

WebSphere Business Integration Server
Express and Express Plus



WebSphere Business Integration Server Express Installation Guide

Version 4.3

WebSphere Business Integration Server
Express and Express Plus



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Note!

Before using this information and the product it supports, read the information in "Notices" on page 73.

14May2004

This edition of this document applies to IBM WebSphere Business Integration Server Express, version 4.3, IBM WebSphere Business Integration Server Express Plus, version 4.3, and to all subsequent releases and modifications until otherwise indicated in new editions.

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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.

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.

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.

Typographic conventions

This document uses the following conventions:

<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.
bold	Indicates a new term the first time that it appears.

<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 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.

New in this release 4.3

This is the first release of this guide.

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, stopping, and using the Launchpad to view the Quick Start Guide," on page 3.
2. Check that required software prerequisites are installed and install selected prerequisites if desired. See Chapter 3, "Checking and installing selected software prerequisites," on page 7.
3. Check that the database to be used for the system repository is set up properly on your computer. See Chapter 4, "Installing and configuring a database," on page 13.
4. Install the WebSphere Business Integration Server Express or Express Plus product. See Chapter 5, "Installing WebSphere Business Integration Server Express and Express Plus," on page 17.
5. Start your system. See Chapter 6, "Starting the WebSphere Business Integration Server Express or Express Plus system for the first time," on page 29.
6. Optionally verify that your system is installed and operating correctly by using a supplied sample called System Test. See Chapter 7, "Verifying the installation," on page 33.
7. Optionally install an Adapter Capacity Pack for WebSphere Business Integration Server Express Plus. See Chapter 8, "Installing the Adapter Capacity Pack for WebSphere Business Integration Server Express Plus," on page 35.
8. Optionally install a Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus. See Chapter 9, "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 10, "Manually configuring System Monitor and Failed Event Manager," on page 53.
- Chapter 11, "Upgrading from WebSphere Business Integration Server Express v4.3 to Express Plus v4.3," on page 59.
- "Meeting hardware and software requirements," on page 69.

Each chapter (except for the Appendix) 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.

Taking the next step

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

Chapter 2. Starting, stopping, and using the Launchpad to view 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 4
- “Viewing the product Quick Start Guide from the Launchpad” on page 5
- “Taking the next step” on page 5

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 69.
- 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 and a user ID of less than 20 characters. If these requirements are not met, error messages outlining the problems will appear and the Launchpad program will terminate.

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

Note: The installation instructions throughout this document assume installation from product CDs. If you plan to obtain the electronic download version from Passport Advantage, refer to your Passport Advantage information for those downloading instructions.

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

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**.



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

Stopping the Launchpad

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

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**.

Taking the next step

If you are comfortable performing the basic Launchpad GUI operations outlined in this chapter, proceed to Chapter 3, “Checking and installing selected software prerequisites,” on page 7 for information on how to use the Launchpad to confirm installation of necessary prerequisites and install selected prerequisites if desired.

Chapter 3. Checking and installing selected software prerequisites

The Launchpad checks if necessary prerequisite software is installed on your machine. If certain items are not installed, it can install them.

This chapter contains the following sections:

- “Checking which software prerequisites are installed”
- “Installing selected software prerequisites” on page 8
- “Taking the next step” on page 11

Checking which software prerequisites are installed

To check which software is already installed on your system, select the Launchpad button labeled **Software Prerequisites**. The Launchpad checks if the following programs are installed:

- IBM Java(TM) Development Kit 1.3.1_05
- IBM WebSphere MQ 5.3.0.2 CSD5 and higher CSD levels
- IBM WebSphere Application Server - Express v5.1
- Microsoft Internet Explorer 6 Service Pack 1 or later
- Netscape Navigator 4.7x

It displays the installation status of each on the Software Prerequisites screen. Status values can include **Not Installed**, **Optional**, or **OK**.

The following example Software Prerequisites screen from the Launchpad for the WebSphere Business Integration Server Express product shows the results when the Launchpad finds only a version of Microsoft Internet Explorer 6 Service Pack 1 or later installed.

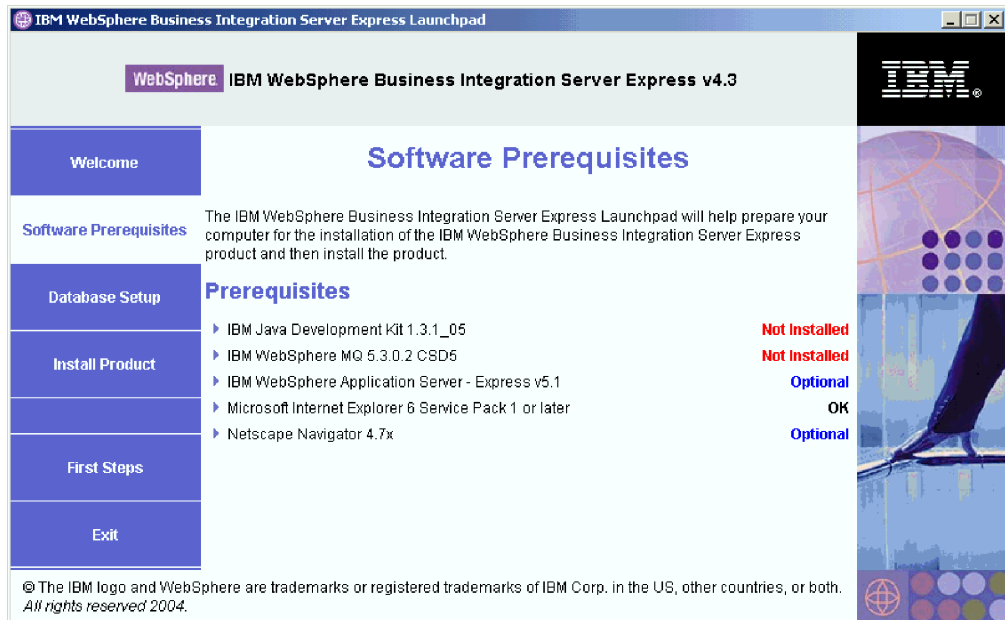


Figure 3. Software Prerequisites screen

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). See “Installing selected software prerequisites” for information on which software is required for your system and on which tasks the Launchpad can perform related to each prerequisite.

Installing selected software prerequisites

Although all of the programs listed on the Software Prerequisites screen are labeled “prerequisites,” the software that is actually required for your system depends on which components of each product you plan to install and on how you plan to use the products:

- If you plan to perform collaboration and mapping development, you need to have the IBM Java Development Kit 1.3.1_05 prerequisite installed. Launchpad can automatically install this software. See “Installing the Java compiler” on page 9 for details.
- Every installation of WebSphere Business Integration Server Express and Express Plus requires installation of WebSphere MQ 5.3.0.2 CSD5 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. Launchpad can automatically install this software. See “Installing WebSphere MQ” on page 9 for details.
- 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. Launchpad can automatically install WebSphere Application Server Express v5.1. See “Installing WebSphere Application Server Express” on page 10 for more details. Other Web application servers are supported.

Note: 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 prior to running 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 10, “Manually configuring System Monitor and Failed Event Manager,” on page 53. If you are using Tomcat as your Web application server, you will need to manually configure it. See Chapter 10, “Manually configuring System Monitor and Failed Event Manager,” on page 53 for details.

The automatic configuration 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. Launchpad cannot automatically install a supported Web browser, but it can offer instructions for finding installable versions. See “Installing Microsoft Internet Explorer” on page 11 and “Installing Netscape Navigator” on page 11 for more information.
- 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). Launchpad can automatically install and configure a supported database, or configure an existing supported database. See Chapter 4, “Installing and configuring a database,” on page 13 for more information.

Complete tables of all required software exist in the section “Checking software requirements” on page 69. 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 compiler

The Java compiler that is compatible with WebSphere Business Integration Server Express and Express Plus is contained within the IBM Java Development Kit 1.3.1_05 and is required for performing collaboration and mapping development.

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.

Note: If you do not plan to perform collaboration and mapping development, you do not need this prerequisite. In this case, select the box beside the field labeled **I do not plan to compile collaborations or maps**. The software’s status will immediately switch to **OK**.

3. After IBM Java Development Kit 1.3.1_05 silent installation, 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.

To install IBM WebSphere MQ 5.3.0.2 CSD5, do the following:

1. From the Launchpad Software Prerequisites screen, expand **IBM WebSphere MQ 5.3.0.2 CSD5**.
2. Do one of the following:
 - If you intend to install the InterChange Server Express component, ensure that the box beside the field labeled **I intend to only install the Tools component or an Adapter** is *not* selected. The Launchpad will automatically select the option **Install IBM WebSphere MQ 5.3.0.2 CSD5 Server and Client (101 MB)**.
 - If you intend to install only the Toolset Express or an adapter, ensure that the box beside the field labeled **I intend to only install the Tools component or an Adapter** is selected. The Launchpad will automatically select the option **Install IBM WebSphere MQ 5.3.0.2 CSD5 Client Only (16 MB)**.
3. Select **Install** to start the silent installation of IBM WebSphere MQ 5.3.0.2 CSD5.
4. After IBM WebSphere MQ 5.3.0.2 CSD5 silent installation completes, verify that its status in the Launchpad changed from **Not Installed** to **OK**.

Note: WebSphere MQ 5.3.0.2 CSD5 server and client 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 CSD5 applied, it offers to automatically patch the software. In this case, when you expand the selection **IBM WebSphere MQ 5.3.0.2 CSD5** on the Launchpad Software Prerequisites screen, you can select **Apply CSD05**. 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 Chapter 5, “Installing WebSphere Business Integration Server Express and Express Plus,” on page 17, 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 25.

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, 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. From the Launchpad Software Prerequisites screen, expand **IBM WebSphere Application Server - Express v5.1**.
2. Select **Install** to start the silent installation.
3. After silent installation completes, verify that its status in the Launchpad changed from **Optional** to **OK**.

Installing Microsoft Internet Explorer

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 browser. This guide does not provide installation instructions for Microsoft Internet Explorer 6 Service Pack 1. For a description of the installation process, on the Launchpad Software Prerequisites screen, expand the entry **Microsoft Internet Explorer 6 Service Pack 1 or later** and select the link to the Microsoft Web site.

Installing Netscape Navigator

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 browser. This guide does not provide installation instructions for Netscape Navigator. For a description of the installation process, on the Launchpad Software Prerequisites screen, expand the entry **Netscape Navigator 4.7x** and select the link to the Netscape Web site.

Taking the next step

If the software programs required for your planned installation each have a status of **OK**, you can proceed to setting up your database in Chapter 4, "Installing and configuring a database," on page 13.

Chapter 4. Installing and configuring a database

If you plan to install the InterChange Server Express component of WebSphere Business Integration Server Express or Express Plus, you must have a supported database installed on your machine to hold the repository prior to running the Express or Express Plus installer. The Launchpad can check if an appropriate database is installed, configure it for use with WebSphere Business Integration Server Express or Express Plus if it is, or install and configure IBM DB2(R) Universal Database(TM) v8.1 Express if it is not.

This chapter contains the following sections:

- “Checking if a database is installed”
- “Taking the next step” on page 16

Checking if a database is installed

IBM WebSphere Business Integration Server Express and Express Plus support IBM DB2 Universal Database v8.1 Express, IBM DB2 Universal Database v8.1 Enterprise, and Microsoft SQL Server 2000 databases. Before checking for installation of or actually installing 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 72.

Note: If you intend to use only the Toolset Express component, a database server is not required.

To invoke the Launchpad to check for an installed database, do the following:

1. Select the button labeled **Database Setup**. The Database Setup screen appears and the Launchpad checks your machine for an existing installation of a supported database.
2. Do one of the following, depending on which software the Launchpad finds on the machine:
 - If no supported database is installed, the Database Setup screen states so and offers a button 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” on page 14.
 - If IBM DB2 Universal Database v8.1 Express or Enterprise is installed, the Database Setup screen states so and offers a button 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 15.
 - If Microsoft SQL Server 2000 is installed, the Database Setup screen states so and offers a choice 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 15.
- 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, the Database Setup screen states so and offers a choice 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 15.
 - 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 15.

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%.

To install DB2 UDB Express, from the Launchpad Database Setup screen, select the entry **Install IBM DB2 Universal Database v8.1 Express**. Selecting this entry installs DB2 UDB Express silently. A dialog will notify you when installation and configuration are complete. The installation and configuration processes do the following:

- Create a DB2 Administration Server user db2admin with a password of smbP4\$\$word.
- Configure a C compiler for DB2 Express.
- 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. On the Launchpad Database Setup screen, select **Continue**.
2. Do the following at the Setup DB2 SQL Procedures Environment screen:
 - a. Type the name and path of the batch file that sets the environment variables for the compiler that DB2 uses to compile stored procedures in the **Compiler Path** field.
 - b. Either leave the **Use the default value for DB2_SQLROUTINE_COMPILE_COMMAND** box selected to use the default compiler command or clear the box and type the desired compiler command in the **Compile Command** field.
3. Select **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:

- Configures a C compiler for DB2.
- 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.

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. On the Launchpad Database Setup screen, select **Use Microsoft SQL Server 2000**, then select **Continue**.
The Microsoft SQL Server 2000 Configuration screen appears.
2. Type the name of a login that belongs to the “System Administrators” server role in the **User name** field.
3. Type the password for the user name specified in step 2 in the **Password** field.
4. Type the password for the user name specified in step 2 in the **Confirm 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.

Taking the next step

A successful database setup will result in the Database Setup screen displaying something like that shown in the following figure:

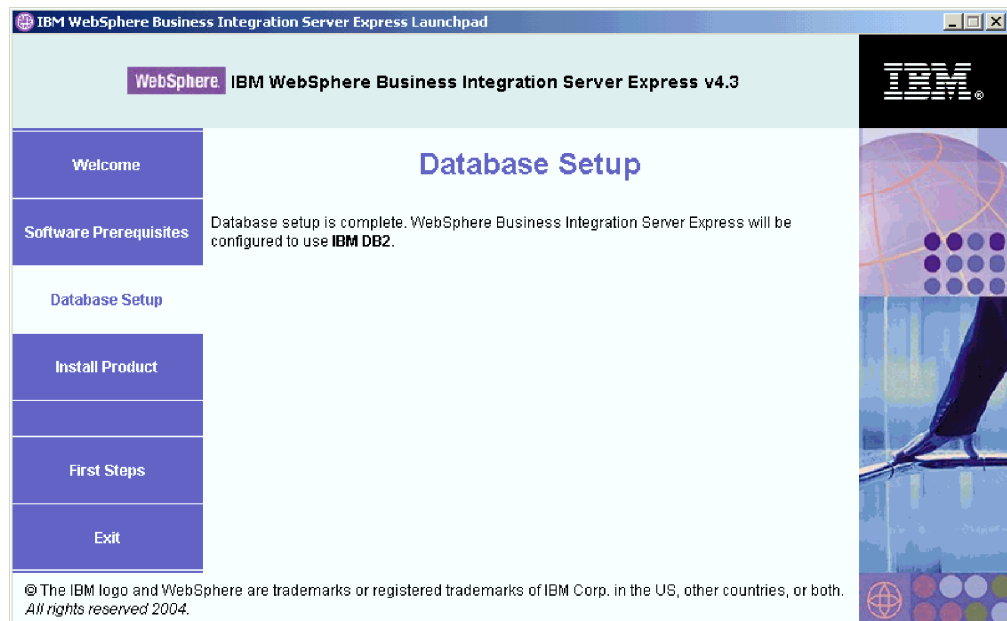


Figure 4. Database Setup screen showing successful database setup

If the database program you want to use has been installed and configured successfully, you can proceed to installing WebSphere Business Integration Server Express or Express Plus in Chapter 5, "Installing WebSphere Business Integration Server Express and Express Plus," on page 17.

Chapter 5. Installing WebSphere Business Integration Server Express and Express Plus

The Launchpad provides a way to launch 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.

This chapter contains the following sections:

- “Installing WebSphere Business Integration Server Express and Express Plus using the GUI”
- “Silently installing WebSphere Business Integration Server Express and Express Plus” on page 27
- “Uninstalling WebSphere Business Integration Server Express and Express Plus using the GUI” on page 27
- “Silently uninstalling WebSphere Business Integration Server Express and Express Plus” on page 28
- “Taking the next step” on page 28

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

The installation instructions in this section assume the following:

- WebSphere Business Integration Server Express or Express Plus is *not* already installed on your machine. If you have installed WebSphere Business Integration Server Express and want to upgrade to WebSphere Business Integration Server Express Plus, see Chapter 11, “Upgrading from WebSphere Business Integration Server Express v4.3 to Express Plus v4.3,” on page 59 for instructions.
- Installation is from a CD. If you plan to obtain the electronic download version from Passport Advantage, refer to your Passport Advantage information for those downloading instructions.
- Components are installed on a machine running the Windows 2000 operating system. Only the Toolset Express component is supported on the Windows XP operating system.
- Installation is of a WebSphere Business Integration Express system. Installation of a WebSphere Business Integration Express Plus system might show slightly different screens.

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

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



Figure 5. Install Product screen

2. Select **Launch Product Installation**.

The Welcome screen appears.

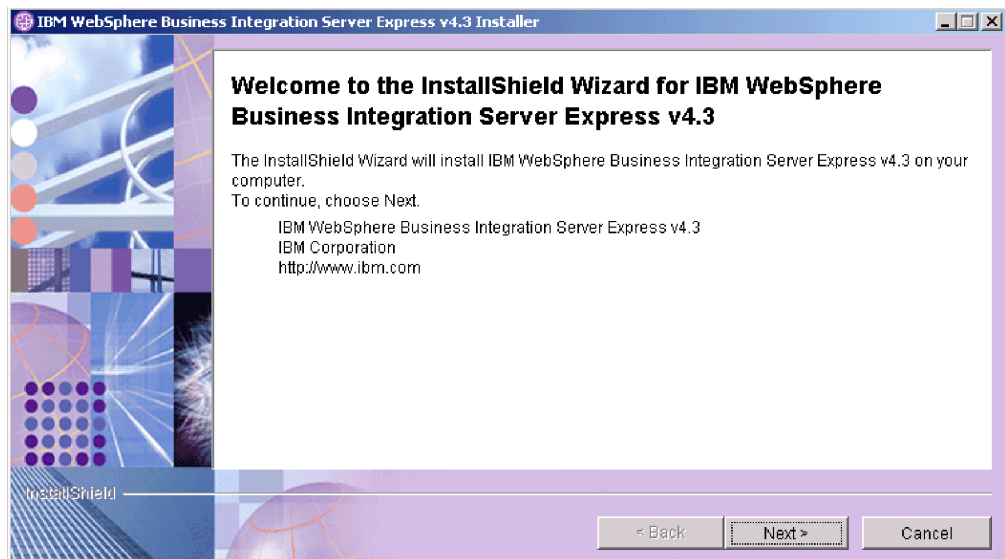


Figure 6. Welcome screen

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

The Software License Agreement screen appears.

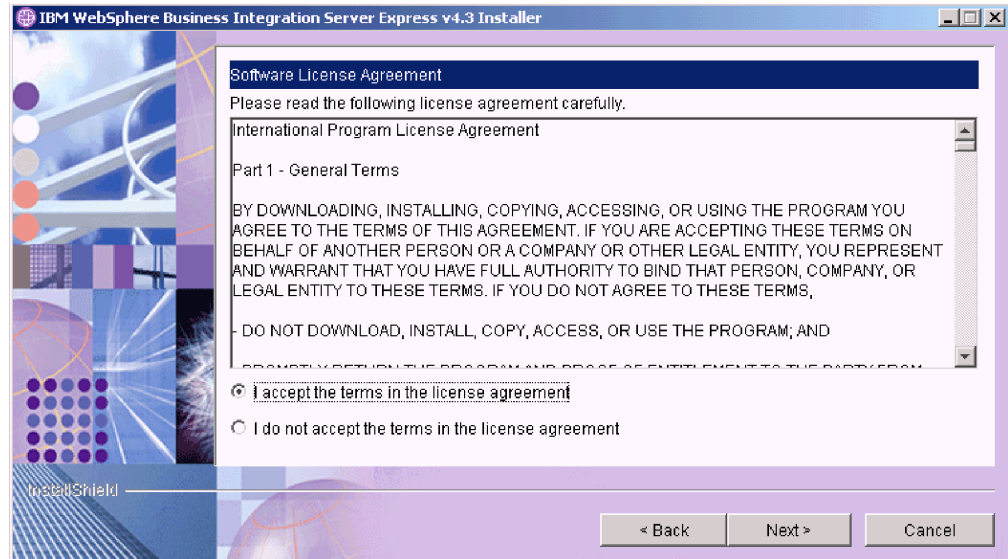


Figure 7. Software License Agreement screen

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 Destination screen appears.

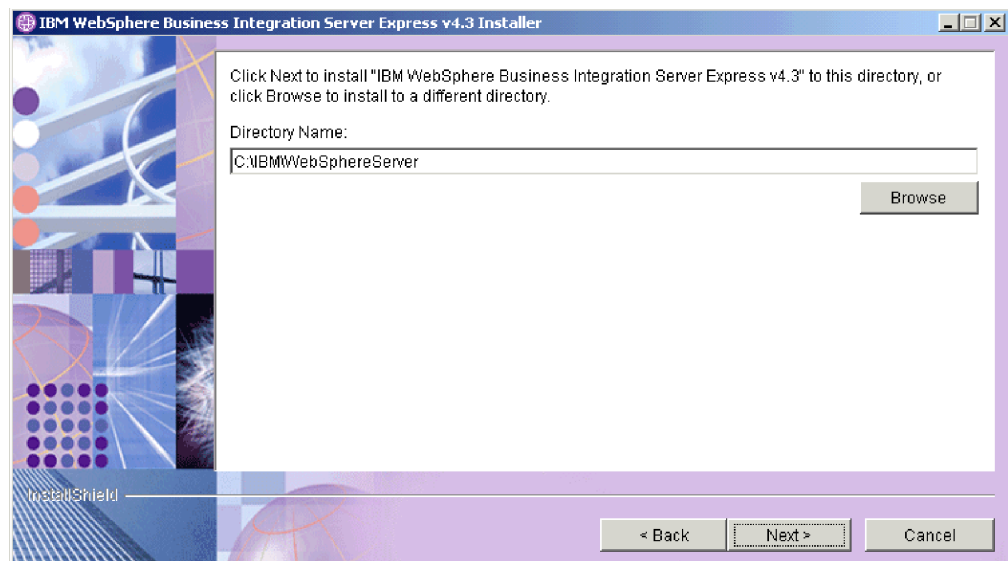


Figure 8. Destination screen

5. 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*.

The Feature screen appears.

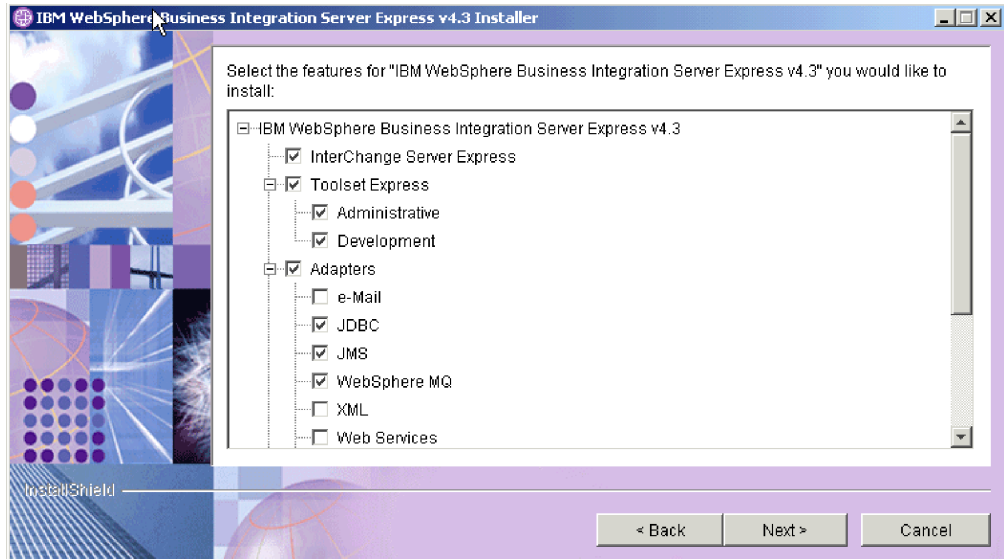


Figure 9. Feature screen

6. On the Feature screen, select those components you want to install and select **Next**. See the section “Deciding which WebSphere Business Integration Server Express and Express Plus components to install” on page 23 for descriptions of available components.

One of the following screens appears:

- If you selected to install the InterChange Server Express component, the Pre-installation Summary screen appears. In this case, continue with these instructions at Step 8 on page 21.
- 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 7 on page 21.

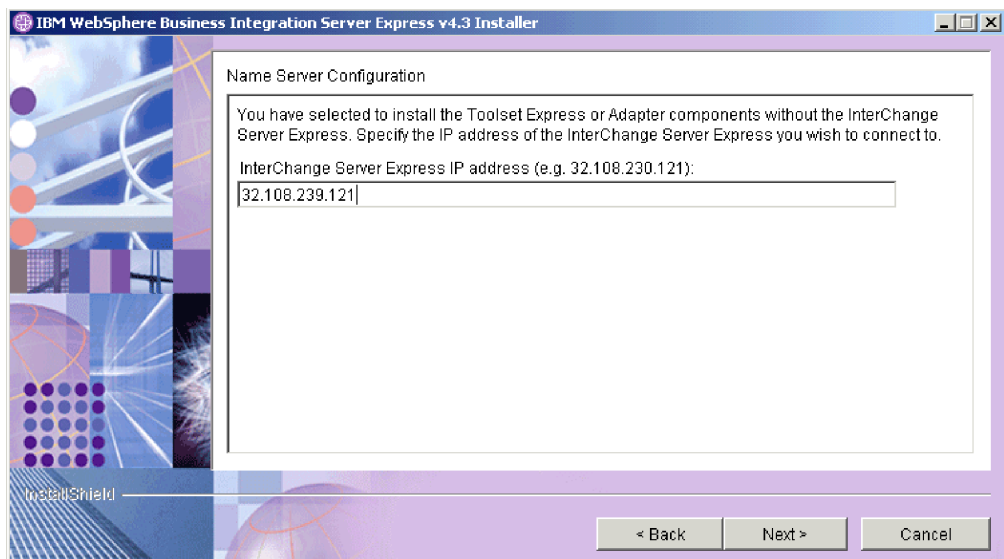


Figure 10. Name Server Configuration screen

7. 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**. See the section “Configuring the Name Server” on page 24 for more information about the Name Server. The Pre-installation Summary screen appears.

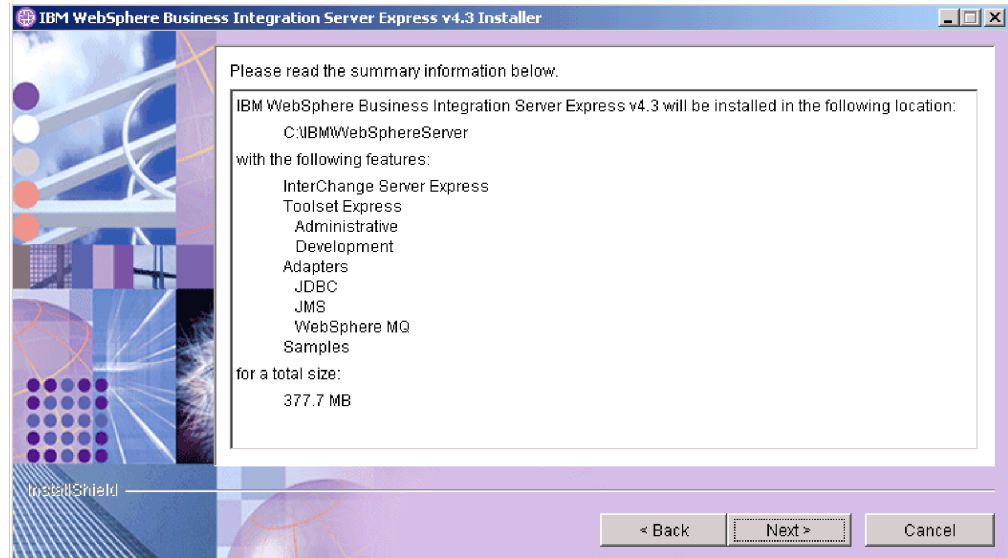


Figure 11. Pre-installation Summary screen

8. On the Pre-installation Summary screen, review the features and installation location and select **Next**.

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 in the Feature screen, 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.

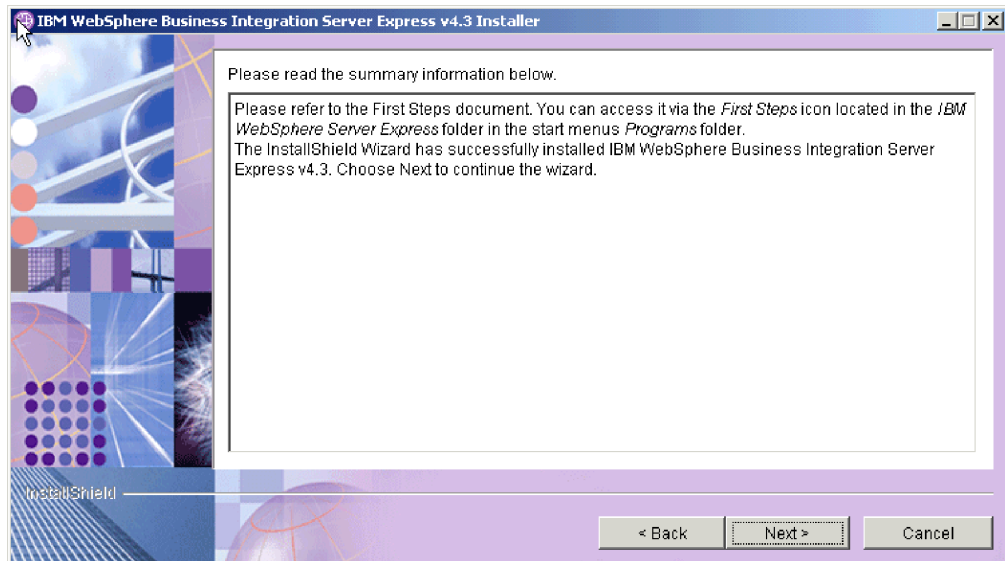


Figure 12. Post-installation Summary screen

The buttons on this screen differ depending on whether you elected to install any adapters or the InterChange Server Express:

- If you did not install adapters or the InterChange Server Express, a **Finish** button appears on this screen. Select it to exit the installation GUI. In this case, proceed to Step 10.
- If you did install adapters or the InterChange Server Express, a **Next** button appears on this screen because the machine must be restarted. Select it and the Reboot screen appears. In this case, proceed to Step 9.

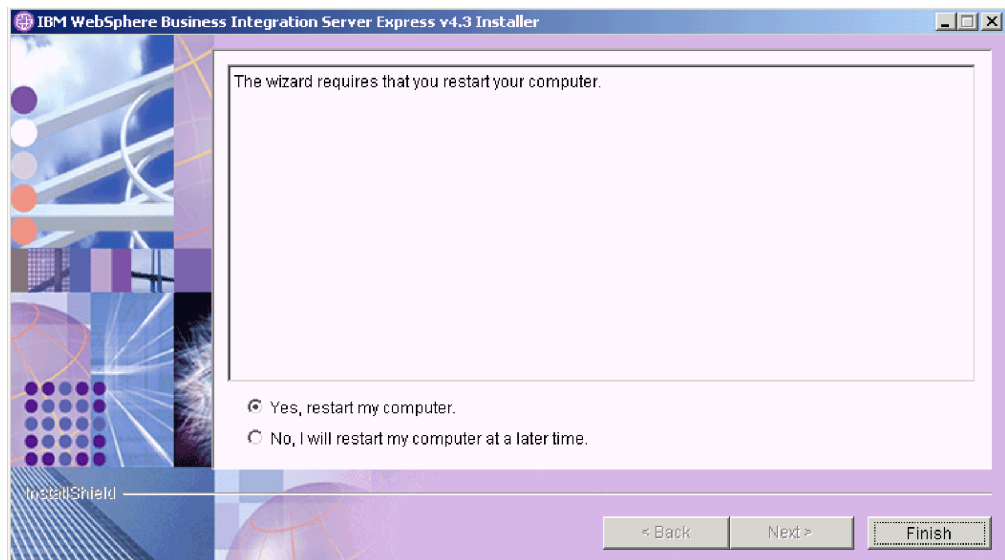


Figure 13. Reboot screen

9. On the Reboot screen, select whether you want to restart your machine now or later, and select **Finish** to exit the installation GUI.
10. 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 25.

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 25. 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 Feature screen that appears when installing with the product installation GUI or from within the response file used during silent installation.

See the sections “Installing WebSphere Business Integration Server Express and Express Plus using the GUI” on page 17 and “Silently installing WebSphere Business Integration Server Express and Express Plus” on page 27 for descriptions of the installation process. 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>.

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
 - Development

By installing the Administrative toolset, you receive the following:

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

By installing the Development toolset, 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 e-Mail
 - Adapter for JMS
 - Adapter for Web Services
 - Adapter for JDBC
 - Adapter for XML
 - Adapter for iSeries
 - Adapter for WebSphere MQ
 - Adapter for COM
 - Adapter for Exchange
 - Adapter for SWIFT
 - Adapter for Portal Infranet 6.x
 - Adapter for Lotus(R) Domino(R)

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 7, "Verifying the installation," on page 33 for more details.

During installation on a Windows XP system, you can choose to install only the Toolset Express component.

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 value typed in the Name Server Configuration screen during

installation. It uses this information to edit the default value of the ORB_HOST property listed in the cwSharedEnv.bat file, located in the directory *ProductDir*\bin.

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 with the name of the queue manager. The Queue Manager Status in the right pane should show the queue manager status as **Running**. If it does not, right-click on the queue manager name, then select **Start** from the drop-down list. The Queue Manager Status should change 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 Console Root tree of the MQServices window, expand **WebSphere MQ Services**, then select the queue manager.

There should be three entries for your particular queue listed in the right pane: Queue Manager, Command Server, and Channel Initiator. (If you do not see a Channel Initiator, it will appear after you reboot your system.)

5. For the three entries in the right pane--Queue Manager, Command Server, Channel Initiator--configure the Startup mode to Automatic by right-clicking each, then selecting **All Tasks > Automatic**.
6. Add a listener entry by right-clicking the queue manager name in the Console Root tree and then selecting **New > Listener** from the drop-down list.
7. 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**.
8. Configure the listener for automatic startup by right-clicking it and then selecting **All Tasks > Automatic**.
9. Close IBM WebSphere MQ Explorer. Select **Yes** when prompted to save your changes.
10. Restart your machine.
11. Verify that Channel Initiator has been started by following these steps:
 - a. Select **Start > Programs > IBM WebSphere MQ > WebSphere MQ Services**. (Alternatively, right-click the WebSphere MQ icon on your taskbar, then select WebSphere MQ Services.)
 - b. In the MQServices window, verify that Channel Initiator is running and that it is set for Automatic.
 - c. Close the MQServices window.

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. 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

Directory name	Contents
<ul style="list-style-type: none"> • <code>_uninstWBIServerExp</code> (in WebSphere Business Integration Server Express installations) • <code>_uninstWBIServerExpPlus</code> (in WebSphere Business Integration Server Express Plus installations) 	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.

Table 1. Directory structure of WebSphere Business Integration Server Express and Express Plus installations (continued)

Directory name	Contents
Tools	This directory contains the Workbench files if selected during installation.
WBFEM	This directory contains the Failed Event Manager files.
WBSM	This directory contains the System Monitor files.

Silently installing WebSphere Business Integration Server Express and Express Plus

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. Response files 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. Copy the response file from the CD media to a directory of your choice and modify it with the settings needed for your installation.
2. Move to the directory containing the modified response file.
3. From a command line, issue the following command:

```
CD_drive_letter\Launchpad\setupwin32.exe -silent -options <response_file_name>
```

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** or **IBM WebSphere Business Integration Server Express Plus v4.3** (depending on which product is installed), and select the **Change/Remove** button.

The Uninstallation Welcome screen appears.

4. Select **Next**.
The Uninstallation Feature screen appears. The installed components appear with checks next to them.
5. Leave any components checked that you want to be removed and select **Next**.
The Pre-uninstallation Summary screen appears.

6. Select **Next** to confirm your selections. The Uninstaller removes the selected components.
The Post-uninstallation Finish screen appears.
7. Select **Finish** to exit the uninstallation GUI.

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

Silently uninstalling WebSphere Business Integration Server Express and Express Plus

The silent uninstallation uninstalls all WebSphere Business Integration Server Express or Express Plus components. To perform a silent uninstallation, 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. From a command line issue the following command:
`uninstaller.exe -silent`

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

Taking the next step

After you have successfully installed WebSphere Business Integration Server Express or Express Plus, proceed to Chapter 6, “Starting the WebSphere Business Integration Server Express or Express Plus system for the first time,” on page 29.

By first following the instructions in Chapter 6, “Starting the WebSphere Business Integration Server Express or Express Plus system for the first time,” on page 29 and then Chapter 7, “Verifying the installation,” on page 33, 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.

Chapter 6. Starting the WebSphere Business Integration Server Express or Express Plus system for the first time

The WebSphere Business Integration Server Express and Express Plus installers perform most product installation and configuration tasks for you. Thus, if you have installed the products using their installers, the following tasks have already occurred:

- Scripts and configuration files have been properly configured.
- Components have been configured as Windows services (except for the Persistent Naming Server).
- Contents have been deployed to the repository.

To start your system, you must launch the InterChange Server Express and System Manager components of WebSphere Business Integration Server Express or Express Plus, and register the InterChange Server Express with the System Manager.

This chapter contains the following sections:

- “Starting WebSphere Business Integration Server Express or Express Plus”
- “Setting up InterChange Server Express” on page 30
- “Taking the next step” on page 31

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 > InterChange Server Express**. The following processes occur:
 - InterChange Server Express starts. A command window displays various messages. To verify that the server is running and ready, in the `InterChangeSystem` file in `ProductDir`, check for the following message:
InterChange Server "`Server_Name`" is ready
 - The Persistent Naming Server starts. A command window displays various messages. To verify that the server is running and ready, in this command window, check for the following message:
TransientNameServer: setting port for initial object references to: 14500
Ready.
- Tip:** To make each Command Prompt screen easier to read, right-click its title bar, then select **Properties**. In the **Layout** tab, increase the height and width values in the **Window Size** area. In the **Colors** tab, select a different color for the **Screen Text**. Select **OK**, select **Modify shortcut which started this window**, and then select **OK** again. The next time you open this Command Prompt screen, the new properties take effect.
2. Minimize the InterChange Server Express and Persistent Naming Server command screens before proceeding further, but do not close them unless you are shutting down InterChange Server Express and the Persistent Naming Server.

Setting up InterChange Server Express

To use 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”
- “Connecting to InterChange Server Express”
- “Changing the InterChange Server Express password”
- “Restarting InterChange Server Express” on page 31

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**.

Registering InterChange Server Express with System Manager

System Manager can manage an instance of InterChange Server Express. The instance in your environment must be registered 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 an InterChange Server Express using System Manager, follow these steps:

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

Changing the InterChange Server Express password

InterChange Server Express is protected by a password that only the ICS 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.

Attention: By default, the repository and Toolset Express use null as the password. If you change the InterChange Server Express password, make the same change in the shortcuts for the repository and the Toolset Express.

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. 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 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**.
Select **Immediately, without cleanup** 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 > InterChange Server Express**.
4. Connect to InterChange Server Express by right-clicking the InterChange Server Express name in System Manager and then entering its password.

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 7, “Verifying the installation,” on page 33.
- If you did not install the Samples component during installation of WebSphere Business Integration Server Express or Express Plus and 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 did not install the Samples component during installation of WebSphere Business Integration Server Express Plus and need to install an optional Adapter Capacity Pack, proceed to Chapter 8, “Installing the Adapter Capacity Pack for WebSphere Business Integration Server Express Plus,” on page 35.
- If you did not install the Samples component during installation of WebSphere Business Integration Server Express Plus and need to install an optional Collaboration Capacity Pack, proceed to Chapter 9, “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 and are upgrading to Express Plus v4.3, refer to the information in Chapter 11, “Upgrading from WebSphere Business Integration Server Express v4.3 to Express Plus v4.3,” on page 59.

Chapter 7. 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”

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.”

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 8, “Installing the Adapter Capacity Pack for WebSphere Business Integration Server Express Plus,” on page 35.
- If you need to install an optional Collaboration Capacity Pack for a WebSphere Business Integration Server Express Plus installation, proceed to Chapter 9, “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 and are upgrading to Express Plus v4.3, refer to the information in Chapter 11, “Upgrading from WebSphere Business Integration Server Express v4.3 to Express Plus v4.3,” on page 59.

Chapter 8. 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* adapter components supplied through an optional Adapter Capacity Pack. (Adapter Capacity Packs cannot be used with WebSphere Business Integration Server Express installations.)

The Launchpad provides a way to launch the GUI installer that leads you through installation of the adapters selectable from 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 the adapters in the Adapter Capacity Pack using the GUI”
- “Silently installing the Adapter Capacity Pack” on page 43
- “Uninstalling the Adapter Capacity Pack using the GUI” on page 43
- “Silently uninstalling the Adapter Capacity Pack” on page 44
- “Taking the next step” on page 44

Installing the adapters in the Adapter Capacity Pack using the GUI

The installation GUI supplied with the Adapter Capacity Pack installs and registers with the InterChange Server Express up to three adapters, which are selectable from the list in the section “Deciding which adapter to install” on page 42. 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 does the following:

- Installs the selected adapter.
- Configures the adapter as a service.

To successfully install an adapter supplied in the 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.
- 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.)
- 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.
- If the adapter will not be installed on the same machine as InterChange Server Express, an installation of WebSphere MQ 5.3.0.2 CSD5 must exist on the same machine on which the adapter will be installed.

To invoke the Launchpad to launch the 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.

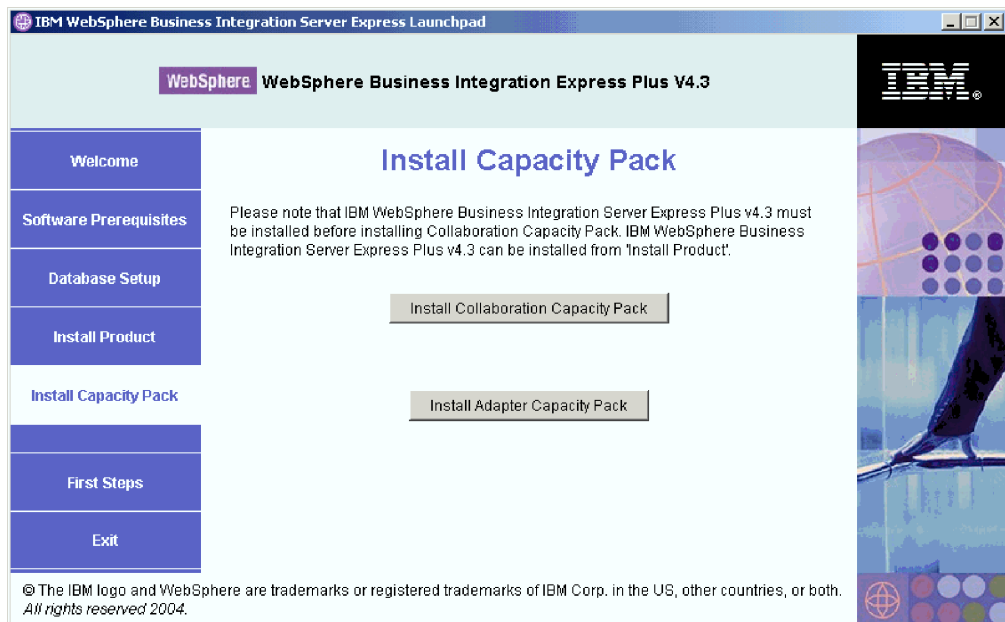


Figure 14. Install Capacity Pack screen

2. Select **Install Adapter Capacity Pack** to launch the GUI to install the Adapter Capacity Pack.

The Welcome screen appears.

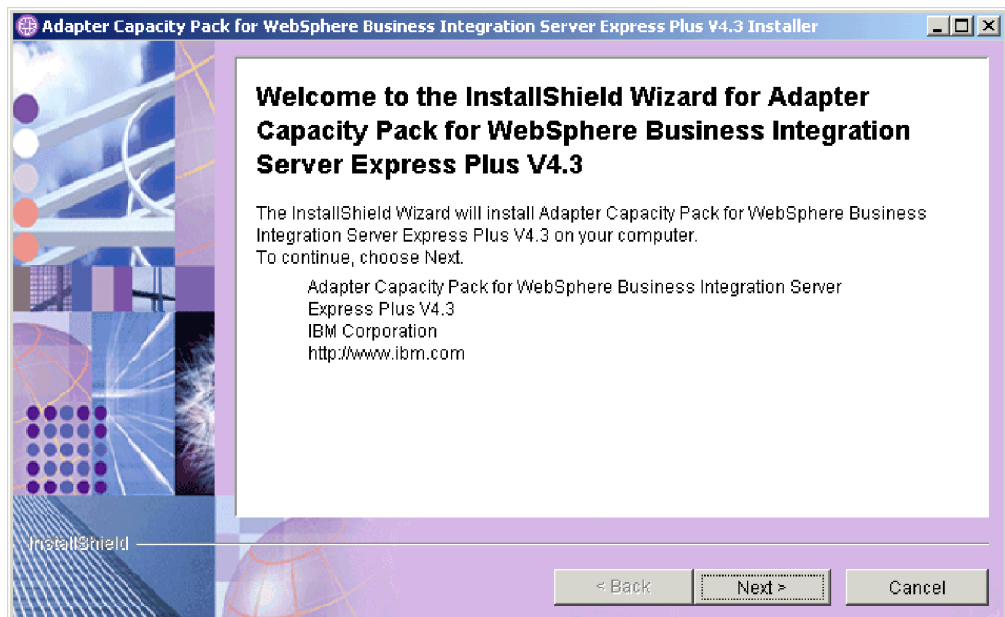


Figure 15. Welcome screen

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

The Software License Agreement screen appears.

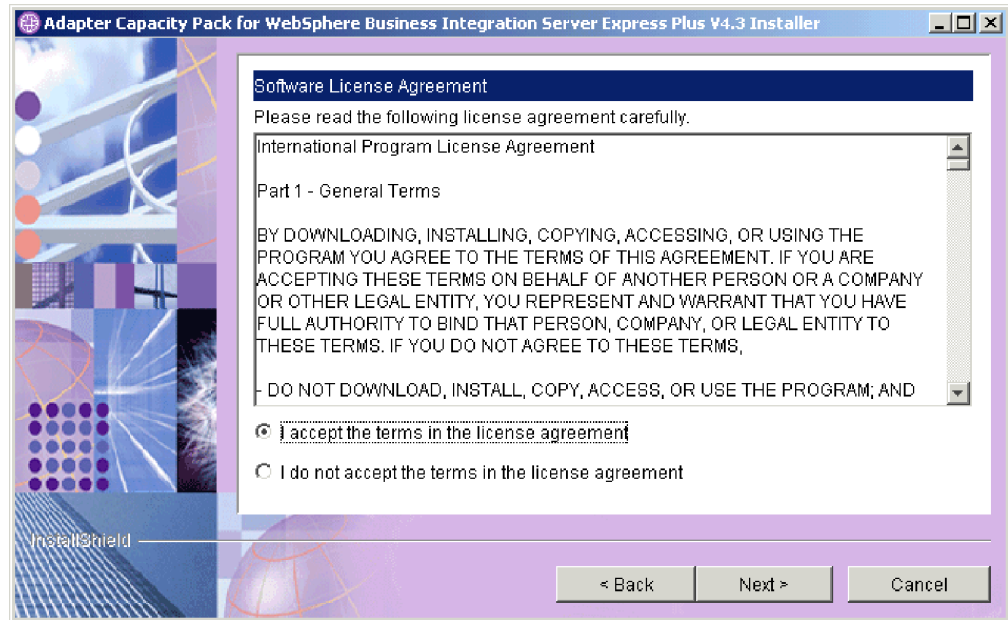


Figure 16. Software License Agreement screen

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, installation proceeds, as follows:

- If the installer found an installation of WebSphere Business Integration Server Express Plus on the local machine, the Feature screen appears. In this case, proceed to Step 6 on page 38.
- If the installer did not find an installation of WebSphere Business Integration Server Express Plus on the local machine, but you have run the Adapter Capacity Pack installer before, the Feature screen appears. In this case, proceed to Step 6 on page 38.
- If the installer did not find an installation of WebSphere Business Integration Server Express Plus on the local machine and you have not run the Adapter Capacity Pack installer before, the Destination screen appears. In this case, proceed to Step 5 on page 38.

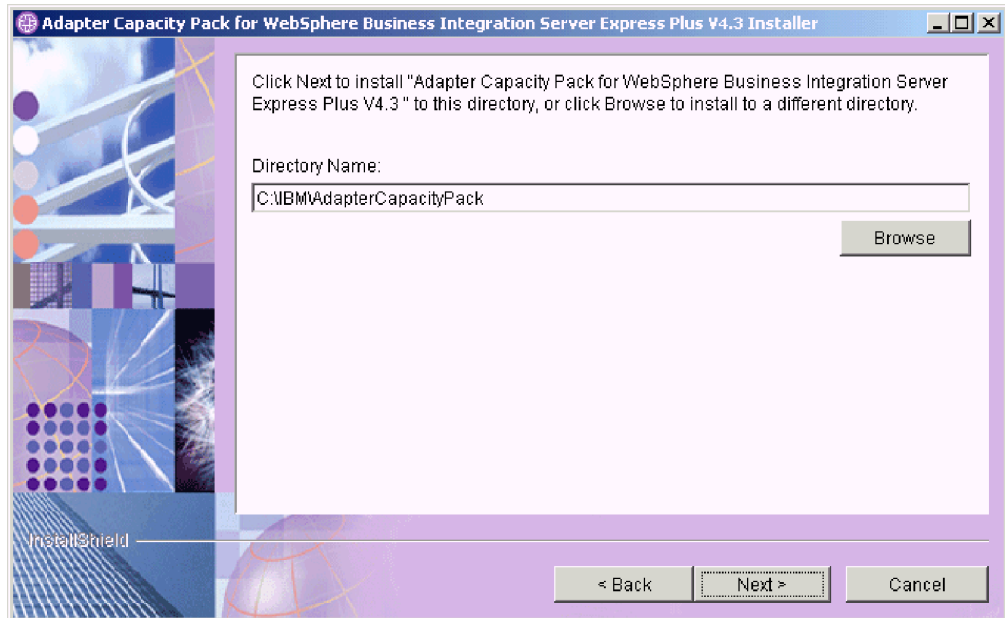


Figure 17. Destination screen

5. On the Destination screen, accept the default installation location or browse for a different location, then select **Next**.

Note: The directory path must not contain any spaces.

The Feature screen appears.

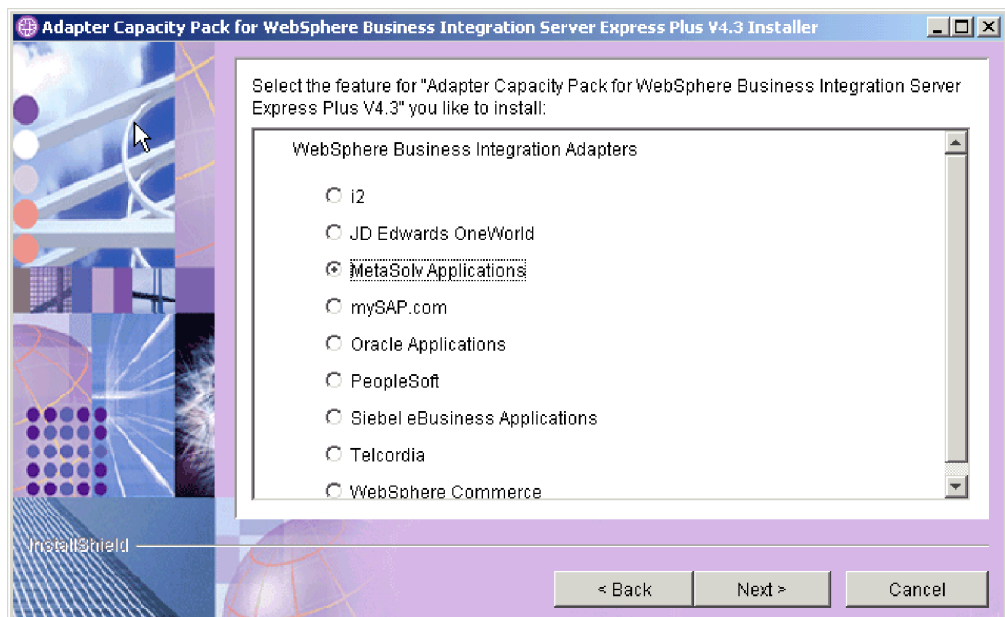


Figure 18. Feature screen

6. 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 42.

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 on page 40.
- If the InterChange Server Express exists on a remote machine and this is the first time you have run the Adapter Capacity Pack installer, the Name Server Configuration screen appears. In this case, proceed to Step 7.

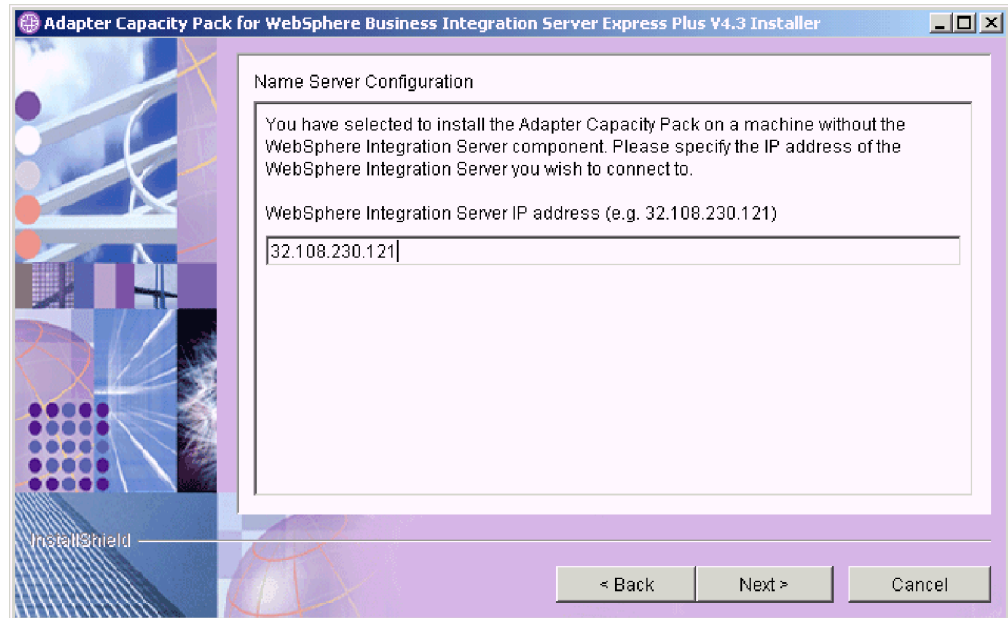


Figure 19. Name Server Configuration screen

7. On the Name Server Configuration screen, type the IP address of the computer on which you have installed the InterChange Server Express component, and then select **Next**.

The InterChange Server Express Password screen appears.

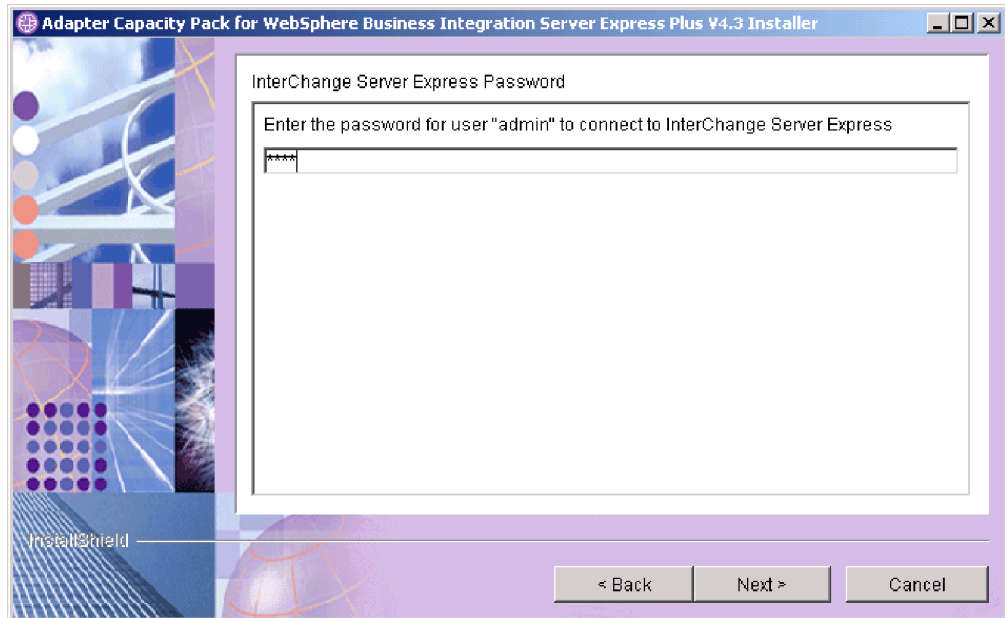


Figure 20. InterChange Server Express Password screen

8. On the InterChange Server Express Password screen, type the password of the user admin for the InterChange Server Express, and then select **Next**. For more information on how the system updates the license file, see “Updating the license file” on page 43.

The Pre-installation Summary screen appears.

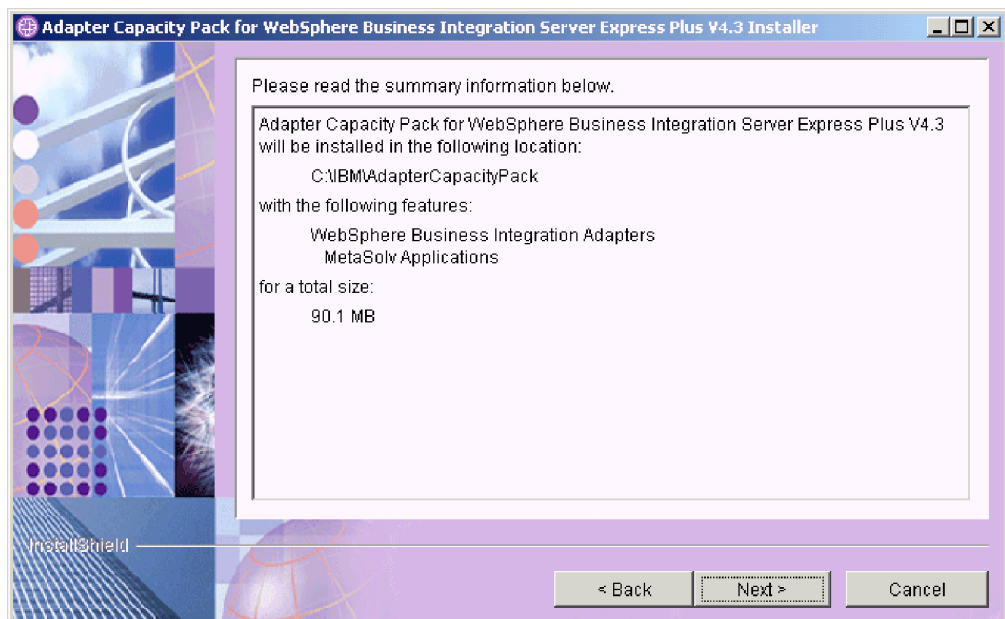


Figure 21. Pre-installation Summary screen

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 license registration succeeded or failed. Select **OK** to exit this dialog. The Post-installation Summary screen appears, which indicates if the process was successful or if problems were encountered.

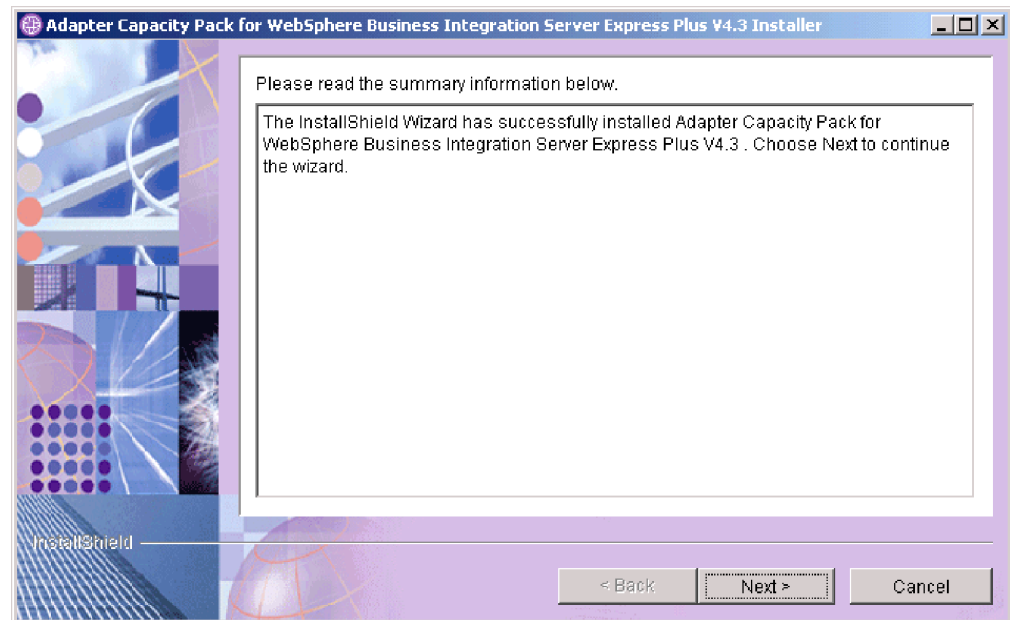


Figure 22. Post-installation Summary screen

10. On the Post-installation Summary screen, select **Next**.
The Reboot screen appears.

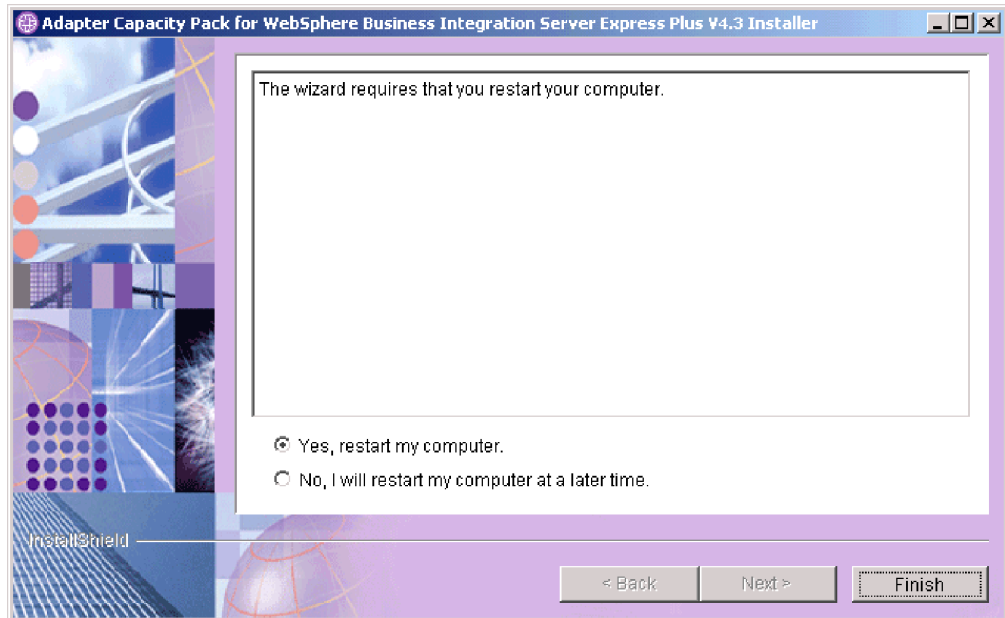


Figure 23. Reboot screen

11. On the Reboot screen, select whether you want to restart your machine now or later, and select **Finish** to exit the installation GUI.

During the installation process, the Adapter Capacity Pack installer creates an installation log file called `adapterCPIInstallLog.txt` in the directory `ProductDir\log`.

Deciding which adapter to install

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

- Adapter for mySAP.com
- Adapter for JD Edwards OneWorld
- Adapter for Oracle Applications
- Adapter for Seibel eBusiness Applications
- Adapter for i2
- Adapter for WebSphere Commerce
- Adapter for MetaSolv Applications
- Adapter for PeopleSoft (PeopleSoft 8.x)
- Adapter for Telcordia

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/wbiserverexpress/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 can be registered with the InterChange Server Express.

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 whether the adapter was registered or unregistered successfully. Another informs you if the number of registered adapters has reached the maximum limit.

Silently installing the Adapter Capacity Pack

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.

The response file's name 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. Copy the response file from the CD media to a directory of your choice and modify it with the settings needed for your installation.
2. Move to the directory containing the modified response file.
3. From a command line, issue the following command:

```
CD_drive_letter\Launchpad\AdapterCapacityPack\setupwin32.exe -silent \
-options adaptercp_silent.txt
```

Uninstalling the Adapter Capacity Pack using the GUI

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

Note: 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** and select the **Change/Remove** button. The Uninstallation Welcome screen appears.
4. Select **Next**.
The Uninstallation Feature screen appears. The installed components appear with checks next to them.
5. Leave any components checked that you want to be removed and select **Next**. The InterChange Server Express Password screen appears.

6. 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 43.
The Pre-installation Summary screen appears.
7. Select **Next** to confirm your selections. A message dialog informs you if the license was updated successfully. Select **OK** to exit this dialog. The Uninstaller removes the selected components.
The Post-uninstallation Summary screen appears.
8. Select **Finish** to exit the uninstallation GUI.

Silently uninstalling the Adapter Capacity Pack

In a silent uninstallation, the responses you normally specify manually when you run the uninstaller are stored in a supplied template response file. This response file is then read by an executable that uninstalls the components. You must make necessary modifications to this response file before running the executable.

The response file’s name is `adaptercp_silent_uninst.txt` and it is located on the CD in the directory `Launchpad\AdapterCapacityPack`.

Note: 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 perform a silent uninstallation, do the following:

1. Copy the `adaptercp_silent_uninst.txt` response file from the CD to the directory `ProductDir_uninstAdapterCP`.
2. Modify the response file with the settings needed for your uninstallation.
3. Move to the directory `ProductDir_uninstAdapterCP`.
4. From a command line, issue the following command:
`uninstaller.exe -silent -options adaptercp_silent_uninst.txt`

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 9, “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.

Chapter 9. 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”
- “Silently installing the Collaboration Capacity Pack” on page 50
- “Uninstalling the Collaboration Capacity Pack using the GUI” on page 51
- “Silently uninstalling the Collaboration Capacity Pack” on page 51
- “Taking the next step” on page 51

Installing the Collaboration Capacity Pack using the GUI

The Collaboration Capacity Pack installation GUI does the following:

- Installs the selected collaboration group.
- Deploys the installed content to the InterChange Server Express.

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.
- WebSphere Business Integration Server Express must not be installed on the same machine on which you are installing the Collaboration Capacity Pack. (Collaboration Capacity Packs can be installed only for an existing WebSphere Business Integration Server Express Plus 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.

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

1. Select the button labeled **Install Capacity Pack** from the Launchpad. The Launchpad first checks if WebSphere Business Integration Server Express Plus is installed on the machine. It then acts, as follows:
 - If WebSphere Business Integration Server Express Plus is not installed, the Launchpad directs you to first install this product by selecting the button labeled **Install Product**.

- If WebSphere Business Integration Server Express Plus is installed, the Install Capacity Pack screen appears with two buttons.

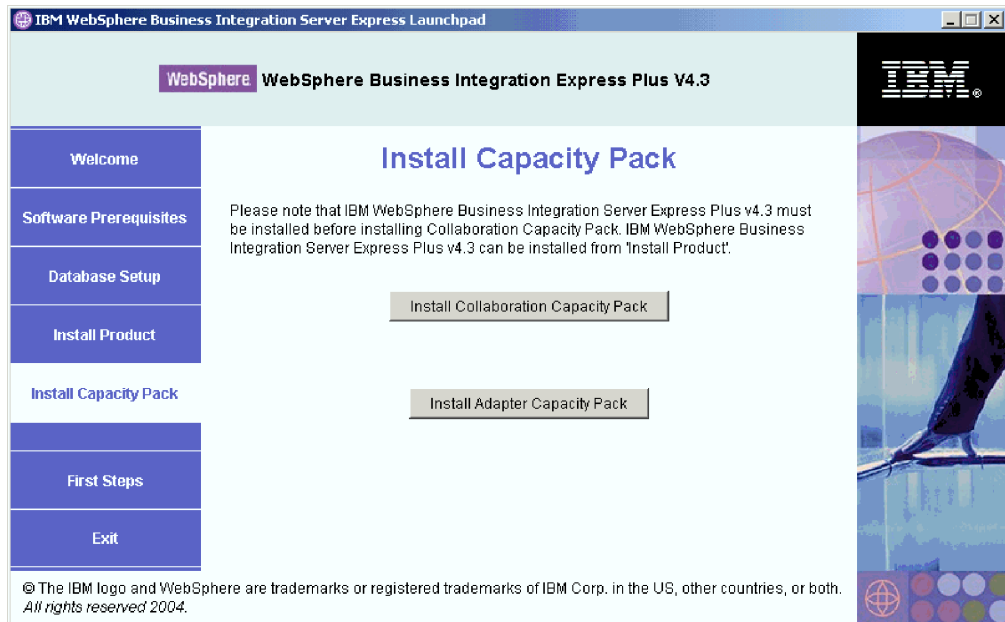


Figure 24. Install Capacity Pack screen

2. Select **Install Collaboration Capacity Pack** to launch the GUI to install the Collaboration Capacity Pack.
The Welcome screen appears.

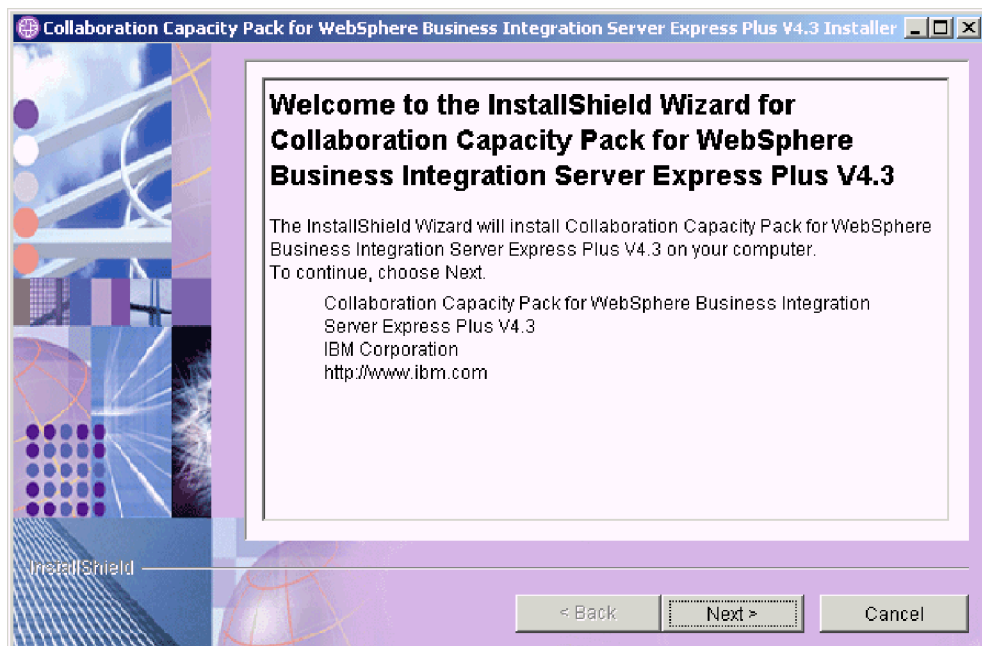


Figure 25. Welcome screen

3. At the Welcome screen, select **Next**.
The Software License Agreement screen appears.



Figure 26. Software License Agreement screen

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.

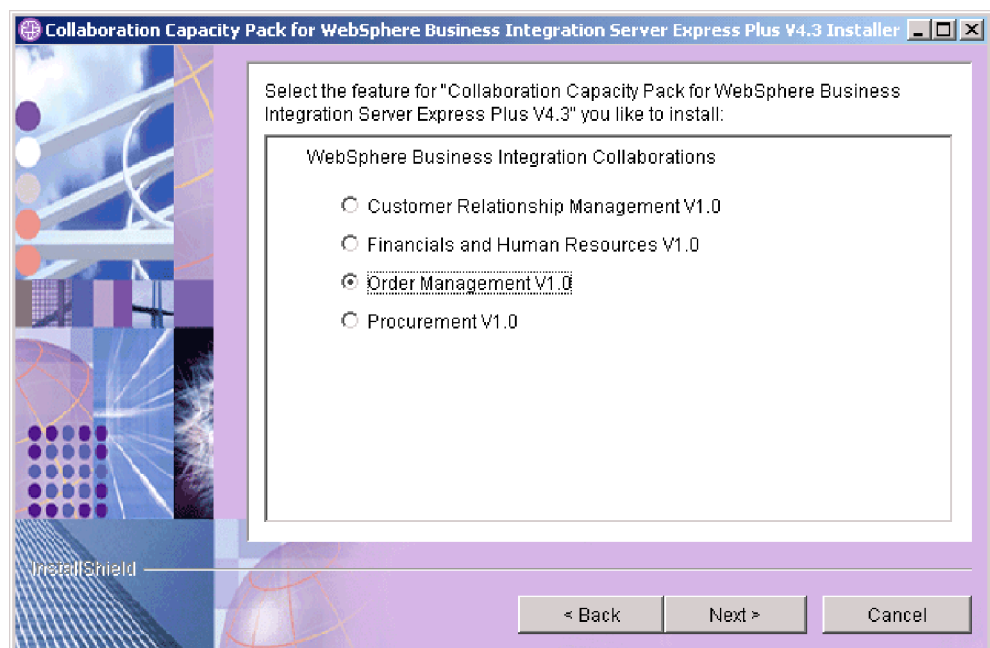


Figure 27. Feature screen

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” on page 49.

The Pre-installation Summary screen appears.

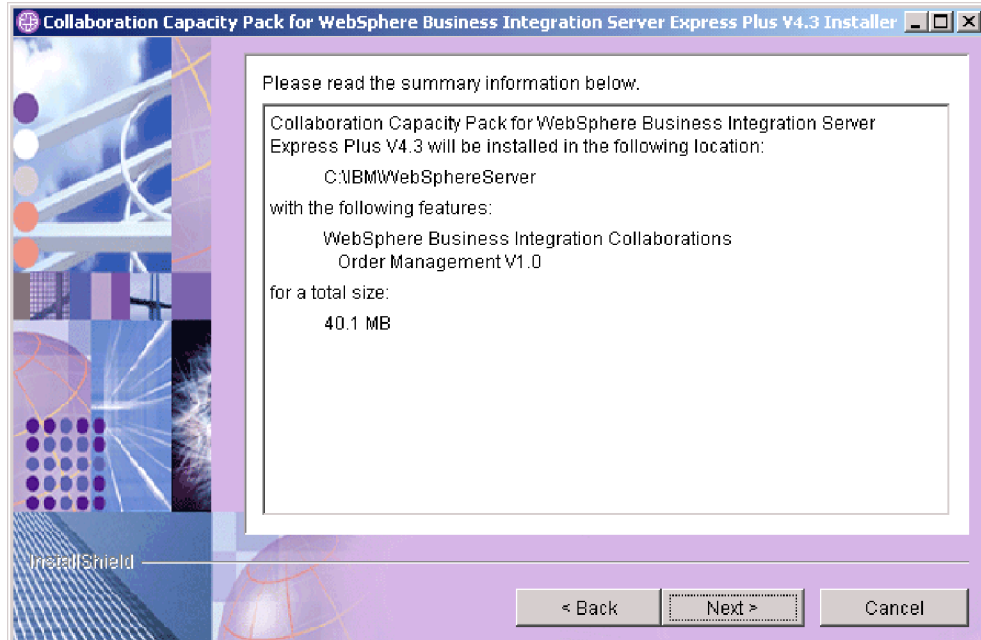


Figure 28. Pre-installation Summary screen

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.

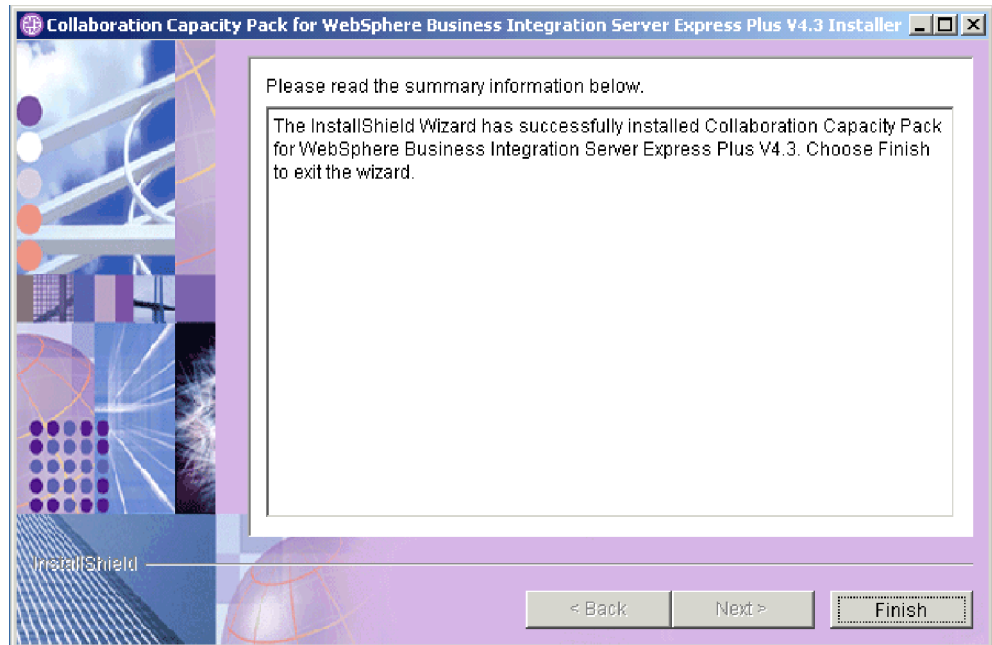


Figure 29. Post-installation Summary screen

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

During the installation process, the Collaboration Capacity Pack installer creates an installation log file called `collabCPInstallLog.txt` in the directory `ProductDir\log`.

Deciding which collaboration group to install

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

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

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

- Collaborations for Procurement V1.0
 - Collaboration for Inventory Level Manager V6.0
 - Collaboration for Inventory Movement V5.0
 - Collaboration for BOM Manager V6.0
 - Collaboration for Purchasing V5.0
 - Collaboration for Vendor Manager V5.0
- Collaborations for Customer Relationship Management V1.0
 - Collaboration for Contact Manager V5.0
 - Collaboration for Contract Sync V6.0
 - Collaboration for Customer Manager V6.0
 - Collaboration for Customer Credit Manager V5.0
 - Collaboration for Installed Product V7.0

- Collaboration for Billing Inquiry V3.0
- Collaboration for Vendor Manager V5.0
- Collaborations for Order Management V1.0
 - Collaboration for ATP To Sales Order V4.0
 - Collaboration for Available To Promise V4.0
 - Collaboration for Item Manager V7.0
 - Collaboration for Price List Manager V5.0
 - Collaboration for Sales Order Processing V6.0
 - Collaboration for Order Billing Status V5.0
 - Collaboration for Order Delivery Status V5.0
 - Collaboration for Order Status V5.0
 - Collaboration for Return Billing Status V5.0
 - Collaboration for Return Delivery Status V5.0
 - Collaboration for Return Status V5.0
 - Collaboration for Contact Manager V5.0
 - Collaboration for Customer Manager V6.0
 - Collaboration for Trading Partner Order Management V4.0
- Collaborations for Financials and Human Resources V1.0
 - Collaboration for AR Invoice Sync V5.0
 - Collaboration for Department Manager V5.0
 - Collaboration for Employee Manager V5.0
 - Collaboration for GL Movement V5.0
 - Collaboration for Invoice Generation V7.0

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>.

Silently installing the Collaboration Capacity Pack

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.

The response file's name 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. Copy the response file from the CD media and modify it with the settings needed for your installation.
2. Move to the directory containing the modified response file.
3. From a command line, issue the following command:

```
CD_drive_letter\Launchpad\CollaborationCapacityPack\setupwin32.exe -silent \
-options_collabcp_silent.txt
```

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** and select the **Change/Remove** button.
The Uninstallation Welcome screen appears.
4. Select **Next**.
The Pre-uninstallation Summary screen appears.
5. Select **Next**. The Uninstaller removes the components.
The Post-uninstallation Summary screen appears.
6. Select **Finish** to exit the uninstallation GUI.

Silently uninstalling the Collaboration Capacity Pack

The silent uninstallation uninstalls the Collaboration Capacity Pack. To perform a silent uninstallation, do the following:

1. Move to the directory `ProductDir_uninstCollabCP`.
2. From a command line, issue the following:
`uninstaller.exe -silent`

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.

Chapter 10. 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. (For more information on how to configure security for Failed Event Manager, see the *System Administration Guide*.)

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” on page 54.
- 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 56.

You do *not* need to follow the instructions in this chapter if WebSphere Application Server version 5.0.2 or 5.1 or WebSphere Application Server Express version 5.0.2 or 5.1 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” on page 54
- “Configuring System Monitor and Failed Event Manager to use Tomcat” on page 56
- “Taking the next step” on page 58

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

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 of WebSphere Application Server or WebSphere Application Server Express Plus, see “Configuring Tomcat to use System Monitor and Failed Event Manager.”

Before proceeding, ensure that you have installed the following prerequisites:

- 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.)
- If you are using WebSphere Application Server Express 5.0.2 or 5.1 and want to use a Web server, that you have installed a Web server such as 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.

After you have met these prerequisites, proceed to “Configuring System Monitor and Failed Event Manager to use a Web server.”

Configuring System Monitor and Failed Event Manager to use a Web server

A script called `CWDashboard.bat`, located in the directory `ProductDir\bin` (where `ProductDir` represents the directory `C:\IBM\WebSphereServer` by default) is supplied with WebSphere Business Integration Server Express and Express Plus. This script configures 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)

For example:

```
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.
```

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 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 is installed.

If you want to use a different port number and you do not currently have a Web server installed, follow the procedure in the section “Configuring System Monitor and Failed Event Manager to use a different port number.”

Configuring System Monitor and Failed Event Manager to use a different port number

To 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
- Fully qualified host name of the machine on which you are installing
- WebSphere Business Integration Server Express or Express Plus installation directory
- 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
- New SSL port number (default is 7043)

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 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 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 “Installing System Monitor and Failed Event Manager with WebSphere Application Server.” 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 use 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 *ProductDir*\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 *ProductDir\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.

Taking the next step

If you have successfully installed your system prerequisites, configured your database, installed WebSphere Business Integration Server Express or Express Plus, and configured System Monitor and Failed Event Manager, proceed to Chapter 6, “Starting the WebSphere Business Integration Server Express or Express Plus system for the first time,” on page 29 for instructions on how to start your WebSphere Business Integration Server Express or Express Plus system.

Chapter 11. Upgrading from WebSphere Business Integration Server Express v4.3 to Express Plus v4.3

This chapter describes general procedures for upgrading WebSphere Business Integration Server Express v4.3 to Express Plus v4.3. It contains the following sections:

- “Meeting system prerequisites”
- “Preparing the existing system”
- “Starting the upgrade process” on page 61
- “Validating the upgrade” on page 67
- “Testing” on page 68
- “Backing up your upgraded version” on page 68
- “Taking the next step” on page 68

Meeting system prerequisites

The upgrade procedure described in this chapter assumes the following:

- WebSphere Business Integration Server Express v4.3 is already installed on your machine and you are now installing WebSphere Business Integration Server Express Plus v4.3.
- You will perform the upgrade in a development environment, then move the upgrades 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 69.

Note: You do *not* have to upgrade supporting software, or uninstall and reinstall Windows services.

- You will perform the upgrade to the InterChange Server Express component as well as to the Toolset Express and adapter components if they exist on separate machines by running the installer on the various machines.

Preparing the existing system

The system upgrade involves the following steps:

- “Putting the system in a quiescent state”
- “Backing up the system” on page 60
- “Shutting down the system” on page 61

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.

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 and password. 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
Static data	
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: <i>ProductDir</i> \DLMS
Custom connectors	Include the following directory in your system backup: <i>ProductDir</i> \connectors\ <i>connector_name</i> , where " <i>connector_name</i> " 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 <i>ProductDir</i> directory.
Dynamic data	
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: <i>ProductDir</i> \log

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*.

Starting the upgrade process

After the system is in a quiescent state and backed up, you can safely start the upgrade procedure. Upgrading the system involves the following tasks:

- "Installing WebSphere Business Integration Server Express Plus v4.3"
- "Starting the new upgraded version" on page 67

Installing WebSphere Business Integration Server Express Plus v4.3

After you have backed up your installation, you are ready to install WebSphere Business Integration Server Express Plus. The Launchpad provides a way to launch the GUI installer that leads you through upgrading WebSphere Business Integration Server Express v4.3 to Express Plus v4.3. The GUI does the following:

- Installs WebSphere Business Integration Server Express Plus product components and configures them as services.
- Installs the new adapters you have selected 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 product upgrading GUI, do the following:

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

Note: This procedure assumes installation from a CD. If you plan to obtain the electronic download version from Passport Advantage, refer to your Passport Advantage information for those downloading instructions.

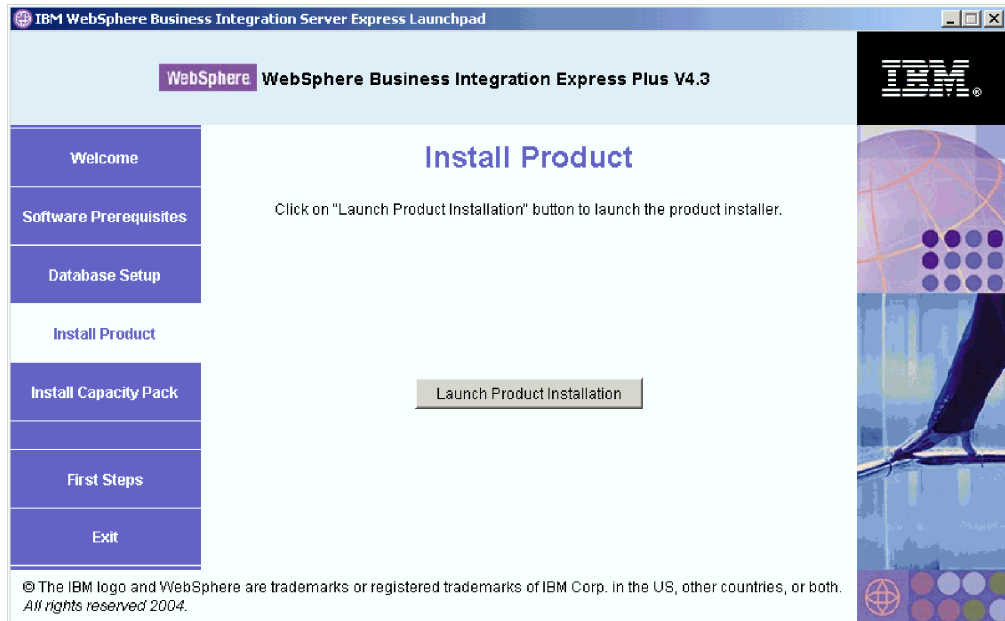


Figure 30. Install Product screen

2. Select **Launch Product Installation**.
The Welcome screen appears.

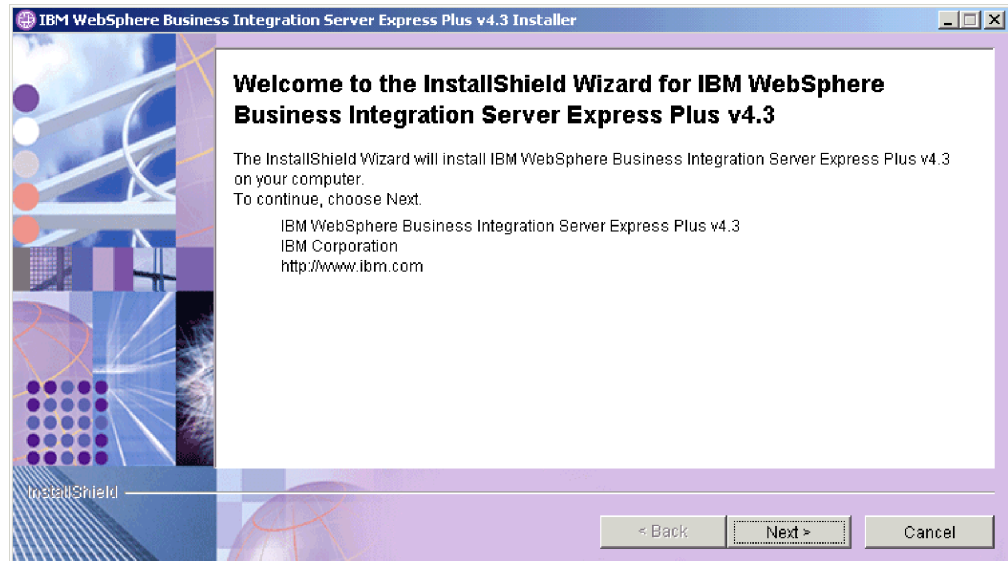


Figure 31. Welcome screen

3. At the Welcome screen, select **Next**.
The Software License Agreement screen appears.

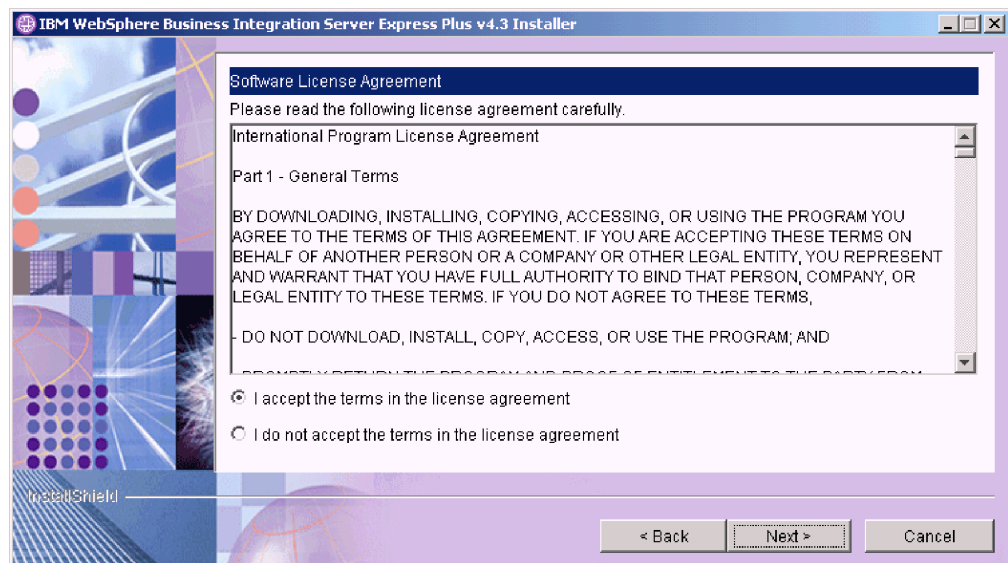


Figure 32. Software License Agreement screen

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.

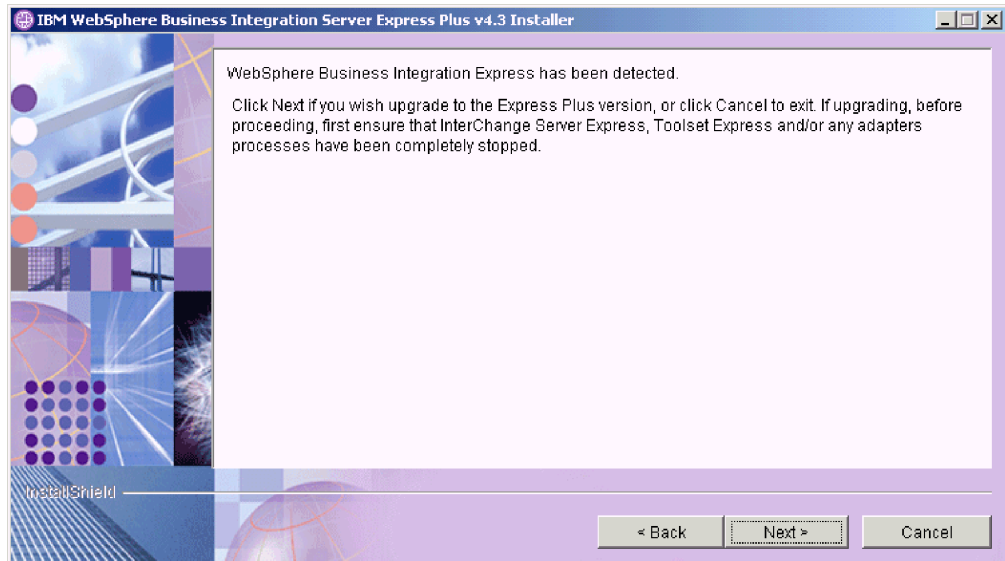


Figure 33. Upgrade Check screen

5. On the Upgrade Check screen, select **Next**.
The Feature screen appears.

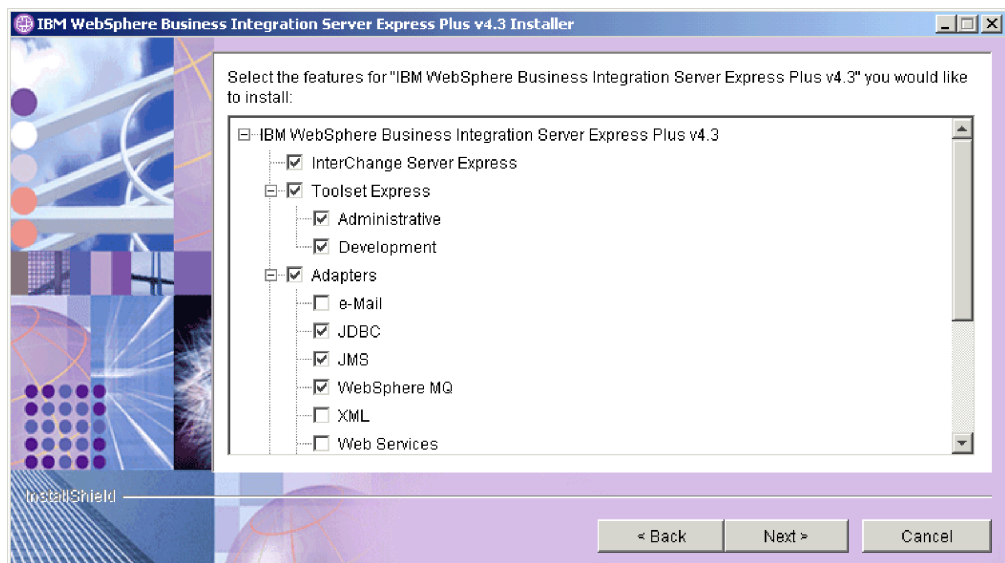


Figure 34. Feature screen

6. On the Feature screen, choose any components you want to install and select **Next**.

Note: WebSphere Business Integration Server Express components that are already installed are preselected for upgrade and cannot be unselected. Only features not already installed appear on the Feature screen.

One of the following screens appears:

- If you selected to install the InterChange Server Express component or have the InterChange Server Express component installed as part of your existing

WebSphere Business Integration Server Express installation, the Pre-installation Summary screen appears. In this case, continue with these instructions at Step 8 on page 66.

- If you did not select to install the InterChange Server Express component and do not have the InterChange Server Express component installed as part of your existing WebSphere Business Integration Server Express installation, the Name Server Configuration screen appears. In this case, continue with these instructions at Step 7.

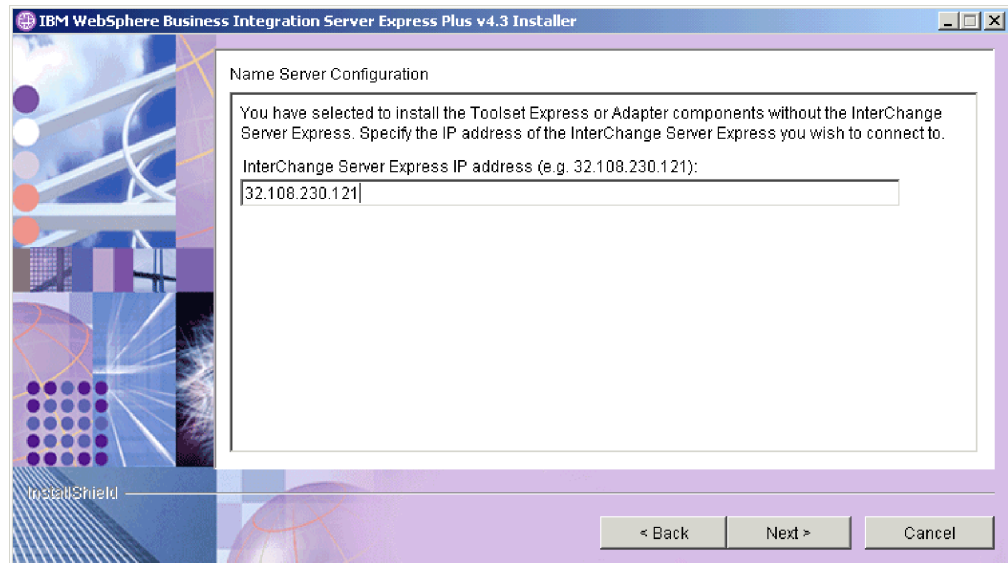


Figure 35. Name Server Configuration screen

7. On the Name Server Configuration screen, type the IP address of the computer on which the InterChange Server Express is installed, and then select **Next**. The Pre-installation Summary screen appears.

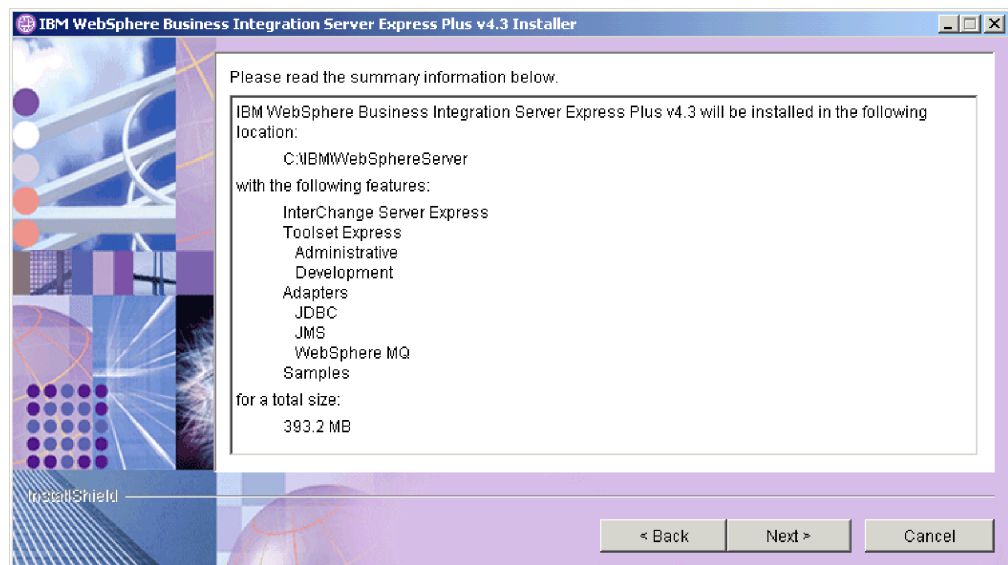


Figure 36. Pre-installation Summary screen

8. On the Pre-installation Summary screen, review the features and installation location and select **Next**.

The installer verifies that enough disk space exists for the installation and 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 unselect some features or sub-features in the Feature screen, 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.

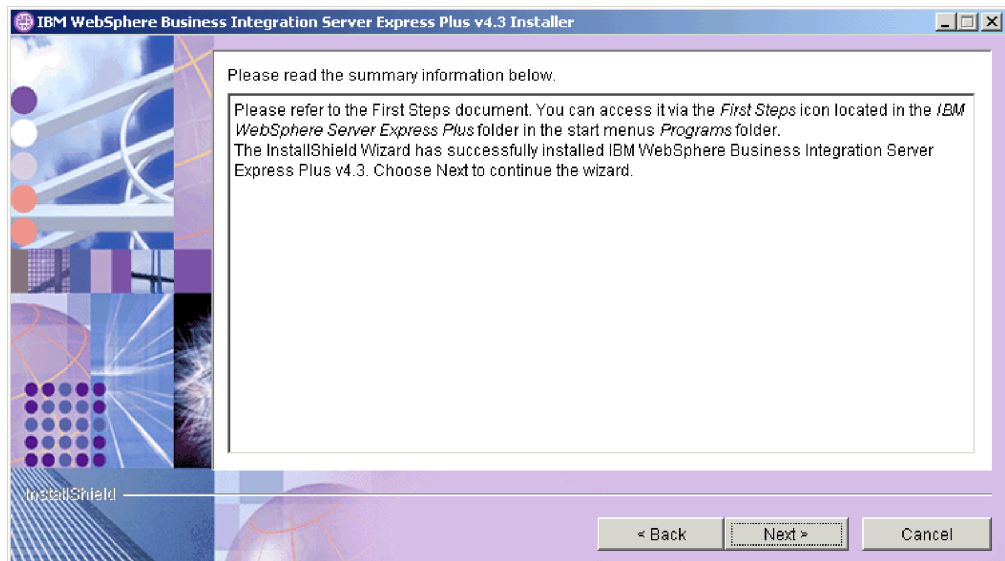


Figure 37. Post-installation Summary screen

The buttons on this screen differ depending on whether you elected to install any adapters or the InterChange Server Express:

- If you did not install adapters or the InterChange Server Express, a **Finish** button appears on this screen. Select it to exit the installation GUI.
- If you did install adapters or the InterChange Server Express, a **Next** button appears on this screen because the machine must be restarted. Select it and the Reboot screen appears. In this case, continue with Step 9 on page 67.

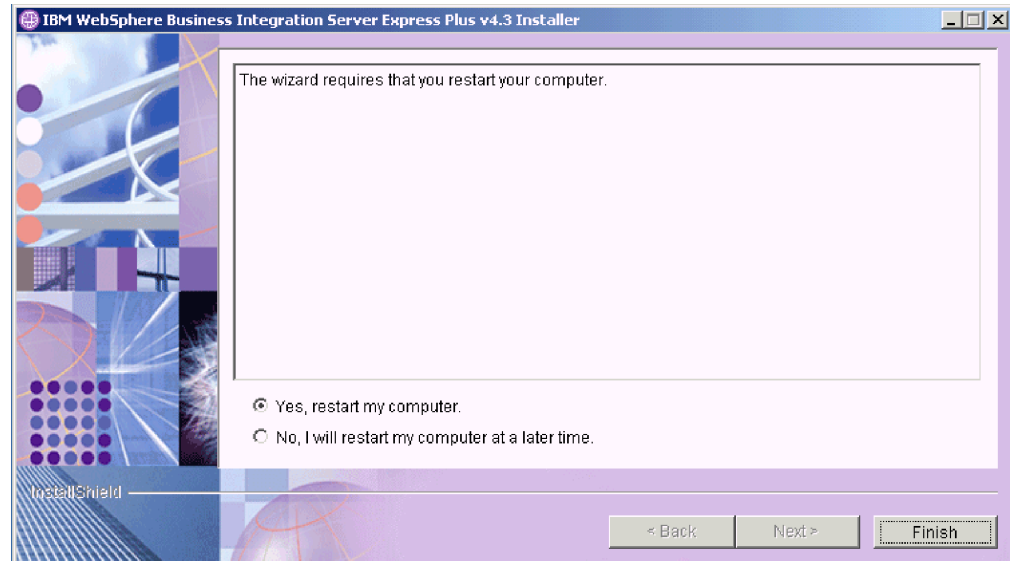


Figure 38. Reboot screen

9. On the Reboot screen, select whether you want to restart your machine now or later, and select **Finish** to exit the installation GUI.

Starting the new upgraded version

After the installation completes, you can start the WebSphere Business Integration Server 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 29.

You can check the `InterChangeSystem.txt` 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.

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 lights 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.

Testing

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.

Backing up your upgraded version

When your upgrade process is complete, back up your WebSphere Business Integration Server Express Plus system. See “Backing up the system” on page 60.

Taking the next step

Your upgrade to WebSphere Business Integration Server Express Plus is complete. Do one of the following if you need to install an optional Adapter or Collaboration Capacity Pack:

- If you need to install an optional Adapter Capacity Pack, proceed to Chapter 8, “Installing the Adapter Capacity Pack for WebSphere Business Integration Server Express Plus,” on page 35.
- If you need to install an optional Collaboration Capacity Pack, proceed to Chapter 9, “Installing the Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus,” on page 45.

Appendix. 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 72

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">• Repository 300-500 MB• Rollback 500 MB• Temporary 500 MB

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. Other third-party software, such as Microsoft SQL Server, are not provided by IBM.

Reference the following tables for information on software requirements:

- Table 4 on page 70 lists the Windows platforms on which WebSphere Business Integration Server Express and Express Plus are supported.
- Table 5 on page 70 lists the required software supplied with WebSphere Business Integration Server Express and Express Plus.
- Table 6 on page 70 lists other software required but *not supplied* with WebSphere Business Integration Server Express and Express Plus.

- Table 7 on page 71 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 and Table 7 on page 71. 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	Comments
Windows 2000 Professional, Server, and Advanced Server	Service Pack 3	Both InterChange Server Express and Toolset Express are supported on this platform.
Windows XP	Service Pack 1A	Only Toolset Express is 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.	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 CSD5	
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

Software	Version and patch	Comments
One of the following code-control programs: ClearCase LT Concurrent Version System (CVS)	Version 4.2 Version 1.11	For source control in System Manager. 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.

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

Software	Version and patch	Comments
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 www.adobe.com for the latest version of Adobe Acrobat Reader for your platform.
One of the following browsers: Microsoft Internet Explorer	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

Software	Version and patch	Comments
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 2000, 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 (either can replace supplied WebSphere Application Server Express Edition): WebSphere Application Server	Version 5.0.2 or 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. In Tomcat, 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.

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WebSphere Business Integration Server Express V4.3 and WebSphere Business Integration Server Express Plus V4.3

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