) (DB2 UDB for iSeries (Native))
 - DB2_CLI (DB2 Call Level Interface)
 - Informix (Informix Dynamic Server)
 - MSSQL Server Data Direct (Microsoft SQL Server Data Direct)
 - MSSQL Server Embedded (Microsoft SQL Server Embedded)
 - Oracle 9i (Oracle 9i)
 - Oracle 10g (Oracle 10g)
2. To store the database creation and configuration scripts that the Profile Management Tool will create in a location other than the default location in the **Database script output directory** field, select the **Override the destination directory for generated scripts** check box and designate your new location in the **Database script output directory** field. The profile creation or augmentation process will create scripts that you or the database administrator can run manually to create a new database and its required tables, if you elect not to have the Profile Management Tool do this automatically. (You prevent automatic creation and configuration of this database by selecting the **Delay execution of database scripts for new or existing database** check box in this panel, described in step 5 on page 392.)
 3. Choose whether to create a new local database or use an existing local or remote one by selecting the appropriate radio button:
 - **Create a new local database:** the profile creation or augmentation process creates a new database and the required tables on the local machine. No other database by the same name can exist or the procedure will fail.

Restrictions:

- You cannot create a new database if you are using DB2 UDB for z/OS and OS/390 V7, DB2 UDB for z/OS V8, Oracle 9i, or Oracle 10g. If you select one of these databases and the option **Create a new local database**, the **Next** button cannot be selected. Make different selections on the Database configuration panel.
- If you use Derby Embedded or Derby Network Server, you must create a new local database.

- **Linux** **UNIX** **Windows** **On Linux, UNIX, and Windows platforms:** Use an existing database: the profile creation or augmentation process creates the required tables in an existing database on either the local or a remote machine.

Note: **i5/OS** **On i5/OS platforms:** The profile creation or augmentation process associates an existing database on either the local or a remote machine.

You must choose one of these options even if you want to postpone creating a new database or adding tables to an existing one. To postpone database creation or configuration, select the **Delay execution of database scripts for new or existing database** check box described in step 5 on page 392.

4. Enter your database name or accept the default value.

i5/OS **On i5/OS platforms:** The name of the database on i5/OS using Independent Auxiliary Storage Pools (IASPs) can be the name of the IASP. Default database names differ based on the database product:

- **i5/OS** **On i5/OS platforms:** *LOCAL for DB2 UDB for iSeries (Native)
- **i5/OS** **On i5/OS platforms:** *SYSBAS for DB2 UDB for iSeries (Toolbox)
- WPRCSDB for all other database products

If you plan to use an existing database, this name must match the name of that database. If you plan to create a new database and the name you specify is already associated with another WebSphere Process Server profile, you must use a different database name.

Note: **i5/OS** **On i5/OS platforms:** This does not apply to i5/OS. All profiles on i5/OS will use the same database name.

5. Select the **Delay execution of database scripts for new or existing database** check box if you do not want the Profile Management Tool to create and configure a local database automatically or create tables in an existing one during profile creation or augmentation. If you select this option, you or the database administrator must manually run the scripts that the Profile Management Tool creates and stores in the location specified in the **Database script output directory** field on this panel. For instructions on manually creating and configuring a new Common database or creating tables in an existing one, see “Creating the Common database and tables after profile creation or augmentation” on page 180 or “Creating tables on an existing Common database after profile creation or augmentation” on page 181.

Important: Do not use the scripts located in the following directories (where the variable *db_type* represents the supported database product):

- **Linux** **UNIX** *install_root/dbscripts/CommonDB/db_type*
- **Windows** *install_root\dbscripts\CommonDB\db_type*

These default scripts have not been updated by the Profile Management Tool.

Restriction: This option is not available if you chose the Derby Embedded or Derby Network Server product.

The next step depends on whether you are creating or augmenting a stand-alone server or deployment manager profile.

Type of profile you are creating or augmenting	Next step
Stand-alone server	Proceed to step 6 on page 393.
Deployment manager	Proceed to step 8 on page 393.

6. **For stand-alone server profiles only:** Select the **Use a file store for Messaging Engines (MEs)** check box to use a file store for messaging engines. If you select this check box, the messaging engines are created and configured on a file store (except for the Common Event Infrastructure messaging engine, which uses a Derby Embedded local database even if this option is selected). If you do not select this check box, and do not select the **Use this database for Messaging Engines (MEs)** check box detailed in step 7 on page 393, the messaging engines are created and configured on the default Derby Embedded database. Derby Embedded databases cannot be created on remote workstations. For more information on file stores, see File stores in the WebSphere Application Server Network Deployment, version 6.1 information center.
7. **For stand-alone server profiles only:** Select the **Use this database for Messaging Engines (MEs)** check box to use the Common database for messaging engines. If you do not select this check box, and do not select the **Use a file store for Messaging Engines (MEs)** check box detailed in step 6 on page 393, the messaging engines are created and configured on the default Derby Embedded database. Derby Embedded databases cannot be created on remote workstations. For more information on data stores, see Data stores in the WebSphere Application Server Network Deployment, version 6.1 information center.

Restriction: This option is not available if you chose the Derby Embedded product.

8. Click **Next**. The next step depends on the type of profile you are creating or augmenting and on the database product you chose.

Selection	Next step
Stand-alone server profile and the default value of Derby Embedded.	The Profile summary panel is displayed. Return to step 15 on page 379 in the topic "Configuring stand-alone server profiles using customized values" on page 371.

Selection	Next step
<ul style="list-style-type: none"> • Stand-alone server profile and any database product selection other than Derby Embedded. • Deployment manager profile and any database product selection. 	<p>The Database configuration (Part 2) panel is displayed with fields specific to the database product you selected. Review the topic “Database configuration (Part 2) panel for Common database configuration” on page 394 for information on how to complete this panel. When you’ve completed entering information on this panel, click Next. The tool checks that a valid database connection exists. If the database connection does not exist, you need to correct the problem either by starting up the database or altering the specified parameters before continuing. The Profile summary panel is displayed. Depending on the topic from which you accessed this one, return to one of the following steps:</p> <ul style="list-style-type: none"> • Step 15 on page 379 in the topic “Configuring stand-alone server profiles using customized values” on page 371 • Step 10 on page 409 in the topic “Configuring deployment manager profiles using customized values” on page 404 • Step 9 on page 436 in the topic “Configuring deployment manager profiles for a deployment environment” on page 431

Database configuration (Part 2) panel for Common database configuration:

When you select your database product on the Database configuration panel in the Profile Management Tool, a follow-up panel asks you for database-specific information. (This panel does not appear if you selected Derby Embedded when configuring a stand-alone server profile.) This panel, called the Database configuration (Part 2) panel, contains slightly different fields and default values, depending on your database product selection.

You must complete this panel even if you chose to postpone creating a new database or adding tables to an existing one by selecting the **Delay execution of database scripts for new or existing database** check box on the previous panel. The values you choose on this panel are added to the database configuration scripts that the Profile Management Tool creates and stores in the directory you specified in the **Database script output directory** field on the previous panel.

Restriction: You cannot create a new database if you are using DB2 UDB for z/OS and OS/390 V7, DB2 UDB for z/OS V8, Oracle 9i, or Oracle 10g. If you select one of these databases and the option **Create a new local database**, the **Next** button cannot be selected. Make different selections on the Database configuration panel.

Choose the link for your database product from the following list to determine how to complete the Database configuration (Part 2) panel:

- “Derby Network Server” on page 395
- “DB2 Universal Database” on page 396

- “DB2 UDB for z/OS and OS/390 V7” on page 396
- “DB2 UDB for z/OS V8” on page 397
- “DB2 UDB for iSeries (Toolbox)” on page 397
- **i5/OS** “DB2 UDB for iSeries (Native)” on page 398
- “DB2 CLI” on page 399
- “Informix” on page 399
- “Microsoft SQL Server Embedded” on page 400
- “Microsoft SQL Server Data Direct ” on page 400
- “Oracle 9i” on page 401
- “Oracle 10g” on page 401

Important: If you are creating or augmenting a stand-alone server profile and selected the Derby Embedded database product, no additional database configuration is necessary.

When you have completed the Database configuration (Part 2) panel, click **Next**. The tool checks that a valid database connection exists. If the tool identifies an error, you must correct the problem before continuing by either making sure the database is up and running or altering parameters in order to make a good connection.

The Profile summary panel is displayed. Depending on the topic from which you accessed this one, return to one of the following steps:

- Step 15 on page 379 in the topic “Configuring stand-alone server profiles using customized values” on page 371
- Step 10 on page 409 in the topic “Configuring deployment manager profiles using customized values” on page 404
- Step 9 on page 436 in the topic “Configuring deployment manager profiles for a deployment environment” on page 431

Derby Network Server

Table 58 on page 395 lists the fields you must complete on the Database configuration (Part 2) panel when you select Derby Network Server as your database product.

Important: If you choose Derby Network Server as your database product, after profile creation or augmentation completes, ensure that the server is running on the host and port you specified during profile creation, even if the database host is local.

Table 70. Required Common database configuration fields for Derby Network Server

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Database server host name (for example IP address)	Accept the default value of localhost or enter the correct database server host name.

Table 70. Required Common database configuration fields for Derby Network Server (continued)

Field	Action needed
Server port	Accept the default value of 1527 or enter the correct server port number.

DB2 Universal Database

Table 59 on page 396 lists the fields you must complete on the Database configuration (Part 2) panel when you select DB2 Universal Database as your database product.

Table 71. Required Common database configuration fields for DB2 Universal Database

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Accept the default value of <i>install_root/universalDriver_wbi/lib</i> on Linux, UNIX or i5/OS platforms, or <i>install_root\universalDriver_wbi\lib</i> on Windows platforms, or browse to the location on your system that contains the following files: <ul style="list-style-type: none"> • db2jcc.jar • db2jcc_license_cu.jar or db2jcc_license_cisuz.jar An error message is displayed if the files cannot be found at the specified location.
JDBC driver type	Accept the default value of 4 or select the radio button beside the correct JDBC driver type.
Database server host name (for example IP address)	Accept the default value of localhost or enter the correct database server host name.
Server port	Accept the default value of 50000 or enter the correct server port number.

DB2 UDB for z/OS and OS/390 V7

Table 60 on page 396 lists the fields you must complete on the Database configuration (Part 2) panel when you select DB2 UDB for z/OS and OS/390 V7 as your database product.

Table 72. Required Common database configuration fields for DB2 UDB for z/OS and OS/390 V7

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.

Table 72. Required Common database configuration fields for DB2 UDB for z/OS and OS/390 V7 (continued)

Field	Action needed
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Enter the location on your system that contains the following files: <ul style="list-style-type: none"> • db2jcc.jar • db2jcc_license_cisuz.jar An error message is displayed if the files cannot be found at the specified location.
Database server host name (for example IP address)	Enter the database server host name.
Server port	Accept the default value of 446 or enter the correct server port number.
Database alias name	Enter the database alias name.
Connection location	Enter the connection location.
Storage group name	Enter the storage group name.

DB2 UDB for z/OS V8

Table 61 on page 397 lists the fields you must complete on the Database configuration (Part 2) panel when you select DB2 UDB for z/OS V8 as your database product.

Table 73. Required Common database configuration fields for DB2 UDB for z/OS V8

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Enter the location on your system that contains the following files: <ul style="list-style-type: none"> • db2jcc.jar • db2jcc_license_cisuz.jar An error message is displayed if the files cannot be found at the specified location.
Database server host name (for example IP address)	Enter the database server host name.
Server port	Accept the default value of 446 or enter the correct server port number.
Database alias name	Enter the database alias name.
Connection location	Enter the connection location.
Storage group name	Enter the storage group name.

DB2 UDB for iSeries (Toolbox)

Table 62 on page 398 lists the fields you must complete on the Database configuration (Part 2) panel when you select DB2 UDB for iSeries (Toolbox) as your database product.

Table 74. Required Common database configuration fields for DB2 UDB for iSeries (Toolbox)

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Accept the default value of /QIBM/ProdData/HTTP/Public/jt400/lib on i5/OS platforms, or browse to the location on your system that contains the following file: <ul style="list-style-type: none"> • jt400.jar An error message is displayed if the file cannot be found at the specified location.
Database collection name	Accept the default value of WPRCSDB or enter the correct schema name. To prevent naming conflicts within the specified database, specify a schema name whose first three characters are unique from the names of other schemas residing in the database.

DB2 UDB for iSeries (Native)

Note: i5/OS **On i5/OS platforms:** This database configuration applies only to i5/OS platforms.

Table 63 on page 398 lists the fields you must complete on the Database configuration (Part 2) panel when you select DB2 UDB for iSeries (Native) as your database product.

Table 75. Required Common database configuration fields for DB2 UDB for iSeries (Native)

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Accept the default value of /QIBM/ProdData/Java400/ext on i5/OS platforms, or browse to the location on your system that contains the following file: <ul style="list-style-type: none"> • db2_classes.jar An error message is displayed if the file cannot be found at the specified location.

Table 75. Required Common database configuration fields for DB2 UDB for iSeries (Native) (continued)

Field	Action needed
Database server host name (for example IP address)	Enter the database server host name.
Database collection name	Accept the default value of WPRCSDB or enter the correct schema name. To prevent naming conflicts within the specified database, specify a schema name whose first three characters are unique from the names of other schemas residing in the database.

DB2 CLI

Table 64 on page 399 lists the fields you must complete on the Database configuration (Part 2) panel when you select DB2 CLI as your database product.

Table 76. Required Common database configuration fields for DB2 CLI

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Enter the location on your system that contains the db2java.zip file. An error message is displayed if the file cannot be found at the specified location.

Informix

Table 65 on page 399 lists the fields you must complete on the Database configuration (Part 2) panel when you select Informix as your database product.

Table 77. Required Common database configuration fields for Informix

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Enter the location on your system that contains the following files: <ul style="list-style-type: none"> • ifxjdbc.jar • ifxjdbcx.jar An error message is displayed if the files cannot be found at the specified location.
Database server host name (for example IP address)	Accept the default value of localhost or enter the correct database server host name.

Table 77. Required Common database configuration fields for Informix (continued)

Field	Action needed
Server port	Accept the default value of 1526 or enter the correct server port number.
Event service instance name	Enter the correct event service instance name.

Microsoft SQL Server Embedded

Table 66 on page 400 lists the fields you must complete on the Database configuration (Part 2) panel when you select Microsoft SQL Server Embedded as your database product.

Table 78. Required Common database configuration fields for Microsoft SQL Server Embedded

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Database server host name (for example IP address)	Accept the default value of localhost or enter the correct database server host name.
Server port	Accept the default value of 1433 or enter the correct server port number.

Microsoft SQL Server Data Direct

Table 67 on page 400 lists the fields you must complete on the Database configuration (Part 2) panel when you select Microsoft SQL Server Data Direct as your database product.

Table 79. Required Common database configuration fields for Microsoft SQL Server Data Direct

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.

Table 79. Required Common database configuration fields for Microsoft SQL Server Data Direct (continued)

Field	Action needed
Location (directory) of JDBC driver classpath files	<p>Enter the location on your system that contains the following files:</p> <ul style="list-style-type: none"> • sqlserver.jar • base.jar • util.jar <p>Also, the file spy.jar must be available in the following location relative to the location of the JDBC driver classpath files:</p> <ul style="list-style-type: none"> • Linux UNIX ../spy/spy.jar • Windows ..\spy\spy.jar <p>An error message is displayed if the files cannot be found at the specified location.</p>
Database server host name (for example IP address)	Accept the default value of localhost or enter the correct database server host name.
Server port	Accept the default value of 1433 or enter the correct server port number.

Oracle 9i

Table 68 on page 401 lists the fields you must complete on the Database configuration (Part 2) panel when you select Oracle 9i as your database product.

Table 80. Required Common database configuration fields for Oracle 9i

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database. This ID must have SYSDBA privileges and permission to create schemas in the Oracle database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Enter the location on your system that contains the file ojdbc14.jar. An error message is displayed if the files cannot be found at the specified location.
JDBC driver type	Click OCI or Thin .
Database server host name (for example IP address)	Accept the default value of localhost or enter the correct database server host name.
Server port	Accept the default value of 1521 or enter the correct server port number.

Oracle 10g

Table 69 on page 401 lists the fields you must complete on the Database configuration (Part 2) panel when you select Oracle 10g as your database product.

Table 81. Required Common database configuration fields for Oracle 10g

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database. This ID must have SYSDBA privileges and permission to create schemas in the Oracle database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Enter the location on your system that contains the file ojdbc14.jar. An error message is displayed if the files cannot be found at the specified location.
JDBC driver type	Click OCI or Thin .
Database server host name (for example IP address)	Accept the default value of localhost or enter the correct database server host name.
Server port	Accept the default value of 1521 or enter the correct server port number.

Configuring custom profiles (managed nodes) using customized values

Learn how to use the Profile Management Tool to create and configure a custom profile with customized configuration settings.

Before you begin

Important: This topic assumes that you are using the Profile Management Tool to create or augment profiles and are following the procedure in either “Creating profiles using the Profile Management Tool” on page 165 or “Augmenting profiles using the Profile Management Tool” on page 172. As a result, you have started the Profile Management Tool, have selected to create or augment a custom profile, and have chosen the **Advanced** profile creation or augmentation option.

About this task

In this type of configuration, you can specify your own values for settings such as ports, the location of the profile, and names for the profile, node, and host. You can choose to federate the node to an existing deployment manager during the creation or augmentation process, or federate it later using the addNode command.

As a result of following the procedure in either “Augmenting profiles using the Profile Management Tool” on page 172 or “Creating profiles using the Profile Management Tool” on page 165, you are viewing either the Federation panel or the Profile name and location panel. Complete the following steps to configure a new custom profile with customized configuration values.

Procedure

1. The panel you see in the Profile Management Tool depends on whether you are creating or augmenting a profile.

If you are performing	First step
Advanced profile augmentation	The Federation panel is displayed. Proceed to step 4 on page 425.
Advanced profile creation	The Profile name and location panel is displayed. Proceed to step 2.

2. **For Advanced profile creation only:** In the Profile name and location panel, perform the following steps.

- a. Specify a unique name and directory path for the profile, or accept the defaults.

Each profile that you create must have a name. When you have more than one profile, you can tell them apart at their highest level by this name.

The directory you specify will contain the files that define the runtime environment, such as commands, configuration files, and log files. By default, this directory location is:

- **i5/OS** On **i5/OS platforms:** `user_data_root/profiles/profile_name`
- **Linux** **UNIX** On **Linux and UNIX platforms:** `install_root/profiles/profile_name`
- **Windows** On **Windows platforms:** `install_root\profiles\profile_name`

where *profile_name* is the name you specified. An error message is displayed if:

- The *profile_name* you specify is not unique.
 - The directory you specify is not empty.
 - Your user ID does not have sufficient permissions for the directory.
 - There is not sufficient space to create the profile.
- b. You can make the profile you are creating the default profile (so commands work automatically with it) by selecting the **Make this profile the default** check box. This check box appears only if you have an existing profile on your system.

The first profile that you create on a machine is the default profile.

The default profile is the default target for commands that are issued from the `bin` directory in the product installation root. When only one profile exists on a machine, every command operates on that profile. If more than one profile exists, certain commands require that you specify the profile to which the command applies. See “Profile commands in a multiprofile environment” on page 361 for more information.

The Profile Management Tool will detect ports currently used by other WebSphere products, but not those of other applications which might use specified ports. When federating a custom profile, the **addNode** command uses non-conflicting ports. This means that you can take the default port assignments as you create the profile, and let the **addNode** command specify non-conflicting ports as you federate the node. Port assignments must be unique on a server. Server processes on different servers can use the same port assignments without conflict.

- c. Select **Next**. (If you select **Back** and change the name of the profile, you might have to manually change the name on this panel when it is displayed again.)

The Node and host names panel is displayed.

3. **For Advanced profile creation only:** In the Node and host names panel, specify the node and host names for the profile, or accept the defaults and

select **Next**. Try to keep the node name as short as possible, but ensure that node names are unique within the deployment environment. See “Naming considerations for profiles, nodes, hosts, and cells” on page 356 for information about reserved terms and other issues you must consider when naming the node and host.

The Federation panel is displayed. Proceed to step 4.

4. In the Federation panel, choose to federate the node into the deployment manager now as part of the profile creation or augmentation or at a later time and apart from profile creation or augmentation.

- If you choose to federate the node as part of the profile creation or augmentation, specify the host name or IP address and SOAP port of the deployment manager, and an authentication user ID and password (if administrative security is enabled on the deployment manager). Leave the **Federate this node later** check box unselected. Then select **Next**.

The Profile Management Tool verifies that the deployment manager exists, can be contacted, and that the authentication user ID and password are valid for that deployment manager (if it is secured).

Attention: Federate the custom node during profile creation or augmentation only if all of the following are true:

- You do not plan to use this custom node as a migration target.
- No other node is being federated. (Node federation must be serialized.)
- The deployment manager is running.
- The deployment manager is a WebSphere Process Server deployment manager. WebSphere Process Server profiles cannot use a WebSphere Enterprise Service Bus deployment manager, but WebSphere Enterprise Service Bus profiles can use a WebSphere Process Server deployment manager.
- The deployment manager is at a release level the same or higher than that of the custom profile you are creating or augmenting.
- The deployment manager has a JMX administrative port enabled. The default protocol is SOAP.

Do *not* federate the custom node during profile creation or augmentation if any one of the following is true:

- You plan to use this custom node as a migration target.
- Another profile is being federated. (Node federation must be serialized.)
- The deployment manager is not running or you are not sure if it is running.
- The deployment manager has not yet been augmented into a WebSphere Process Server deployment manager.
- The deployment manager is not at a release level the same or higher than that of the custom profile you are creating or augmenting.
- The deployment manager does not have a JMX administrative port enabled.
- The deployment manager is reconfigured to use the non-default remote method invocation (RMI) as the preferred Java Management Extensions (JMX) connector. (Select **System administration > Deployment manager > Administration services** in the administrative console of the deployment manager to verify the preferred connector type.)

If you attempt to federate a custom node when the deployment manager is not running or is not available for other reasons, a warning panel prevents you from continuing. If this warning panel appears, select **OK** to exit from it, and then make different selections on the Federation panel.

- If you choose to federate the node at a later time and apart from profile creation or augmentation, select the **Federate this node later** check box and select **Next**.

See “Federating custom nodes to a deployment manager” on page 428 for more information on how to federate a node by using the `addNode` command. Read more about this command in the `addNode` command topic in the WebSphere Application Server Network Deployment, version 6.1, information center.

The next step depends on the type of profile creation or augmentation you are performing and, in an Advanced profile creation, whether you elected to federate the profile as part of the profile creation process.

If you are performing	Next step
<ul style="list-style-type: none"> • Advanced profile creation and are <i>not</i> federating the profile • Advanced profile augmentation 	The Database configuration panel is displayed. Proceed to step 6.
<ul style="list-style-type: none"> • Advanced profile creation and <i>are</i> federating the profile 	The Port values assignment panel is displayed. Proceed to step 5.

5. **For Advanced profile creation only:** Verify that the ports specified for the profile are unique and select **Next**.

The Profile Management Tool detects ports currently used by other WebSphere products and displays recommended port values that do not conflict with existing ones. If you have applications other than WebSphere ones that use specified ports, verify that the ports do not conflict.

Ports are recognized as being in use if:

- They are assigned to a profile created under an installation performed by the current user.
- They are currently in use.

Although the tool validates ports when you access the Port values assignment panel, port conflicts can still occur resulting from selections you make on succeeding Profile Management Tool panels. Ports are not assigned until profile creation completes.

If you suspect a port conflict, you can investigate it after the profile is created. Determine the ports used during profile creation by examining the following file:

- **i5/OS** On i5/OS platforms: `profile_root/properties/portdef.props`
- **Linux** **UNIX** On Linux and UNIX platforms: `profile_root/properties/portdef.props`
- **Windows** On Windows platforms: `profile_root\properties\portdef.props`

Included in this file are the keys and values used in setting the ports. If you discover port conflicts, you can reassign ports manually. To reassign ports, see the topic Updating ports in an existing profile and run the `updatePorts.ant` file through the `ws_ant` script.

The Database configuration panel is displayed.

6. In the Database configuration panel, do the following.

- a. Review the database product. The database that matches the database used on the deployment manager to which this custom profile will be federated is displayed. It will be one of the following (each entry that can be selected from the list is shown, followed by the database it represents):
 - Derby Network Server (Derby Network Server)
 - DB2 Universal Database (DB2 Universal Database)
 - DB2 UDB for z/OS and OS/390 V7 (DB2 UDB for z/OS and OS/390 V7)
 - DB2 UDB for z/OS V8 (DB2 UDB for z/OS V8)
 - **i5/OS On i5/OS platforms only:** DB2 UDB for iSeries (Native) (DB2 UDB for iSeries (Native))
 - DB2 UDB for iSeries (Toolbox) (DB2 UDB for iSeries (Toolbox))
 - DB2 CLI (DB2 Call Level Interface)
 - Informix (Informix Dynamic Server)
 - MSSQL Server Embedded (Microsoft SQL Server Embedded)
 - MSSQL Server Data Direct (Microsoft SQL Server DataDirect)
 - Oracle 9i (Oracle 9i)
 - Oracle 10g (Oracle 10g)
- b. Provide the location (directory) of the JDBC driver class path files for the database. You can accept the default values for Derby Network Server, DB2 Universal Database, or MSSQL Server Embedded.
- c. Select **Next**.

The Profile summary panel is displayed.

7. In the Profile summary panel, select **Create** or **Augment** to create or augment the profile or **Back** to change the characteristics of the profile.

When the profile creation or augmentation is complete, the Profile complete panel is displayed with the message **The Profile Management tool created the profile successfully** or **The Profile Management tool augmented the profile successfully**.

Attention: If errors are detected during profile creation or augmentation, other messages might appear in place of the success message, for example:

- **The Profile Management tool created the profile but errors occurred**, which indicates that profile creation completed but errors were generated.
- **The Profile Management tool cannot create the profile**, which indicates that profile creation failed completely.
- **The Profile Management tool augmented the profile but errors occurred**, which indicates that profile augmentation completed but errors were generated.
- **The Profile Management tool cannot augment the profile**, which indicates that profile augmentation failed completely.

The Profile complete panel identifies the log file to reference in order to troubleshoot the problems. See the descriptions of relevant log files listed in “Log files” on page 299.

You can review other useful troubleshooting information in the following topics:

- Chapter 15, “Troubleshooting installation and configuration,” on page 287
- “Troubleshooting the launchpad application” on page 290
- “Troubleshooting a silent installation” on page 291
- “i5/OS installation troubleshooting tips” on page 292
- “Diagnosing a failing Ant configuration script” on page 293

- “Messages: installation and profile creation” on page 294
 - “Recovering from profile creation or augmentation failure” on page 304
8. In the Profile complete panel, select **Launch the First steps console**, **Create another profile**, or both; select **Finish** to exit. Use the First steps console to access product documentation. Use the **Create another profile** option to restart the Profile Management Tool to create additional profiles.

Results

You have completed one of the following:

- Created a WebSphere Process Server or WebSphere Enterprise Service Bus profile.
- Augmented a WebSphere Application Server, WebSphere Application Server Network Deployment, or WebSphere Enterprise Service Bus profile into a WebSphere Process Server profile.
- Augmented a WebSphere Application Server or WebSphere Application Server Network Deployment profile into a WebSphere Enterprise Service Bus profile.

The node within the profile is empty until you federate it and use the administrative console to customize it.

In a deployment environment, you must create and configure databases, create other custom profiles and federate them to your deployment manager, create servers, create clusters if you want workload management capabilities, and perform other tasks specific to your planned installation environment. Your planned environment dictates which tasks you must perform and the order in which you perform them.


For more information about planning your installation and on the databases required by WebSphere Process Server, see the topics under *Planning for WebSphere Process Server* in the *WebSphere Process Server for Multiplatforms, version 6.1 Planning* PDF. Or view the topics in the WebSphere Process Server for Multiplatforms, version 6.1 online information center at <http://publib.boulder.ibm.com/infocenter/dmndhelp/v6r1mx/> by navigating to **Planning for WebSphere Process Server**.

Federating custom nodes to a deployment manager

Learn about how to use the **addNode** command to federate a custom node into a deployment manager cell.

Before you begin

Before using this procedure, ensure that:

- You have installed WebSphere Process Server and that you have created a WebSphere Process Server deployment manager and a custom profile. This procedure assumes you did *not* federate the custom profile during its creation or augmentation, either with the Profile Management Tool or with the `manageprofiles` command.
- The deployment manager is running. If it is not, start it either by selecting **Start the deployment manager** from its First steps console or by entering the following command (where `profile_root` represents the installation location of the deployment manager profile):
 -  **On i5/OS platforms (from a command line):** `profile_root/bin/startManager`

- **Linux** **UNIX** **On Linux and UNIX platforms:** `profile_root/bin/startManager.sh`
- **Windows** **On Windows platforms (from a command line):**
`profile_root\bin\startManager.bat`
- The deployment manager has been augmented into a WebSphere Process Server deployment manager. WebSphere Process Server profiles cannot use a WebSphere Enterprise Service Bus deployment manager, but WebSphere Enterprise Service Bus profiles can use a WebSphere Process Server deployment manager.
- The deployment manager is at the same release level or higher than the custom profile you created or augmented.
- The deployment manager has a JMX administrative port enabled. The default protocol is SOAP.
- You do not plan to use this custom node as a migration target.

Attention: Do *not* federate a custom node at this time if any one of the following is true:

- The deployment manager is not running or you are not sure if it is running.
- The deployment manager has not yet been augmented into a WebSphere Process Server deployment manager. WebSphere Process Server profiles cannot use a WebSphere Enterprise Service Bus deployment manager, but WebSphere Enterprise Service Bus profiles can use a WebSphere Process Server deployment manager.
- The deployment manager is not at the same release level or higher than the custom profile you created or augmented.
- The deployment manager does not have a JMX administrative port enabled.
- The deployment manager is reconfigured to use the non-default remote method invocation (RMI) as the preferred Java Management Extensions (JMX) connector. (Select **System administration > Deployment manager > Administration services** in the administrative console of the deployment manager to verify the preferred connector type.)
- You plan to use this custom node as a migration target.

If you federate a custom profile when the deployment manager is not running or is not available for other reasons, profile federation will fail and the resulting custom profile will be unusable. You must then move this custom profile directory out of the profile repository before creating another custom profile with the same profile name.

About this task

Federate a custom node so that it can be managed by a deployment manager. Use the **addNode** command to federate a custom profile into a deployment manager cell by doing the following.

Procedure

1. Go to the bin directory of the custom profile you want to federate. Open a command window and go to one of the following directories, depending on platform (where `profile_root` represents the installation location of the custom profile):
 - **i5/OS** **On i5/OS platforms (from a command line):** `profile_root/bin`
 - **Linux** **UNIX** **On Linux and UNIX platforms:** `profile_root/bin`

- **Windows** On Windows platforms (from a command line):
`profile_root\bin`
2. Issue the **addNode** command. Issue one of following commands if security is not enabled:
- **i5/OS** On i5/OS platforms (from a command line): `addNode deployment_manager_host deployment_manager_SOAP_port`
 - **Linux** **UNIX** On Linux and UNIX platforms: `./addNode.sh deployment_manager_host deployment_manager_SOAP_port`
 - **Windows** On Windows platforms (from a command line): `addNode.bat deployment_manager_host deployment_manager_SOAP_port`

Issue one of the following commands if security is enabled:

- **i5/OS** On i5/OS platforms (from a command line): `addNode deployment_manager_host deployment_manager_SOAP_port -username userID_for_authentication -password password_for_authentication`
- **Linux** **UNIX** On Linux and UNIX platforms: `./addNode.sh deployment_manager_host deployment_manager_SOAP_port -username userID_for_authentication -password password_for_authentication`
- **Windows** On Windows platforms (from a command line): `addNode.bat deployment_manager_host deployment_manager_SOAP_port -username userID_for_authentication -password password_for_authentication`

An output window opens. If you see a message similar to the following, your custom profile was federated successfully:

```
ADMU0003I: Node DMNDID2Node03 has been successfully federated.
```

Results

The custom profile is federated into the deployment manager. For more information on the **addNode** command and its parameters, see the topic **addNode** command in the WebSphere Application Server Network Deployment, version 6.1.x, information center.

What to do next

After federating the custom profile, go to the administrative console of the deployment manager to customize the empty node.

Configuring profiles for a deployment environment

Learn how to create or augment a profile with customized configuration settings to be used in a new or existing deployment environment pattern. Use the Profile Management Tool to configure the profile.

Before you begin

Important: The topics in this section assume that you are using the Profile Management Tool to create or augment profiles and are following the procedure in either “Creating profiles using the Profile Management Tool” on page 165 or “Augmenting profiles using the Profile Management Tool” on page 172. As a result, you have started the Profile Management Tool, have selected to create a deployment manager profile or create or augment a custom profile, and have chosen the **Deployment environment** profile creation or augmentation option.

About this task

Choose the **Deployment environment** profile creation or augmentation option to set up a fully configured profile for your deployment environment. This path configures and installs all components needed for WebSphere Process Server to work. The following components are configured as part of this path:

- Business Process Choreographer
- Common Event Infrastructure
- Business Rules Manager
- Service Component Architecture

By choosing this option, you can also assign customized values to ports, to the location of the profile, to names of the profile, node, host, and cell (when applicable), and to any required database configurations.

For deployment manager profiles, the tool also lets you do the following:

- Supply an administrative user ID and password for administrative security.
- If your operating system and the privileges of your user account permit, create a system service to run the server.
- Choose the deployment environment pattern to use for your installation.

For custom profiles, the tool also lets you federate the node to an existing deployment manager, which already has a defined deployment environment pattern. You can also specify the clusters to define on that deployment environment.

See the following topics for more information:

- Deployment environment patterns – A deployment environment pattern specifies the constraints and requirements of the components and resources involved in a deployment environment. The patterns are designed to meet the needs of most business requirements and are intended to help you create a deployment environment in the most straightforward way.
- Deployment environment functions within deployment patterns – To design a robust deployment environment, you need to understand the functionality each cluster can provide in a particular IBM-supplied deployment environment pattern or a custom deployment environment. This knowledge can help you make the correct decisions as to which deployment environment pattern best meets your needs.

To configure a profile, choose from the following topics depending on your profile type:

- “Configuring deployment manager profiles for a deployment environment”
- “Configuring custom profiles (managed nodes) for a deployment environment” on page 450

Configuring deployment manager profiles for a deployment environment

Learn how to use the Profile Management Tool to create and configure a WebSphere Process Server or WebSphere Enterprise Service Bus deployment manager profile with customized configuration values to be used in a new deployment environment based on a supplied pattern.

Before you begin

Important: This topic assumes that you are using the Profile Management Tool to create profiles and are following the procedure in “Creating profiles using the Profile Management Tool” on page 165. As a result, you have started the Profile Management Tool, have selected to create a deployment manager profile, and have chosen the **Deployment environment** profile creation option. Augmenting existing deployment manager profiles using the **Deployment environment** option is not supported.

About this task

Choose the **Deployment environment** profile creation option to set up a fully configured profile for your deployment environment. This path configures and installs all components needed for WebSphere Process Server to work. The following components are configured as part of this path:

- Business Process Choreographer
- Common Event Infrastructure
- Business Rules Manager
- Service Component Architecture

In this type of configuration, you can specify your own values for settings such as ports, the location of the profile, and names for the profile, node, host, and cell. You can supply an administrative user ID and password for administrative security. If your operating system and the privileges of your user account permit, you can create a system service to run the server. You can also choose the deployment environment pattern to use, as well as your own values for the Common database configuration.

As a result of following the procedure in “Creating profiles using the Profile Management Tool” on page 165, you are viewing the Profile name and location panel. Complete the following steps to configure a new deployment manager profile with customized configuration values for a deployment environment.

Procedure

1. In the Profile name and location panel, perform the following steps.
 - a. Specify a unique name and directory path for the profile, or accept the defaults.

Each profile that you create must have a name. When you have more than one profile, you can tell them apart at their highest level by this name.

The directory you specify will contain the files that define the runtime environment, such as commands, configuration files, and log files. By default, this directory location is:

- **Linux** **UNIX** **On Linux and UNIX platforms:**
install_root/profiles/profile_name
- **Windows** **On Windows platforms:** *install_root\profiles\profile_name*
- **i5/OS** **On i5/OS platforms:** *user_data_root/profiles/profile_name*

where *profile_name* is the name you specified. An error message is displayed if:

- The *profile_name* you specify is not unique.

- The directory you specify is not empty.
 - Your user ID does not have sufficient permissions for the directory.
 - There is not sufficient space to create the profile.
- b. You can make the profile you are creating the default profile (so commands work automatically with it) by selecting the **Make this profile the default** check box. This check box appears only if you have an existing profile on your system.

The first profile that you create on a machine is the default profile.

The default profile is the default target for commands that are issued from the `bin` directory in the product installation root. When only one profile exists on a machine, every command operates on that profile. If more than one profile exists, certain commands require that you specify the profile to which the command applies. See “Profile commands in a multiprofile environment” on page 361 for more information.

- c. Select **Next**. (If you select **Back** and change the name of the profile, you might have to manually change the name on this panel when it is displayed again.)

The Node, host, and cell names panel is displayed.

2. In the Node, host, and cell names panel, specify the node, host, and cell names for the deployment manager, or accept the defaults and select **Next**. Try to keep the node name as short as possible, but ensure that node names are unique within the deployment environment. See “Naming considerations for profiles, nodes, hosts, and cells” on page 356 for information about reserved terms and other issues you must consider when naming the node and host.

The Administrative security panel is displayed.

3. In the Administrative security panel, supply a user name and password to log onto the administrative console and select **Next**.

Important: If you are performing a Deployment environment profile creation, administrative security is required.

The Port values assignment panel is displayed.

4. Verify that the ports specified for the profile are unique and select **Next**.

The Profile Management Tool detects ports currently used by other WebSphere products and displays recommended port values that do not conflict with existing ones. If you have applications other than WebSphere ones that use specified ports, verify that the ports do not conflict.

Ports are recognized as being in use if:

- They are assigned to a profile created under an installation performed by the current user.
- They are currently in use.

Although the tool validates ports when you access the Port values assignment panel, port conflicts can still occur resulting from selections you make on succeeding Profile Management Tool panels. Ports are not assigned until profile creation completes.

If you suspect a port conflict, you can investigate it after the profile is created. Determine the ports used during profile creation by examining the following file:

- Linux UNIX **On Linux and UNIX platforms:** `profile_root/properties/portdef.props`
- Windows **On Windows platforms:** `profile_root\properties\portdef.props`

- **i5/OS** **On i5/OS platforms:** `profile_root/properties/portdef.props`

Included in this file are the keys and values used in setting the ports. If you discover port conflicts, you can reassign ports manually. To reassign ports, see the topic Updating ports in an existing profile in the WebSphere Application Server Network Deployment, version 6.1 information center and run the `updatePorts.ant` file through the `ws_ant` script.

The next step depends on your platform and whether you are installing as a root (Administrator) or non-root user.

If you are installing	Next step
On a Linux platform <i>and are running the Profile Management Tool as the root user</i>	The Linux service definition panel is displayed. Proceed to step 6 on page 435.
On a Windows platform <i>and have Administrator group privileges</i>	The Windows service definition panel is displayed. Proceed to step 5.
On any other platform or as a non-root user on a Linux or Windows platform.	The Deployment environment configuration panel is displayed. Proceed to step 7 on page 435.

5. **Windows** **On Windows platforms:** Choose whether to run the server as a Windows service and select **Next**.

The Windows service definition panel is displayed for the Windows platform only if the ID that installs the Windows service has the Administrator group privilege. If the profile is configured as a Windows service, the product starts Windows services for server processes started by a `startManager` command. For example, if you configure a server as a Windows service and issue the `startManager` command, the `wasservice` command starts the defined service.

Important: If you choose to log on as a specified user account, you must specify the user ID and the password for the user who is to run the service, and the startup type (default is Automatic). The user ID must not have spaces in its name, it must belong to the Administrator group, and it must have the advanced user rights *Log on as a service* and *Act as part of the operating system*. If the user ID belongs to the Administrator group, the Profile Management Tool grants it the advanced user rights if it does not already have them.

You can remove the Windows service that is added during profile creation during profile deletion.

IPv6 considerations when running profiles as Windows services

Servers created to run as a Windows service fail to start when using IPv6 if the service is configured to run as *Local System*. Create a user-specific environment variable to enable IPv6. Since this environment variable is a user variable instead of a *Local System* variable, only a Windows service that runs as that specific user can access this environment variable. By default, when a new profile is created and configured to run as a Windows service, the service is set to run as *Local System*. When the WebSphere Process Server or WebSphere Enterprise Bus Windows service tries to run, the service is unable to access the user environment variable that specifies IPv6, and thus tries to start as IPv4. The server does not start correctly in this case. To resolve the problem, when creating the profile, specify that the WebSphere Process Server or WebSphere Enterprise Bus Windows service runs as the same user ID under which the environment variable that specifies IPv6 is defined, instead of as *Local System*.

The Deployment environment configuration panel is displayed.

6. **Linux** **On Linux platforms:** Choose whether to run the server as a Linux service and select **Next**.

The Linux service definition panel is displayed only if the current operating system is a supported version of Linux and the current user has the appropriate permissions.

WebSphere Process Server attempts to start Linux services for server processes that are started by a **startManager** command. For example, if you configure a server as a Linux service and issue the **startManager** command, the **wasservice** command attempts to start the defined service.

By default, WebSphere Process Server is not selected to run as a Linux service.

To create the service, the user that runs the Profile Management Tool must be the root user. If you run the Profile Management Tool with a non-root user ID, the Linux service definition panel is not displayed, and no service is created.

You must specify a user name under which the service runs.

To delete a Linux service, the user must be the root user or have proper privileges for deleting the service. Otherwise, a removal script is created that the root user can run to delete the service on the user's behalf.

The Deployment environment configuration panel is displayed.

7. In the Deployment environment configuration panel, select the pattern to use for the deployment environment on this deployment manager profile.

Select the radio button beside one of the following patterns and select **Next**.

- **Remote Messaging and Remote Support** – defines one cluster for the application deployment, one remote cluster for the messaging infrastructure, and one remote cluster for the Common Event Infrastructure and other supporting applications. This pattern configures a setup that performs well for most of your business integration needs. When in doubt, select this pattern.
- **Remote Messaging** – defines one cluster for the application deployment and one remote cluster for the messaging infrastructure. The Common Event Infrastructure and other supporting applications are configured on the application deployment target cluster.
- **Single Cluster** – defines one cluster for application deployment. Both messaging infrastructure and Common Event Infrastructure with supporting applications are configured on the application deployment cluster.

See the following topics for more information:

- Deployment environment patterns – A deployment environment pattern specifies the constraints and requirements of the components and resources involved in a deployment environment. The patterns are designed to meet the needs of most business requirements and are intended to help you create a deployment environment in the most straightforward way.
- Deployment environment functions within deployment patterns – To design a robust deployment environment, you need to understand the functionality each cluster can provide in a particular IBM-supplied deployment environment pattern or a custom deployment environment. This knowledge can help you make the correct decisions as to which deployment environment pattern best meets your needs.

The Database configuration panel is displayed.

8. In the Database configuration panel, configure the Common database used by all WebSphere Process Server components, including the Common Event Infrastructure database, the system bus messaging database, and all Business Process Choreographer-related databases.

If you want to use databases other than the Common one for these components, you have the following options:

- Cancel this deployment environment profile creation and instead create your deployment environment using the administrative console. See *Creating deployment environments* for more information.
- If you intend to use a different database product created by the same database vendor, you can still proceed with this profile creation and change the database configuration after in the administrative console. See *Configuring a JDBC provider and data source in the WebSphere Application Server Network Deployment, version 6.1 information center* for more information on configuring JDBC drivers and data sources.

Refer to the topic “Configuring the Common database using the Profile Management Tool” on page 390 for details and return to this step when you have completed the fields on the Database configuration and Database configuration (Part 2) information panels. The Profile Management Tool validates your database configuration selections and displays a message if any are in error. For example, if you enter a database name that already exists and you are electing to create a new database, an error message informs you that the database exists.

The Profile summary panel is displayed.

9. In the Profile summary panel, select **Create** to create the profile or **Back** to change the characteristics of the profile.

When the profile creation or augmentation is complete, the Profile complete panel is displayed with the message **The Profile Management tool created the profile successfully** or **The Profile Management tool augmented the profile successfully**.

Attention: If errors are detected during profile creation or augmentation, other messages might appear in place of the success message, for example:

- **The Profile Management tool created the profile but errors occurred**, which indicates that profile creation completed but errors were generated.
- **The Profile Management tool cannot create the profile**, which indicates that profile creation failed completely.
- **The Profile Management tool augmented the profile but errors occurred**, which indicates that profile augmentation completed but errors were generated.
- **The Profile Management tool cannot augment the profile**, which indicates that profile augmentation failed completely.

The Profile complete panel identifies the log file to reference in order to troubleshoot the problems. See the descriptions of relevant log files listed in “Log files” on page 299.

You can review other useful troubleshooting information in the following topics:

- Chapter 15, “Troubleshooting installation and configuration,” on page 287
- “Troubleshooting the launchpad application” on page 290
- “Troubleshooting a silent installation” on page 291
- “i5/OS installation troubleshooting tips” on page 292
- “Diagnosing a failing Ant configuration script” on page 293
- “Messages: installation and profile creation” on page 294
- “Recovering from profile creation or augmentation failure” on page 304

10. Complete the profile configuration by doing one of the following, depending on whether you must manually configure the Common database.
 - If you completed configuration of the Common database using the Profile Management Tool, select **Launch the First steps console**, **Create another profile**, or both; select **Finish** to exit. Use the First steps console to start the server. Use the **Create another profile** option to restart the Profile Management Tool to create additional profiles.
 - If you elected to postpone actual database configuration by producing scripts to be run manually, do the following:
 - a. Clear the check box to launch the First steps console and select **Finish** to close the Profile Management Tool.
 - b. You or your DBA must now use your site's standard database definition tools and procedures to edit and run the scripts the Profile Management Tool generated to create or create and configure the WPRCSDB database (or its equivalent if it has a different name on your system). You identified the location for this script in step 2 on page 391 of the topic "Configuring the Common database using the Profile Management Tool" on page 390. Also see the topics that describe manually creating a new Common database or tables in an existing one in "Creating the Common database and tables after profile creation or augmentation" on page 180 or "Creating tables on an existing Common database after profile creation or augmentation" on page 181. When you have completed configuring the databases, start the First steps console associated with the profile, as instructed in "Starting the First steps console" on page 116.

Results

You have completed one of the following:

- Created a WebSphere Process Server or WebSphere Enterprise Bus profile.
- Augmented a WebSphere Application Server, WebSphere Application Server Network Deployment, or WebSphere Enterprise Bus profile into a WebSphere Process Server profile.
- Augmented a WebSphere Application Server or WebSphere Application Server Network Deployment profile into a WebSphere Enterprise Service Bus profile.

The node within the profile has a deployment manager named `dmgr`.

Ensure that your database instance is running before starting the deployment manager, even if the database is located locally. Then check server operation by selecting **Start the deployment manager** from the First steps console. An output window opens. If you see a message similar to the following, your deployment manager is operating properly:

```
ADMU3000I: Server dmgr open for e-business; process id is 3072
```

Configure custom nodes in the deployment environment to complete the deployment environment pattern.

For more information on planning your installation, see the topics under Planning for WebSphere Process Server.

Configuring the Common database using the Profile Management Tool

Selected WebSphere Process Server components require a database, called the *Common* database, to operate. Using values you provide on the database configuration panels, the Profile Management Tool can automatically create this database and the required tables locally, in an existing local or remote database. You can also choose not to have the tool create the database or tables automatically. The tool generates scripts so that you or your database administrator can perform these functions manually after profile creation or augmentation. You must configure this database to have a working installation. (Database configuration for the Common Event Infrastructure and Business Process Choreographer components is performed separately.)

Before you begin

Note: i5/OS **On i5/OS platforms:** The reference to database refers to a database collection.

This procedure assumes that you have started the Profile Management Tool and have chosen to create or augment a profile through either the Advanced or Deployment environment profile creation or augmentation option. You are performing the procedure in one of the following topics:

- “Configuring stand-alone server profiles using customized values” on page 371
- “Configuring deployment manager profiles using customized values” on page 404
- “Configuring deployment manager profiles for a deployment environment” on page 431

In the topic, you are at the step in the procedure that asks you to configure the Common database by completing the Database configuration panel.

About this task

The following WebSphere Process Server components use the Common database:

- Application Scheduler
- Business rule group
- Mediation
- Recovery
- Relationship service
- Selector
- Event Sequencing (Lock Manager)
- Enterprise Service Bus Logger Mediation Primitive
- Messaging Engines (if you selected the **Use this database for Messaging Engines (MEs)** check box detailed in step 6 on page 393).

For more information on the various databases and database tables the WebSphere Process Server product uses, see *Choosing a database*.

Important: If you choose Derby Network Server as your database product, after profile creation or augmentation completes, ensure that the server is running on the host and port you specified during profile creation or augmentation, even if the database host is local.

Complete the following steps to enter the required data in the Database configuration panel.

Procedure

1. In the **Choose a database product** field, select the database product you want to use, or accept the default value of Derby Embedded (for stand-alone server profiles) or Derby Network Server (for deployment manager profiles).

Restrictions:

- Informix Dynamic Server, Microsoft SQL Server Data Direct, and Microsoft SQL Server Embedded are not supported on deployment managers using the deployment environment configuration.
- **i5/OS** **On i5/OS platforms:** DB2 UDB for iSeries (Native) and Derby Embedded can be used only *locally* as a database on i5/OS. Derby Network Server and DB2 for iSeries (Toolbox) can be used both locally and remotely on i5/OS. All other databases listed here can be used with i5/OS only as remote databases provided the proper remote database driver is used.

Select a supported database product from the following (each entry is followed by the database it represents):

- Derby Embedded (Derby Embedded): supported for stand-alone server profiles only
 - Derby Network Server (Derby Network Server)
 - DB2 Universal (DB2 Universal Database)
 - DB2 UDB for z/OS and OS/390 V7 (DB2 UDB for z/OS and OS/390 V7)
 - DB2 UDB for z/OS V8 (DB2 UDB for z/OS V8)
 - DB2 UDB for iSeries (Toolbox) (DB2 UDB for iSeries (Toolbox))
 - **i5/OS** **On i5/OS platforms:** DB2 UDB for iSeries (Native) (DB2 UDB for iSeries (Native))
 - DB2_CLI (DB2 Call Level Interface)
 - Informix (Informix Dynamic Server)
 - MSSQL Server Data Direct (Microsoft SQL Server Data Direct)
 - MSSQL Server Embedded (Microsoft SQL Server Embedded)
 - Oracle 9i (Oracle 9i)
 - Oracle 10g (Oracle 10g)
2. To store the database creation and configuration scripts that the Profile Management Tool will create in a location other than the default location in the **Database script output directory** field, select the **Override the destination directory for generated scripts** check box and designate your new location in the **Database script output directory** field. The profile creation or augmentation process will create scripts that you or the database administrator can run manually to create a new database and its required tables, if you elect not to have the Profile Management Tool do this automatically. (You prevent automatic creation and configuration of this database by selecting the **Delay execution of database scripts for new or existing database** check box in this panel, described in step 5 on page 392.)
 3. Choose whether to create a new local database or use an existing local or remote one by selecting the appropriate radio button:
 - **Create a new local database:** the profile creation or augmentation process creates a new database and the required tables on the local machine. No other database by the same name can exist or the procedure will fail.

Restrictions:

- You cannot create a new database if you are using DB2 UDB for z/OS and OS/390 V7, DB2 UDB for z/OS V8, Oracle 9i, or Oracle 10g. If you select

one of these databases and the option **Create a new local database**, the **Next** button cannot be selected. Make different selections on the Database configuration panel.

- If you use Derby Embedded or Derby Network Server, you must create a new local database.

- **Linux** **UNIX** **Windows** **On Linux, UNIX, and Windows platforms:** **Use an existing database:** the profile creation or augmentation process creates the required tables in an existing database on either the local or a remote machine.

Note: **i5/OS** **On i5/OS platforms:** The profile creation or augmentation process associates an existing database on either the local or a remote machine.

You must choose one of these options even if you want to postpone creating a new database or adding tables to an existing one. To postpone database creation or configuration, select the **Delay execution of database scripts for new or existing database** check box described in step 5 on page 392.

4. Enter your database name or accept the default value.

i5/OS **On i5/OS platforms:** The name of the database on i5/OS using Independent Auxiliary Storage Pools (IASPs) can be the name of the IASP. Default database names differ based on the database product:

- **i5/OS** **On i5/OS platforms:** *LOCAL for DB2 UDB for iSeries (Native)
- **i5/OS** **On i5/OS platforms:** *SYSBAS for DB2 UDB for iSeries (Toolbox)
- WPRCSDB for all other database products

If you plan to use an existing database, this name must match the name of that database. If you plan to create a new database and the name you specify is already associated with another WebSphere Process Server profile, you must use a different database name.

Note: **i5/OS** **On i5/OS platforms:** This does not apply to i5/OS. All profiles on i5/OS will use the same database name.

5. Select the **Delay execution of database scripts for new or existing database** check box if you do not want the Profile Management Tool to create and configure a local database automatically or create tables in an existing one during profile creation or augmentation. If you select this option, you or the database administrator must manually run the scripts that the Profile Management Tool creates and stores in the location specified in the **Database script output directory** field on this panel. For instructions on manually creating and configuring a new Common database or creating tables in an existing one, see “Creating the Common database and tables after profile creation or augmentation” on page 180 or “Creating tables on an existing Common database after profile creation or augmentation” on page 181.

Important: Do not use the scripts located in the following directories (where the variable *db_type* represents the supported database product):

- **Linux** **UNIX** *install_root/dbscripts/CommonDB/db_type*
- **Windows** *install_root\dbscripts\CommonDB\db_type*

These default scripts have not been updated by the Profile Management Tool.

Restriction: This option is not available if you chose the Derby Embedded or Derby Network Server product.
 The next step depends on whether you are creating or augmenting a stand-alone server or deployment manager profile.

Type of profile you are creating or augmenting	Next step
Stand-alone server	Proceed to step 6 on page 393.
Deployment manager	Proceed to step 8 on page 393.

6. **For stand-alone server profiles only:** Select the **Use a file store for Messaging Engines (MEs)** check box to use a file store for messaging engines. If you select this check box, the messaging engines are created and configured on a file store (except for the Common Event Infrastructure messaging engine, which uses a Derby Embedded local database even if this option is selected). If you do not select this check box, and do not select the **Use this database for Messaging Engines (MEs)** check box detailed in step 7 on page 393, the messaging engines are created and configured on the default Derby Embedded database. Derby Embedded databases cannot be created on remote workstations. For more information on file stores, see File stores in the WebSphere Application Server Network Deployment, version 6.1 information center.
7. **For stand-alone server profiles only:** Select the **Use this database for Messaging Engines (MEs)** check box to use the Common database for messaging engines. If you do not select this check box, and do not select the **Use a file store for Messaging Engines (MEs)** check box detailed in step 6 on page 393, the messaging engines are created and configured on the default Derby Embedded database. Derby Embedded databases cannot be created on remote workstations. For more information on data stores, see Data stores in the WebSphere Application Server Network Deployment, version 6.1 information center.

Restriction: This option is not available if you chose the Derby Embedded product.

8. Click **Next**. The next step depends on the type of profile you are creating or augmenting and on the database product you chose.

Selection	Next step
Stand-alone server profile and the default value of Derby Embedded.	The Profile summary panel is displayed. Return to step 15 on page 379 in the topic "Configuring stand-alone server profiles using customized values" on page 371.

Selection	Next step
<ul style="list-style-type: none"> • Stand-alone server profile and any database product selection other than Derby Embedded. • Deployment manager profile and any database product selection. 	<p>The Database configuration (Part 2) panel is displayed with fields specific to the database product you selected. Review the topic “Database configuration (Part 2) panel for Common database configuration” on page 394 for information on how to complete this panel. When you’ve completed entering information on this panel, click Next. The tool checks that a valid database connection exists. If the database connection does not exist, you need to correct the problem either by starting up the database or altering the specified parameters before continuing. The Profile summary panel is displayed. Depending on the topic from which you accessed this one, return to one of the following steps:</p> <ul style="list-style-type: none"> • Step 15 on page 379 in the topic “Configuring stand-alone server profiles using customized values” on page 371 • Step 10 on page 409 in the topic “Configuring deployment manager profiles using customized values” on page 404 • Step 9 on page 436 in the topic “Configuring deployment manager profiles for a deployment environment” on page 431

Database configuration (Part 2) panel for Common database configuration:

When you select your database product on the Database configuration panel in the Profile Management Tool, a follow-up panel asks you for database-specific information. (This panel does not appear if you selected Derby Embedded when configuring a stand-alone server profile.) This panel, called the Database configuration (Part 2) panel, contains slightly different fields and default values, depending on your database product selection.

You must complete this panel even if you chose to postpone creating a new database or adding tables to an existing one by selecting the **Delay execution of database scripts for new or existing database** check box on the previous panel. The values you choose on this panel are added to the database configuration scripts that the Profile Management Tool creates and stores in the directory you specified in the **Database script output directory** field on the previous panel.

Restriction: You cannot create a new database if you are using DB2 UDB for z/OS and OS/390 V7, DB2 UDB for z/OS V8, Oracle 9i, or Oracle 10g. If you select one of these databases and the option **Create a new local database**, the **Next** button cannot be selected. Make different selections on the Database configuration panel.

Choose the link for your database product from the following list to determine how to complete the Database configuration (Part 2) panel:

- “Derby Network Server” on page 395
- “DB2 Universal Database” on page 396

- “DB2 UDB for z/OS and OS/390 V7” on page 396
- “DB2 UDB for z/OS V8” on page 397
- “DB2 UDB for iSeries (Toolbox)” on page 397
- **i5/OS** “DB2 UDB for iSeries (Native)” on page 398
- “DB2 CLI” on page 399
- “Informix” on page 399
- “Microsoft SQL Server Embedded” on page 400
- “Microsoft SQL Server Data Direct ” on page 400
- “Oracle 9i” on page 401
- “Oracle 10g” on page 401

Important: If you are creating or augmenting a stand-alone server profile and selected the Derby Embedded database product, no additional database configuration is necessary.

When you have completed the Database configuration (Part 2) panel, click **Next**. The tool checks that a valid database connection exists. If the tool identifies an error, you must correct the problem before continuing by either making sure the database is up and running or altering parameters in order to make a good connection.

The Profile summary panel is displayed. Depending on the topic from which you accessed this one, return to one of the following steps:

- Step 15 on page 379 in the topic “Configuring stand-alone server profiles using customized values” on page 371
- Step 10 on page 409 in the topic “Configuring deployment manager profiles using customized values” on page 404
- Step 9 on page 436 in the topic “Configuring deployment manager profiles for a deployment environment” on page 431

Derby Network Server

Table 58 on page 395 lists the fields you must complete on the Database configuration (Part 2) panel when you select Derby Network Server as your database product.

Important: If you choose Derby Network Server as your database product, after profile creation or augmentation completes, ensure that the server is running on the host and port you specified during profile creation, even if the database host is local.

Table 82. Required Common database configuration fields for Derby Network Server

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Database server host name (for example IP address)	Accept the default value of localhost or enter the correct database server host name.

Table 82. Required Common database configuration fields for Derby Network Server (continued)

Field	Action needed
Server port	Accept the default value of 1527 or enter the correct server port number.

DB2 Universal Database

Table 59 on page 396 lists the fields you must complete on the Database configuration (Part 2) panel when you select DB2 Universal Database as your database product.

Table 83. Required Common database configuration fields for DB2 Universal Database

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Accept the default value of <i>install_root/universalDriver_wbi/lib</i> on Linux, UNIX or i5/OS platforms, or <i>install_root\universalDriver_wbi\lib</i> on Windows platforms, or browse to the location on your system that contains the following files: <ul style="list-style-type: none"> • db2jcc.jar • db2jcc_license_cu.jar or db2jcc_license_cisuz.jar An error message is displayed if the files cannot be found at the specified location.
JDBC driver type	Accept the default value of 4 or select the radio button beside the correct JDBC driver type.
Database server host name (for example IP address)	Accept the default value of localhost or enter the correct database server host name.
Server port	Accept the default value of 50000 or enter the correct server port number.

DB2 UDB for z/OS and OS/390 V7

Table 60 on page 396 lists the fields you must complete on the Database configuration (Part 2) panel when you select DB2 UDB for z/OS and OS/390 V7 as your database product.

Table 84. Required Common database configuration fields for DB2 UDB for z/OS and OS/390 V7

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.

Table 84. Required Common database configuration fields for DB2 UDB for z/OS and OS/390 V7 (continued)

Field	Action needed
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Enter the location on your system that contains the following files: <ul style="list-style-type: none"> • db2jcc.jar • db2jcc_license_cisuz.jar An error message is displayed if the files cannot be found at the specified location.
Database server host name (for example IP address)	Enter the database server host name.
Server port	Accept the default value of 446 or enter the correct server port number.
Database alias name	Enter the database alias name.
Connection location	Enter the connection location.
Storage group name	Enter the storage group name.

DB2 UDB for z/OS V8

Table 61 on page 397 lists the fields you must complete on the Database configuration (Part 2) panel when you select DB2 UDB for z/OS V8 as your database product.

Table 85. Required Common database configuration fields for DB2 UDB for z/OS V8

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Enter the location on your system that contains the following files: <ul style="list-style-type: none"> • db2jcc.jar • db2jcc_license_cisuz.jar An error message is displayed if the files cannot be found at the specified location.
Database server host name (for example IP address)	Enter the database server host name.
Server port	Accept the default value of 446 or enter the correct server port number.
Database alias name	Enter the database alias name.
Connection location	Enter the connection location.
Storage group name	Enter the storage group name.

DB2 UDB for iSeries (Toolbox)

Table 62 on page 398 lists the fields you must complete on the Database configuration (Part 2) panel when you select DB2 UDB for iSeries (Toolbox) as your database product.

Table 86. Required Common database configuration fields for DB2 UDB for iSeries (Toolbox)

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Accept the default value of /QIBM/ProdData/HTTP/Public/jt400/lib on i5/OS platforms, or browse to the location on your system that contains the following file: <ul style="list-style-type: none">• jt400.jar An error message is displayed if the file cannot be found at the specified location.
Database collection name	Accept the default value of WPRCSDB or enter the correct schema name. To prevent naming conflicts within the specified database, specify a schema name whose first three characters are unique from the names of other schemas residing in the database.

DB2 UDB for iSeries (Native)

Note: i5/OS **On i5/OS platforms:** This database configuration applies only to i5/OS platforms.

Table 63 on page 398 lists the fields you must complete on the Database configuration (Part 2) panel when you select DB2 UDB for iSeries (Native) as your database product.

Table 87. Required Common database configuration fields for DB2 UDB for iSeries (Native)

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Accept the default value of /QIBM/ProdData/Java400/ext on i5/OS platforms, or browse to the location on your system that contains the following file: <ul style="list-style-type: none">• db2_classes.jar An error message is displayed if the file cannot be found at the specified location.

Table 87. Required Common database configuration fields for DB2 UDB for iSeries (Native) (continued)

Field	Action needed
Database server host name (for example IP address)	Enter the database server host name.
Database collection name	Accept the default value of WPRCSDB or enter the correct schema name. To prevent naming conflicts within the specified database, specify a schema name whose first three characters are unique from the names of other schemas residing in the database.

DB2 CLI

Table 64 on page 399 lists the fields you must complete on the Database configuration (Part 2) panel when you select DB2 CLI as your database product.

Table 88. Required Common database configuration fields for DB2 CLI

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Enter the location on your system that contains the db2java.zip file. An error message is displayed if the file cannot be found at the specified location.

Informix

Table 65 on page 399 lists the fields you must complete on the Database configuration (Part 2) panel when you select Informix as your database product.

Table 89. Required Common database configuration fields for Informix

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Enter the location on your system that contains the following files: <ul style="list-style-type: none"> • ifxjdbc.jar • ifxjdbcx.jar An error message is displayed if the files cannot be found at the specified location.
Database server host name (for example IP address)	Accept the default value of localhost or enter the correct database server host name.

Table 89. Required Common database configuration fields for Informix (continued)

Field	Action needed
Server port	Accept the default value of 1526 or enter the correct server port number.
Event service instance name	Enter the correct event service instance name.

Microsoft SQL Server Embedded

Table 66 on page 400 lists the fields you must complete on the Database configuration (Part 2) panel when you select Microsoft SQL Server Embedded as your database product.

Table 90. Required Common database configuration fields for Microsoft SQL Server Embedded

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Database server host name (for example IP address)	Accept the default value of localhost or enter the correct database server host name.
Server port	Accept the default value of 1433 or enter the correct server port number.

Microsoft SQL Server Data Direct

Table 67 on page 400 lists the fields you must complete on the Database configuration (Part 2) panel when you select Microsoft SQL Server Data Direct as your database product.

Table 91. Required Common database configuration fields for Microsoft SQL Server Data Direct

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.

Table 91. Required Common database configuration fields for Microsoft SQL Server Data Direct (continued)

Field	Action needed
Location (directory) of JDBC driver classpath files	<p>Enter the location on your system that contains the following files:</p> <ul style="list-style-type: none"> • sqlserver.jar • base.jar • util.jar <p>Also, the file spy.jar must be available in the following location relative to the location of the JDBC driver classpath files:</p> <ul style="list-style-type: none"> • Linux UNIX ../spy/spy.jar • Windows ..\spy\spy.jar <p>An error message is displayed if the files cannot be found at the specified location.</p>
Database server host name (for example IP address)	Accept the default value of localhost or enter the correct database server host name.
Server port	Accept the default value of 1433 or enter the correct server port number.

Oracle 9i

Table 68 on page 401 lists the fields you must complete on the Database configuration (Part 2) panel when you select Oracle 9i as your database product.

Table 92. Required Common database configuration fields for Oracle 9i

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database. This ID must have SYSDBA privileges and permission to create schemas in the Oracle database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Enter the location on your system that contains the file ojdbc14.jar. An error message is displayed if the files cannot be found at the specified location.
JDBC driver type	Click OCI or Thin .
Database server host name (for example IP address)	Accept the default value of localhost or enter the correct database server host name.
Server port	Accept the default value of 1521 or enter the correct server port number.

Oracle 10g

Table 69 on page 401 lists the fields you must complete on the Database configuration (Part 2) panel when you select Oracle 10g as your database product.

Table 93. Required Common database configuration fields for Oracle 10g

Field	Action needed
User name to authenticate with the database	Enter the user name to authenticate with the database. This ID must have SYSDBA privileges and permission to create schemas in the Oracle database.
Password for database authentication	Enter a password to authenticate with the database.
Confirm password	Confirm the password.
Location (directory) of JDBC driver classpath files	Enter the location on your system that contains the file ojdbc14.jar. An error message is displayed if the files cannot be found at the specified location.
JDBC driver type	Click OCI or Thin .
Database server host name (for example IP address)	Accept the default value of localhost or enter the correct database server host name.
Server port	Accept the default value of 1521 or enter the correct server port number.

Configuring custom profiles (managed nodes) for a deployment environment

Learn how to use the Profile Management Tool to create and configure a WebSphere Process Server or WebSphere Enterprise Service Bus custom profile with customized configuration values to be used in an existing deployment environment pattern.

Before you begin

Important: This topic assumes that you are using the Profile Management Tool to create or augment profiles and are following the procedure in either “Creating profiles using the Profile Management Tool” on page 165 or “Augmenting profiles using the Profile Management Tool” on page 172. As a result, you have started the Profile Management Tool, have selected to create or augment a custom profile, and have chosen the **Deployment environment** profile creation or augmentation option.

About this task

Choose the **Deployment environment** profile creation or augmentation option to set up a fully configured profile for your deployment environment. This path configures and installs all components needed for WebSphere Process Server to work. The following components are configured as part of this path:

- Business Process Choreographer
- Common Event Infrastructure
- Business Rules Manager
- Service Component Architecture

In this type of configuration, you can specify your own values for settings such as ports, the location of the profile, and names for the profile, node, and host. You must specify how to federate the node to an existing deployment manager, which

has a deployment environment pattern already defined. You can also specify the clusters to define on that deployment environment, as well as your own values for the Common database configuration.

As a result of following the procedure in either “Augmenting profiles using the Profile Management Tool” on page 172 or “Creating profiles using the Profile Management Tool” on page 165, you are viewing either the Federation panel or the Profile name and location panel. Complete the following steps to configure a new custom profile with customized configuration values for a deployment environment.

Procedure

1. The panel you see in the Profile Management Tool depends on whether you are creating or augmenting a profile.

If you are performing	First step
Deployment environment profile augmentation	The Federation panel is displayed. Proceed to step 4 on page 452.
Deployment environment profile creation	The Profile name and location panel is displayed. Proceed to step 2.

2. **For Deployment environment profile creation only:** In the Profile name and location panel, perform the following steps.

- a. Specify a unique name and directory path for the profile, or accept the defaults.

Each profile that you create must have a name. When you have more than one profile, you can tell them apart at their highest level by this name.

The directory you specify will contain the files that define the runtime environment, such as commands, configuration files, and log files. By default, this directory location is:

- **i5/OS** On i5/OS platforms: `user_data_root/profiles/profile_name`

- **Linux** **UNIX** On Linux and UNIX platforms: `install_root/profiles/profile_name`

- **Windows** On Windows platforms: `install_root\profiles\profile_name`

where `profile_name` is the name you specified. An error message is displayed if:

- The `profile_name` you specify is not unique.
- The directory you specify is not empty.
- Your user ID does not have sufficient permissions for the directory.
- There is not sufficient space to create the profile.

- b. You can make the profile you are creating the default profile (so commands work automatically with it) by selecting the **Make this profile the default** check box. This check box appears only if you have an existing profile on your system.

The first profile that you create on a machine is the default profile.

The default profile is the default target for commands that are issued from the `bin` directory in the product installation root. When only one profile exists on a machine, every command operates on that profile. If more than one profile exists, certain commands require that you specify the profile to which the command applies. See “Profile commands in a multiprofile environment” on page 361 for more information.

The Profile Management Tool will detect ports currently used by other WebSphere products, but not those of other applications which might use specified ports. When federating a custom profile, the **addNode** command uses non-conflicting ports. This means that you can take the default port assignments as you create the profile, and let the **addNode** command specify non-conflicting ports as you federate the node. Port assignments must be unique on a server. Server processes on different servers can use the same port assignments without conflict.

- c. Select **Next**. (If you select **Back** and change the name of the profile, you might have to manually change the name on this panel when it is displayed again.)

The Node and host names panel is displayed.

3. **For Deployment environment profile creation only:** In the Node and host names panel, specify the node and host names for the profile, or accept the defaults and select **Next**. Try to keep the node name as short as possible, but ensure that node names are unique within the deployment environment. See "Naming considerations for profiles, nodes, hosts, and cells" on page 356 for information about reserved terms and other issues you must consider when naming the node and host.

The Federation panel is displayed.

4. In the Federation panel, you must federate the node into the deployment manager now as part of the profile creation or augmentation. Specify the host name or IP address and SOAP port of the deployment manager, and an authentication user ID and password. Then select **Next**.

To find the SOAP port number of the deployment manager, open the `AboutThisProfile.txt` file for the deployment manager located in `profile_root/logs/`, and review the value for "SOAP connector port."

Important: The **Federate this node later** check box does not appear on the Federation panel for this type of profile creation or augmentation.

The Profile Management Tool verifies that the deployment manager exists, can be contacted, and that the authentication user ID and password are valid for that deployment manager. It also validates that there is a valid deployment environment defined on the deployment manager and retrieves the pattern and database type back from the deployment manager.

Attention: Do not federate the node if any one of the following is true:

- You plan to use this custom node as a migration target.
- Another profile is being federated. (Node federation must be serialized.)
- The deployment manager is not running or you are not sure if it is running.
- The deployment manager has not yet been augmented into a WebSphere Process Server deployment manager. WebSphere Process Server profiles cannot use a WebSphere Enterprise Service Bus deployment manager, but WebSphere Enterprise Service Bus profiles can use a WebSphere Process Server deployment manager.
- The deployment manager is not at the same release level or higher than the custom profile you are creating or augmenting.
- The deployment manager does not have a JMX administrative port enabled.
- The deployment manager is reconfigured to use the non-default remote method invocation (RMI) as the preferred Java Management Extensions (JMX) connector. (Select **System administration > Deployment manager >**

Administration services in the administrative console of the deployment manager to verify the preferred connector type.)

If you attempt to federate a custom node when the deployment manager is not running or is not available for other reasons, a warning panel prevents you from continuing. If this warning panel appears, select **OK** to exit from it, cancel this profile creation or augmentation, and make the necessary changes to your system.

The next step depends on whether you are creating or augmenting a profile.

If you are performing	Next step
Deployment environment profile creation	The Port values assignment panel is displayed. Proceed to step 5.
Deployment environment profile augmentation	The Deployment environment configuration panel is displayed. Proceed to step 6.

5. **For Deployment environment profile creation only:** Verify that the ports specified for the profile are unique and select **Next**.

The Profile Management Tool detects ports currently used by other WebSphere products and displays recommended port values that do not conflict with existing ones. If you have applications other than WebSphere ones that use specified ports, verify that the ports do not conflict.

Ports are recognized as being in use if:

- They are assigned to a profile created under an installation performed by the current user.
- They are currently in use.

Although the tool validates ports when you access the Port values assignment panel, port conflicts can still occur resulting from selections you make on succeeding Profile Management Tool panels. Ports are not assigned until profile creation completes.

If you suspect a port conflict, you can investigate it after the profile is created. Determine the ports used during profile creation by examining the following file:

- **i5/OS** On **i5/OS platforms:** `profile_root/properties/portdef.props`
- **Linux** **UNIX** On **Linux and UNIX platforms:** `profile_root/properties/portdef.props`
- **Windows** On **Windows platforms:** `profile_root\properties\portdef.props`

Included in this file are the keys and values used in setting the ports. If you discover port conflicts, you can reassign ports manually. To reassign ports, see the topic Updating ports in an existing profile in the WebSphere Application Server Network Deployment, version 6.1 information center and run the `updatePorts.ant` file through the `ws_ant` script.

The Deployment environment configuration panel is displayed.

6. In the Deployment environment configuration panel, select at least one cluster to assign this node to on the deployment environment pattern and select **Next**. The panel offers one to three clusters based on the deployment environment pattern defined previously on the deployment manager:

Table 94. Clusters offered per deployment environment pattern on existing deployment manager

Deployment environment pattern on deployment manager	Clusters offered
Remote messaging and remote support	<ul style="list-style-type: none"> • Application deployment target – consists of a cluster to which user applications need to be deployed. • Messaging infrastructure – consists of a cluster where messaging engines are located. • Support infrastructure – consists of a cluster that hosts the Common Event Infrastructure server and other infrastructure services that are used to manage your system.
Remote messaging	<ul style="list-style-type: none"> • Application deployment target – consists of a cluster to which user applications need to be deployed. With a remote messaging deployment environment pattern, the application deployment target cluster also assumes the functionality of the supporting infrastructure cluster. • Messaging infrastructure – consists of a cluster where bus members are located.
Single cluster	<ul style="list-style-type: none"> • Application deployment target – consists of a cluster to which user applications need to be deployed. With a single cluster deployment environment pattern, the application deployment target cluster also assumes the functionality of the messaging and the supporting infrastructure clusters.

See the following topics for more information:

- Deployment environment patterns – A deployment environment pattern specifies the constraints and requirements of the components and resources involved in a deployment environment. The patterns are designed to meet the needs of most business requirements and are intended to help you create a deployment environment in the most straightforward way.
- Deployment environment functions within deployment patterns – To design a robust deployment environment, you need to understand the functionality each cluster can provide in a particular IBM-supplied deployment environment pattern or a custom deployment environment. This knowledge can help you make the correct decisions as to which deployment environment pattern best meets your needs.

The Database configuration panel is displayed.

7. In the Database configuration panel, perform the following steps.
 - a. Review the database product. The database that matches the database used on the deployment manager to which this custom profile will be federated is displayed. It will be one of the following (each entry that can be selected from the list is shown, followed by the database it represents):
 - Derby Network Server (Derby Network Server)
 - DB2 Universal Database (DB2 Universal Database)
 - DB2 UDB for z/OS and OS/390 V7 (DB2 UDB for z/OS and OS/390 V7)

- DB2 UDB for z/OS V8 (DB2 UDB for z/OS V8)
- **i5/OS** **On i5/OS platforms:** DB2 UDB for iSeries (Native) (DB2 UDB for iSeries (Native))
- DB2 UDB for iSeries (Toolbox) (DB2 UDB for iSeries (Toolbox))
- DB2 CLI (DB2 Call Level Interface)
- Oracle 9i (Oracle 9i)
- Oracle 10g (Oracle 10g)

Note: **i5/OS** **On i5/OS platforms only:** DB2 UDB for iSeries (Native) can be accessed locally on i5/OS platforms. Derby Network Server and DB2 UDB for iSeries (Toolbox) can be accessed both locally and remotely. All other databases in the list can still be used by i5/OS systems, but only as remote databases.

- Provide the location (directory) of the JDBC driver class path files for the database. You can accept the default values for Derby Network Server and DB2 Universal Database.
- Select **Next**.

The Profile summary panel is displayed.

- In the Profile summary panel, select **Create** or **Augment** to create or augment the profile or **Back** to change the characteristics of the profile.

When the profile creation or augmentation is complete, the Profile complete panel is displayed with the message **The Profile Management tool created the profile successfully** or **The Profile Management tool augmented the profile successfully**.

Attention: If errors are detected during profile creation or augmentation, other messages might appear in place of the success message, for example:

- **The Profile Management tool created the profile but errors occurred**, which indicates that profile creation completed but errors were generated.
- **The Profile Management tool cannot create the profile**, which indicates that profile creation failed completely.
- **The Profile Management tool augmented the profile but errors occurred**, which indicates that profile augmentation completed but errors were generated.
- **The Profile Management tool cannot augment the profile**, which indicates that profile augmentation failed completely.

The Profile complete panel identifies the log file to reference in order to troubleshoot the problems. See the descriptions of relevant log files listed in “Log files” on page 299.

You can review other useful troubleshooting information in the following topics:

- Chapter 15, “Troubleshooting installation and configuration,” on page 287
 - “Troubleshooting the launchpad application” on page 290
 - “Troubleshooting a silent installation” on page 291
 - “i5/OS installation troubleshooting tips” on page 292
 - “Diagnosing a failing Ant configuration script” on page 293
 - “Messages: installation and profile creation” on page 294
 - “Recovering from profile creation or augmentation failure” on page 304
- In the Profile complete panel, select **Launch the First steps console**, **Create another profile**, or both; select **Finish** to exit. Use the First steps console to

access product documentation. Use the **Create another profile** option to restart the Profile Management Tool to create additional profiles. Use the **Create another profile** option to restart the Profile Management Tool to create additional profiles.

Results

You have completed one of the following:

- Created a WebSphere Process Server or WebSphere Enterprise Service Bus profile.
- Augmented a WebSphere Application Server, WebSphere Application Server Network Deployment, or WebSphere Enterprise Service Bus profile into a WebSphere Process Server profile.
- Augmented a WebSphere Application Server or WebSphere Application Server Network Deployment profile into a WebSphere Enterprise Service Bus profile.

What to do next

Use the deployment manager to customize the node. You might add more custom nodes if not all of the cluster members are assigned.

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