

WebSphere Business Integration Server  
Express and Express Plus



# WebSphere Business Integration Server Express Installation Guide for Windows

*Version 4.3.1*



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Express and Express Plus



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*Version 4.3.1*

**Note!**

Before using this information and the product it supports, read the information in "Notices" on page 83.

**30July2004**

This edition of this document applies to IBM WebSphere Business Integration Server Express, version 4.3.1 and IBM WebSphere Business Integration Server Express Plus, version 4.3.1.

To send us your comments about this IBM WebSphere Business Integration document, e-mail [doc-comments@us.ibm.com](mailto:doc-comments@us.ibm.com). We look forward to hearing from you.

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## About this document

The products IBM(R) WebSphere(R) Business Integration Server Express and IBM WebSphere Business Integration Server Express Plus are made up of the following components: InterChange Server Express, the associated Toolset Express, CollaborationFoundation, and a set of software integration adapters. The tools in Toolset Express help you to create, modify, and manage business processes. You can choose from among the prepackaged adapters for your business processes that span applications. The standard processes template — CollaborationFoundation — allows you to quickly create customized processes.

This document describes how to install and set up IBM WebSphere Business Integration Server Express and IBM WebSphere Business Integration Server Express Plus systems.

Except where noted, all the information in this guide applies to both IBM WebSphere Business Integration Server Express and IBM WebSphere Business Integration Server Express Plus. The term WebSphere Business Integration Server Express and its variants refer to both products.

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## Audience

This document is for consultants and system administrators who install, deploy, and administer WebSphere Business Integration Server Express or Express Plus in the Microsoft(R) Windows(R) environment.

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## Related documents

The complete set of documentation available with this product describes the features and components common to all WebSphere Business Integration Server Express and Express Plus installations, and includes reference material on specific components.

You can download, install, and view the documentation at the following site:  
<http://www.ibm.com/websphere/wbi/serverexpress/infocenter>.

**Note:** Important information about this product may be available in Technical Support Technotes and Flashes issued after this document was published. These can be found on the WebSphere Business Integration Support Web site, <http://www.ibm.com/software/integration/websphere/support/>. Select the component area of interest and browse the Technotes and Flashes sections.

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## Typographic conventions

This document uses the following conventions:

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<code>courier font</code>	Indicates a literal value, such as a command name, filename, information that you type, or information that the system prints on the screen.
<b>bold</b>	Indicates a new term the first time that it appears.

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<i>italic</i>	Indicates a variable name or a cross-reference. When you view a PDF file, cross-references are both italic and blue. You can select a cross-reference to jump to the target information.
<i>italic courier</i>	Indicates a variable name within literal text.
<code>boxed courier</code>	Separates a code fragment from the rest of the text.
blue outline	A blue outline, which is visible only when you view a manual online, indicates a cross-reference hyperlink. Select inside the outline to jump to the object of the reference.
{ }	In a syntax line, curly braces surround a set of options from which you must choose only one.
[ ]	In a syntax line, brackets surround an optional parameter.
...	In a syntax line, ellipses indicate a repetition of the previous parameter. For example, <code>option[,...]</code> means that you can enter multiple, comma-separated options.
\	In this document, backslashes (\) are used as the convention for directory paths. For UNIX(R) installations, substitute slashes (/) for backslashes. All IBM WebSphere Business Integration Server Express pathnames are relative to the directory where the product is installed on your system.
<i>ProductDir</i>	Represents the directory where the product is installed.

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## **New in this release**

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### **New in this release 4.3.1**

This release adds production-mode support for the following operating systems:

- IBM OS/400 V5R2, V5R3
- Red Hat Enterprise Linux(TM) AS 3.0 Update 1
- SuSE Linux Enterprise Server 8.1 SP3
- Microsoft Windows 2003

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### **New in release 4.3**

This is the first release of this guide.



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# Chapter 1. Installing WebSphere Business Integration Server Express or Express Plus -- an overview

The IBM WebSphere Business Integration Server Express and Express Plus products are supplied with a Graphical User Interface (GUI)-based setup program called the Launchpad that guides you step-by-step through the installation and configuration of the prerequisite and product software.

This guide details each step of the installation and configuration processes. The steps must be performed in the following order:

1. Learn basic Launchpad operation, including how to start, stop, and use the tool to view the product *Quick Start Guide*. See Chapter 2, "Starting and stopping the Launchpad and viewing the Quick Start Guide," on page 3.
2. Check that required software prerequisites are installed, install selected prerequisites if desired, and install the WebSphere Business Integration Server Express or Express Plus product. See Chapter 3, "Installing required software prerequisites and WebSphere Business Integration Server Express or Express Plus," on page 7.
3. Start and administer your system. See Chapter 4, "Starting and administering the WebSphere Business Integration Server Express or Express Plus system," on page 33.
4. Optionally verify that your system is installed and operating correctly by using a supplied sample called System Test. See Chapter 5, "Verifying the installation," on page 37.
5. Optionally install an Adapter Capacity Pack for WebSphere Business Integration Server Express Plus. See Chapter 6, "Installing the Adapter Capacity Pack for WebSphere Business Integration Server Express Plus," on page 39.
6. Optionally install a Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus. See Chapter 7, "Installing the Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus," on page 45.

Additional chapters in the guide provide information on the following:

- Chapter 8, "Manually configuring System Monitor and Failed Event Manager," on page 49.
- Chapter 9, "Upgrading the system," on page 57.
- Appendix A, "Meeting hardware and software requirements," on page 75.
- Appendix B, "Silently installing and uninstalling WebSphere Business Integration Server Express or Express Plus and Capacity Packs," on page 79.

Each chapter (except for the Appendixes) ends with a section called "Taking the next step." This section instructs you on which chapter to proceed to based on where you are at in the installation process and on the products you plan to install.

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## Taking the next step

To begin the installation and configuration processes, proceed to Chapter 2, "Starting and stopping the Launchpad and viewing the Quick Start Guide," on page 3 to learn basic Launchpad functions.



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## Chapter 2. Starting and stopping the Launchpad and viewing the Quick Start Guide

In order to use the Launchpad GUI to lead you through installation and configuration of WebSphere Business Integration Server Express or Express Plus, you must be able to start and stop it. You must also be able to view the product *Quick Start Guide* for a procedure to verify that your system is installed and operating correctly.

This chapter contains the following sections:

- “Starting the Launchpad”
- “Stopping the Launchpad” on page 5
- “Viewing the product Quick Start Guide from the Launchpad” on page 5
- “Taking the next step” on page 5

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### Starting the Launchpad

Before you start the Launchpad, do the following:

- Check that your system meets the hardware requirements listed in the section “Checking hardware requirements” on page 75.
- Check the following site for any available Fix Packs for your product:  
<http://www.ibm.com/software/integration/websphere/support/>
- If you have Norton AntiVirus running on your machine, turn it off and restart your machine, as follows:
  1. Select **Start > Settings > Control Panel > Administrative Tools > Services**.
  2. Right click Norton AntiVirus Client.
  3. Select **Stop**.
- Ensure that you have Windows Administrator privileges. If this requirement is not met, an error message outlining the problem will appear and the Launchpad program will terminate.
- The installation instructions throughout this document assume installation from product CDs. If you are installing from ESDs obtained from Passport Advantage, do the following:
  - Refer to your Passport Advantage information for downloading instructions.
  - Extract all ESDs to the same directory on your hard drive and install from the hard drive to ensure proper installer function. Do *not* create CDs based on the ESD images and attempt to install from them. If you do, installation can fail since configuration utilities for some software prerequisites might not be packaged with the ESDs containing the actual prerequisite software.
  - Ensure that the component folders of the directory into which you extract the ESDs have no spaces in their names. For instance, C:\Program Files\WBISE is *not* a valid directory because the folder Program Files has a space in its name. C:\WBISE is a valid directory because the folder WBISE does not have a space in its name.

To invoke the Launchpad, insert the CD containing the Base Components of WebSphere Business Integration Server Express or Express Plus into your computer. The Launchpad Welcome screen appears. Buttons on the left side of the Welcome screen allow quick selection of several tasks.

The Launchpad Welcome screen for the WebSphere Business Integration Server Express product differs slightly from that of the WebSphere Business Integration Server Express Plus product. Here is the Launchpad Welcome screen for the WebSphere Business Integration Server Express product.



Figure 1. WebSphere Business Integration Server Express Launchpad Welcome screen

The buttons on this screen control the following tasks:

**Install Product**

Leads you to install the appropriate software prerequisites based on the product components you intend to install and then installs the product components as well.

**First Steps**

Launches the *Quick Start Guide*.

**Exit** Stops the Launchpad.

Here is the Launchpad Welcome screen for the WebSphere Business Integration Server Express Plus product. Note that the Express Plus version has an extra button called **Install Capacity Pack**. This button lets you launch the installers for the Adapter Capacity Pack and Collaboration Capacity Pack. Installation procedures for the Adapter Capacity Pack and Collaboration Capacity Pack are described in Chapter 6, “Installing the Adapter Capacity Pack for WebSphere Business Integration Server Express Plus,” on page 39 and Chapter 7, “Installing the Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus,” on page 45.



Figure 2. WebSphere Business Integration Server Express Plus Launchpad Welcome screen

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## Stopping the Launchpad

To exit the Launchpad, select the Launchpad button labeled **Exit**.

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## Viewing the product Quick Start Guide from the Launchpad

The Launchpad provides a quick and easy way to view the product *Quick Start Guide*. To view this documentation, select the Launchpad button labeled **First Steps**.

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## Taking the next step

If you are comfortable performing the basic Launchpad GUI operations outlined in this chapter, proceed to Chapter 3, "Installing required software prerequisites and WebSphere Business Integration Server Express or Express Plus," on page 7 for information on how to use the Launchpad to identify necessary prerequisites, install selected prerequisites, and install WebSphere Business Integration Server Express or Express Plus.





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## Chapter 3. Installing required software prerequisites and WebSphere Business Integration Server Express or Express Plus

The WebSphere Business Integration Server Express or Express Plus system can determine the prerequisite software needed for your installation based on the components you plan to install. The Launchpad checks if necessary prerequisite software is installed on your machine. If certain items are not installed, it can install them.

The Launchpad then launches the GUI installer that leads you through installation of WebSphere Business Integration Server Express or Express Plus. A second GUI is available to uninstall the products. Silent installation and uninstallation are also possible.

The installation instructions throughout the sections in this chapter assume the following:

- WebSphere Business Integration Server Express or Express Plus version 4.3.1 is *not* already installed on your machine. If you have a previous version of the product or capacity packs installed and want to upgrade them to version 4.3.1, or have installed WebSphere Business Integration Server Express V4.3.1 and want to upgrade to WebSphere Business Integration Server Express Plus V4.3.1, see Chapter 9, “Upgrading the system,” on page 57 for instructions.
- Components will be installed on a machine running the Windows 2000 operating system in a production environment. *When the installer is run on Windows XP and Windows 2003 systems, some screens will not appear and others will show differing selections.* See Table 4 on page 76 for a listing of which product components are supported on each of the Windows platforms in both production and development environments.
- Installation is of a WebSphere Business Integration Server Express Plus system. Installation of a WebSphere Business Integration Server Express system might show slightly different screens.
- You have reviewed and understand the information in Chapter 2, “Starting and stopping the Launchpad and viewing the Quick Start Guide,” on page 3 and have started the Launchpad.

This chapter contains the following sections:

- “Identifying which software prerequisites are required” on page 8
- “Installing selected software prerequisites” on page 12
- “Installing WebSphere Business Integration Server Express and Express Plus using the GUI” on page 20
- “Uninstalling WebSphere Business Integration Server Express and Express Plus using the GUI” on page 30
- “Taking the next step” on page 30

See Appendix B, “Silently installing and uninstalling WebSphere Business Integration Server Express or Express Plus and Capacity Packs,” on page 79 for instructions on performing silent installation and uninstallation.

## Identifying which software prerequisites are required

The WebSphere Business Integration Server Express or Express Plus system can determine the prerequisite software needed for your installation based on the components you plan to install. See the section “Deciding which WebSphere Business Integration Server Express and Express Plus components to install” on page 23 for descriptions of available components. Certain entries on the GUI screens have help icons next to them. When you select an icon, a window opens with relevant information about the feature and the prerequisites required for the feature.

To communicate to the system which components you plan to install, perform the following steps:

1. Select the Launchpad button labeled **Install Product**. The Install Server screen appears.

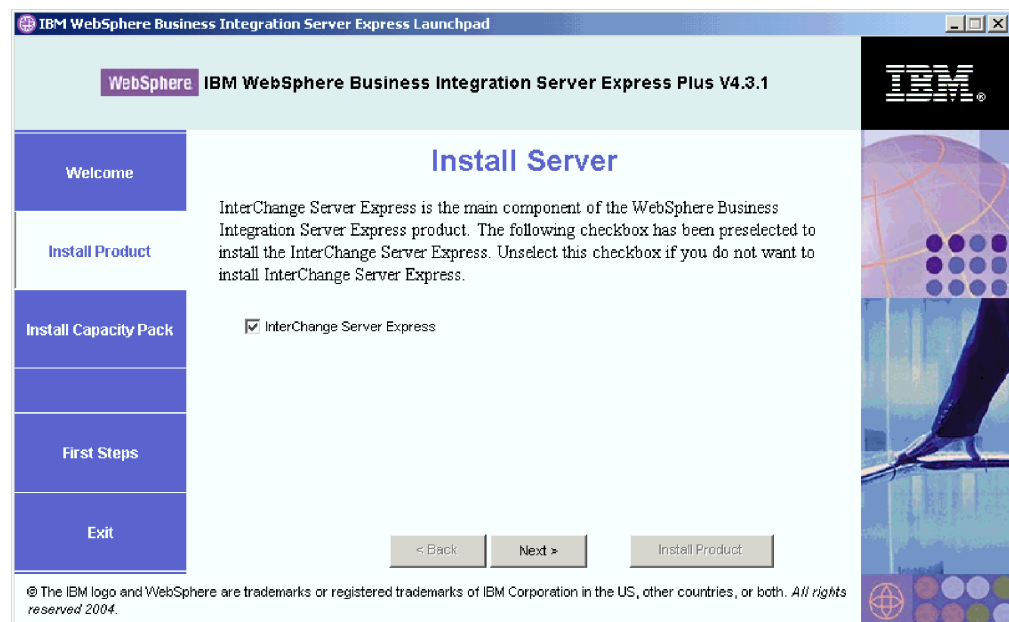


Figure 3. Install Server screen

2. On the Install Server screen, the checkbox beside the entry **InterChange Server Express** is selected by default. Do one of the following:
  - To install the InterChange Server Express component, select **Next**.
  - To *not* install the InterChange Server Express component, unselect the checkbox and select **Next**.

The Install Tools screen appears.

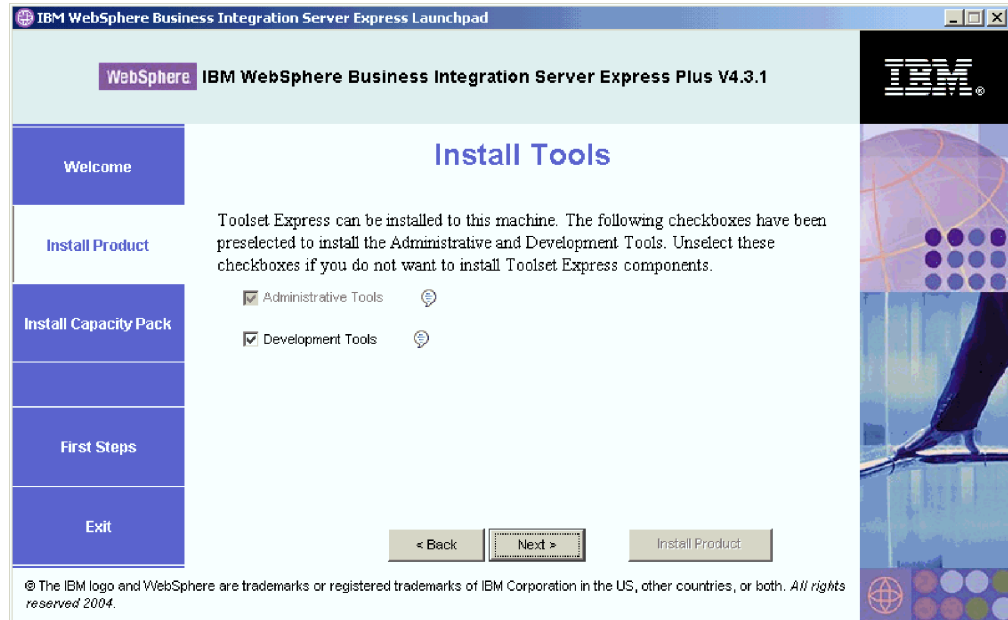


Figure 4. Install Tools screen

3. On the Install Tools screen, the checkboxes beside the entries **Administrative Tools** and **Development Tools** are selected by default. Do one of the following:
  - To install *both* the Administrative tools and Development tools, select **Next**.
  - To install *only* the Administrative tools, unselect the checkbox beside the entry **Development Tools** and select **Next**.

**Note:** You cannot install only the Development tools. They require that Administrative tools also be installed.

- To install *neither* the Administrative tools nor Development tools, unselect the checkboxes beside the entries **Administrative Tools** and **Development Tools**, and select **Next**.

**Tip:** Unselect the checkbox beside **Development Tools** first. This action enables the checkbox beside **Administrative Tools**, so you can then unselect it.

The Install Adapters screen appears.

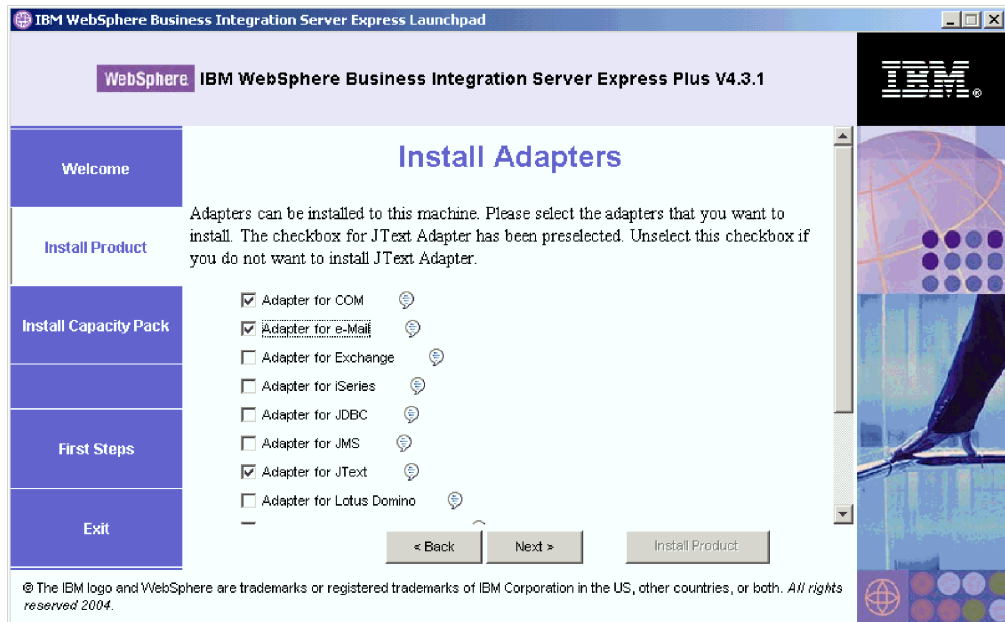


Figure 5. Install Adapters screen

4. On the Install Adapters screen, select the adapters you want to install. You can install as many adapters as you want. However, a maximum of *three* can be registered with the InterChange Server Express if you are installing WebSphere Business Integration Server Express; a maximum of *five* if you are installing WebSphere Business Integration Server Express Plus. Select **Next**. The Install Samples screen appears.

**Note:** The Adapter for JText is selected by default because it is required to run the System Test sample, which is part of the Samples component. (The Samples component can be selected from the Install Samples screen, described in Step 5 on page 11.)

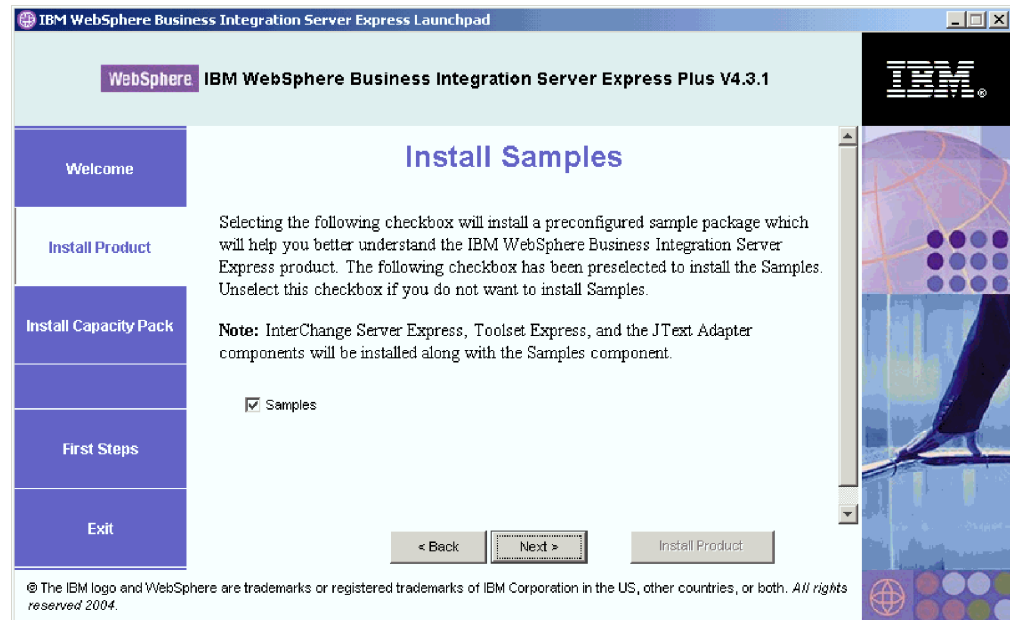


Figure 6. Install Samples screen

5. On the Install Samples screen, the checkbox beside the entry **Samples** is preselected by default. Do one of the following:

- To install the Samples component, select **Next**.

**Note:** The Samples component requires installation of the InterChange Server Express, the Toolset Express, and the JText Adapter. Therefore, when you elect to install the Samples component, the InterChange Server Express, the Toolset Express, and the JText Adapter are installed as well, regardless of whether you elected to install them in previous screens.

- To *not* install the Samples component, unselect the checkbox and select **Next**.

The Software Prerequisites screen appears.

From the selections you made in the previous steps, the Launchpad determines the software prerequisites needed for the components you are installing, identifies whether any or all are installed on your system, and posts the results of its analysis on the Software Prerequisites screen. The list that appears on this screen for your particular system might contain all or only some of the following entries, depending on which WebSphere Business Integration Server Express or Express Plus components you elected to install:

- IBM WebSphere Application Server - Express V5.1
- IBM WebSphere MQ 5.3.0.2 CSD06 and higher CSD levels
- A database (one of three supported)
- IBM Java(TM) Development Kit 1.3.1\_05
- A Web browser (one of two supported)

The Launchpad displays the installation status of each prerequisite. Status values can include **Not Installed**, **Optional**, or **OK**, and for the database selection only, **Not Configured**.

The following example Software Prerequisites screen from the Launchpad for the WebSphere Business Integration Server Express Plus product shows the results when the Launchpad finds IBM Java Development Kit 1.3.1\_05 installed and a database installed, but in need of configuration.

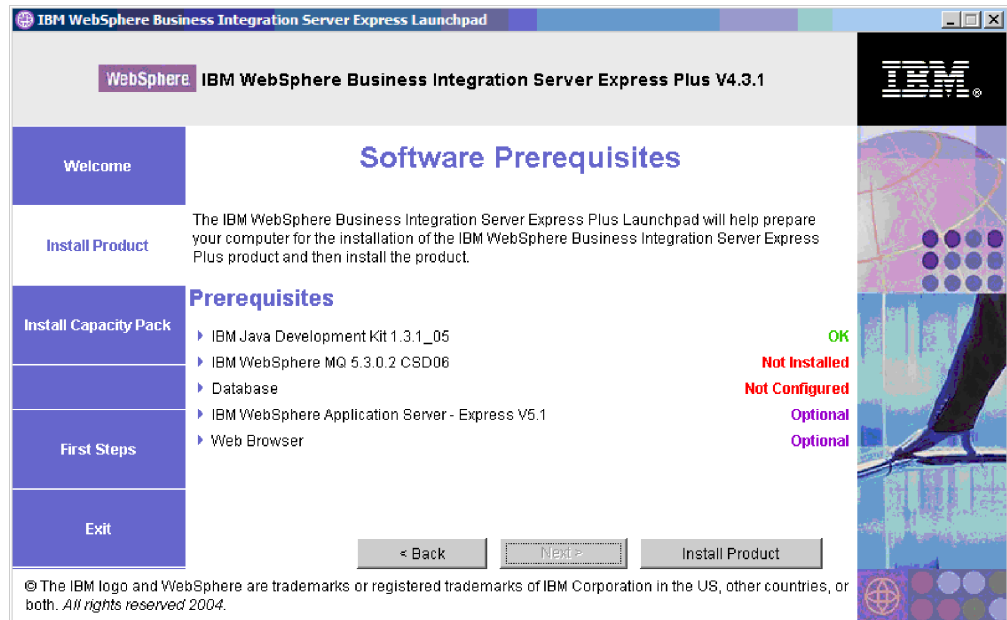


Figure 7. Software Prerequisites screen before installing selected prerequisites

If any software program you require for your system has a status of **Not Installed** or **Optional**, you can use the Launchpad to either install it or to direct you to where to obtain it (the Launchpad installs only selected prerequisites). If you have a database installed and its status is **Not Configured**, you can use the Launchpad to configure it. See “Installing selected software prerequisites” for information on which tasks the Launchpad can perform related to each prerequisite.

## Installing selected software prerequisites

The Launchpad has determined which prerequisites are needed for your system:

- If you plan to perform collaboration and mapping development, you need to have the IBM Java Development Kit 1.3.1\_05 prerequisite installed. The Launchpad can automatically install this software. See “Installing the Java Development Kit” on page 13 for details.
- Every installation of WebSphere Business Integration Server Express and Express Plus requires installation of WebSphere MQ 5.3.0.2 CSD06 or a higher CSD level. However, whether you need to install both the server and client or just the client depends on the WebSphere Business Integration Server Express or Express Plus components you plan to install. The Launchpad can automatically install this software. See “Installing WebSphere MQ” on page 14 for details.
- If you plan to install the InterChange Server Express component of WebSphere Business Integration Server Express or Express Plus, you will need a database to hold the repository (which contains metadata for installed components). The Launchpad can automatically install and configure a supported database, or configure an existing supported database. See “Installing and configuring a database” on page 15 for more information.

- If you plan to use System Monitor or Failed Event Manager (which are installed as components of the Administrative Toolset Express) you need to install a Web application server. The Launchpad can automatically install WebSphere Application Server Express v5.1. See “Installing WebSphere Application Server Express” on page 18 for more details. Other Web application servers are supported.

**Important:** If you want the WebSphere Business Integration Server Express or Express Plus installer to automatically configure System Monitor and Failed Event Manager for use with the Express or Express Plus product and with WebSphere Application Server Express or WebSphere Application Server, you *must* have one of the supported versions of WebSphere Application Server Express or WebSphere Application Server installed *before* you run the WebSphere Business Integration Server Express or Express Plus installer. Otherwise, you will have to manually configure System Monitor and Failed Event Manager, as detailed in Chapter 8, “Manually configuring System Monitor and Failed Event Manager,” on page 49. If you are using Tomcat as your Web application server, you will need to manually configure it. See Chapter 8, “Manually configuring System Monitor and Failed Event Manager,” on page 49 for details.

The automatic configuration that the WebSphere Business Integration Server Express or Express Plus installer performs assumes that no Web server, such as IBM HTTP Server, is installed. The resulting default URLs are, as follows:

- For System Monitor: <http://hostname:7089/ICSMonitor>
- For Failed Event Manager: <http://hostname:7089/FailedEvents>

- If you plan to use System Monitor or Failed Event Manager (which are installed as components of the Administrative Toolset Express), you need to install a Web browser. The Launchpad cannot automatically install a supported Web browser, but it can offer instructions for finding installable versions. See “Installing a Web browser” on page 19 for more information.

Complete tables of all required software exist in the section “Checking software requirements” on page 75. If you have previously installed the appropriate versions of prerequisite products, you might not need to reinstall them through the Launchpad. Check the configuration instructions for the specific software.

## Installing the Java Development Kit

The IBM Java Development Kit 1.3.1\_05 is required for performing collaboration and mapping development.

**Note:** A C++ compiler is also required for performing collaboration and mapping development and its path must be on your PATH system variable. This compiler is not supplied with the WebSphere Business Integration Server Express or Express Plus product, but can be obtained at the following Web site: <http://msdn.microsoft.com/visualc/vctoolkit2003/>.

To install the IBM Java Development Kit 1.3.1\_05, do the following:

1. From the Launchpad Software Prerequisites screen, expand **IBM Java Development Kit 1.3.1\_05**.
2. Select **Install** to start the silent installation of IBM Java Development Kit 1.3.1\_05. The Drive Selection screen appears.



**Important:** Select the button labeled **Install** located within the highlighted area under **IBM Java Development Kit 1.3.1\_05**, *not* the button labeled **Install Product** located at the bottom of the screen.

3. On the Drive Selection screen, indicate on which drive you want to install the JDK and select **OK**. Silent installation of the JDK begins.

**Note:** The JDK is installed by default on the C:\ drive in the directory IBM\Java131. You can select a different drive on which to install the JDK, but not a different directory on it. For instance, if you specify drive E:\ on the Drive Selection screen, the JDK is installed into E:\IBM\Java131.

4. After silent installation of IBM Java Development Kit 1.3.1\_05 completes, verify that its status in the Launchpad changed from **Not Installed** to **OK**.

## Installing WebSphere MQ

WebSphere MQ messaging software is required to run the WebSphere Business Integration Server Express and Express Plus products. Whether both the server and client or just the client components are needed depends on which WebSphere Business Integration Server Express or Express Plus components you plan to install:

- If you intend to install the InterChange Server Express component, you must install the WebSphere MQ server and client. Installation of the server and client enables communication between InterChange Server Express and connectors.
- If you intend to install only the Toolset Express or an adapter, you need to install only the WebSphere MQ client.

The Launchpad has already determined whether you require the server and client or just the client and presents one of the following entries on the Launchpad Software Prerequisites screen:

- If you must install IBM WebSphere MQ 5.3.0.2 CSD06 server and client, you see the entry **IBM WebSphere MQ 5.3.0.2 CSD06**.
- If you must install only the IBM WebSphere MQ 5.3.0.2 CSD06 client, you see the entry **IBM WebSphere MQ 5.3.0.2 CSD06 Client**.

To install the IBM WebSphere MQ 5.3.0.2 CSD06 server and client or client alone, do the following:

1. From the Launchpad Software Prerequisites screen, expand **IBM WebSphere MQ 5.3.0.2 CSD06** or **IBM WebSphere MQ 5.3.0.2 CSD06 Client** (whichever appears on your system).
2. Select **Install** to start the silent installation of IBM WebSphere MQ 5.3.0.2 CSD06. A dialog appears, which requests that you insert the appropriate CD into the machine and specify your CD-ROM drive.

**Important:** Select the button labeled **Install** located within the highlighted area under **IBM WebSphere MQ 5.3.0.2 CSD06** or **IBM WebSphere MQ 5.3.0.2 CSD06 Client**, *not* the button labeled **Install Product** located at the bottom of the screen.

3. Insert the CD containing IBM WebSphere MQ 5.3.0.2 CSD06 into the machine, specify your CD-ROM drive, and select **OK**. The Drive Selection screen appears.
4. On the Drive Selection screen, indicate on which drive you want to install WebSphere MQ and select **OK**. Silent installation of WebSphere MQ begins.



**Note:** WebSphere MQ is installed by default on the C:\ drive in the directory IBM\WebSphere MQ. You can select a different drive on which to install WebSphere MQ, but not a different directory on it. For instance, if you specify drive E:\ on the Drive Selection screen, WebSphere MQ is installed into E:\IBM\WebSphere MQ.

5. After silent installation of WebSphere MQ completes, verify that its status in the Launchpad changed from **Not Installed** to **OK**.

**Note:** WebSphere MQ 5.3.0.2 CSD06 software has its own software and network prerequisites. If these prerequisites are not met, the silent installation of this product will fail. For more details, see WebSphere MQ documentation.

If the Launchpad finds a pre-existing installation of WebSphere MQ 5.3.0.2 without CSD06 applied, it offers to automatically patch the software. In this case, when you expand the selection **IBM WebSphere MQ 5.3.0.2 CSD06** or **IBM WebSphere MQ 5.3.0.2 CSD06 Client** on the Launchpad Software Prerequisites screen, you can select **Apply CSD06**. Silent installation of the patch executes and the software status in the Launchpad changes to **OK**.

**Important:** After you install WebSphere Business Integration Server Express or Express Plus, as detailed in “Installing WebSphere Business Integration Server Express and Express Plus using the GUI” on page 20, you will need to add a listener to the WebSphere MQ service. Instructions are provided in the section “Adding a listener to the WebSphere MQ service” on page 27.

## Installing and configuring a database

IBM WebSphere Business Integration Server Express and Express Plus support IBM DB2(R) Universal Database(TM) v8.1 Express, IBM DB2 Universal Database v8.1 Enterprise, FP2 and higher, and Microsoft SQL Server 2000 databases. Before installing or configuring a database, do the following:

- Ensure that you have administrator privileges to create a new database and add new users.
- Review the minimum requirements for particular databases in the section “Checking minimum database requirements” on page 78.

**Important:** Installing and creating a database through the Launchpad creates a user named `smbadmin`. By default, the password for the `smbadmin` user account can expire as early as two months after it is created. If you do not want the password to expire, after you have installed WebSphere Business Integration Server Express or Express Plus, navigate from the Windows Control Panel to the properties dialog for the `smbadmin` user and select the **Password never expires** checkbox.

The Launchpad has already determined whether you require a database, and if so, whether one is installed and configured appropriately. To obtain information about the condition of your database requirements, do the following:

1. From the Launchpad Software Prerequisites screen, expand the entry **Database**. The Database area of the screen explains what the Launchpad has found on your machine.
2. Do one of the following, depending on which software the Launchpad has found on the machine:
  - If no supported database is installed, a button is offered to launch installation of IBM DB2 Universal Database v8.1 Express. In this case, follow

the instructions in the section “Installing and configuring a new installation of IBM DB2 Universal Database v8.1 Express.”

- If IBM DB2 Universal Database v8.1 Express or Enterprise is installed, a button is offered to launch configuration of the existing installation. In this case, follow the instructions in the section “Configuring an existing installation of IBM DB2 Universal Database v8.1 Express or Enterprise” on page 17.
- If Microsoft SQL Server 2000 is installed, a choice is offered of having the Launchpad configure the existing Microsoft SQL Server 2000 installation, or to instead install and configure IBM DB2 Universal Database v8.1 Express. Do one of the following:
  - If you select the radio button beside the entry **Use Microsoft SQL Server 2000**, follow the instructions in the section “Configuring an existing installation of Microsoft SQL Server 2000” on page 18.
  - If you select the radio button beside the entry **Install and use IBM DB2 Universal Database v8.1 Express**, follow the instructions in the section “Installing and configuring a new installation of IBM DB2 Universal Database v8.1 Express.”
- If IBM DB2 Universal Database v8.1 Express or Enterprise *and* Microsoft SQL Server 2000 are installed, a choice is offered of having the Launchpad configure either database. Do one of the following:
  - If you select the radio button beside the entry **Use Microsoft SQL Server 2000**, follow the instructions in the section “Configuring an existing installation of Microsoft SQL Server 2000” on page 18.
  - If you select the radio button beside the entry **Use IBM DB2 Universal Database v8.1 Express**, follow the instructions in the section “Configuring an existing installation of IBM DB2 Universal Database v8.1 Express or Enterprise” on page 17.

## Installing and configuring a new installation of IBM DB2 Universal Database v8.1 Express

If no supported database is installed on your machine or if you want to install and configure IBM DB2 Universal Database v8.1 Express regardless of having any other supported databases already installed, follow the instructions in this section.

Before installing DB2 UDB Express, review the following:

- Ensure that your Windows machine user ID and your Windows domain ID (if you are using one) are identical. If your Windows machine user ID and your Windows domain ID are not identical, the DB2 installation process will fail.
- The installation instructions in this section assume that this is the first time you are installing DB2 UDB Express on your machine. If you have previously installed DB2 UDB Express through the Launchpad, uninstalled it following standard DB2 uninstallation procedures, and are now reinstalling it through the Launchpad, you must first do the following before you use the Launchpad to reinstall DB2 UDB Express:
  - Manually delete two residual user IDs that the Launchpad automatically created when it performed the first DB2 UDB Express installation. To remove these IDs, do the following:
    1. Select **Start > Settings > Control Panel > Users and Passwords**.
    2. On the User and Passwords screen, under the User Name column, select the db2admin user ID and the smbadmin user ID.
    3. Click **Remove**.
    4. Click **Apply** and **OK** to exit the User and Passwords screen.

- Manually delete copies of the files serverexp, OptionFile\_DB2.txt, or OptionFile\_MSSQL2000.txt that might exist in the directory specified by %TEMP%.
- Ensure that the directory containing the DB2 aliases (by default, a subdirectory within the C:\DB2 directory) does *not* contain the SMB\_DB alias from the previous DB2 installation.

To install IBM DB2 UDB Express, do the following:

1. If you have not done so already, on the Launchpad Software Prerequisites screen, expand the entry **Database**. The Database area of the screen explains what the Launchpad has found on your machine.
2. Select the button labeled **Install IBM DB2 Universal Database v8.1 Express**. A dialog appears, which requests that you insert the appropriate CD into the machine and specify your CD-ROM drive.

**Important:** Select the button labeled **Install IBM DB2 Universal Database v8.1 Express** located within the highlighted area under **Database**, *not* the button labeled **Install Product** located at the bottom of the screen.

3. Insert the CD containing IBM DB2 UDB Express into the machine, specify your CD-ROM drive, and select **OK**. The Drive Selection screen appears.
4. On the Drive Selection screen, indicate on which drive you want to install the database and select **OK**. Silent installation of the database begins. A dialog will notify you when installation and configuration are complete.

**Note:** IBM DB2 Express is installed by default on the C:\ drive in the directory IBM\SQLLIB. You can select a different drive on which to install the database, but not a different directory on it. For instance, if you specify drive E:\ on the Drive Selection screen, the database is installed into E:\IBM\SQLLIB.

5. After silent installation of IBM DB2 Express completes, verify that its status in the Launchpad changed from **Not Installed** to **OK**.

The installation and configuration processes do the following:

- Create a DB2 Administration Server user db2admin with a password of smbP4\$\$word.
- Create a database named SMB\_DB.
- Create a user named smbadmin with a password of smbP4\$\$word.
- Grant the appropriate authorities to the smbadmin user in the SMB\_DB table.

### **Configuring an existing installation of IBM DB2 Universal Database v8.1 Express or Enterprise**

If IBM DB2 Universal Database v8.1 Express or Enterprise is installed and you want to configure it for use with WebSphere Business Integration Server Express or Express Plus, do the following:

1. If you have not done so already, on the Launchpad Software Prerequisites screen, expand the entry **Database**. The Database area of the screen explains what the Launchpad has found on your machine.
2. In the area under **Database**, select the button labeled **Continue**.

After IBM DB2 Universal Database v8.1 is successfully configured, you will see a message that the database configuration is complete. The configuration process does the following:

- Creates a database named SMB\_DB.

- Creates a user named `smbadmin`, with a password of `smbP4$$word`.
- Grants the appropriate authorities to the `smbadmin` user in the `SMB_DB` table.

**Tip:** If you are using DB2 Enterprise, it does not restart the database manager when Windows restarts. Because the database manager is not running, two problems can occur if Windows restarts during the installation of WebSphere Business Integration Server Express or Express Plus:

- Repository creation can fail. When repository creation fails because of this issue, the Installer log includes the following message line: No start database manager command was issued.
- Startup of InterChange Server Express can fail, because without the DB manager running, InterChange Server Express cannot connect to `SMB_DB`. When this failure occurs, the `InterchangeSystem.log` file messages include this line: No start database manager command was issued.

Both of these problems can be addressed by following these steps:

1. Open the DB2 Control Center.
2. Expand the **All Cataloged Systems** folder, then expand the folder for your host, and then expand the **Instances** folder.
3. In the **Instances** folder, right-click the **DB2** icon and choose **Start**. This DB2 message displays: `DB2START processing was successful`.

After you have performed these steps, you can create a repository and successfully start InterChange Server Express.

## Configuring an existing installation of Microsoft SQL Server 2000

If Microsoft SQL Server 2000 is installed and you want to configure it for use with WebSphere Business Integration Server Express or Express Plus, do the following:

1. If you have not done so already, on the Launchpad Software Prerequisites screen, expand the entry **Database**. The Database area of the screen explains what the Launchpad has found on your machine.
2. Select **Use Microsoft SQL Server 2000**, then select **Continue**.  
The Microsoft SQL Server 2000 Configuration screen appears.
3. Type the user name in the **User name** field.
4. Type the password for the user name specified in Step 3 in the **Password** field.
5. Select **Create repository database**.

After Microsoft SQL Server 2000 is successfully configured, you will see a message that the database configuration is complete. The configuration process does the following:

- Creates a database named `SMB_DB`.
- Creates a user named `smbadmin`, with a password of `smbp4$$word`.
- Grants the appropriate authorities to the `smbadmin` user in the `SMB_DB` table.

**Note:** This guide does not provide installation instructions for Microsoft SQL Server 2000. For a description of the installation process, see the Microsoft Web site.

## Installing WebSphere Application Server Express

This prerequisite is required if you intend to install the Toolset Express components System Monitor and Failed Event Manager, both of which require a Web application server with a Servlet engine. If you have already installed

WebSphere Application Server versions 5.0.2 or 5.1, WebSphere Application Server Express versions 5.0.2 or 5.1, or Tomcat versions 4.1.24 or 4.1.27, this prerequisite is satisfied.

To install IBM WebSphere Application Server Express, do the following:

1. If you have not already done so, from the Launchpad Software Prerequisites screen, expand **IBM WebSphere Application Server - Express V5.1**.
2. Select **Install** to start the silent installation of IBM WebSphere Application Server Express V5.1. A dialog appears, which requests that you insert the appropriate CD into the machine and specify your CD-ROM drive.

**Important:** Select the button labeled **Install** located within the highlighted area under **IBM WebSphere Application Server - Express V5.1**, *not* the button labeled **Install Product** located at the bottom of the screen.

3. Insert the CD labeled *WebSphere Application Server - Express V5.1 Components Disk 1* into the machine, specify your CD-ROM drive, and select **OK**. The Drive Selection screen appears.

**Note:** You will not be prompted to insert the CD labeled *WebSphere Application Server - Express V5.1 Components Disk 2*. This CD contains the WebSphere Studio Site Developer tool. The Launchpad does not install this optional tool automatically; however, you can install it manually as a stand-alone product. See “Installing the WebSphere Studio Site Developer tool” on page 54 for installation instructions.

4. On the Drive Selection screen, indicate on which drive you want to install WebSphere Application Server Express and select **OK**. Silent installation begins.

**Note:** WebSphere Application Server Express is installed by default on the C:\ drive in the directory IBM\WebSphere\Express51. You can select a different drive on which to install WebSphere Application Server Express, but not a different directory on it. For instance, if you specify drive E:\ on the Drive Selection screen, WebSphere Application Server Express is installed into E:\IBM\WebSphere\Express51.

5. After silent installation of WebSphere Application Server Express completes, verify that its status in the Launchpad changed from **Optional** to **OK**.

## Installing a Web browser

A Web browser is required if you intend to install the Toolset Express components System Monitor and Failed Event Manager. Supported Web browsers include Microsoft Internet Explorer 6 Service Pack 1 or later and Netscape Navigator 4.7x. The Launchpad cannot automatically install a supported Web browser, but it can offer instructions for finding supported versions.

If you do not have a supported Web browser installed and want to view these instructions, on the Launchpad Software Prerequisites screen, expand the entry **Web Browser**. The screen indicates the Web sites from which you can obtain Microsoft Internet Explorer 6 Service Pack 1 and Netscape Navigator 4.7x.

The following example Software Prerequisites screen from the Launchpad for the WebSphere Business Integration Server Express Plus product shows the results when the Launchpad finds all needed prerequisites installed.



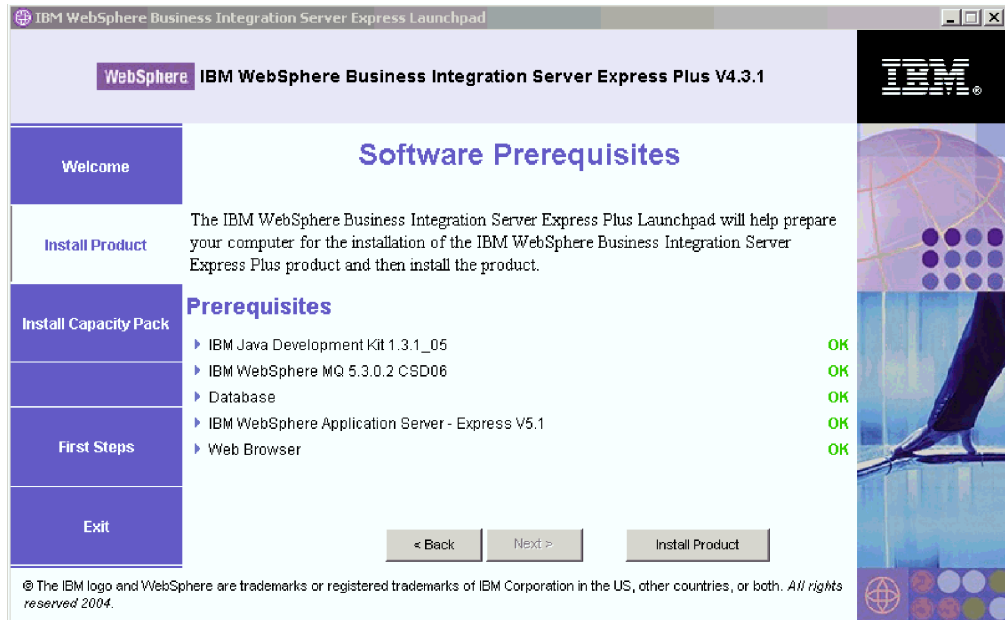


Figure 8. Software Prerequisites screen after installing prerequisites

## Installing WebSphere Business Integration Server Express and Express Plus using the GUI

If the software prerequisites required for your planned installation each have a status of **OK**, you can proceed to installing WebSphere Business Integration Server Express or Express Plus by doing the following:

1. Select the button labeled **Install Product** located at the bottom of the Launchpad Software Prerequisites screen.

The Software License Agreement screen appears.

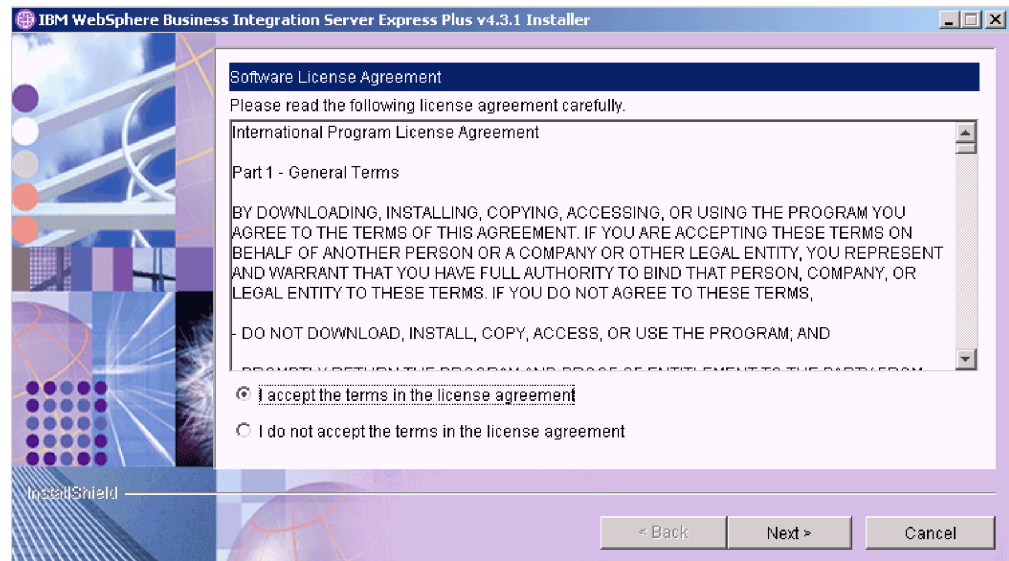


Figure 9. Software License Agreement screen

2. Read and accept the terms of the Software License Agreement by selecting the radio button beside the entry **I accept the terms in the license agreement**, then select **Next**.

The Destination screen appears.

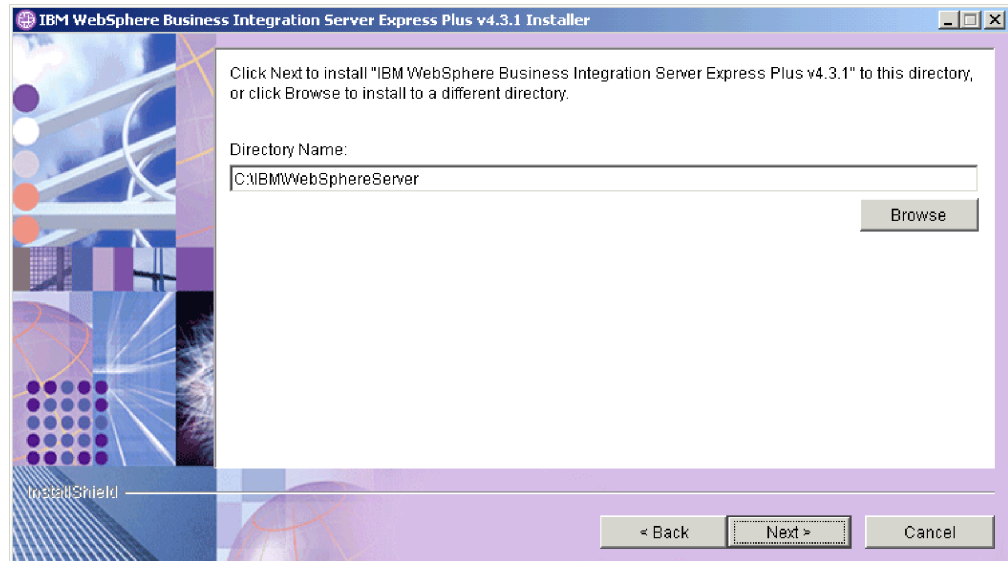


Figure 10. Destination screen

3. On the Destination screen, accept the default installation location of `C:\IBM\WebSphereServer` or browse for a different location, then select **Next**.

**Note:** The directory path must not contain any spaces. Throughout this document, the installation directory `C:\IBM\WebSphereServer` will be referred to as *ProductDir*.

One of the following occurs:

- If you selected to install the InterChange Server Express component, the installer checks that appropriate prerequisites exist and are configured properly and that two or fewer processors exist on the machine on which the InterChange Server Express component is to be installed.
  - If the prerequisite conditions are not met, an error message is displayed and you are forced to cancel the installation.
  - If the prerequisite conditions are met, product installation begins. In this case, continue with these instructions at Step 5 on page 22.
- If you did not select to install the InterChange Server Express component, the Name Server Configuration screen appears. In this case, continue with these instructions at Step 4 on page 22.

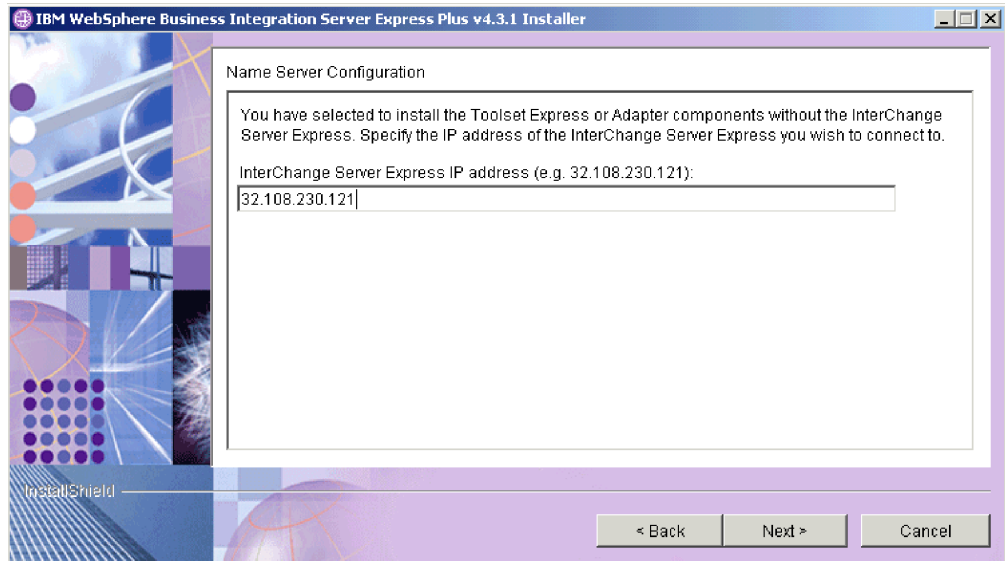


Figure 11. Name Server Configuration screen

4. On the Name Server Configuration screen, type the IP address of the computer on which you have installed or plan to install the InterChange Server Express component, and then select **Next** to begin the installation process. See the section “Configuring the Name Server” on page 26 for more information about the Name Server.
5. As the installation process begins, the installer verifies that enough disk space exists for the installation:
  - If enough space does not exist, the **Next** button is disabled since installation cannot be completed with the provided disk space. In this case, you must select **Back** and unselect some features or sub-features, delete some unneeded space on the specified drive, or change the target location altogether by revisiting the Destination screen.
  - If enough space does exist, installation and configuration begin. A number of informational screens are presented. When installation and configuration are complete, the Post-installation Summary screen appears, which indicates if the process was successful or if problems were encountered. Select **Finish** to exit the installation GUI.



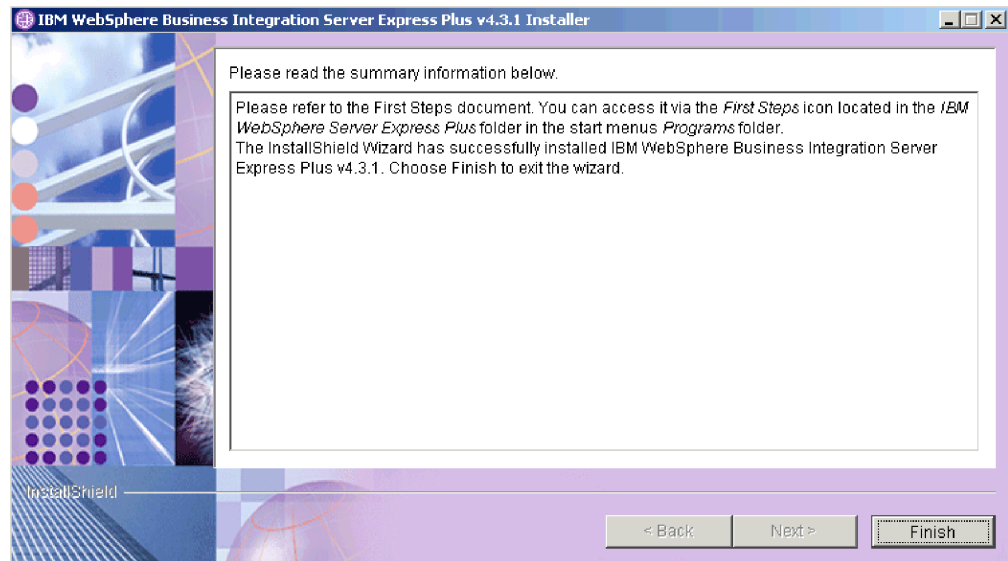


Figure 12. Post-installation Summary screen

6. Add a listener to the WebSphere MQ service by following the instructions in the section “Adding a listener to the WebSphere MQ service” on page 27.

The installation process has completed the following:

- Installed product components.
- Configured the Cwtools.cfg file used by the Toolset Express.
- Configured the InterchangeSystem.cfg file used by the InterChange Server Express.
- Configured a queue manager for WebSphere MQ.
- Configured the InterChange Server Express and adapters as services.
- Provided platform-specific configuration and registration.
- Deployed content to the InterChange Server Express.

At this point, you can view the files and directory structure of your system, as detailed in “Viewing WebSphere Business Integration Server Express and Express Plus files and directories” on page 28. The log file called `wbi_server_exp_install_log.txt`, which details the installation process, is located in the directory `ProductDir\log`.

## Deciding which WebSphere Business Integration Server Express and Express Plus components to install

When you are installing WebSphere Business Integration Server Express and Express Plus, you can install all or some subset of product components. The installable components are selectable from the screens that appear when you select the **Install Product** button from the left panel of the Launchpad or from within the response file used during silent installation.

The components available for installation differ based on the Windows platform being used. Support for installed components can differ based on whether they are being used in production or development environments. See Table 4 on page 76 for a listing of which product components are supported on each of the Windows platforms in both production and development environments.

The following sections describe the installable components available per Windows operating system:

- “Components available for installation on a Windows 2000 system”
- “Components available for installation on a Windows XP system” on page 25
- “Components available for installation on a Windows 2003 system” on page 26

See the *System Administration Guide* for descriptions of the InterChange Server Express and Toolset Express components; the individual adapter guides for descriptions of the adapters. All documentation is available at the following Web site: <http://www.ibm.com/websphere/wbiserverexpress/infocenter>.

## Components available for installation on a Windows 2000 system

During installation on a Windows 2000 system, you can choose from the following set of components:

- InterChange Server Express component
- Toolset Express component, which includes the following subcomponents:

- Administrative Tools
- Development Tools

By installing the Administrative tools, you receive the following:

- Flow Manager
- Log Viewer
- Relationship Manager
- System Manager
- System Monitor
- Failed Event Manager

By installing the Development tools, you receive the following:

- Adapter Framework
- Business Object Designer Express
- Connector Configurator Express
- Process Designer Express (available with WebSphere Business Integration Server Express Plus installations only)
- Integrated Test Environment
- Map Designer Express
- Relationship Designer Express
- WebSphere Studio WorkBench 2.0.3 (WSWB203)

**Note:** The installer installs this product to the directory *ProductDir*\Tools\WSWB203. All necessary System Manager plugins are installed in the directory *ProductDir*\Tools\WSWB203\plugins.

- Test Connector
- A choice of adapter components from the following list. You can install as many adapters as you want. However, a maximum of *three* can be registered with the InterChange Server Express if you are installing WebSphere Business Integration Server Express; a maximum of *five* if you are installing WebSphere Business Integration Server Express Plus.
  - Adapter for COM
  - Adapter for e-Mail
  - Adapter for Exchange
  - Adapter for iSeries

- Adapter for JDBC
- Adapter for JMS
- Adapter for JText
- Adapter for Lotus(R) Domino(R)
- Adapter for Portal Infranet 6.x
- Adapter for SWIFT
- Adapter for Web Services
- Adapter for WebSphere MQ
- Adapter for XML

**Note:** Some adapters have corresponding Object Discovery Agents (ODAs), which are installed if those adapters are selected. With any adapter selection, the following components are also installed:

- e-Mail Adapter
  - XML Data Handler
  - Adapter Framework
- Samples component, which installs a preconfigured sample called System Test that you can run to verify that your installation is installed and operating correctly. See Chapter 5, “Verifying the installation,” on page 37 for more details.

### **Components available for installation on a Windows XP system**

During installation on a Windows XP system, you can choose from the following set of components:

- InterChange Server Express component (not supported in production environments)
- Toolset Express component, which includes the following subcomponents:
  - Administrative tools
  - Development tools

By installing the Administrative tools, you receive the following:

- Flow Manager
- Log Viewer
- Relationship Manager
- System Manager
- System Monitor
- Failed Event Manager

By installing the Development tools, you receive the following:

- Adapter Framework
- Business Object Designer Express
- Connector Configurator Express
- Process Designer Express (available with WebSphere Business Integration Server Express Plus installations only)
- Integrated Test Environment
- Map Designer Express
- Relationship Designer Express
- WebSphere Studio WorkBench 2.0.3 (WSWB203)

**Note:** The installer installs this product to the directory *ProductDir\Tools\WSWB203*. All necessary System Manager plugins are installed in the directory *ProductDir\Tools\WSWB203\plugins*.

- Test Connector
- Samples component, which installs a preconfigured sample called System Test that you can run to verify that your installation is installed and operating correctly. See Chapter 5, “Verifying the installation,” on page 37 for more details.

### **Components available for installation on a Windows 2003 system**

During installation on a Windows 2003 system, you can choose from the following set of components:

- InterChange Server Express component
- Toolset Express component, which includes the following subcomponent:
  - Administrative Tools

By installing the Administrative tools, you receive the following:

- System Monitor
- Failed Event Manager
- A choice of adapter components from the following list. You can install as many adapters as you want. However, a maximum of *three* can be registered with the InterChange Server Express if you are installing WebSphere Business Integration Server Express; a maximum of *five* if you are installing WebSphere Business Integration Server Express Plus.
  - Adapter for COM
  - Adapter for e-Mail
  - Adapter for Exchange
  - Adapter for iSeries
  - Adapter for JDBC
  - Adapter for JMS
  - Adapter for JText
  - Adapter for Lotus Domino
  - Adapter for Portal Infranet 6.x
  - Adapter for SWIFT
  - Adapter for Web Services
  - Adapter for WebSphere MQ
  - Adapter for XML

**Note:** Some adapters have corresponding Object Discovery Agents (ODAs), which are installed if those adapters are selected. With any adapter selection, the following components are also installed:

- e-Mail Adapter
- XML Data Handler
- Adapter Framework
- Samples component, which installs a preconfigured sample called System Test that you can run to verify that your installation is installed and operating correctly. See Chapter 5, “Verifying the installation,” on page 37 for more details.

## **Configuring the Name Server**

If you install the Toolset Express component or adapters in a different location from the InterChange Server Express component of WebSphere Business

Integration Server Express or Express Plus, the installer must configure a Name Server. As a result, the installer queries you for the IP address of the machine that contains or will contain the InterChange Server Express. The installer obtains this information from the IP address you type in the Name Server Configuration screen during installation and uses it for the value of the ORB\_HOST property in the *ProductDir\bin\CWSharedEnv.bat* file on the local machine.

## Adding a listener to the WebSphere MQ service

Installing WebSphere Business Integration Server Express or Express Plus created the queue manager; you must add the WebSphere MQ listener as a Windows service and configure it for automatic startup, as follows:

1. Select **Start > Programs > IBM WebSphere MQ > WebSphere MQ Explorer** to launch the WebSphere MQ Explorer.
2. In the left pane of the WebSphere MQ Explorer, select the Queue Managers folder that contains the name of the queue manager. The Queue Manager Status in the right pane must show the Queue Manager Status as **Running**. If it does not, right-click on the queue manager name in the right pane, then select **Start** from the drop-down list. The Queue Manager Status changes to **Running**.
3. Open WebSphere MQ Services by right-clicking the queue manager name in the right pane, then selecting **All Tasks > Services** from the drop-down list.
4. In the left pane of the MQServices window, under the Console Root tree, expand **WebSphere MQ Services**, then select the queue manager.  
Three entries for your particular queue are listed in the right pane: Queue Manager, Command Server, and Channel Initiator. If you do not see a Channel Initiator, do the following:
  - a. In the left pane of the MQServices window, under the Console Root tree, right-click the queue manager name.
  - b. Select **New > Channel Initiator** from the drop-down list.
  - c. In the Create Channel Initiator Service dialog, accept the default values and select **OK**.
5. Configure the Startup mode of each of these entries to **Automatic** by right-clicking each, then selecting **All Tasks > Automatic**.
6. If any of these services are not running, manually start them by right-clicking each service, then selecting **All Tasks > Start**.
7. Add a listener entry by right-clicking the queue manager name in the left pane under the Console Root tree and then selecting **New > Listener** from the drop-down list.
8. In the Parameters tab of the Create Listener Service dialog box, select TCP as the Protocol and 1414 as the port number, then select **OK**.  
You must use a unique port number for each listener. Assign the port a number other than the default of 1414, then select **OK**.
9. Configure the listener for automatic startup by right-clicking it and then selecting **All Tasks > Automatic**.
10. Start the listener manually by right-clicking it and then selecting **All Tasks > Start**.
11. Close the MQServices window and IBM WebSphere MQ Explorer. Select **Yes** when prompted to save your changes.

**If you restart your machine:** You do not have to restart your machine, but any time you do, verify that the Channel Initiator and Listener have started by following these steps:

1. Select **Start > Programs > IBM WebSphere MQ > WebSphere MQ Services**. (Alternatively, right-click the WebSphere MQ icon on your taskbar, then select WebSphere MQ Services.)
2. In the MQServices window, verify that Channel Initiator is running and that it is set for Automatic start-up. If the Channel Initiator is running and is set for Automatic start-up, proceed to Step 3. If it is not, do the following:
  - If the Channel Initiator is not running, right-click it in the right pane of System Manager and select **All Tasks > Start**.
  - If the Channel Initiator is not set for Automatic start-up, right-click it in the right pane of System Manager and select **All Tasks > Automatic**.
3. In the MQServices window, verify that the Listener is running and that it is set for Automatic start-up. If the Listener is running and is set for Automatic start-up, close the MQServices window. If it is not, do the following:
  - If the Listener is not running, do the following:
    - a. Right-click it in the right pane of System Manager and select **Properties**.
    - b. On the Parameters tab, for the **Protocol** field, choose TCP; for the port, choose 1414. Then select **OK**.
    - c. Right-click the Listener in the right pane of System Manager and select **All Tasks > Start**.
  - If the Listener is not set for Automatic start-up, right-click it in the right pane of System Manager and select **All Tasks > Automatic**.

## Viewing WebSphere Business Integration Server Express and Express Plus files and directories

After WebSphere Business Integration Server Express or Express Plus is installed, you can view the resulting file system and its contents. The directories are located by default under the C:\IBM\WebSphereServer directory, which will be referred to as *ProductDir* throughout this document.

**Note:** The particular files and directories that appear in *ProductDir* depend on the components selected during installation and the Windows platform being used. The files and directories in your installation might differ from the ones listed below.

Table 1. Directory structure of WebSphere Business Integration Server Express and Express Plus installations on a Windows 2000 system

Directory name	Contents
<ul style="list-style-type: none"> <li>• <code>_uninstWBIServerExp</code> (in WebSphere Business Integration Server Express installations)</li> <li>• <code>_uninstWBIServerExpPlus</code> (in WebSphere Business Integration Server Express Plus installations)</li> </ul>	This directory contains the Java Virtual Machine (JVM) and the <code>uninstaller.exe</code> file that is used to remove WebSphere Business Integration Server Express or Express Plus.
<code>_uninstZip</code>	This directory contains a listing of all files unzipped during installation.
<code>bin</code>	This directory contains the executable files, <code>.dll</code> files, and <code>.bat</code> files that the system uses.
<code>collaborations</code>	This directory contains subdirectories that contain <code>.class</code> files and message files for installed collaborations.
<code>connectors</code>	This directory contains files specific to each adapter in the system. It also contains adapter-specific files that you may need to install in the application that the adapter supports.
<code>DataHandlers</code>	This directory contains the <code>.jar</code> file for the data handler that the system uses.
<code>DevelopmentKits</code>	This directory contains sample files to assist the developer in creation of various system components. Samples provided include: Server Access for EJB, Server Access for J2EE Connector Architecture, connectors (C++ and Java), and Object Discovery Agents.
<code>DLMs</code>	This directory contains subdirectories that contain Dynamic Loadable Modules (DLMs) and other files for InterChange Server Express maps.
<code>jre</code>	This directory contains the IBM Java Runtime Environment (JRE) files.
<code>legal</code>	This directory contains the license files.
<code>lib</code>	This directory contains <code>.jar</code> files for the system.
<code>log</code>	This directory contains the log file, which contains all errors and warnings that occur during installation or uninstallation. The filename is <code>wbi_server_exp_install_log.txt</code> .
<code>messages</code>	This directory contains the generated message files.
<code>mqseries</code>	This directory contains files specific to WebSphere MQ, including certain executable files.
<code>ODA</code>	This directory contains the Object Discovery Agent <code>.jar</code> and <code>.bat</code> files for each agent.
<code>repository</code>	This directory contains the definitions for the system components.
<code>Samples</code>	This directory contains component definitions for benchmarking samples and sample mail files for collaborations.
<code>src</code>	This directory contains samples of Relationship Service APIs for cross-referencing.
<code>templates</code>	This directory contains the <code>start_connName.bat</code> file.
<code>Tools</code>	This directory contains the Workbench files if selected during installation.
<code>WBFEM</code>	This directory contains the Failed Event Manager files.
<code>WBSM</code>	This directory contains the System Monitor files.



## Installing additional components after initial installation

After you have installed WebSphere Business Integration Server Express or Express Plus, you can later install additional components. To do this, select the **Install Product** button from the left panel of the Launchpad. The Launchpad then offers screens from which you can select components to install, as detailed in “Identifying which software prerequisites are required” on page 8. If you have already installed some components from a particular screen, the screen appears but the checkboxes beside components that are already installed are disabled.

The Launchpad determines whether additional software prerequisites are required based on your new selections and leads you through their installation, as well as installation of the new WebSphere Business Integration Server Express or Express Plus components.

---

## Uninstalling WebSphere Business Integration Server Express and Express Plus using the GUI

IBM provides an uninstallation GUI program that lets you remove your entire WebSphere Business Integration Server Express or Express Plus installation, or select specific components for removal. To run the uninstallation GUI, do the following:

1. Select **Start > Settings > Control Panel**.
2. Double-click **Add/Remove Programs**.
3. Scroll down and select **IBM WebSphere Business Integration Server Express v4.3.1** or **IBM WebSphere Business Integration Server Express Plus v4.3.1** (depending on which product is installed), and select the **Change/Remove** button.

**Note:** The estimate of disk space that will become free after uninstallation, which is shown in the **Add/Remove Programs** tool, can be incorrect if multiple products are installed in the same folder.

The Uninstallation Welcome screen appears.

4. On the Uninstallation Welcome screen, select **Next**.  
The Uninstallation Feature screen appears. The installed components appear with checks next to them.
5. On the Uninstallation Feature screen, leave any components selected that you want to be removed and select **Next**.  
The Pre-uninstallation Summary screen appears.
6. On the Pre-uninstallation Summary screen, select **Next** to confirm your selections. The Uninstaller removes the selected components.  
The Post-uninstallation Finish screen appears.
7. On the Post-uninstallation Finish screen, select **Finish** to exit the uninstallation GUI.

**Note:** You might need to manually delete the C:\IBM\WebSphereServer directory.

---

## Taking the next step

After you have successfully installed your software prerequisites and WebSphere Business Integration Server Express or Express Plus, proceed to Chapter 4, “Starting and administering the WebSphere Business Integration Server Express or Express Plus system,” on page 33.



By first following the instructions in Chapter 4, “Starting and administering the WebSphere Business Integration Server Express or Express Plus system,” on page 33 and then Chapter 5, “Verifying the installation,” on page 37, even if you plan to install an Adapter or Collaboration Capacity Pack for a WebSphere Business Integration Server Express Plus installation, you will verify that your base system is installed and operating properly before you install additional components.



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## Chapter 4. Starting and administering the WebSphere Business Integration Server Express or Express Plus system

To start your system, you must launch the InterChange Server Express component of WebSphere Business Integration Server Express or Express Plus. To efficiently manage the system, you must launch the System Manager tool and register the InterChange Server Express with the System Manager. The System Manager can reside on the same machine as the InterChange Server Express or on a different machine.

This chapter contains the following sections:

- “Starting WebSphere Business Integration Server Express or Express Plus”
- “Setting up InterChange Server Express”
- “Taking the next step” on page 35

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### Starting WebSphere Business Integration Server Express or Express Plus

To start WebSphere Business Integration Server Express or Express Plus, follow these steps:

1. Select **Start > Programs > IBM WebSphere Business Integration Express > InterChange Server Express > Start InterChange Server Express**. The following processes occur:
  - The Persistent Naming Server starts.
  - The InterChange Server Express starts.

A command window opens and the following message is displayed when the system is ready:

The CWInterchange WebSphereICS service was started successfully.

2. Press any key to close the command window.

---

### Setting up InterChange Server Express

To efficiently manage InterChange Server Express, you must register it with and connect to it through System Manager. The following sections describe how to perform these tasks:

- “Starting System Manager”
- “Registering InterChange Server Express with System Manager” on page 34
- “Connecting to InterChange Server Express” on page 34
- “Changing the InterChange Server Express password” on page 34
- “Restarting InterChange Server Express” on page 34

### Starting System Manager

System Manager is the GUI to InterChange Server Express and the repository.

To start System Manager, select **Start > Programs > IBM WebSphere Business Integration Express > Toolset Express > Administrative > System Manager**.

**Note:** The System Manager perspective should appear by default. If it does not, select **Window > Open Perspective > Other** in the WebSphere WorkBench menu bar, and then double-click **System Manager** to start System Manager.

## Registering InterChange Server Express with System Manager

System Manager can manage instances of InterChange Server Express. You must register any instance you want to manage with System Manager. After you register the server, its name always appears in System Manager, unless you remove it.

To register an InterChange Server Express instance, follow these steps:

1. In System Manager, right-click **InterChange Server Instances** in the left pane, then select **Register Server**.
2. In the **Register new server** dialog box, browse for or enter the name of the InterChange Server Express.

**Note:** Select the **Test Server** check box if you intend to use the server in an integrated test environment. An integrated test environment communicates only with servers that are registered as local test servers.

3. Type the User Name and password and select the **Save User ID and Password** check box. The default User Name is `admin` and the password is `null`.
4. Select **OK**.

The server name appears in the left pane of the System Manager window. If it does not, expand the InterChange Server Instances folder.

## Connecting to InterChange Server Express

Verify that the registered InterChange Server Express is running by connecting to it. To connect to InterChange Server Express using System Manager, follow these steps:

1. In the System Manager, right-click the name of the InterChange Server Express in the left pane and select **Connect**.
2. Select **OK** on the Server User ID and Password confirmation screen.

**Tip:** If the icon beside the name of the InterChange Server Express in the left pane of System Manager is green in color, the InterChange Server Express is already connected to System Manager.

## Changing the InterChange Server Express password

InterChange Server Express is protected by a password that only the InterChange Server Express administrator knows. The server is shipped with the default password `null`, but if you want to change the password for security reasons, you can do so after setting up the system.

To change an InterChange Server Express password, follow these steps:

1. In System Manager, right-click the InterChange Server Express name in the left pane, then select **Change Password**.
2. In the dialog that opens, type the old password, the new password, reenter the new password to confirm it, and then select **OK**.

## Restarting InterChange Server Express

For password changes to take effect, you must shut down InterChange Server Express, then restart it by doing the following:

1. In System Manager, right-click the running InterChange Server Express name in the left pane and select **Shut Down**.
2. On the Shut Down Server dialog box, either shut down the server gracefully, after allowing it to finish current work, or shut it down immediately, without performing cleanup.  
Select **Gracefully**, then select **OK**.

**Note:** Select **Immediately** only when you must shut down the server without waiting.

3. Restart InterChange Server Express by selecting **Start > Programs > IBM WebSphere Business Integration Express > InterChange Server Express > Start InterChange Server Express**.
4. Connect to InterChange Server Express by right-clicking the InterChange Server Express name in System Manager. In the dialog that opens, enter the user name and password for the server and select **OK**.

---

## Taking the next step

Your installation of WebSphere Business Integration Server Express or Express Plus is complete. Do one of the following:

- If you installed the Samples component during installation of WebSphere Business Integration Server Express or Express Plus and want to verify that your installation is installed and operating correctly, proceed to Chapter 5, “Verifying the installation,” on page 37.
- If you did not install the Samples component during installation of WebSphere Business Integration Server Express or Express Plus, do one of the following:
  - If you do not need to install optional Adapter or Collaboration Capacity Packs for a WebSphere Business Integration Server Express Plus installation, proceed to the *System Implementation Guide* for information on configuring the adapters that you chose during installation.
  - If you need to install an optional Adapter Capacity Pack, proceed to Chapter 6, “Installing the Adapter Capacity Pack for WebSphere Business Integration Server Express Plus,” on page 39.
  - If you need to install an optional Collaboration Capacity Pack, proceed to Chapter 7, “Installing the Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus,” on page 45.
- If you installed WebSphere Business Integration Server Express V4.3.1 and are upgrading to Express Plus V4.3.1, refer to the information in Chapter 9, “Upgrading the system,” on page 57.



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## Chapter 5. Verifying the installation

If you installed the Samples component during installation of WebSphere Business Integration Server Express or Express Plus, you have a sample called System Test with which you can verify the operation of your installed system.

This chapter contains the following sections:

- “Locating instructions to run the System Test sample”
- “Taking the next step”

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### Locating instructions to run the System Test sample

To verify that your system is installed and operating properly, run the System Test sample. Instructions on running this sample are in the *Quick Start Guide*, which can be accessed by selecting the button labeled **First Steps** on the Launchpad.

**Note:** It is recommended that you run the System Test sample *before* you install Adapter or Collaboration Capacity Packs.

After successfully running the sample, return to this section and review the information in “Taking the next step.”

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### Taking the next step

Your installation of WebSphere Business Integration Server Express or Express Plus is complete and verified. Do one of the following:

- If you do not need to install optional Adapter or Collaboration Capacity Packs for a WebSphere Business Integration Server Express Plus installation, proceed to the *System Implementation Guide* for information on configuring the adapters that you chose during installation.
- If you need to install an optional Adapter Capacity Pack for a WebSphere Business Integration Server Express Plus installation, proceed to Chapter 6, “Installing the Adapter Capacity Pack for WebSphere Business Integration Server Express Plus,” on page 39.
- If you need to install an optional Collaboration Capacity Pack for a WebSphere Business Integration Server Express Plus installation, proceed to Chapter 7, “Installing the Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus,” on page 45.
- If you installed WebSphere Business Integration Server Express V4.3.1 and are upgrading to Express Plus V4.3.1, refer to the information in Chapter 9, “Upgrading the system,” on page 57.





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## Chapter 6. Installing the Adapter Capacity Pack for WebSphere Business Integration Server Express Plus

A WebSphere Business Integration Server Express Plus installation can support up to *three* adapters supplied through an optional Adapter Capacity Pack. (Adapter Capacity Packs cannot be used with WebSphere Business Integration Server Express installations.) These three are in addition to the one to five adapters you might have installed during installation of WebSphere Business Integration Server Express Plus.

The Launchpad provides a way to launch the GUI installer that leads you through installation of an Adapter Capacity Pack. A second GUI is available to uninstall the product. Silent installation and uninstallation are also possible.

This chapter contains the following sections:

- “Installing an Adapter Capacity Pack using the GUI”
- “Uninstalling the Adapter Capacity Pack using the GUI” on page 42
- “Taking the next step” on page 43

See Appendix B, “Silently installing and uninstalling WebSphere Business Integration Server Express or Express Plus and Capacity Packs,” on page 79 for instructions on performing silent installation and uninstallation.

---

### Installing an Adapter Capacity Pack using the GUI

To successfully install an Adapter Capacity Pack, you and your system must meet the following prerequisites:

- You must have administrative privileges on the machine on which you are installing the adapter.
- The Windows operating system on the machine must be Windows 2000 or Windows 2003.
- WebSphere Business Integration Server Express must not be installed on the same machine on which you are installing the adapter. (Adapters supplied with Adapter Capacity Packs can be used only with an existing WebSphere Business Integration Server Express Plus installation.)
- If the adapter will not be installed on the same machine as InterChange Server Express, an installation of WebSphere MQ 5.3.0.2 CSD06 must exist on the same machine on which the adapter will be installed.
- In order for the adapter license to be registered successfully, InterChange Server Express *must be running* and, if installed on a remote machine, running and reachable.

The installation GUI supplied with the Adapter Capacity Pack installs and registers with the InterChange Server Express up to three adapters, which can be selected from the list in the section “Deciding which adapter to install” on page 41. The installer installs and registers only one adapter at a time (thus, you must run the Adapter Capacity Pack installer separately for each adapter you want to install). The installation GUI also configures the adapter as a service.

To invoke the Launchpad to launch the installation GUI, do the following:

1. Select the button labeled **Install Capacity Pack** from the left column of the Launchpad.  
The Install Capacity Pack screen appears with two buttons.
2. Select **Install Adapter Capacity Pack** to launch the GUI to install the Adapter Capacity Pack.  
The Welcome screen appears.
3. At the Welcome screen, select **Next**.  
The Software License Agreement screen appears.
4. Read and accept the terms of the Software License Agreement by selecting the radio button beside the entry **I accept the terms in the license agreement**, then select **Next**.  
The installer checks that the prerequisites listed at the beginning of this section have been met. If any have not been met, it forces you to cancel the installation by selecting the **Cancel** button. If all prerequisites have been met, the Feature screen appears.
5. On the Feature screen, select one adapter from the list of available adapters, by selecting the radio button beside its name, then select **Next**. For more information about which adapter to select, see the section “Deciding which adapter to install” on page 41.  
One of the following screens appears:
  - If the InterChange Server Express is installed on the local machine, the InterChange Server Express Password screen appears. In this case, proceed to Step 8.
  - If the InterChange Server Express exists on a remote machine, the Server IP Address Configuration screen appears. In this case, proceed to Step 6.
6. On the Server IP Address Configuration screen, type the IP address of the computer on which you have installed the InterChange Server Express component. If the InterChange Server Express is on an OS/400 machine, select the checkbox beside the entry **InterChange Server Express is on OS/400**. Then select **Next**. One of the following screens appears:
  - If you selected the checkbox beside the entry **InterChange Server Express is on OS/400**, the Server Name Configuration screen appears. In this case, proceed to Step 7.
  - If you did not select the checkbox beside the entry **InterChange Server Express is on OS/400**, the InterChange Server Express Password screen appears. In this case, proceed to Step 8.
7. On the Server Name Configuration screen, do the following:
  - a. Type the name of the InterChange Server Express instance on the OS/400 machine. (The default is QWBIDFT. If you created a different name for your instance, type it instead.)
  - b. Type the ORB port number. (The default is 14500. If you used a different port number, type it instead.)
 Then select **Next**.  
The InterChange Server Password screen appears.
8. On the InterChange Server Express Password screen, type the password of the user admin for the InterChange Server Express, and then select **Next**.  
The Pre-installation Summary screen appears.
9. On the Pre-installation Summary screen, review your selection and installation location and select **Next**.

The installer verifies that enough disk space exists for the installation. Installation then proceeds, as follows:

- If enough space does not exist, the **Next** button is disabled since installation cannot be completed with the provided disk space. In this case, you must select **Back** and delete some unneeded space on the specified drive.
  - If enough space does exist, installation and configuration begin. When installation and configuration are complete, the installer attempts to connect to the server to register the license for this adapter. A message dialog informs you if the adapter was registered successfully; an error dialog alerts you if registration was unsuccessful or if you exceeded the maximum number of adapters that can be registered with the InterChange Server Express. Select **OK** to exit the dialog. For more information on how the system updates the license file, see "Updating the license file." The Post-installation Summary screen appears, which indicates if the process was successful or if problems were encountered.
10. On the Post-installation Summary screen, select **Finish** to exit the installation GUI.

## Deciding which adapter to install

Running the Adapter Capacity Pack installer allows you to choose one adapter component from the following:

- Adapter for i2
- Adapter for JD Edwards OneWorld
- Adapter for MetaSolv Applications
- Adapter for mySAP.com
- Adapter for Oracle Applications
- Adapter for PeopleSoft
- Adapter for Siebel eBusiness Applications
- Adapter for Telcordia
- Adapter for WebSphere Commerce

**Note:** Some adapters have corresponding Object Discovery Agents (ODAs), which are installed if those adapters are selected. With any adapter selection, the following components are also installed:

- e-Mail Adapter
- XML Data Handler
- Adapter Framework

For descriptions of individual adapters, see the Adapter documentation at the following Web site: <http://www.ibm.com/websphere/wbi/serverexpress/infocenter>.

## Updating the license file

The Adapter Capacity Pack installer and uninstaller update the adapter license file in the InterChange Server Express component of WebSphere Business Integration Server Express Plus any time an adapter is installed or uninstalled. In this way, the license file is always current. Up to three adapters installed from an Adapter Capacity Pack can be registered with the InterChange Server Express. These three adapters can be registered in addition to the one to five adapters you might have installed during WebSphere Business Integration Server Express Plus installation.

The installer and uninstaller obtain the connection password of the InterChange Server Express from the InterChange Server Express Password screen during the installation and uninstallation processes. Near the end of the installation and uninstallation processes, a message dialog informs you if the adapter was registered successfully; an error dialog alerts you if registration was unsuccessful or if you exceeded the maximum number of adapters that can be registered with the InterChange Server Express.

**Note:** You can install as many adapters as you want. However, a maximum of *eight* adapters can be registered with the InterChange Server Express. This total number is composed of the up to five adapters you might have selected during installation of WebSphere Business Integration Server Express Plus *plus* the number of adapters you have installed by running the Adapter Capacity Pack installer.

---

## Uninstalling the Adapter Capacity Pack using the GUI

IBM provides an uninstallation GUI program that lets you remove your Adapter Capacity Pack installation.

**Important:** To ensure that the adapter license file in the InterChange Server Express is updated by the uninstallation, the InterChange Server Express *must be running* during the uninstallation process.

To run the uninstallation GUI, do the following:

1. Select **Start > Settings > Control Panel**.
2. Double-click **Add/Remove Programs**.
3. Scroll down and select **Adapter Capacity Pack for WebSphere Business Integration Server Express Plus V4.3.1** and select the **Change/Remove** button.

**Note:** The estimate of disk space that will become free after uninstallation, which is shown in the **Add/Remove Programs** tool, can be incorrect if multiple products are installed in the same folder.

The Uninstallation Welcome screen appears.

4. On the Uninstallation Welcome screen, select **Next**.  
The Uninstallation Feature screen appears. The installed components appear with checks next to them.
5. On the Uninstallation Feature screen, leave any components selected that you want to be removed and select **Next**.  
The Pre-uninstallation Summary screen appears.
6. On the Pre-uninstallation Summary screen, select **Next**.  
The InterChange Server Express Password screen appears.
7. On the InterChange Server Express Password screen, type the password for the user `admin` of the InterChange Server Express and select **Next**. For more information on how the system updates the license file, see “Updating the license file” on page 41.

A message dialog appears. It informs you, as follows:

- If the license was updated successfully, select **OK** to exit the dialog. The Uninstaller removes the selected components and the Post-uninstallation Summary screen appears.
- If the license was not updated successfully, select **Yes** to continue with the uninstallation without upgrading the license or **No** to cancel the

- uninstallation. If you select **Yes**, the Uninstaller removes the selected components and the Post-uninstallation Summary screen appears.
8. On the Post-uninstallation Summary screen, select **Finish** to exit the uninstallation GUI.

---

## Taking the next step

Do one of the following, depending on whether you plan to install a Collaboration Capacity Pack:

- If you need to install a Collaboration Capacity Pack, proceed to Chapter 7, “Installing the Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus,” on page 45.
- If you do not need to install a Collaboration Capacity Pack, proceed to the *System Implementation Guide* for information on configuring the adapters that you chose during installation of WebSphere Business Integration Server Express Plus and this Adapter Capacity Pack.



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## Chapter 7. Installing the Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus

Installing an optional Collaboration Capacity Pack allows use of *one* collaboration group with a WebSphere Business Integration Server Express Plus installation. (Collaboration Capacity Packs cannot be used with WebSphere Business Integration Server Express installations.) Only one Collaboration Capacity Pack can be installed for use with one WebSphere Business Integration Server Express Plus installation.

The Launchpad provides a way to launch the GUI installer that leads you through installation of the Collaboration Capacity Pack. A second GUI is available to uninstall the product. Silent installation and uninstallation are also possible.

This chapter contains the following sections:

- “Installing the Collaboration Capacity Pack using the GUI”
- “Uninstalling the Collaboration Capacity Pack using the GUI” on page 47
- “Taking the next step” on page 48

See Appendix B, “Silently installing and uninstalling WebSphere Business Integration Server Express or Express Plus and Capacity Packs,” on page 79 for instructions on performing silent installation and uninstallation.

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### Installing the Collaboration Capacity Pack using the GUI

To successfully install the Collaboration Capacity Pack, you and your system must meet the following prerequisites:

- You must have administrative privileges on the machine on which you are installing the Collaboration Capacity Pack.
- You must have WebSphere Business Integration Server Express Plus installed on the machine on which you are installing the Collaboration Capacity Pack (a Collaboration Capacity Pack cannot be installed with a WebSphere Business Integration Server Express installation).
- The Collaboration Capacity Pack must be installed on the same machine on which the InterChange Server Express component is installed.
- You cannot have an existing Collaboration Capacity Pack installation on the machine.
- The InterChange Server Express component must *not* be running.

The Collaboration Capacity Pack installation GUI installs the selected collaboration group and deploys the installed content to the InterChange Server Express.

To invoke the Launchpad to launch this installation GUI, do the following:

1. Select the button labeled **Install Capacity Pack** from the Launchpad.  
The Install Capacity Pack screen appears with two buttons.
2. Select **Install Collaboration Capacity Pack** to launch the GUI to install the Collaboration Capacity Pack. The Launchpad first checks if the InterChange Server Express component of WebSphere Business Integration Server Express Plus is installed on the local machine. It then acts, as follows:

- If the InterChange Server Express component is not installed on the local machine, a warning dialog alerts you that installation can fail. Select **Cancel** to cancel the installation or **Install** to continue the installation. If you elect to continue the installation, the Welcome screen appears.
  - If the InterChange Server Express component is installed on the local machine, the Welcome screen appears.
3. At the Welcome screen, select **Next**.  
The Software License Agreement screen appears.
  4. Read and accept the terms of the Software License Agreement by selecting the radio button beside the entry **I accept the terms in the license agreement**, then select **Next**.  
The installer checks that the prerequisites listed at the beginning of this section have been met. If any have not been met, it forces you to cancel the installation by selecting the **Cancel** button. If all prerequisites have been met, the Feature screen appears.
  5. On the Feature screen, select one collaboration group from the list of available collaboration groups, by selecting the radio button beside its name, then select **Next**. For more information on the collaboration groups selectable from this screen, see “Deciding which collaboration group to install.”  
The Pre-installation Summary screen appears.
  6. On the Pre-installation Summary screen, review your selection and installation location and select **Next**.  
The installer verifies that enough disk space exists for the installation. Installation then proceeds, as follows:
    - If enough space does not exist, the **Next** button is disabled since installation cannot be completed with the provided disk space. In this case, you must select **Back** and delete some unneeded space on the specified drive.
    - If enough space does exist, installation and configuration begin. When installation and configuration are complete, the Post-installation Summary screen appears, which indicates if the process was successful or if problems were encountered.
  7. On the Post-installation Summary screen, select **Finish** to exit the installation GUI.

## Deciding which collaboration group to install

Installing a Collaboration Capacity Pack allows you to choose one collaboration group from the following:

- Collaborations for Customer Relationship Management V1.0
- Collaborations for Financials and Human Resources V1.0
- Collaborations for Order Management V1.0
- Collaborations for Procurement V1.0

Each collaboration group is made up of several individual collaborations, as follows:

- Collaborations for Customer Relationship Management V1.0
  - Collaboration for Contact Manager
  - Collaboration for Contract Sync
  - Collaboration for Customer Manager
  - Collaboration for Customer Credit Manager
  - Collaboration for Installed Product



- Collaboration for Billing Inquiry
- Collaboration for Vendor Manager
- Collaborations for Financials and Human Resources V1.0
  - Collaboration for AR Invoice Sync
  - Collaboration for Department Manager
  - Collaboration for Employee Manager
  - Collaboration for GL Movement
  - Collaboration for Invoice Generation
- Collaborations for Order Management V1.0
  - Collaboration for ATP To Sales Order
  - Collaboration for Available To Promise
  - Collaboration for Item Manager
  - Collaboration for Price List Manager
  - Collaboration for Sales Order Processing
  - Collaboration for Order Billing Status
  - Collaboration for Order Delivery Status
  - Collaboration for Order Status
  - Collaboration for Return Billing Status
  - Collaboration for Return Delivery Status
  - Collaboration for Return Status
  - Collaboration for Contact Manager
  - Collaboration for Customer Manager
  - Collaboration for Trading Partner Order Management
- Collaborations for Procurement V1.0
  - Collaboration for Inventory Level Manager
  - Collaboration for Inventory Movement
  - Collaboration for BOM Manager
  - Collaboration for Purchasing
  - Collaboration for Vendor Manager

The installer installs all files associated with the collaboration group, including a set of generic business objects that all collaborations use. You can download, install, and view documentation about the individual collaborations at the following site: <http://www.ibm.com/websphere/wbiserverexpress/infocenter>.

---

## Uninstalling the Collaboration Capacity Pack using the GUI

IBM provides an uninstallation GUI program that lets you remove your Collaboration Capacity Pack installation. To run the uninstallation GUI, do the following:

1. Select **Start > Settings > Control Panel**.
2. Double-click **Add/Remove Programs**.
3. Scroll down and select **Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus V4.3.1** and select the **Change/Remove** button.

**Note:** The estimate of diskpace that will become free after uninstallation, which is shown in the **Add/Remove Programs** tool, can be incorrect if multiple products are installed in the same folder.

- The Uninstallation Welcome screen appears.
4. On the Uninstallation Welcome screen, select **Next**.  
The Pre-uninstallation Summary screen appears.
  5. On the Pre-uninstallation Summary screen, select **Next**. The Uninstaller removes the components.  
The Post-uninstallation Summary screen appears.
  6. On the Post-uninstallation Summary screen, select **Finish** to exit the uninstallation GUI.

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## Taking the next step

After you have successfully installed a Collaboration Capacity Pack for a WebSphere Business Integration Server Express Plus installation, proceed to the *System Implementation Guide* for information on the following:

- Configuring the adapters that you chose during installation of WebSphere Business Integration Server Express Plus or an optional Adapter Capacity Pack.
- Configuring collaboration objects, business objects, and maps.
- Deploying objects to the repository.

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## Chapter 8. Manually configuring System Monitor and Failed Event Manager

System Monitor is a tool that allows you to monitor a WebSphere Business Integration Server Express or Express Plus system from the Web. It allows you to configure how you view data and also allows you to view historical data in addition to current data.

Failed Event Manager is a tool that allows you to work with failed events in the WebSphere Business Integration Server Express or Express Plus system from the Web and (on systems using Tomcat 4.1.24 only) to set up role-based access to failed events. (To create custom roles, you must install the WebSphere Studio Site Developer tool. Refer to the instructions in “Installing the WebSphere Studio Site Developer tool” on page 54 for details.) For more information on how to configure security for Failed Event Manager, see the *System Administration Guide*.

**Important:** Follow the instructions in this chapter only if you intend to use the System Monitor and Failed Event Manager components of the Toolset Express and:

- You are using WebSphere Application Server version 5.0.2 or 5.1 or WebSphere Application Server Express 5.0.2 or 5.1 as your Web application server but did not have it installed before installing WebSphere Business Integration Server Express or Express Plus. In this case, see the section “Configuring System Monitor and Failed Event Manager to use WebSphere Application Server or WebSphere Application Server Express” on page 50.
- You are using Tomcat 4.1.24 and 4.1.27 as your Web application server. In this case, see the section “Configuring System Monitor and Failed Event Manager to use Tomcat” on page 52.

You do *not* need to follow the instructions in this chapter if a supported version of WebSphere Application Server or WebSphere Application Server Express existed on your system before you installed the Toolset Express component of WebSphere Business Integration Server Express or Express Plus. In this case, System Monitor and Failed Event Monitor were automatically installed and configured to work with WebSphere Application Server or WebSphere Application Server Express by the WebSphere Business Integration Server Express or Express Plus installer.

The automatic configuration assumes that no Web server, such as IBM HTTP Server, is installed. The application server created is named ICSMonitor. System Monitor and Failed Event Manager are configured to use a default port number of 7089. You can access System Monitor with the URL `http://hostname:7089/ICSMonitor`; Failed Event Manager with the URL `http://hostname:7089/FailedEvents`.

This chapter includes the following sections:

- “Configuring System Monitor and Failed Event Manager to use WebSphere Application Server or WebSphere Application Server Express” on page 50

- “Configuring System Monitor and Failed Event Manager to use Tomcat” on page 52
- “Taking the next step” on page 55

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## Configuring System Monitor and Failed Event Manager to use WebSphere Application Server or WebSphere Application Server Express

This section describes how to configure System Monitor and Failed Event Manager to use WebSphere Application Server or WebSphere Application Server Express. For instructions on using Tomcat instead, see “Configuring System Monitor and Failed Event Manager to use Tomcat” on page 52.

To configure System Monitor and Failed Event Manager to use WebSphere Application Server or WebSphere Application Server Express, you run a script supplied with WebSphere Business Integration Server Express and Express Plus. The script is called `CWDashboard.bat` and is located in the directory `ProductDir\bin` (where `ProductDir` represents the directory `C:\IBM\WebSphereServer` by default). You can run this script to configure the tools to work with or without a Web server, such as IBM HTTP Web Server.

Before proceeding, ensure that you have installed WebSphere Application Server or WebSphere Application Server Express versions 5.0.2 or 5.1. (You can install WebSphere Application Server Express v5.1 from the WebSphere Business Integration Server Express or Express Plus Launchpad.) Then proceed to one of the following sections, depending on whether you want to use your installation with a Web server:

- “Configuring System Monitor and Failed Event Manager when using a Web server”
- “Configuring System Monitor and Failed Event Manager when not using a Web server” on page 51

### Configuring System Monitor and Failed Event Manager when using a Web server

WebSphere Application Server is supplied with a Web server; WebSphere Application Server Express is not. If you are using WebSphere Application Server Express and want to use a Web server, you must obtain and install IBM HTTP Server (available for free from the IBM Web site) and the Web server plug-in for WebSphere Application Server Express. See the WebSphere Application Server Express documentation for more information.

To configure System Monitor and Failed Event Manager to use a Web server, perform the following steps:

1. Run `CWDashboard.bat` with the following parameters:
  - Installation path for WebSphere Application Server or WebSphere Application Server Express, for example, `C:\Program Files\IBM\WebSphere\Express502\AppServer`
  - Fully qualified host name of the machine on which you are installing, for example, `hostname.ibm.com`
  - WebSphere Business Integration Server Express or Express Plus installation directory, for example, `C:\IBM\WebSphereServer`

- If the installed WebSphere Business Integration Server Express or Express Plus system uses DB2, provide the path to the DB2 installation's java directory, for example, C:\Program Files\IBM\SQLLIB\java. If the installed WebSphere Business Integration Server Express or Express Plus system uses another database, use the value null for this parameter.
- y (for HTTP server yes)

Here are two example commands:

- When using DB2 as the database:

```
C:\IBM\WebSphereServer\bin\CWDashboard.bat /
"C:\Program Files\IBM\WebSphere\Express502\AppServer" /
hostname.ibm.com "C:\IBM\WebSphereServer" /
"C:\Program Files\IBM\SQLLIB\java" y
```

- When using Microsoft SQL Server as the database:

```
C:\IBM\WebSphereServer\bin\CWDashboard.bat /
"C:\Program Files\IBM\WebSphere\Express502\AppServer" /
hostname.ibm.com "C:\IBM\WebSphereServer" null y
```

**Important:** Certain steps in this procedure show commands broken on one or more lines. These line breaks were inserted to enable the text to fit on the page. When typing the actual commands, insert spaces at these points, not line breaks.

2. From the WebSphere Administrator's Console, expand **Environment** in the left navigation pane, select the **Update Web Server Plugin** link, and select **OK**.

3. If the ICSMonitor Application Server is started, stop it from the command line:

```
C:\Program Files\IBM\WebSphere\Express502\AppServer\bin\stopServer.bat /
ICSMonitor
```

4. Start the ICSMonitor Application Server from the command line:

```
C:\Program Files\IBM\WebSphere\Express502\AppServer\bin\startServer.bat /
ICSMonitor
```

5. To access System Monitor, type the URL:

```
http://hostname/ICSMonitor
```

where *hostname* is the name of the computer on which WebSphere Application Server or WebSphere Application Server Express is installed.

6. To access Failed Event Manager, type the URL:

```
http://hostname/FailedEvents
```

where *hostname* is the name of the computer on which WebSphere Application Server or WebSphere Application Server Express is installed.

## Configuring System Monitor and Failed Event Manager when not using a Web server

If you are not using a Web server with your installation, you must configure System Monitor and Failed Event Manager to use a different port number. Do the following:

1. Run *ProductDir*\bin\CWDashboard.bat with the following parameters:
  - Installation path for WebSphere Application Server Express or WebSphere Application Server, for example, C:\Program Files\IBM\WebSphere\Express502\AppServer
  - Fully qualified host name of the machine on which you are installing, for example, hostname.ibm.com

- WebSphere Business Integration Server Express or Express Plus installation directory, for example, C:\IBM\WebSphereServer
- If the installed WebSphere Business Integration Server Express or Express Plus system uses DB2, provide the path to the DB2 installation's java directory, for example, C:\Program Files\IBM\SQLLIB\java. If the installed WebSphere Business Integration Server Express or Express Plus system uses another database, use the value null for this parameter.
- n (for no HTTP server)
- New Port number, for example 7089
- New SSL port number (default is 7043)

Here are two example commands:

- When using DB2 as the database:

```
C:\IBM\WebSphereServer\bin\CWDashboard.bat /
"C:\Program Files\IBM\WebSphere\Express502\AppServer" /
hostname.ibm.com "C:\IBM\WebSphereServer" /
"C:\Program Files\IBM\SQLLIB\java" n 7089 7043
```

- When using Microsoft SQL Server as the database:

```
C:\IBM\WebSphereServer\bin\CWDashboard.bat /
"C:\Program Files\IBM\WebSphere\Express502\AppServer" /
hostname.ibm.com "C:\IBM\WebSphereServer" null n 7089 7043
```

**Important:** Certain steps in this procedure show commands broken on one or more lines. These line breaks were inserted to enable the text to fit on the page. When typing the actual commands, insert spaces at these points, not line breaks.

2. Stop the ICSMonitor Application Server from the command line:

```
C:\Program Files\IBM\WebSphere\Express502\AppServer\bin\stopServer.bat /
ICSMonitor
```

3. Start the ICSMonitor Application Server from the command line:

```
C:\Program Files\IBM\WebSphere\Express502\AppServer\bin\startServer.bat /
ICSMonitor
```

4. To access System Monitor, type the URL:

```
http://hostname:portnumber/ICSMonitor
```

where *hostname* is the name of the computer on which WebSphere Application Server or WebSphere Application Server Express is installed.

5. To access Failed Event Manager, type the URL:

```
http://hostname:portnumber/FailedEvents
```

where *hostname* is the name of the computer on which WebSphere Application Server or WebSphere Application Server Express is installed.

---

## Configuring System Monitor and Failed Event Manager to use Tomcat

This section describes how to configure System Monitor and Failed Event Manager to use Tomcat. For instructions on using WebSphere Application Server or WebSphere Application Server Express as the Web application server instead of Tomcat, see "Configuring System Monitor and Failed Event Manager to use WebSphere Application Server or WebSphere Application Server Express" on page 50. Before proceeding, ensure that you have Tomcat version 4.1.24 or 4.1.27 installed on your system.

**Note:** Tomcat 4.1.24 and 4.1.27 are not supported in double byte character set language environments.

## Configuring System Monitor to use Tomcat

To configure System Monitor to use Tomcat, follow these steps:

1. Create the ICSMonitor directory under *Tomcat\_home*\webapps (where *Tomcat\_home* is the path of the Tomcat installation in your environment).
2. Extract the WAR file contents into the ICSMonitor directory.

**Note:** If you used the WebSphere Business Integration Server Express or Express Plus installer to install the product, the CWDashboard.war file is located in the *ProductDir*\WBSM directory.

3. Copy the xerces.jar file from *Tomcat\_home*\webapps\ICSMonitor\WEB-INF\lib to *Tomcat\_home*\common\lib.
4. Rename the xercesImpl.jar file, located in the *Tomcat\_home*\common\endorsed directory, to xercesImpl.jar.old.
5. Edit the setclasspath.bat file, located in the *Tomcat\_home*\bin directory, by doing the following:

- a. Set the JAVA\_OPTS property as follows:

```
-DDASHBOARD_URL=http://HostName[:PortNumber]/ICSMonitor  
-DDASHBOARD_HOME=Tomcat_home\webapps\ICSMonitor  
-DORBNamingProvider=CosNaming  
-Dorg.omg.CORBA.ORBClass=com.ibm.CORBA.iiop.ORB  
-Dorg.omg.CORBA.ORBInitialPort=ORB_PORT  
-Dorg.omg.CORBA.ORBInitialHost=ORB_HOST  
-Dcom.ibm.CORBA.Debug.Output=stdout
```

**Important:** The lines beginning with the characters -D all appear on separate lines to enable them to fit on the page. Insert only spaces, not line breaks, between the -D lines.

- b. If you use DB2 for the InterChange Server Express repository, append the path to the db2java.zip file to the class path in setclasspath.bat. The db2java.zip file is located, by default, in the *DB2\_Installation\_Dir*\java directory.

**Note:** Step 5b is required only if the InterChange Server Express repository is on DB2.

6. (Optional) Change the port number in the *Tomcat\_home*\conf\server.xml file. The default port number is 8080.

**Important:** Tomcat must be started by double-clicking on *Tomcat\_home*\bin\startup.bat. System Monitor will not work if Tomcat is started using the default Start Tomcat shortcut because the shortcut does not read the environment variables set in the *ProductDir*\bin\setclasspath.bat file.

## Configuring Failed Event Manager to use Tomcat

To configure Failed Event Manager to use Tomcat, follow these steps:

1. Create the FailedEvents directory under *Tomcat\_home*\webapps (where *Tomcat\_home* is the path of the Tomcat installation in your environment).
2. Extract the WAR file contents into the FailedEvents directory.



**Note:** The FailedEvents.war file is located in the *ProductDir\WBFEM\Tomcat* directory.

3. Copy the xerces.jar file from *Tomcat\_home\webapps\FailedEvents\WEB-INF\lib* to *Tomcat\_home\common\lib*.
4. Rename the xercesImpl.jar file, located in the *Tomcat\_home\common\endorsed* directory, to xercesImpl.jar.old.
5. Edit the setclasspath.bat file, located in the *Tomcat\_home\bin* directory, by doing the following:
  - a. Set the JAVA\_OPTS property as follows:

```
-DFEM_HOME=Tomcat_home\webapps\FailedEvents
-DORBNamingProvider=CosNaming
-Dorg.omg.CORBA.ORBClass=com.ibm.CORBA.iiop.ORB
-Dorg.omg.CORBA.ORBInitialPort=ORB_PORT
-Dorg.omg.CORBA.ORBInitialHost=ORB_HOST
-Dcom.ibm.CORBA.Debug.Output=stdout
```

**Important:** The lines beginning with the characters -D all appear on separate lines to enable them to fit on the page. Insert only spaces, not line breaks, between the -D lines.

- b. If you use DB2 for the InterChange Server Express repository, append the path to the db2java.zip file to the class path in setclasspath.bat. The db2java.zip file is located, by default, in the *DB2\_Installation\_Dir\java* directory.

**Note:** Step 5b is required only if the repository is on DB2.

6. (Optional) Change the port number in the *Tomcat\_home\conf\server.xml* file. The default port number is 8080.

By default, security is enabled in the Tomcat 4.1.24 version of the Failed Event Manager. A user with the role of Administrator must be created in the *Tomcat\_home\conf\server.xml* file so that the administrator can gain full access to the application. For details on how to create roles and use security in Failed Event Manager, refer to the *System Administration Guide*.

**Important:** Tomcat must be started by double-clicking *Tomcat\_home\bin\startup.bat*. Failed Event Manager will not work if Tomcat is started using the default Start Tomcat shortcut because the shortcut does not read the environment variables set in the *ProductDir\bin\setclasspath.bat* file.

---

## Installing the WebSphere Studio Site Developer tool

Failed Event Manager requires the WebSphere Studio Site Developer tool to fully utilize its features.

To install the WebSphere Studio Site Developer tool, do the following:

1. Insert the CD labeled *WebSphere Application Server - Express V5.1 Components Disk 1* into your machine.
2. Start the WebSphere Application Server Launchpad by entering the following command:

```
CD_Drive\IBMWASExp5.1\launchpad.exe
```
3. Select **Install** to start the installation program.  
The Welcome screen appears.



4. On the Welcome screen, select **Next** to confirm that you want to install WebSphere Application Server - Express V5.1.  
The Software License Agreement screen appears.
5. On the Software License Agreement screen, accept the license agreement by selecting the radio button next to **I accept the terms in the license agreement**, and then selecting **Next**.  
The Setup screen appears.
6. On the Setup screen, select the radio button beside the entry **Custom**, and then click **Next**.  
The Feature screen appears.  
  
**Note:** By default, the installation program chooses the **Typical** installation. However, to be sure that the WebSphere Studio Site Developer is selected on the Feature Panel, you must select **Custom** installation.
7. On the Feature screen, under **Product Installation > Development Tools**, select the checkbox beside the entry **WebSphere Studio Site Developer 5.1.1 (with 5.1 Test Environment)** and then click **Next**.  
The Destination screen appears.
8. On the Destination screen, overwrite the default installation location with the following location:  
C:\IBM\WebSphere\Express51. Installation begins.  
  
**Note:** The default is C:\Program Files\IBM\WebSphere\Express51.
9. After the installation begins, the installation program asks you to insert the CD labeled *WebSphere Application Server - Express V5.1 Components Disk 2*. Insert this CD and select **OK**. Installation completes and the Post-installation screen appears.
10. On the Post-installation screen, select **Finish** to exit the GUI.

---

## Taking the next step

If you have successfully installed your system prerequisites, installed WebSphere Business Integration Server Express or Express Plus, and configured System Monitor and Failed Event Manager, proceed to Chapter 4, “Starting and administering the WebSphere Business Integration Server Express or Express Plus system,” on page 33 for instructions on how to start your WebSphere Business Integration Server Express or Express Plus system.



---

## Chapter 9. Upgrading the system

This chapter describes general procedures for upgrading existing WebSphere Business Integration Server Express and Express Plus installations. It contains the following sections:

- “Identifying supported upgrade scenarios and assumptions”
- “Preparing the existing system” on page 58
- “Upgrading from WebSphere Business Integration Server Express V4.3.1 to Express Plus V4.3.1” on page 60
- “Upgrading from WebSphere Business Integration Server Express V4.3 to Express V4.3.1” on page 63
- “Upgrading from WebSphere Business Integration Server Express Plus V4.3 to Express Plus V4.3.1” on page 66
- “Starting the new upgraded version” on page 72
- “Validating the upgrade” on page 73
- “Testing the upgraded version” on page 73
- “Backing up the upgraded version” on page 74
- “Taking the next step” on page 74

---

### Identifying supported upgrade scenarios and assumptions

The following upgrade scenarios are supported:

- Upgrading an installation of WebSphere Business Integration Server Express version 4.3.1 to Express Plus version 4.3.1.
- Upgrading an installation of WebSphere Business Integration Server Express version 4.3 to Express version 4.3.1.
- Upgrading an installation of WebSphere Business Integration Server Express Plus version 4.3 to Express Plus version 4.3.1. Included within this scenario are instructions for performing the following:
  - Upgrading an Adapter Capacity Pack for WebSphere Business Integration Server Express Plus version 4.3 to version 4.3.1.
  - Upgrading a Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus version 4.3 to version 4.3.1.

The following upgrade scenarios are *not* supported:

- Upgrading an installation of WebSphere Business Integration Server Express version 4.3 to Express Plus version 4.3.1.
- Upgrading an installation of WebSphere Business Integration Server Express Plus version 4.3 to Express version 4.3.1.

During any upgrade procedure, components you have already installed are preselected for upgrade and cannot be unselected. Additional components not already installed can be selected for installation during the upgrade process. All upgrade procedures assume the following:

- You will perform the upgrade in a development environment, then move the upgrade to your production environment after system tests have been completed.

- You have all appropriate software available. For a list of required software, see “Checking software requirements” on page 75.
- You will perform the upgrade to the InterChange Server Express component as well as to the Toolset Express, adapter, and Samples components if they exist on separate machines, by running the installer on the various machines.

---

## Preparing the existing system

Before upgrading any system, you must perform the following steps:

- “Putting the system in a quiescent state”
- “Backing up the system”
- “Shutting down the system” on page 59

### Putting the system in a quiescent state

Before you upgrade your system, you must make sure it is in a quiescent state. This means that all in-progress events are completed and all in-doubt transactions are resolved before backing up the environment and performing the upgrade procedure.

The following steps describe how to put the system in a quiescent state:

1. Resubmit failed events or discard the events (this step is optional).
2. Stop all connectors from polling the event tables by setting the connector `PollFrequency` property to `No` and restarting the connector.
3. Let all events run through the system, including all in-process events. All in-doubt transactions must be resolved.
4. Clear the queues by removing any old events from the queues.

**Note:** Perform step 4 only if you are not processing your failed events and choose to resubmit the events from the application. Otherwise, the queues should be empty, but double-check to be sure.

See the *System Administration Guide* for more information about how to stop a running system gracefully.

### Backing up the system

Backing up the system allows you to recover any files that might be overwritten inadvertently during the installation of the new version. Before performing the upgrade procedure, back up both static data and dynamic data (changeable data that you back up on a regular basis, regardless of upgrades). For examples of static and dynamic data, see Table 2 on page 59.

To back up the system, do the following:

- Back up your current ICS Express repository using the `repos_copy` utility. For example, suppose your InterChange Server Express instance is named `WICSEX` and it has the default login `admin` and default password `null`. The following `repos_copy` command creates a backup of the repository objects in a file called `RepositoryExpress.txt`:  

```
repos_copy -sWICSEX -oRepositoryExpress.txt -uadmin -pnull
```
- Back up the product directory. Important items to include in this backup are any customizations, including the following:
  - Custom `.jar` files (such as custom data handlers) and Java packages, which are typically in the `lib` subdirectory of the product directory

- All startup scripts
- The configuration file for WebSphere MQ, which resides in the following directory:

`ProductDir\mqseries\crossworlds_mq.tst`

IBM recommends taking a system backup of the *entire* InterChange Server Express product directory.

- Arrange for a System Administrator to back up the file structure. Environment settings and other files must be copied.
- Arrange for an System Administrator to back up IBM WebSphere MQ.
- Arrange for the database administrator (DBA) to back up the database. This should be a complete backup, including schema information and stored procedures. If you have configured your system to use databases *in addition to* the ICS Express repository database, make sure you back up these other databases as well.

**Note:** Use the appropriate database utility to perform this step. For example, DB2 provides an export utility. Consult your database server documentation for instructions.

Table 2 summarizes how to back up the different components.

Table 2. Backup methods for data

Type of data	Backup method
<b>Static data</b>	
Repository	Use the <code>repos_copy</code> utility to save some or all of the customized system components. For more information, see the description of how to back up components in the <i>System Administration Guide</i> .
Custom map Java class files (.class)	To include these files in your system backup, make sure the following directory is in your system backup: <code>ProductDir\DLMS</code>
Custom connectors	Include the following directory in your system backup: <code>ProductDir\connectors\connector_name</code> , where “ <code>connector_name</code> ” is the name of the custom connector.
Customized startup scripts	If you have customized any startup scripts, make sure that they are included in your system backup.
ICS Express configuration file (InterchangeSystem.cfg)	Include in your system backup the ICS Express configuration file, which resides in the <code>ProductDir</code> directory.
<b>Dynamic data</b>	
Cross-reference, failed events, and relationship tables	Use the database backup utility for the database. For more information, see the description of how to back up system components in the <i>System Administration Guide</i> .
Connector event archive tables	Use the database backup utility for the database that contains these tables.
Log files	Include the following directory in your system backup: <code>ProductDir\log</code>

## Shutting down the system

After backups are complete, you can shut down the system as follows:

1. Shut down InterChange Server Express and its related components.
2. Shut down the database server.
3. Shut down the IBM Object Request Broker (ORB).

4. Shut down WebSphere MQ.

For more information on system shutdown, see the *System Administration Guide*.

---

## Upgrading from WebSphere Business Integration Server Express V4.3.1 to Express Plus V4.3.1

After the system is in a quiescent state and backed up, you can safely start the upgrade procedure. The Launchpad provides a way to launch the GUI installer that leads you through upgrading WebSphere Business Integration Server Express V4.3.1 to Express Plus V4.3.1. The GUI does the following:

- Installs WebSphere Business Integration Server Express Plus product components and configures them as services.
- Installs any new adapters you select and configures them as services.
- Does not drop your existing database.
- Retains your existing repository and does not redeploy it.

To invoke the Launchpad to launch the GUI, do the following:

1. Select the button labeled **Install Product** in the left column of the Launchpad.  
The Upgrade Product screen appears.
2. On the Upgrade Product screen, select **Next**.  
The Install Server screen appears.
3. On the Install Server screen, do one of the following:
  - If you have the version 4.3.1 InterChange Server Express component installed, the checkbox beside the entry **InterChange Server Express** is selected and disabled. Select **Next**.
  - If you do *not* have the version 4.3.1 InterChange Server Express component installed, the checkbox beside the entry **InterChange Server Express** is selected and enabled. You can proceed in one of two ways:
    - Leave the entry selected to install the version 4.3.1 InterChange Server Express component during the upgrade of other installed components.
    - Unselect the checkbox to keep the version 4.3.1 InterChange Server Express component from being installed.

Select **Next**.  
The Install Tools screen appears.
4. On the Install Tools screen, do one of the following:
  - If you have the version 4.3.1 Toolset Express Administrative and Development tools installed, the checkboxes beside the entries **Administrative Tools** and **Development Tools** are selected and disabled. Select **Next**.
  - If you have the version 4.3.1 Toolset Express Administrative tools alone installed, the checkbox beside the entry **Administrative Tools** is selected and disabled and the checkbox beside the entry **Development Tools** is selected and enabled. You can proceed in one of two ways:
    - Leave the entry beside **Development Tools** selected to install the version 4.3.1 Development tools during the upgrade of other installed components.
    - Unselect the checkbox to keep the version 4.3.1 Development tools from being installed.

Select **Next**.

**Note:** You cannot install only the Development tools. They require that Administrative tools also be installed.

- If you do *not* have the version 4.3.1 Toolset Express Administrative and Development tools installed, the checkboxes beside the entries **Administrative Tools** and **Development Tools** are selected and enabled. You can proceed in one of three ways:
  - Leave both checkboxes selected to install the version 4.3.1 Administrative and Development tools during the upgrade of other installed components.
  - Leave the checkbox beside the entry **Administrative Tools** selected and unselect the checkbox beside the entry **Development Tools** to install the version 4.3.1 Administrative tools only.

**Note:** You cannot install only the Development tools. They require that Administrative tools also be installed.

- Unselect both checkboxes to keep the version 4.3.1 Administrative and Development tools from being installed.

**Tip:** Unselect the checkbox beside **Development Tools** first. This action enables the checkbox beside **Administrative Tools**, so you can then unselect it.

Select **Next**.

The Install Adapters screen appears.

5. On the Install Adapters screen, if you have version 4.3.1 adapters installed, the checkbox beside each installed adapter is selected and disabled. In addition, if you have not already installed the Adapter for JText, it is selected by default because it is required to run the System Test sample. (The System Test sample is part of the Samples component, which can be selected from the Install Samples screen, described in Step 6.) Do one of the following:
  - If you do not want to install any other adapters than the ones you have already installed, unselect the checkbox beside the Adapter for JText if necessary and select **Next**.
  - If you want to install only the Adapter for JText in addition to the other adapters you have already installed, leave the checkbox beside the Adapter for JText selected and select **Next**.
  - If you want to install other adapters in addition to the Adapter for JText and the ones you have already installed, leave the checkbox beside the Adapter for JText selected, select the checkboxes beside the other adapters you want to add, and then select **Next**.

The Install Samples screen appears.

**Important:** You can install as many adapters as you want. However, a maximum of *five* can be registered with the InterChange Server Express when you are installing WebSphere Business Integration Server Express Plus.

6. On the Install Samples screen, do one of the following:
  - If you have the version 4.3.1 Samples component installed, the checkbox beside the entry **Samples** is selected and disabled. Select **Next**.
  - If you do *not* have the version 4.3.1 Samples component installed, the checkbox beside the entry **Samples** is checked and enabled. You can proceed in one of two ways:

- Leave the entry selected to install the version 4.3.1 Samples component during the upgrade of other installed components.
- Unselect the checkbox to keep the version 4.3.1 Samples component from being installed.

Select **Next**.

**Note:** The Samples component requires installation of the InterChange Server Express, the Toolset Express, and the JText Adapter. Therefore, when you elect to install the Samples component, the InterChange Server Express, the Toolset Express, and the JText Adapter are installed as well, regardless of whether you elected to install them in previous screens.

The Software Prerequisites screen appears.

7. On the Software Prerequisites screen, the installer informs you of any required prerequisites. Do one of the following:
  - If the Software Prerequisites screen indicates that no additional prerequisites are needed, proceed to Step 8.
  - If the Software Prerequisites screen indicates that additional prerequisites are needed, refer to the sections “Identifying which software prerequisites are required” on page 8 and “Installing selected software prerequisites” on page 12 for instructions on how to install the prerequisites.
8. Select the button labeled **Install Product** located at the bottom of the Software Prerequisites screen.

The Software License Agreement screen appears.

9. Read and accept the terms of the Software License Agreement by selecting the radio button beside the entry **I accept the terms in the license agreement**, then select **Next**.

One of the following occurs:

- If the InterChange Server Express component is already installed and will be upgraded or you are installing the InterChange Server Express component during the upgrade, the installer checks that appropriate prerequisites exist and are configured properly and that two or fewer processors exist on the machine on which the InterChange Server Express component is to be upgraded or installed.
    - If the prerequisite conditions are not met, an error message is displayed and you are forced to cancel the installation.
    - If the prerequisite conditions are met, product installation begins. In this case, continue with these instructions at Step 11.
  - If the InterChange Server Express component is not already installed and will not be installed during the upgrade, the Name Server Configuration screen appears. In this case, continue with these instructions at Step 10.
10. On the Name Server Configuration screen, type the IP address of the computer on which you have installed or plan to install the InterChange Server Express component, and then select **Next** to begin the installation process. See the section “Configuring the Name Server” on page 26 for more information about the Name Server.
  11. As the installation process begins, the installer verifies that enough disk space exists for the installation:
    - If enough space does not exist, the **Next** button is disabled since installation cannot be completed with the provided disk space. In this case, you must



select **Back** and unselect some features or sub-features or delete some unneeded space on the specified drive.

- If enough space does exist, installation and configuration begin. A number of informational screens are presented. When installation and configuration are complete, the Post-installation Summary screen appears, which indicates if the process was successful or if problems were encountered. Select **Finish** to exit the GUI.

---

## Upgrading from WebSphere Business Integration Server Express V4.3 to Express V4.3.1

After the system is in a quiescent state and backed up, you can safely start the upgrade procedure. The Launchpad provides a way to launch the GUI installer that leads you through upgrading WebSphere Business Integration Server Express V4.3 to WebSphere Business Integration Server Express V4.3.1. The GUI does the following:

- Installs WebSphere Business Integration Server Express V4.3.1 product components and configures them as services.
- Installs any new adapters you select and configures them as services.
- Does not drop your existing database.
- Retains your existing repository and does not redeploy it.

To invoke the Launchpad to launch the GUI, do the following:

1. Select the button labeled **Install Product** in the left column of the Launchpad.  
The Upgrade Product screen appears.
2. On the Upgrade Product screen, select **Next**.  
The Install Server screen appears.
3. On the Install Server screen, do one of the following:
  - If you have the version 4.3 InterChange Server Express component installed, the checkbox beside the entry **InterChange Server Express** is selected and disabled. Select **Next**.
  - If you do *not* have the version 4.3 InterChange Server Express component installed, the checkbox beside the entry **InterChange Server Express** is selected and enabled. You can proceed in one of two ways:
    - Leave the entry selected to install the version 4.3.1 InterChange Server Express component during the upgrade of other installed components.
    - Unselect the checkbox to keep the version 4.3.1 InterChange Server Express component from being installed.

Select **Next**.

The Install Tools screen appears.

4. On the Install Tools screen, do one of the following:
  - If you have the version 4.3 Toolset Express Administrative and Development Tools installed, the checkboxes beside the entries **Administrative Tools** and **Development Tools** are selected and disabled. Select **Next**.
  - If you have the version 4.3 Toolset Express Administrative Tools alone installed, the checkbox beside the entry **Administrative Tools** is selected and disabled and the checkbox beside the entry **Development Tools** is selected and enabled. You can proceed in one of two ways:

- Leave the entry beside **Development Tools** selected to install the version 4.3.1 Development Tools during the upgrade of other installed components.
- Unselect the checkbox to keep the version 4.3.1 Development Tools from being installed.

Select **Next**.

**Note:** You cannot install only the Development tools. They require that Administrative tools also be installed.

- If you do *not* have the version 4.3 Toolset Express Administrative and Development Tools installed, the checkboxes beside the entries **Administrative Tools** and **Development Tools** are selected and enabled. You can proceed in one of three ways:
  - Leave both checkboxes selected to install the version 4.3.1 Administrative and Development Tools during the upgrade of other installed components.
  - Leave the checkbox beside the entry **Administrative Tools** selected and unselect the checkbox beside the entry **Development Tools** to install the version 4.3.1 Administrative tools only.

**Note:** You cannot install only the Development tools. They require that Administrative tools also be installed.

- Unselect both checkboxes to keep the version 4.3.1 Administrative and Development Tools from being installed.

**Tip:** Unselect the checkbox beside **Development Tools** first. That action enables the checkbox beside **Administrative Tools**, so you can then unselect it.

Select **Next**.

The Install Adapters screen appears.

5. On the Install Adapters screen, if you have version 4.3 adapters installed, the checkbox beside each installed adapter is selected and disabled. In addition, if you have not already installed the Adapter for JText, it is selected by default because it is required to run the System Test sample. (The System Test sample is part of the Samples component, which can be selected from the Install Samples screen, described in Step 6 on page 65.) Do one of the following:
  - If you do not want to install any other adapters than the ones you have already installed, unselect the checkbox beside the Adapter for JText if necessary and select **Next**.
  - If you want to install only the Adapter for JText in addition to the other adapters you have already installed, leave the checkbox beside the Adapter for JText selected and select **Next**.
  - If you want to install other adapters in addition to the Adapter for JText and the ones you have already installed, leave the checkbox beside the Adapter for JText selected, select the checkboxes beside the other adapters you want to add, and then select **Next**.

The Install Samples screen appears.

**Important:** You can install as many adapters as you want. However, a maximum of *three* can be registered with the InterChange Server Express when you are installing WebSphere Business Integration Server Express.

6. On the Install Samples screen, do one of the following:
  - If you have the version 4.3 Samples component installed, the checkbox beside the entry **Samples** is selected and disabled. Select **Next**.
  - If you do *not* have the version 4.3 Samples component installed, the checkbox beside the entry **Samples** is checked and enabled. You can proceed in one of two ways:
    - Leave the entry selected to install the version 4.3.1 Samples component during the upgrade of other installed components.
    - Unselect the checkbox to keep the version 4.3.1 Samples component from being installed.

Select **Next**.

**Note:** The Samples component requires installation of the InterChange Server Express, the Toolset Express, and the JText Adapter. Therefore, when you elect to install the Samples component, the InterChange Server Express, the Toolset Express, and the JText Adapter are installed as well, regardless of whether you elected to install them in previous screens.

The Software Prerequisites screen appears.

7. On the Software Prerequisites screen, the installer informs you of any required prerequisites. Do one of the following:
  - If the Software Prerequisites screen indicates that no additional prerequisites are needed, proceed to Step 8.
  - If the Software Prerequisites screen indicates that additional prerequisites are needed, refer to the sections “Identifying which software prerequisites are required” on page 8 and “Installing selected software prerequisites” on page 12 for instructions on how to install the prerequisites.
8. Select the button labeled **Install Product** located at the bottom of the Software Prerequisites screen.

The Software License Agreement screen appears.

9. Read and accept the terms of the Software License Agreement by selecting the radio button beside the entry **I accept the terms in the license agreement**, then select **Next**.

The Upgrade Check screen appears.

10. On the Upgrade Check screen, select **Next**.

One of the following occurs:

- If the InterChange Server Express component is already installed and will be upgraded or you are installing the InterChange Server Express component during the upgrade, the installer checks that appropriate prerequisites exist and are configured properly and that two or fewer processors exist on the machine on which the InterChange Server Express component is to be upgraded or installed.
  - If the prerequisite conditions are not met, an error message is displayed and you are forced to cancel the installation.
  - If the prerequisite conditions are met, product installation begins. In this case, continue with these instructions at Step 12 on page 66.
- If the InterChange Server Express component is not already installed and will not be installed during the upgrade, the Name Server Configuration screen appears. In this case, continue with these instructions at Step 11 on page 66.

11. On the Name Server Configuration screen, type the IP address of the computer on which you have installed or plan to install the InterChange Server Express component, and then select **Next** to begin the installation process. See the section “Configuring the Name Server” on page 26 for more information about the Name Server.
12. As the installation process begins, the installer verifies that enough disk space exists for the installation:
  - If enough space does not exist, the **Next** button is disabled since installation cannot be completed with the provided disk space. In this case, you must select **Back** and unselect some features or sub-features, or delete some unneeded space on the specified drive.
  - If enough space does exist, installation and configuration begin. A number of informational screens are presented. When installation and configuration are complete, the Post-installation Summary screen appears, which indicates if the process was successful or if problems were encountered. Select **Finish** to exit the GUI.

---

## Upgrading from WebSphere Business Integration Server Express Plus V4.3 to Express Plus V4.3.1

After the system is in a quiescent state and backed up, you can safely start the upgrade procedure. The Launchpad provides a way to launch the GUI installer that leads you through upgrading WebSphere Business Integration Server Express Plus V4.3 to WebSphere Business Integration Server Express Plus V4.3.1. The GUI does the following:

- Installs WebSphere Business Integration Server Express Plus V4.3.1 product components and configures them as services.
- Installs any new adapters you select and configures them as services.
- Does not drop your existing database.
- Retains your existing repository and does not redeploy it.

**Note:** If you have version 4.3 Adapter or Collaboration Capacity Packs for WebSphere Business Integration Server Express Plus installed, you must upgrade these to version 4.3.1 as well, *after* upgrading the WebSphere Business Integration Server Express Plus product. See the sections “Upgrading the Adapter Capacity Pack for WebSphere Business Integration Server Express Plus V4.3 to V4.3.1” on page 69 and “Upgrading the Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus V4.3 to V4.3.1” on page 71 for more information.

To invoke the Launchpad to launch the GUI, do the following:

1. Select the button labeled **Install Product** in the left column of the Launchpad. The Upgrade Product screen appears.
2. On the Upgrade Product screen, select **Next**. The Install Server screen appears.
3. On the Install Server screen, do one of the following:
  - If you have the version 4.3 InterChange Server Express component installed, the checkbox beside the entry **InterChange Server Express** is selected and disabled. Select **Next**.
  - If you do *not* have the version 4.3 InterChange Server Express component installed, the checkbox beside the entry **InterChange Server Express** is selected and enabled. You can proceed in one of two ways:

- Leave the entry selected to install the version 4.3.1 InterChange Server Express component during the upgrade of other installed components.
- Unselect the checkbox to keep the version 4.3.1 InterChange Server Express component from being installed.

Select **Next**.

The Install Tools screen appears.

4. On the Install Tools screen, do one of the following:

- If you have the version 4.3 Toolset Express Administrative and Development Tools installed, the checkboxes beside the entries **Administrative Tools** and **Development Tools** are selected and disabled. Select **Next**.
- If you have the version 4.3 Toolset Express Administrative Tools alone installed, the checkbox beside the entry **Administrative Tools** is selected and disabled and the checkbox beside the entry **Development Tools** is selected and enabled. You can proceed in one of two ways:
  - Leave the entry beside **Development Tools** selected to install the version 4.3.1 Development Tools during the upgrade of other installed components.
  - Unselect the checkbox to keep the version 4.3.1 Development Tools from being installed.

Select **Next**.

**Note:** You cannot install only the Development tools. They require that Administrative tools also be installed.

- If you do *not* have the version 4.3 Toolset Express Administrative and Development Tools installed, the checkboxes beside the entries **Administrative Tools** and **Development Tools** are selected and enabled. You can proceed in one of three ways:
  - Leave both checkboxes selected to install the version 4.3.1 Administrative and Development Tools during the upgrade of other installed components.
  - Leave the checkbox beside the entry **Administrative Tools** selected and unselect the checkbox beside the entry **Development Tools** to install the version 4.3.1 Administrative tools only.

**Note:** You cannot install only the Development tools. They require that Administrative tools also be installed.

- Unselect both checkboxes to keep the version 4.3.1 Administrative and Development Tools from being installed.

**Tip:** Unselect the checkbox beside **Development Tools** first. This action enables the checkbox beside **Administrative Tools**, so you can then unselect it.

Select **Next**.

The Install Adapters screen appears.

5. On the Install Adapters screen, if you have version 4.3 adapters installed, the checkbox beside each installed adapter is selected and disabled. In addition, if you have not already installed the Adapter for JText, it is selected by default because it is required to run the System Test sample. (The System Test sample is part of the Samples component, which can be selected from the Install Samples screen, described in Step 6 on page 68.) Do one of the following:

- If you do not want to install any other adapters than the ones you have already installed, unselect the checkbox beside the Adapter for JText if necessary and select **Next**.
- If you want to install only the Adapter for JText in addition to the other adapters you have already installed, leave the checkbox beside the Adapter for JText selected and select **Next**.
- If you want to install other adapters in addition to the Adapter for JText and the ones you have already installed, leave the checkbox beside the Adapter for JText selected, select the checkboxes beside the other adapters you want to add, and then select **Next**.

The Install Samples screen appears.

**Important:** You can install as many adapters as you want. However, a maximum of *five* can be registered with the InterChange Server Express when you are installing WebSphere Business Integration Server Express Plus.

6. On the Install Samples screen, do one of the following:
  - If you have the version 4.3 Samples component installed, the checkbox beside the entry **Samples** is selected and disabled. Select **Next**.
  - If you do *not* have the version 4.3 Samples component installed, the checkbox beside the entry **Samples** is checked and enabled. You can proceed in one of two ways:
    - Leave the entry selected to install the version 4.3.1 Samples component during the upgrade of other installed components.
    - Unselect the checkbox to keep the version 4.3.1 Samples component from being installed.

Select **Next**.

The Software Prerequisites screen appears.

**Note:** The Samples component requires installation of the InterChange Server Express, the Toolset Express, and the JText Adapter. Therefore, when you elect to install the Samples component, the InterChange Server Express, the Toolset Express, and the JText Adapter are installed as well, regardless of whether you elected to install them in previous screens.

7. On the Software Prerequisites screen, the installer informs you of any required prerequisites. Do one of the following:
  - If the Software Prerequisites screen indicates that no additional prerequisites are needed, proceed to Step 8.
  - If the Software Prerequisites screen indicates that additional prerequisites are needed, refer to the sections “Identifying which software prerequisites are required” on page 8 and “Installing selected software prerequisites” on page 12 for instructions on how to install the prerequisites.
8. Select the button labeled **Install Product** located at the bottom of the Software Prerequisites screen.

The Software License Agreement screen appears.

9. Read and accept the terms of the Software License Agreement by selecting the radio button beside the entry **I accept the terms in the license agreement**, then select **Next**.

The Upgrade Check screen appears.

10. On the Upgrade Check screen, select **Next**.  
One of the following occurs:



- If the InterChange Server Express component is already installed and will be upgraded or you are installing the InterChange Server Express component during the upgrade, the installer checks that appropriate prerequisites exist and are configured properly and that two or fewer processors exist on the machine on which the InterChange Server Express component is to be upgraded or installed.
    - If the prerequisite conditions are not met, an error message is displayed and you are forced to cancel the installation.
    - If the prerequisite conditions are met, product installation begins. In this case, continue with these instructions at Step 12.
  - If the InterChange Server Express component is not already installed and will not be installed during the upgrade, the Name Server Configuration screen appears. In this case, continue with these instructions at Step 11.
11. On the Name Server Configuration screen, type the IP address of the computer on which you have installed or plan to install the InterChange Server Express component, and then select **Next** to begin the installation process. See the section “Configuring the Name Server” on page 26 for more information about the Name Server.
  12. As the installation process begins, the installer verifies that enough disk space exists for the installation:
    - If enough space does not exist, the **Next** button is disabled since installation cannot be completed with the provided disk space. In this case, you must select **Back** and unselect some features or sub-features or delete some unneeded space on the specified drive.
    - If enough space does exist, installation and configuration begin. A number of informational screens are presented. When installation and configuration are complete, the Post-installation Summary screen appears, which indicates if the process was successful or if problems were encountered. Select **Finish** to exit the GUI.

If you have version 4.3 Adapter or Collaboration Capacity Packs for WebSphere Business Integration Express Plus installed, you must upgrade them to version 4.3.1 as well. See the sections “Upgrading the Adapter Capacity Pack for WebSphere Business Integration Server Express Plus V4.3 to V4.3.1” and “Upgrading the Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus V4.3 to V4.3.1” on page 71 for details.

## Upgrading the Adapter Capacity Pack for WebSphere Business Integration Server Express Plus V4.3 to V4.3.1

This procedure upgrades one or more adapters installed from the version 4.3 Adapter Capacity Pack for WebSphere Business Integration Server Express Plus to version 4.3.1. It also allows you to install an additional adapter during the upgrade. It assumes the following:

- WebSphere Business Integration Server Express Plus V4.3.1 is already installed on your machine.
- You have administrative privileges on the machine on which you are upgrading the adapter.
- WebSphere Business Integration Server Express V4.3.1 is not installed on the same machine on which you are installing the adapter. (Adapter Capacity Packs can be used only with an existing WebSphere Business Integration Server Express Plus 4.3.1 installation.)

- If the adapters to be upgraded or installed do or will not exist on the same machine as InterChange Server Express, an installation of WebSphere MQ 5.3.0.2 CSD06 exists on the same machine on which the adapter will be upgraded or installed.
- In order for the adapter license to be registered successfully, InterChange Server Express *must be running* and, if installed on a remote machine, running and reachable.

The Launchpad provides a way to launch the GUI installer that leads you through upgrading the adapters from an existing Adapter Capacity Pack installation. The GUI upgrades installed adapters, installs a new adapter if selected, and configures all adapters as services.

To invoke the Launchpad to launch the GUI, do the following:

1. Select the button labeled **Install Capacity Pack** from the left column of the Launchpad.  
The Install Capacity Pack screen appears with two buttons.
2. Select **Install Adapter Capacity Pack** to launch the GUI to install the Adapter Capacity Pack.  
The Welcome screen appears.
3. At the Welcome screen, select **Next**.  
The Software License Agreement screen appears.
4. Read and accept the terms of the Software License Agreement by selecting the radio button beside the entry **I accept the terms in the license agreement**, then select **Next**.  
The Upgrade Check screen appears.
5. On the Upgrade Check screen, select **Next**.  
The installer checks that the prerequisites listed at the beginning of this section have been met. If any have not been met, it forces you to cancel the installation by selecting the **Cancel** button. If all prerequisites have been met, the Feature screen appears.
6. On the Feature screen, only those adapters that are not already installed appear. Do one of the following:
  - If you do not want to install any other adapter than the ones you are upgrading, select **Next**.
  - If you want to install another adapter in addition to the ones you are upgrading, select one adapter from the list of available adapters by selecting the radio button beside its name, then select **Next**. For more information about which adapter to select, see the section “Deciding which adapter to install” on page 41.
 One of the following screens appears:
  - If the InterChange Server Express is installed on the local machine, the InterChange Server Express Password screen appears. In this case, proceed to Step 9 on page 71.
  - If the InterChange Server Express exists on a remote machine, the Server IP Address Configuration screen appears. In this case, proceed to Step 7.
7. On the Server IP Address Configuration screen, type the IP address of the computer on which you have installed the InterChange Server Express component. If the InterChange Server Express is on an OS/400 machine, select the checkbox beside the entry **InterChange Server Express is on OS/400**. Then select **Next**. One of the following screens appears:



- If you selected the checkbox beside the entry **InterChange Server Express is on OS/400**, the Server Name Configuration screen appears. In this case, proceed to Step 8.
  - If you did not select the checkbox beside the entry **InterChange Server Express is on OS/400**, the InterChange Server Express Password screen appears. In this case, proceed to Step 9.
8. On the Server Name Configuration screen, do the following:
    - a. Type the name of the InterChange Server Express instance on the OS/400 machine. (The default is QWBIDFT. If you created a different name for your instance, type it instead.)
    - b. Type the ORB port number. (The default is 14500. If you used a different port number, type it instead.)

Then select **Next**.

The InterChange Server Password screen appears.

9. On the InterChange Server Express Password screen, type the password of the user `admin` for the InterChange Server Express, and then select **Next**.

The Pre-installation Summary screen appears.

10. On the Pre-installation Summary screen, review your selection and installation location and select **Next**.

The installer verifies that enough disk space exists for the installation. Installation then proceeds, as follows:

- If enough space does not exist, the **Next** button is disabled since installation cannot be completed with the provided disk space. In this case, you must select **Back** and delete some unneeded space on the specified drive.
  - If enough space does exist, installation and configuration begin. When installation and configuration are complete, the installer attempts to connect to the server to register the license for this adapter. A message dialog informs you if the adapter was registered successfully; an error dialog alerts you if registration was unsuccessful or if you exceeded the maximum number of adapters that can be registered with the InterChange Server Express. Select **OK** to exit this dialog. For more information on how the system updates the license file, see “Updating the license file” on page 41. The Post-installation Summary screen appears, which indicates if the process was successful or if problems were encountered.
11. On the Post-installation Summary screen, select **Finish** to exit the installation GUI.

If you have a version 4.3 Collaboration Capacity Pack for WebSphere Business Integration Express Plus installed, you must upgrade it to version 4.3.1 as well. See the section “Upgrading the Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus V4.3 to V4.3.1” for details.

## Upgrading the Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus V4.3 to V4.3.1

This procedure upgrades a version 4.3 Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus to version 4.3.1. It assumes the following:

- The Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus V4.3 is already installed on your machine and you are now installing V4.3.1.
- You have administrative privileges on the machine on which you are upgrading the Collaboration Capacity Pack.

- The Collaboration Capacity Pack will be installed on the same machine on which the InterChange Server Express component is installed.
- The InterChange Server Express component is *not* running.

The Launchpad provides a way to launch the GUI installer that leads you through upgrading an existing Collaboration Capacity Pack installation. The Collaboration Capacity Pack GUI upgrades the selected collaboration group and deploys the installed content to the InterChange Server Express.

To invoke the Launchpad to launch the GUI, do the following:

1. Select the button labeled **Install Capacity Pack** from the left column of the Launchpad. The Install Capacity Pack screen appears with two buttons.
2. Select the button labeled **Install Collaboration Capacity Pack** to launch the GUI to install the Collaboration Capacity Pack. The Launchpad first checks if the InterChange Server Express component of WebSphere Business Integration Server Express Plus is installed on the local machine. It then acts, as follows:
  - If the InterChange Server Express component is not installed on the local machine, a warning dialog alerts you that installation can fail. Select **Cancel** to cancel the installation or **Install** to continue the installation. If you elect to continue the installation, the Welcome screen appears.
  - If the InterChange Server Express component is installed on the local machine, the Welcome screen appears.

3. On the Welcome screen, select **Next**.

The Software License Agreement screen appears.

4. Read and accept the terms of the Software License Agreement by selecting the radio button beside the entry **I accept the terms in the license agreement**, then select **Next**.

The installer checks that the prerequisites listed at the beginning of this section have been met. If any have not been met, it forces you to cancel the installation by selecting the **Cancel** button. If all prerequisites have been met, the Upgrade Check screen appears.

5. On the Upgrade Check screen, confirm that you want to upgrade the installed Collaboration Capacity Pack by selecting **Next**.

The installer verifies that enough disk space exists for the installation.

Installation then proceeds, as follows:

- If enough space does not exist, the **Next** button is disabled since installation cannot be completed with the provided disk space. In this case, you must select **Back** and delete some unneeded space on the specified drive.
- If enough space does exist, installation and configuration begin. When installation and configuration are complete, the Post-installation Summary screen appears, which indicates if the process was successful or if problems were encountered.

6. On the Post-installation Summary screen, select **Finish** to exit the GUI.

---

## Starting the new upgraded version

After you have completed your upgrades, you can start the WebSphere Business Integration Server Express or Express Plus system using your existing version of the repository by doing the following:

1. Ensure that all required supporting software is running. Supporting software includes the following:

- WebSphere MQ (make sure that Queue Manager and the Listener are both up and running)
  - The database server
2. Start InterChange Server Express. Starting this component automatically starts the Persistent Naming Server as well.

For instructions on how to start InterChange Server Express, refer to “Starting WebSphere Business Integration Server Express or Express Plus” on page 33.

You can check the `InterChangeSystem.log` file in the `ProductDir` directory to confirm a successful startup.

**Note:** If InterChange Server Express fails to start up after you upgrade the system, review this upgrade procedure to be sure you followed all the instructions. If the cause of the failure is still unknown, consult IBM technical support for assistance before attempting adjustments or restoring from backup.

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## Validating the upgrade

To validate the success of the upgrade, you must ensure that the repository schema was created and that all objects were loaded successfully. You must perform some of the following tasks on the machine running System Manager.

- Validate that the IBM Object Request Broker (ORB) is running successfully by trying to connect with System Manager.
- Validate that WebSphere MQ queues are created and loaded with no errors. Select Statistics from the Server menu in System Manager, then ensure all the queues are in place.
- Validate that all connectors found their given queues successfully. Select System View from the Server menu in System Manager, and verify that the connectors have green-light icons next to them, and that the status of the connectors is Inactive.
- Validate that all connectors and business objects show up correctly in System Manager.
- Check for errors in the log file by selecting Log Viewer from the Tools menu in System Manager.

**Attention:** If any errors exist in the log file, you must resolve them before continuing.

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## Testing the upgraded version

Before moving the upgraded system from development to production, IBM recommends that you perform tests on every interface and every business process in production. Consider the following items when testing the system:

- Connectors — Test connector connectivity by starting up each connector. Make sure that the configuration changes have been made. In the connector log file, make sure the connector can connect to the specified application.
- Scripts and stored procedures — Scripts and stored procedures need to be tested only if they were upgraded. Scripts must be modified to contain the new directory path locations.
- Volume and performance — If past performance measurements have been taken, take new performance measurements and compare the two to make sure that the system is stable.

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## Backing up the upgraded version

When your upgrade process is complete, back up your WebSphere Business Integration Server Express or Express Plus system. See “Backing up the system” on page 58.

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## Taking the next step

Your upgrade to WebSphere Business Integration Server Express or Express Plus is complete. If you upgraded to WebSphere Business Integration Server Express Plus and want to install an optional Adapter or Collaboration Capacity Pack, see the chapters Chapter 6, “Installing the Adapter Capacity Pack for WebSphere Business Integration Server Express Plus,” on page 39 or Chapter 7, “Installing the Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus,” on page 45.

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## Appendix A. Meeting hardware and software requirements

The topics in this section give you a brief overview of the system hardware and software requirements, the supported databases, and the user accounts required to run WebSphere Business Integration Server Express and Express Plus software.

This section contains the following sections:

- “Checking hardware requirements”
- “Checking software requirements”
- “Checking minimum database requirements” on page 78

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### Checking hardware requirements

IBM recommends that you run WebSphere Business Integration Server Express or Express Plus on a dedicated system. The system should have restricted access to maintain security.

Table 3 lists the minimum hardware requirements. However, the actual requirements for your system may be greater, depending on the complexity of your specific environment, throughput, and data object size. Also, the following information is for the WebSphere Business Integration Server Express or Express Plus system only. If you choose to run other applications on the same system, make appropriate adjustments.

*Table 3. Hardware requirements*

Component	Minimum required
Processor	Pentium III @ 1 GHz
Memory	At least 512 MB; for Toolset Express, 256 MB
Disk space: WebSphere Business Integration Server Express or Express Plus and supporting software	40 GB
Disk space: WebSphere Business Integration Server Express or Express Plus databases	<ul style="list-style-type: none"><li>• Repository 300-500 MB</li><li>• Rollback 500 MB</li><li>• Temporary 500 MB</li></ul>

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### Checking software requirements

The WebSphere Business Integration Server Express or Express Plus system consists of IBM components and third-party components. IBM components are delivered on the product CD. Third-party software, such as Microsoft SQL Server, is not provided by IBM.

Reference the following tables for information on software requirements:

- Table 4 on page 76 lists the Windows platforms on which WebSphere Business Integration Server Express and Express Plus are supported.
- Table 5 on page 76 lists the required software supplied with WebSphere Business Integration Server Express and Express Plus.
- Table 6 on page 77 lists other software required but *not supplied* with WebSphere Business Integration Server Express and Express Plus.

- Table 7 on page 77 lists optional supported software that can be used with WebSphere Business Integration Server Express and Express Plus.

IBM supports the third-party product versions that are listed in Table 6 on page 77 and Table 7 on page 77. If you find a problem in one of the third-party product versions that is no longer supported by the third-party vendor, an upgrade to a supported version may be necessary.

*Table 4. Supported Windows operating systems for WebSphere Business Integration Server Express and Express Plus*

Software	Version and patch	Product components supported in a production environment	Product components supported in a development environment
Windows 2003 Standard and Enterprise	Base	InterChange Server Express, the Administrative Toolset Express System Monitor and Failed Event Manager tools, and Adapters are supported on this platform.	No components are supported on this platform.
Windows 2000 Professional, Server, and Advanced Server	Service Pack 4	InterChange Server Express, Toolset Express, and Adapters are supported on this platform.	InterChange Server Express, Toolset Express, and Adapters are supported on this platform.
Windows XP	Service Pack 1A	Only Toolset Express is supported on this platform.	InterChange Server Express and Toolset Express are supported on this platform.

*Table 5. Software supplied with WebSphere Business Integration Server Express and Express Plus*

Software	Version and patch	Comments
IBM DB2 Universal Database Server and Client Express Edition  Building DB2 stored procedures requires a DB2-supported C or C++ compiler. A version is available at the following Web site: <a href="http://msdn.microsoft.com/visualc/vctoolkit2003/">http://msdn.microsoft.com/visualc/vctoolkit2003/</a> .	Version 8.1, Express Edition	Although DB2 Express is provided, a DB2-supported compiler is not provided and must be obtained separately.
IBM WebSphere MQ Server and Client	Version 5.3.0.2 with CSD06	
IBM WebSphere Application Server, Express Web Application Server	Version 5.1	For System Monitor and Failed Event Manager.
IBM JDBC driver for Microsoft SQL Server 2000	Version 3.2 Type 4	Required for connection to Microsoft SQL Server 2000.
IBM JCE	Version 1.2.1	
IBM Java Development Kit	Version 1.3.1_05	Required for compiling collaborations and maps.
IBM JRE	Version 1.3.1_05	
IBM JSSE	Version 1.0.3	Provides cryptographic services to Adapters for XML and Web Services.
IBM Object Request Broker (ORB)	Version 1.3.1_05	

*Table 6. Required prerequisite software (based on function) not supplied with WebSphere Business Integration Server Express and Express Plus*

<b>Software</b>	<b>Version and patch</b>	<b>Comments</b>
One of the following code-control programs: ClearCase LT	Version 4.2	For source control in System Manager.
Concurrent Version System (CVS)	Version 1.11	For source control in System Manager.
An SMTP mail protocol e-mail system (for example, Microsoft Outlook, Microsoft Exchange, or Eudora)		For e-mail support.
Adobe Acrobat Reader	Version 4.05 or later	Required to view documents. IBM recommends using Acrobat Reader with Search option so that you can take advantage of the PDF Search feature. Go to <a href="http://www.adobe.com">www.adobe.com</a> for the latest version of Adobe Acrobat Reader for your platform.
One of the following browsers: Microsoft Internet Explorer	Version 6 SP 1	Required to use System Monitor and Failed Event Manager and to view documents.
Netscape Navigator	Version 4.75	Required to use System Monitor and Failed Event Manager and to view documents.
Adobe SVG Viewer 3.0 plugin	Version 3.0	Required to use the System Monitor with a Web browser.
Microsoft MSVC++	Version 6.0	Required to compile stored procedures with DB2 UDB Express on Windows.

*Table 7. Optional supported software for use with WebSphere Business Integration Server Express and Express Plus*

<b>Software</b>	<b>Version and patch</b>	<b>Comments</b>
Supported databases (either can replace supplied IBM DB2 UDB Server and Client Express Edition): IBM DB2 Universal Database Server and Client Enterprise Server Edition (building DB2 stored procedures requires a DB2-supported C or C++ compiler) Microsoft SQL Server 2000	Version 8.1, FP 2 Enterprise Server Edition  Version 8.00.384 with Service Pack 3	DB2-supported compiler is not supplied with this product.
Supported Web application servers for System Monitor and Failed Event Manager (any can replace supplied WebSphere Application Server Express V5.1 Edition): WebSphere Application Server Express	Version 5.0.2.4	Any Web application server that supports JSP 1.1 or later and Servlets 2.2 or later.



Table 7. Optional supported software for use with WebSphere Business Integration Server Express and Express Plus (continued)

Software	Version and patch	Comments
WebSphere Application Server	Version 5.0.2.4 FixPack 4 or Base Version 5.1	Any Web application server that supports JSP 1.1 or later and Servlets 2.2 or later.
Tomcat	Version 4.1.24 or 4.1.27	Any Web application server that supports JSP 1.1 or later and Servlets 2.2 or later. No double-byte character set (DBCS) support at this time.

## Checking minimum database requirements

WebSphere Business Integration Server Express and Express Plus are certified for use with IBM DB2 Express version 8.1, IBM DB2 Enterprise version 8.1 FP2, and Microsoft SQL Server 2000 version 8.00.384 with Service Pack 3.

### Checking DB2 Express and DB2 Enterprise requirements

DB2 Express or Enterprise must be configured to meet the following criteria:

**Note:** Building DB2 stored procedures requires a DB2-supported C or C++ compiler. For information about working with stored procedures, read the DB2 documentation.

- WebSphere Business Integration Server Express or Express Plus administrator user with database and table creation privileges created.
- 50 MB of disk space for data files available for the InterChange Server Express repository database.
- The maxappls and maxagents parameters configured with a minimum of 50 user connections each.
- The tablespace for the mapping tables (optional) configured to contain at least 50 MB of data.
- Maximum application heap size configured to be at least 2048.

### Checking Microsoft SQL Server 2000 requirements

Microsoft SQL Server 2000 must be configured to meet the following minimum criteria:

- WebSphere Business Integration Server Express or Express Plus administrator user with table creation privileges created.
- 50 MB of disk space for data files available for the repository database.
- 40 user connections configured.
- 50 MB of disk space available for the mapping tables (optional).
- Logging configured for Truncate Log on Checkpoint.



---

## Appendix B. Silently installing and uninstalling WebSphere Business Integration Server Express or Express Plus and Capacity Packs

You can install or uninstall WebSphere Business Integration Server Express or Express Plus, an Adapter Capacity Pack, or a Collaboration Capacity Pack without using the supplied GUIs. Silent installations and uninstallations are run from a command line.

In a silent installation, the responses you normally specify manually when you run the installer are stored in a supplied template response file. This response file is then read by an executable that installs the components. You must make necessary modifications to this response file before running the executable. Documentation describing the options that can be set exists within each file.

A silent uninstallation might or might not require use of a response file.

This chapter contains the following sections:

- “Silently installing WebSphere Business Integration Server Express and Express Plus”
- “Silently uninstalling WebSphere Business Integration Server Express and Express Plus” on page 80
- “Silently installing the Adapter Capacity Pack” on page 80
- “Silently uninstalling the Adapter Capacity Pack” on page 80
- “Silently installing the Collaboration Capacity Pack” on page 81
- “Silently uninstalling the Collaboration Capacity Pack” on page 81

---

### Silently installing WebSphere Business Integration Server Express and Express Plus

Response files for silently installing WebSphere Business Integration Server Express and Express Plus are located in the Launchpad directory on the CD root and are named, as follows:

- For WebSphere Business Integration Server Express silent installation:
  - `WBIServerExpressResponseFile.txt`
  - `WBIServerExpressResponseFile_WIN2K.txt`
- For WebSphere Business Integration Server Express Plus silent installation:
  - `WBIServerExpressPlusResponseFile.txt`
  - `WBIServerExpressPlusResponseFile_WIN2K.txt`

To perform a silent installation, do the following:

1. Review the assumptions and installation-by-GUI procedure described in Chapter 3, “Installing required software prerequisites and WebSphere Business Integration Server Express or Express Plus,” on page 7 so you are familiar with the required prerequisites and installation options. Documentation describing the options that can be set exists within the response file as well.
2. Copy the response file from the CD media to a directory of your choice and modify it with the settings needed for your installation.

3. Move to the directory containing the modified response file.
4. Issue the following command:  
`CD_drive_letter\Launchpad\setupwin32.exe -silent -options <response_file_name>`

---

## Silently uninstalling WebSphere Business Integration Server Express and Express Plus

To perform a silent uninstallation of all WebSphere Business Integration Server Express or Express Plus components, do the following:

1. Move to the directory `ProductDir\_uninstWBIServerExp` in a WebSphere Business Integration Server Express installation; to `ProductDir\_uninstWBIServerExpPlus` in a WebSphere Business Integration Server Express Plus installation.
2. Issue the following command:  
`uninstaller.exe -silent`

**Note:** You might need to manually delete the `C:\IBM\WebSphereServer` directory.

---

## Silently installing the Adapter Capacity Pack

**Important:** To ensure that the adapter license file in the InterChange Server Express is updated by the installation, the InterChange Server Express *must be running* during the installation process.

The name of the response file used to silently install the Adapter Capacity Pack is `adaptercp_silent.txt` and it is located on the CD in the directory `Launchpad\AdapterCapacityPack`.

To perform a silent installation, do the following:

1. Review the assumptions and installation-by-GUI procedure described in Chapter 6, “Installing the Adapter Capacity Pack for WebSphere Business Integration Server Express Plus,” on page 39 so you are familiar with the required prerequisites and installation options. Documentation describing the options that can be set exists within the response file as well.
2. Copy the response file from the CD media to a directory of your choice and modify it with the settings needed for your installation.
3. Move to the directory containing the modified response file.
4. Issue the following command:  
`CD_drive_letter\Launchpad\AdapterCapacityPack\setupwin32.exe -silent / -options adaptercp_silent.txt`

---

## Silently uninstalling the Adapter Capacity Pack

**Important:** To ensure that the adapter license file in the InterChange Server Express is updated by the uninstallation, the InterChange Server Express *must be running* during the uninstallation process.

The name of the response file used to silently uninstall the Adapter Capacity Pack is `adaptercp_silent_uninst.txt` and it is located on the CD in the directory `Launchpad\AdapterCapacityPack`.

To perform a silent uninstallation, do the following:

1. Copy the `adaptercp_silent_uninst.txt` response file from the CD to the directory `ProductDir\_uninstAdapterCP431`.
  2. Modify the response file with the settings needed for your uninstallation.
  3. Move to the directory `ProductDir\_uninstAdapterCP431`.
  4. Issue the following command:  
`uninstaller.exe -silent -options adaptercp_silent_uninst.txt`
- 

## Silently installing the Collaboration Capacity Pack

The name of the response file used to silently install the Collaboration Capacity Pack is `collabcp_silent.txt` and it is located on the CD in the directory `Launchpad\CollabCapacityPack`.

To perform a silent installation, do the following:

1. Review the assumptions and installation-by-GUI procedure described in Chapter 7, “Installing the Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus,” on page 45 so you are familiar with the required prerequisites and installation options. Documentation describing the options that can be set exists within the response file as well.
  2. Copy the response file from the CD media and modify it with the settings needed for your installation.
  3. Move to the directory containing the modified response file.
  4. Issue the following command:  
`CD_drive_letter\Launchpad\CollabCapacityPack\setupwin32.exe -silent / -options collabcp_silent.txt`
- 

## Silently uninstalling the Collaboration Capacity Pack

To perform a silent uninstallation of the Collaboration Capacity Pack, do the following:

1. Move to the directory `ProductDir\_uninstCollabCP`.
2. Issue the following command:  
`uninstaller.exe -silent`



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## Notices

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WebSphere Business Integration Server Express V4.3.1, WebSphere Business Integration Server Express Plus V4.3.1





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