

WebSphere Business Integration Server
Express and Express Plus



WebSphere Business Integration Server Express Installation Guide for OS/400

Version 4.3.1

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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 63.

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

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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 OS/400 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/wbiserverexpress/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

New in release 4.3.1

This is the first release of this guide. Release 4.3.1 includes production-mode support for the following operating systems:

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

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 runs on a Windows platform, and guides you step-by-step through the installation and configuration of the prerequisite and product software.

The installation is performed using a Windows system which will remotely install the product on the OS/400 system. Therefore, the OS/400 system must be on a network with the Windows system you plan to use for the installation. The Host Servers must be started on the OS/400 system (use the STRHOSTSVR CL command with parameter SERVER(*ALL)) for the installation to be successful. The product contains components that only run on a Windows based system. These components consist of Graphical User Interface tools to set up, configure, and manage the product. In addition to installing files on your OS/400 system, the install procedure will also install files to the Windows system where you run the install.

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

1. Learn basic Launchpad operation, including how to start, stop, and use the tool to view the product *Quick Start Guide*. See Chapter 2, "Starting and stopping the Launchpad and viewing the Quick Start Guide," on page 3.
2. Check that required software prerequisites are installed, install selected prerequisites if desired, and install the WebSphere Business Integration Server Express or Express Plus product. See Chapter 3, "Installing required software prerequisites and WebSphere Business Integration Server Express or Express Plus," on page 7.
3. Start your system. See Chapter 4, "Starting the WebSphere Business Integration Server Express or Express Plus system for the first time," on page 29.
4. Optionally verify that your system is installed and operating correctly by using a supplied sample called System Test. See Chapter 5, "Verifying the installation," on page 33.
5. Optionally install an Adapter Capacity Pack for WebSphere Business Integration Server Express Plus. See Chapter 6, "Installing the Adapter Capacity Pack for WebSphere Business Integration Server Express Plus," on page 35.
6. Optionally install a Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus. See Chapter 7, "Installing the Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus," on page 39.

Additional chapters in the guide provide information on the following topics:

- Chapter 8, "Manually configuring System Monitor and Failed Event Manager," on page 43.
- Chapter 9, "Upgrading from WebSphere Business Integration Server Express to Express Plus," on page 47.
- Appendix A, "Meeting hardware and software requirements," on page 55.

- Appendix B, “Silently installing and uninstalling WebSphere Business Integration Server Express or Express Plus and Capacity Packs,” on page 59.

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

Taking the next step

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

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

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

This chapter contains the following sections:

- “Starting the Launchpad”
- “Stopping the Launchpad” on page 4
- “Viewing the product Quick Start Guide from the Launchpad” on page 4
- “Taking the next step” on page 5

Starting the Launchpad

Before you start the Launchpad, do the following:

- Ensure that your OS/400 user profile has *ALLOBJ, *SECADM, *JOBCTL special authorities.
- Check that your OS/400 system meets the hardware requirements listed in the section “Checking hardware requirements” on page 55.
- If you will be using the Windows client for the Tools components, check that your Windows system meets the hardware requirements listed in the section “Checking hardware requirements” on page 55.
- 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 Windows user ID of less than 20 characters. If these requirements are not met, error messages outlining the problems appear and the Launchpad program terminates.

To invoke the Launchpad, insert the WebSphere Business Integration Server Express OS/400 CD into your Windows-based computer on which you will run Launchpad.

The OS/400 System Information screen appears and prompts for the OS/400 system name, userid, and password. Enter the information and click **OK**. 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.

Taking the next step

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

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

The WebSphere Business Integration Server Express or Express Plus system determines the prerequisite software needed for your installation based on the components you select to install. The Launchpad checks if the necessary prerequisite software is installed on your machine. The Launchpad can install some of the prerequisites. Refer to Table 6 on page 56 for a list of software prerequisites.

To silently install WebSphere Business Integration Server Express or Express Plus, refer to “Silently installing WebSphere Business Integration Server Express and Express Plus” on page 59.

Note: To uninstall WebSphere Business Integration Server Express or Server Express Plus on OS/400, you must run the console uninstall wizard from an OS/400 command line. Refer to “Uninstalling WebSphere Business Integration Server Express and Express Plus” on page 60 for instructions.

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

- WebSphere Business Integration Server Express or Express Plus version 4.3.1 is *not* already installed on your machine. If you have a previous version of the product or capacity packs installed and want to upgrade them to version 4.3.1, or have installed WebSphere Business Integration Server Express 4.3.1 and want to upgrade to WebSphere Business Integration Server Express Plus 4.3.1, see Chapter 9, “Upgrading from WebSphere Business Integration Server Express to Express Plus,” on page 47 for instructions.
- Installation is from the official product CDs.

Important information when installing from Passport Advantage ESDs

1. Refer to your Passport Advantage information for downloading instructions.
 2. Extract all ESDs to the same directory on your hard drive and install from the hard drive to ensure proper installer function. Do *not* create CDs based on the ESD images and attempt to install from them. If you do, installation can fail since configuration utilities for some software prerequisites might not be packaged with the ESDs containing the actual prerequisite software.
 3. Ensure that the component folders of the directory into which you extract the ESDs have no spaces in their names. For instance, C:\Program Files\WBISE is *not* a valid directory because the folder Program Files has a space in its name. C:\WBISE is a valid directory because the folder WBISE does not have a space in its name.
- Components are installed on OS/400 running either Version 5 Release 2 of OS/400 or Version 5 Release 3 of i5/OS. (For the rest of this guide and in all other guides, we use OS/400 to mean both.) If you are installing any of the Tools components, they are installed on the machine running the Windows operating system. *When the installer is run on Windows XP and Windows 2003 systems, some screens will not appear and others will show differing selections.* See Table 4 on page 56 for a listing of which product components are supported on each of the Windows platforms in both production and development environments.

- Installation of the WebSphere Business Integration Server Express and Express Plus product might show slightly different screens.

This chapter contains the following sections:

- “Identifying which software prerequisites are required”
- “Installing selected software prerequisites” on page 12
- “Installing WebSphere Business Integration Server Express and Express Plus” on page 20
- “Uninstalling WebSphere Business Integration Server Express and Express Plus” on page 27
- “Taking the next step” on page 28

See Appendix B, “Silently installing and uninstalling WebSphere Business Integration Server Express or Express Plus and Capacity Packs,” on page 59 for instructions on performing silent installation and uninstallation.

Identifying which software prerequisites are required

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

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

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

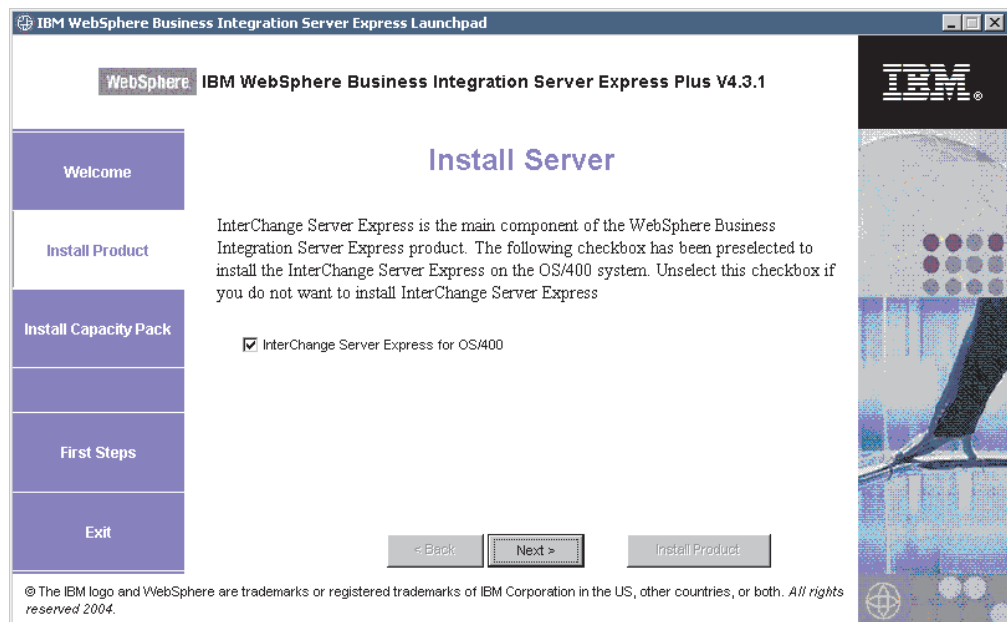


Figure 2. Install Server screen

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

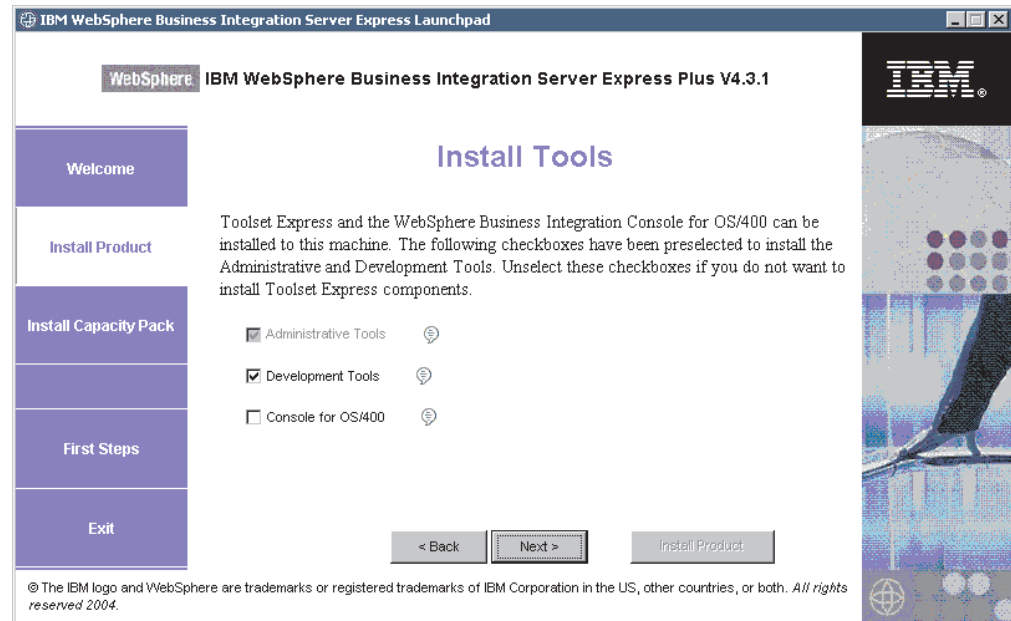


Figure 3. Install Tools screen

3. On the Install Tools screen, the checkboxes beside the entries **Administrative Tools** and **Development Tools** are selected by default. Do one of the following:
 - To install *both* the Administrative tools and Development tools, select **Next**. The Integrated Test Environment screen appears.
 - To install *only* the Administrative tools, clear the checkbox beside the entry **Development Tools** and select **Next**. The Web-based Tools screen appears. Skip to Step 5

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

 - To install neither the Administrative tools nor Development tools, clear the checkboxes beside the entries **Administrative Tools** and **Development Tools**, and click **Next**. The Web-based Tools screen appears. Skip to Step 5.
4. The Integrated Test Environment screen offers the option to install the Integrated Test Environment.

Check the checkbox next to **Install the Integrated Test Environment** on this machine to install the ITE, if you know that your solution requires it, or you can leave the checkbox empty to skip this screen. You can install the Integrated Test Environment later, if necessary.

Click **Next** to continue. The Web-based Tools screen appears.
5. Install the Web-based tools to display the status of different components of your solution.

These tools require WebSphere Application Server 5.0.2 or 5.1 or WebSphere Application Server Express 5.1 on OS/400.

Check the checkbox next to **Web-based Tools** to install the web-based tools. Alternatively, you can leave the checkbox empty to skip this screen. You can install the web-based tools later, if necessary.

Click **Next** to continue. The Install Adapters screen appears.

Note: If the OS/400 does not have a licensed version of the Crypto Access Provider (5722AC3) installed, then an encryption screen appears before the Install Adapters screen.

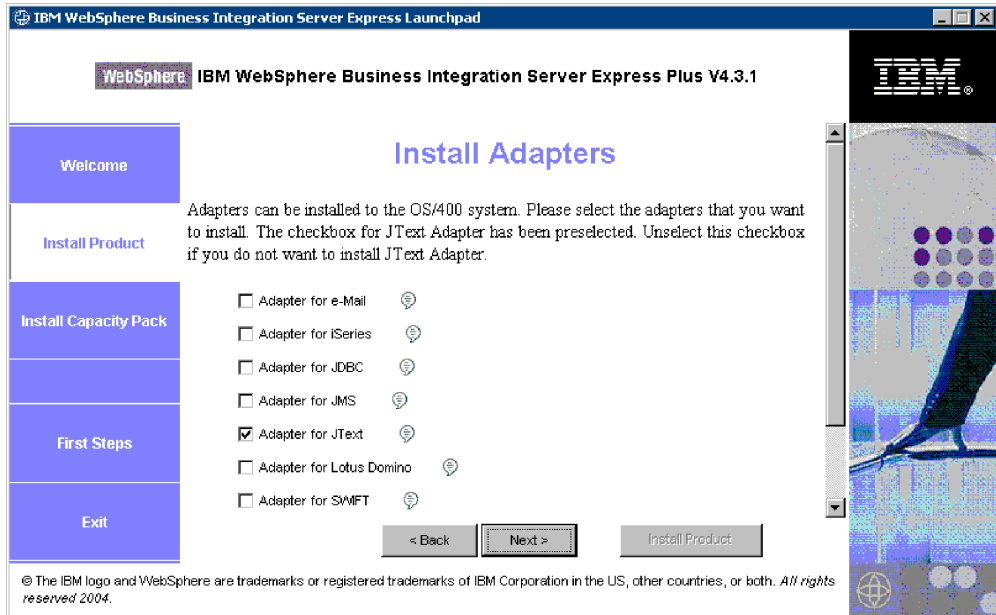


Figure 4. Install Adapters screen

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

Note: The Adapter for JText is selected by default because it is required to run the System Test sample, which is part of the Samples component. The Samples component is selectable from the following Install Samples screen.

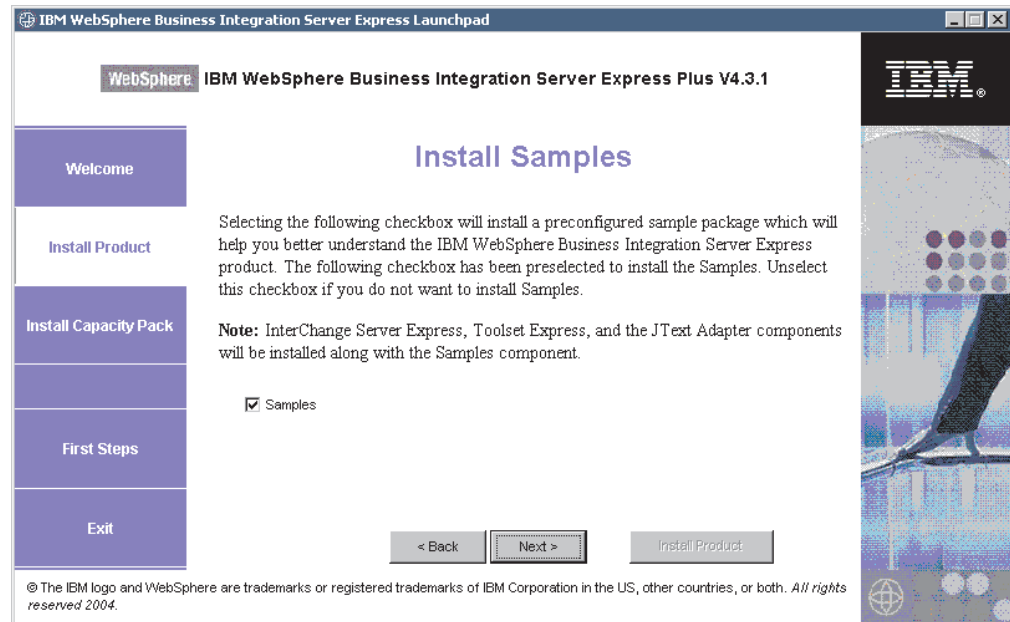


Figure 5. Install Samples screen

7. On the Install Samples screen, the checkbox beside the entry **Samples** is preselected by default. Do one of the following:
 - To install the Samples component, select **Next**. The Software Prerequisites screen appears.

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

- To *not* install the Samples component, clear the checkbox and select **Next**. The Software Prerequisites screen appears.

From the selections you made in the previous steps, the Launchpad determines the software prerequisites needed for the components you are installing, identifies whether any or all are installed on your system (both the OS/400 and Windows depending on your selections), and posts the results of its analysis on the Software Prerequisites screen. The list that appears on this screen for your particular system might contain all or only some of the following entries, depending on which WebSphere Business Integration Server Express or Express Plus components you elected to install:

- IBM WebSphere Application Server - Express V5.1
- IBM Java Development Kit 1.3
- IBM Java Development Kit 1.4
- IBM Toolbox for Java
- QShell Interpreter
- AC3 Crypto Access Provider(5722AC3)
- IBM HTTP Server for OS/400
- IBM WebSphere MQ 5.3 CSD06 or later for Windows
- IBM WebSphere MQ 5.3 CSD06 or later for OS/400

- A database for Windows (one of several supported)
- IBM Java (TM) Development Kit 1.3.1_05 for Windows
- A Web browser (one of two supported).

For the OS/400 Launchpad, the only prerequisite that can be optional is the web browser. On the OS/400, if the prerequisite is damaged, an Error status will be displayed.

The Launchpad displays the installation status of each prerequisite on your OS/400 system and on your Windows client system. Status values can include **Not Installed**, **Optional**, or **OK**, and for the database selection only, **Not Configured**.

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

Installing selected software prerequisites

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

- If you plan to use System Monitor or Failed Event Manager (which are installed as components of the Web-based Tools) 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 14 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 8, “Manually configuring System Monitor and Failed Event Manager,” on page 43.

The resulting default URLs are, as follows:

- For System Monitor: `http://hostname:xxxx/ICSMonitor`; note that `xxxx` would represent the HTTP port number requested during the OS/400 installation.
- For Failed Event Manager: `http://hostname:xxxx/FailedEvents`; note same as stated for System Monitor.
- Every installation of WebSphere Business Integration Server Express and Express Plus requires installation of WebSphere MQ 5.3.0.2 CSD06 or a higher CSD level. Launchpad can automatically install this software. See “Installing WebSphere MQ” on page 14 for details.
- For the OS/400 licensed program prerequisites, you will be directed to install these onto your OS/400. Only WebSphere MQ and WebSphere Application Server Express licensed programs for OS/400 can be automatically installed using Launchpad. The CDs for these licensed programs are shipped with the

OS/400 operating system CDs and need to be installed on the OS/400 using the install instructions for those licensed programs.

- If you plan to install the Integrated Test Environment, it will be necessary to install a Windows database. Integrated Test Environment is a development tool used to test components on a Windows InterChange Server Express system before deploying to InterChange Server Express for the OS/400.
- If you plan to perform collaboration and mapping development, you need to have the IBM Java Development Kit 1.3.1_05 prerequisite installed on your Windows system. Launchpad can automatically install this software. See “Installing the Java Development Kit” on page 19 for details.
- If you plan to use System Monitor or Failed Event Manager (which are installed as components of the Web-based Tools), you need to install a Web browser. Launchpad cannot automatically install a supported Web browser, but it offers instructions for finding installable versions. See “Installing a Web browser” on page 19 for more information.

Complete tables of all required software exist in the section “Checking software requirements” on page 55. 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.

illustrates the Software Prerequisite screen before all the prerequisites are met.

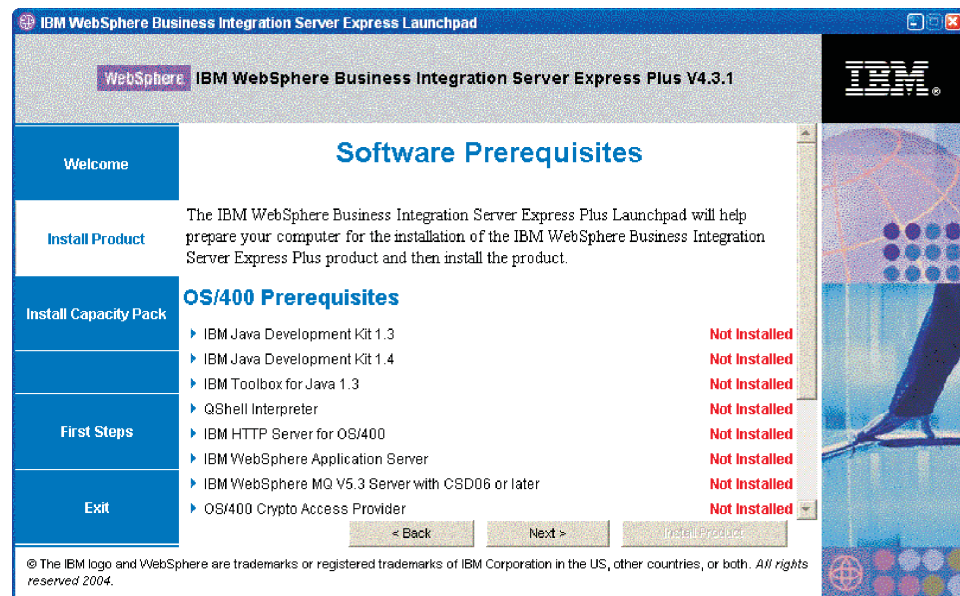


Figure 6. Software Prerequisites screen before prerequisites are met

Installing the Java Development Kit 1.3

There are some OS/400 Licensed Program Products that are not shipped with the WebSphere Business Integration Server Express and Express Plus products. These are: Java Development Kit 1.3, Java Development Kit 1.4, Toolbox for Java, QShell Interpreter, HTTP Server for OS/400, and Crypto Access Provider. If your OS/400 system does not have these installed, the Launchpad prompts you to locate the CDs for them (they are shipped with OS/400) and install them on your OS/400. This section describes how to install the Java Development Kit 1.3, but the same dialog appears for the other programs as well.

A Java Development Kit (version 1.3) is required to run the WebSphere Business Integration Server Express and Express Plus products.

To install the Java Development Kit Version 1.3, do the following:

1. From the Launchpad Software Prerequisites screen, expand **Java Development Kit V1.3**.
2. The Launchpad prompts you to install Licensed Program Java Development Kit 1.3 (5722JV1 option 5) on your OS/400. Use the OS/400 CD drive and the CDs you received with your release of OS/400 to install the Java Development Kit.
3. After you complete installation of Java Development Kit 1.3, select the **Check Again** button to verify that its status in the Launchpad changed from **Not Installed** to **OK**.

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, 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.

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

3. After silent installation of WebSphere Application Server Express completes, verify that its status in the Launchpad changed from **Not Installed** to **OK**.

Installing WebSphere MQ

WebSphere MQ messaging software is required to run the WebSphere Business Integration Server Express and Express Plus products.

- If you intend to install the InterChange Server Express component, you must install the WebSphere MQ on your OS/400.
- If you intend to install Toolset Express but choose not to install the ITE, you only need to install WebSphere MQ Client on Windows. If you do not install any of the Toolset Express, you do not need to install any WebSphere MQ on Windows. If you choose the ITE, you will need WebSphere MQ Client and Server on Windows.

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

- If you must install IBM WebSphere MQ 5.3.0.2 CSD06 server on your OS/400 system, you see the entry **IBM WebSphere MQ 5.3 Server with CSD06 or later** in the OS/400 Prerequisites list.
- If you must install IBM WebSphere MQ 5.3.0.2 CSD06 server and client on your client system, you see the entry **IBM WebSphere MQ 5.3.0.2 CSD06** in the Client Prerequisites list.
- If you must install only the IBM WebSphere MQ 5.3.0.2 CSD06 client on your client system, you see the entry **IBM WebSphere MQ 5.3.0.2 CSD06 Client** in the Client Prerequisites list.

To install the IBM WebSphere MQ 5.3 Server on your OS/400 system, do the following:

1. From the Launchpad Software OS/400 Prerequisites screen, expand **IBM WebSphere MQ 5.3 Server with CSD06 or later**.
2. Select **Install** to start the silent installation of IBM WebSphere MQ 5.3 Server.

Important: Select the button labeled **Install** located within the highlighted area under **IBM WebSphere MQ 5.3 Server with CSD06 or later**, *not* the button labeled **Install Product** located at the bottom of the screen.

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

Note: If WebSphere MQ Server is already installed but the installation program does not detect CSD06 or later, then the installation program prompts you to apply the CSD and provides a link to more information. The Launchpad does not automatically apply CSD06 for you.

Note: If Launchpad detects an older WebSphere MQ Server installation on your OS/400 system, it displays an error and provides a link to more information.

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

1. From the Launchpad Software Prerequisites screen, expand **IBM WebSphere MQ 5.3.0.2 CSD06** or **IBM WebSphere MQ 5.3.0.2 CSD06 Client** (whichever appears on your system).
2. Select **Install** to start the silent installation of IBM WebSphere MQ 5.3.0.2 CSD06. The Drive Selection screen appears.

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

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

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

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

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

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

Installing and configuring a database

If the Integrated Test Environment is being installed, it will be necessary to install a database on the Windows system. IBM WebSphere Business Integration Server Express and Express Plus support IBM DB2(R) Universal Database (TM) v8.1 Express, IBM DB2 Universal Database v8.1 Enterprise, and Microsoft SQL Server 2000 databases. Before installing or configuring a database, do the following:

- Ensure that you have administrator privileges to create a new database and add new users.
- Review the minimum requirements for particular databases in the section “Checking minimum database requirements” on page 58.

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

1. On the Software Prerequisites screen, expand the entry **Database**. The Database area of the screen explains what the Launchpad has found on your machine.
2. Do one of the following, depending on which software the Launchpad has found on the machine:
 - If no supported database is installed, a button is offered to launch installation of IBM DB2 Universal Database v8.1 Express. In this case, follow the instructions in the section “Installing and configuring a new installation of IBM DB2 Universal Database v8.1 Express” on page 17.
 - If IBM DB2 Universal Database v8.1 Express or Enterprise is installed, a button is offered to launch configuration of the existing installation. In this case, follow the instructions in the section “Configuring an existing installation of IBM DB2 Universal Database v8.1 Express or Enterprise” on page 18.
 - If Microsoft SQL Server 2000 is installed, a choice is offered of having the Launchpad configure the existing Microsoft SQL Server 2000 installation, or to instead install and configure IBM DB2 Universal Database v8.1 Express. Do one of the following:
 - If you select the radio button beside the entry **Use Microsoft SQL Server 2000**, follow the instructions in the section “Configuring an existing installation of Microsoft SQL Server 2000” on page 18.
 - If you select the radio button beside the entry **Install and use IBM DB2 Universal Database v8.1 Express**, follow the instructions in the section “Installing and configuring a new installation of IBM DB2 Universal Database v8.1 Express” on page 17.
 - If IBM DB2 Universal Database v8.1 Express or Enterprise *and* Microsoft SQL Server 2000 are installed, a choice is offered of having the Launchpad configure either database. Do one of the following:
 - If you select the radio button beside the entry **Use Microsoft SQL Server 2000**, follow the instructions in the section “Configuring an existing installation of Microsoft SQL Server 2000” on page 18.
 - If you select the radio button beside the entry **Use IBM DB2 Universal Database v8.1 Express**, follow the instructions in the section “Configuring an existing installation of IBM DB2 Universal Database v8.1 Express or Enterprise” on page 18.

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

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

Before installing DB2 UDB Express, review the following:

- Ensure that your Windows machine user ID and your Windows domain ID (if you are using one) are identical. If your Windows machine user ID and your Windows domain ID are not identical, the DB2 installation process will fail.
- The installation instructions in this section assume that this is the first time you are installing DB2 UDB Express on your machine. If you have previously installed DB2 UDB Express through the Launchpad, uninstalled it following standard DB2 uninstallation procedures, and are now reinstalling it through the Launchpad, you must first do the following before you use the Launchpad to reinstall DB2 UDB Express:
 - Manually delete two residual user IDs that the Launchpad automatically created when it performed the first DB2 UDB Express installation. To remove these IDs, do the following:
 1. Select **Start > Settings > Control Panel > Users and Passwords**.
 2. On the User and Passwords screen, under the User Name column, select the db2admin user ID and the smbadmin user ID.
 3. Click **Remove**.
 4. Click **Apply** and **OK** to exit the User and Passwords screen.
 - Manually delete copies of the files serverexp, OptionFile_DB2.txt, or OptionFile_MSSQL2000.txt that might exist in the directory specified by %TEMP%.
 - Ensure that the directory containing the DB2 aliases (by default, a subdirectory within the DB2 directory) does not contain the SMB_DB alias from the previous DB2 installation.

To install IBM DB2 UDB Express, do the following:

1. If you have not done so already, on the Software Prerequisites screen, expand the entry **Database**. The Database area of the screen explains what the Launchpad has found on your machine.
2. Select the button labeled **Install IBM DB2 Universal Database v8.1 Express**. The Drive Selection screen appears.

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

3. On the Drive Selection screen, indicate on which drive you want to install the database and select **OK**. Silent installation of the database begins. A dialog will notify you when installation and configuration are complete.

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

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

The installation and configuration processes do the following:

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

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

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

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

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

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

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

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

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

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

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

Configuring an existing installation of Microsoft SQL Server 2000

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

1. If you have not done so already, on the Software Prerequisites screen, expand the entry **Database**. The Database area of the screen explains what the Launchpad has found on your machine.
2. Select **Use Microsoft SQL Server 2000**, then select **Continue**.

The Microsoft SQL Server 2000 Configuration screen appears.

3. Type the user name in the **User name** field.
4. Type the password for the user name specified in step 2 in the **Password** field.
5. Select **Create repository database**.

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

- Creates a database named SMB_DB.
- Creates a user named smbadmin, with a password of smb4\$\$word.
- Grants the appropriate authorities to the smbadmin user in the SMB_DB table.

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

Installing the Java Development Kit

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

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

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

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

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

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

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

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

Installing a Web browser

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

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

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

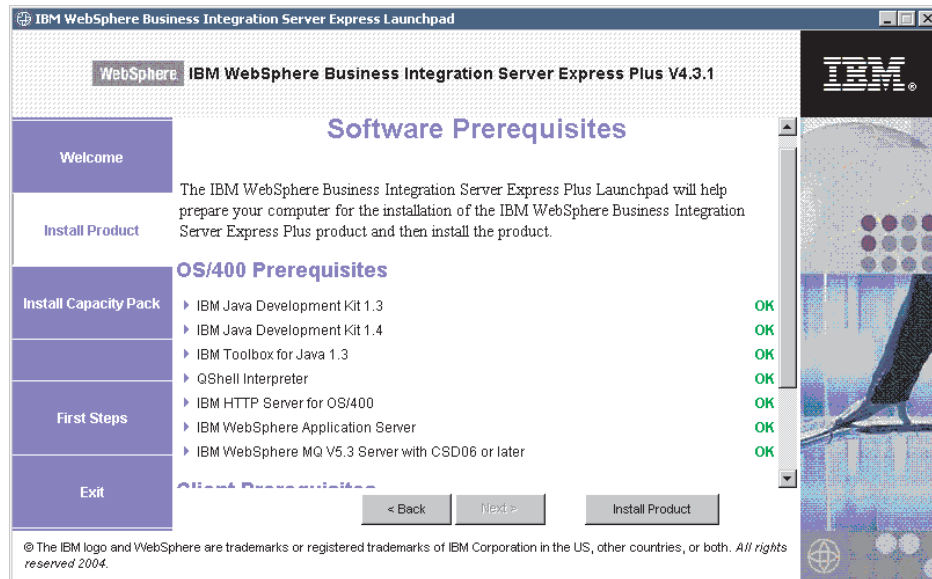


Figure 7. Software Prerequisites screen after completed installations

Installing WebSphere Business Integration Server Express and Express Plus

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

Each of the three major components has a separate installation program.

To start any of the installation programs:

1. Click **Install Product** at the bottom of the Software Prerequisites screen.
The Software License Agreement screen appears.
2. Read and accept the terms of the Software License Agreement by selecting the radio button beside the entry **I accept the terms in the license agreement**, and then click **Next**.

Refer to the following sections for instructions on how to finish the installation process for each of the components:

- “Installing the Console” on page 21
- “Installing the WebSphere InterChange Server on the OS/400” on page 21
- “Installing the Toolset on Windows” on page 22
- “Installation summary” on page 22

Note: Depending on the options you selected during the first part of the installation, you may encounter screens that are not mentioned in this guide. Each screen clearly requests information. Follow the instructions on each screen.

Installing the Console

The first installation program that launches after you complete installation of the software prerequisites is the Console installation program. If you did not choose to install the Console feature from the Launchpad, skip to the next subsection, “Installing the WebSphere InterChange Server on the OS/400.”

To install the Console:

1. In the Destination screen that appears after you have accepted the Software License Agreement, accept the default installation location of `C:\IBM\WebSphereBusinessIntegrationConsole` or browse for a different location, and then click **Next**.

Note: The directory path must not contain any spaces.

After you click **Next**, there are no additional input screens. The installation finishes and a Summary Information screen appears.

2. Click **Finish**.

If you chose to install the WebSphere InterChange Server for OS/400, then the server installation program will launch. Refer to the next section, “Installing the WebSphere InterChange Server on the OS/400” for detailed installation instructions.

If you did not choose to install the WebSphere InterChange Server for OS/400, but you chose to install the Administrative Tools or Development Tools, then the Tools installation program will launch to install the tools on your Windows client system. Refer to “Installing the Toolset on Windows” on page 22 for detailed installation instructions.

If you did not choose to install the WebSphere InterChange Server for OS/400 or the Administrative or Development Tools, you are finished.

Installing the WebSphere InterChange Server on the OS/400

If you chose to install the WebSphere InterChange Server on the OS/400, the Server installation program launches after the Console installation program completes installation of the Console.

If you did not choose to install the Console, the Server installation is the first installation program that launches after you click **Install Product** at the bottom of the Software Prerequisites screen.

If you did not choose to install WebSphere InterChange Server on your OS/400 from the Launchpad, skip to the next subsection, “Installing the Toolset on Windows” on page 22.

To install WebSphere InterChange Server on the OS/400:

1. In the screen that appears if you selected the System Monitor or Failed Event Manager Web-based Tools, provide the following port information for the WebSphere Application Server that is configured to run the tools, and then click **Next**:

- **HTTP Port** — for normal HTTP traffic
 - **SSL Port** — for secure HTTP traffic
 - **WAS 12 Port Block** — the port range for the WebSphere Application Server
- Check with your network administrator for available ports.

If you did not select the System Monitor or Failed Event Manager Web-based Tools, no input is required.

The installation program installs the WebSphere InterChange Server on the OS/400.

2. When the installation is complete, click **Finish**.

If you chose to install the Administrative Tools or Development Tools, then the Windows installation program for Tools launches to install the tools on your Windows client system. Continue to “Installing the Toolset on Windows” for detailed installation instructions.

If you did not choose to install the Administrative or Development Tools, you are finished.

Installing the Toolset on Windows

If you chose to install the Administrative Tools or the Development Tools from the Launchpad, the Windows installation program for Tools launches.

If you did not choose to install the Console or the WebSphere InterChange Server on the OS/400, then the Toolset installation is the first installation program that launches after you click **Install Product** at the bottom of the Software Prerequisites screen. Otherwise this installation program launches after the Console and the Server installation programs.

To install the Toolset on your Windows client:

1. In the Destination screen, accept the default installation location of `c:\IBM\WebSphereServer` or browse for a different location, and then click **Next**.

Note: The directory path must not contain any spaces.

As the installation process begins, the installer verifies that enough disk space exists for the installation. If enough space does not exist, the **Next** button is disabled since installation cannot be completed with the provided disk space. In this case, you must select **Back** and clear some features or sub-features or delete some unneeded space on the specified drive, or change the target location by changing the path in the **Directory** field in 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.

2. When the installation is complete, click **Finish**.

Installation summary

The installation process has completed the following tasks, depending on the features you chose in the Launchpad:

- 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.
- InterChange Server Express is configured to automatically start with the TCP/IP auto-start servers on OS/400.
- Provided platform-specific configuration and registration.
- Deployed content to the InterChange Server Express.

You can now 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.

There are two log files containing information about the install process for the OS/400 installation:

- On OS/400, the `install.log` file is located in the directory `/QIBM/ProdData/WBIServer43/`.
- In Windows, if the tools are installed, the log file called `wbi_server_exp_install_log.txt` is located in the directory `ProductDir\log\`.

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

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

The components available for installation differ based on the Windows platform being used. Support for installed components can differ based on whether they are being used in production or development environments. See Table 4 on page 56 for a listing of which product components are supported on each of the Windows platforms in both production and development environments.

Note: WebSphere InterChange Server Express only gets installed on Windows if you chose to install the Integrated Test Environment from the Launchpad installation program.

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

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

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

Components available for installation on a Windows 2000 system

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

- InterChange Server Express component (if Integrated Test Environment is installed)
- Toolset Express component, which includes the following subcomponents:

- Administrative
- Development
- Console

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
- A choice of adapter components (refer to the list in the next bullet)
- 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 plug-ins are installed in the directory *ProductDir*\Tools\WSWB203\plugins.

- Test Connector
- A choice of adapter components is available for installation when you install the Development tools. 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 iSeries
 - Adapter for JDBC
 - Adapter for JMS
 - Adapter for JText
 - Adapter for Lotus(R) Domino(R)
 - Adapter for SWIFT
 - Adapter for Web Services
 - Adapter for WebSphere MQ
 - Adapter for XML

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

Components available for installation on a Windows XP system

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

- InterChange Server Express component (if Integrated Test Environment is installed).

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 plug-ins are installed in the directory *ProductDir\Tools\WSWB203\plugins*.

- Test Connector

Components available for installation on a Windows 2003 system

During installation on a Windows 2003 system, the only component you can install from the OS/400 Launchpad is the Console.

The Web-based tools screen appears during the installation process, and can be installed on the OS/400 system.

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

On OS/400, the following objects, directories, and files are created:

1. QWBISVR43 user profile
2. QWBISVR43 library, which includes objects for the product
3. QWBIDFT library, which is a Database repository for the Interchange Server Express
4. Directories and files in the Integrated File System in these directories:
 - /QIBM/ProdData/WBIServer43
 - /QIBM/UserData/WBIServer43

After WebSphere Business Integration Server Express or Express Plus is installed, you can view the resulting file system and its contents.

For the components that are installed on the Windows system, the directories are located by default under the C:\IBM\WebSphereServer directory, which is referred to as *ProductDir* in this section.

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

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

Directory name	Contents
<ul style="list-style-type: none"> • _uninstWBIserverExp (in WebSphere Business Integration Server Express installations) • _uninstWBIserverExpPlus (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.
_uninstZip	This directory contains a listing of all files unzipped during installation.
bin	This directory contains the executable files, .dll files, and .bat files that the system uses.
collaborations	This directory contains subdirectories that contain .class files and message files for installed collaborations.
connectors	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.
DataHandlers	This directory contains the .jar file for the data handler that the system uses.
DevelopmentKits	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.
DLMs	This directory contains subdirectories that contain Dynamic Loadable Modules (DLMs) and other files for InterChange Server Express maps.
jre	This directory contains the IBM Java Runtime Environment (JRE) files.
legal	This directory contains the license files.
lib	This directory contains .jar files for the system.
log	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> .
messages	This directory contains the generated message files.
mqseries	This directory contains files specific to WebSphere MQ, including certain executable files.
ODA	This directory contains the Object Discovery Agent .jar and .bat files for each agent.
repository	This directory contains the definitions for the system components.

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

Directory name	Contents
Samples	This directory contains component definitions for benchmarking samples and sample mail files for collaborations.
src	This directory contains samples of Relationship Service APIs for cross-referencing.
templates	This directory contains the start_connName.bat file.
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.

Installing additional components after initial installation

After you have installed WebSphere Business Integration Server Express or Express Plus, you can later install additional components. To do this, select the **Install Product** button from the left panel of the Launchpad. The Launchpad then offers screens from which you can select components to install, as detailed in “Identifying which software prerequisites are required” on page 8. For components that are already installed, the screen appears but the checkboxes are already selected and disabled. The only exception is the encryption screen, which is not shown if 5722AC3 is already installed.

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

Uninstalling WebSphere Business Integration Server Express and Express Plus

All of the InterChange Server instances must be deleted before you can uninstall the InterChange Server component.

To delete a server instance you must first uninstall the adapter and collaboration capacity packs. Refer to “Uninstalling the Adapter Capacity Pack” on page 37 to uninstall the Adapter Capacity Pack and “Uninstalling the Collaboration Capacity Pack” on page 41 to uninstall the Collaboration Capacity Pack.

After you have uninstalled the capacity packs, run the following command from QShell: /QIBM/ProdData/WBIServer43/bin/delete_instance.sh instanceName.

IBM provides a console mode program on your OS/400 to remove your entire WebSphere Business Integration Server Express or Express Plus installation, or to select specific components for removal.

To run the uninstallation program, log on to your OS/400 system and do the following:

1. Type QSH at the command line to enter QShell.
2. Change to the uninstall directory.
For Server Express, cd
/QIBM/ProdData/WBIServer43/product/_uninstWBIServerExp

For Server Express Plus, cd

`/QIBM/ProdData/WBIServer43/product/_uninstWBIServerExpPlus`

3. Enter the command to start the uninstallation program: `java -jar uninstall.jar`. The Uninstallation Welcome text appears.
4. Enter **1** for next, or press **Enter** to select the default navigation. The Uninstallation Feature text appears. Each installed component appears with an **x** next to it, selected for uninstallation.
5. Leave any components selected that you want removed and press **Enter** for Next. The Pre-uninstallation Summary text appears.
6. Press **Enter** to confirm your selections. The Uninstaller removes the selected components. The Post-uninstallation Finish text appears.
7. Press **Finish** to exit the uninstallation program.

To uninstall the Windows tools (including the Console), run the uninstallation GUI. 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 Console** or **IBM WebSphere Business Integration Server Express Plus v4.3.1** (depending on which product is installed), and click **Change/Remove**.
The Uninstallation Welcome screen appears.
4. Click **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 click **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. Click **Finish** to exit the uninstallation GUI.

Note: If you installed the Console and any other Tools, you will have to run two uninstallation programs on your Windows system.

Taking the next step

After you have successfully installed your software prerequisites and WebSphere Business Integration Server Express or Express Plus, proceed to Chapter 4, “Starting the WebSphere Business Integration Server Express or Express Plus system for the first time,” on page 29.

By first following the instructions in Chapter 4, “Starting the WebSphere Business Integration Server Express or Express Plus system for the first time,” on page 29 and then Chapter 5, “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 4. 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 set up to run in a subsystem on OS/400 and automatically start with the TCP/IP servers on OS/400.
- 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”
- “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. Begin by starting the Console and then start the server using the Console. Select **Start >Program >IBM WebSphere Business Integration Console >Console**.
2. On the OS/400 Sign-in screen, **enter the OS/400 name or IP address and the user profile and password**. The user profile must have *JOBCTL special authority.
3. On the Console screen, select **Start Server**.

If Console is not installed, from the OS/400 command entry, run CL command **STRSBS QWBISVR43/QWBISVR43**.

If you receive a message that the subsystem is already active, then do the following:

- a. run the CL command QSH
- b. from QShell, run the following script:

```
/QIBM/ProdData/WBIServer43/bin/submit_ics_server.sh QWBIDFT
```

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” on page 30
- “Registering InterChange Server Express with System Manager” on page 30

- “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. The installed server name for OS/400 is QWBIDFT.

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** only when you must shut down the server without waiting.
3. Restart InterChange Server Express by starting the Console and then starting the server using the Console. Refer to “Starting WebSphere Business Integration Server Express or Express Plus” on page 29 for instructions.
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 5, “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 6, “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 7, “Installing the Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus,” on page 39.
- If you installed WebSphere Business Integration Server Express v4.3 and are upgrading to Express Plus v4.3, refer to the information in Chapter 9, “Upgrading from WebSphere Business Integration Server Express to Express Plus,” on page 47.

Chapter 5. Verifying the installation

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

This chapter contains the following sections:

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

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 6, “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 7, “Installing the Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus,” on page 39.
- If you installed WebSphere Business Integration Server Express v4.3 and are upgrading to Express Plus v4.3, refer to the information in Chapter 9, “Upgrading from WebSphere Business Integration Server Express to Express Plus,” on page 47.

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

A WebSphere Business Integration Server Express Plus installation can support up to *three* 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 console program is available to uninstall the adapters from an Adapter Capacity Pack. Silent installation and uninstallation are also possible.

This chapter contains the following sections:

- “Installing the adapters in the Adapter Capacity Pack using the GUI”
- “Uninstalling the Adapter Capacity Pack” on page 37
- “Taking the next step” on page 38

See Appendix B, “Silently installing and uninstalling WebSphere Business Integration Server Express or Express Plus and Capacity Packs,” on page 59 for instructions on performing silent installation and uninstallation.

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 36. 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.

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

- For OS/400, the user profile needs to have *ALLOBJ and *SECADM special authority.
- 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 CSD6 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.

2. Select **Install Adapter Capacity Pack** to launch the GUI to install the Adapter Capacity Pack. The Welcome screen appears.
3. At the Welcome screen, select **Next**. The Software License Agreement screen appears.
4. Read and accept the terms of the Software License Agreement by selecting the radio button beside the entry **I accept the terms in the license agreement**, then select **Next**.

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

- If the installer found an installation of WebSphere Business Integration Server Express Plus on the local OS/400 machine, the InterChange Server Express Password screen appears. It contains fields for InterChange Server Instance Name, password for the Administrator to connect to the InterChange Server Express, and the ORB Port Number.
 - If the installer did not find an installation of WebSphere Business Integration Server Express Plus on the local OS/400 machine, the InterChange Server Express Password screen appears. It contains fields for the system name where the InterChange Server is running, the InterChange Server Instance Name, the password for the Administrator to connect to the InterChange Server Express, and the ORB Port Number.
5. The Feature screen appears. 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.”
 6. The Pre-installation Summary screen appears. 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.
 7. On the Post-installation Summary screen, select **Finish**.

During the installation process, the Adapter Capacity Pack installer creates an installation log file called
`/QIBM/ProdData/WBIServer43/AdapterCapacityPack/install.log`.

Deciding which adapter to install

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

- Adapter for JD Edwards OneWorld
- Adapter for mySAP.com
- Adapter for Oracle Applications
- Adapter for Telcordia

- Adapter for WebSphere Commerce

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

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

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

Uninstalling the Adapter Capacity Pack

IBM provides an uninstallation console 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 console interface, do the following:

1. From the OS/400 system command line, enter QSH to start an interactive QShell session.
2. Type the following command and press enter:

```
java -jar /QIBM/ProdData/WBIServer43/AdapterCapacityPack/_uninstAdapterCP/  
uninstall.jar
```

After a few moments, the Uninstallation Welcome text appears.

3. Enter **1** for **Next**, or simply press **Enter** to accept the default navigation option in the brackets, [1]. The Uninstallation Feature text appears. The installed components appear with an [x] next to them.
4. Leave any components selected that you want to be removed. To clear a feature or view its children, type its number. Press **Enter** (or enter **0**) and continue uninstalling. Then press **Enter** again to move to the next step. The pre-uninstallation Summary text appears.

5. Press **Enter** to confirm your selection. You are prompted for InterChange Server Express information in order to update the license file. For more information on how the system updates the license file, see “Updating the license file” on page 37.
6. Enter the name of the system where the InterChange Server is running.
7. Enter the InterChange Server name, or press **Enter** to accept the default server instance, QWBIDFT.
8. Type the password for the user admin of the InterChange Server Express and press **Enter**.
9. Enter the ORB port number, or press **Enter** to accept the default value, 14500.
10. Press **Enter** to continue the uninstallation. Message text informs you if the license was updated successfully. Press **Enter** to continue. The Uninstaller removes the selected components. The Post-uninstallation Summary text appears.
11. Press **Enter** to exit the uninstallation program.

Taking the next step

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

- If you need to install a Collaboration Capacity Pack, proceed to Chapter 7, “Installing the Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus,” on page 39.
- 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 7. Installing the Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus

Installing an optional Collaboration Capacity Pack allows use of *one* collaboration group with a WebSphere Business Integration Server Express Plus instance. (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 instance.

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

This chapter contains the following sections:

- “Installing the Collaboration Capacity Pack using the GUI”
- “Uninstalling the Collaboration Capacity Pack” on page 41
- “Taking the next step” on page 42

See Appendix B, “Silently installing and uninstalling WebSphere Business Integration Server Express or Express Plus and Capacity Packs,” on page 59 for instructions on performing silent installation and uninstallation.

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:

- For OS/400 the user profile needs to have *ALLOBJ and *SECADM special authority.
- 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 same server instance as the server instance you plan to specify during installation.
- 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.
2. Select **Install Collaboration Capacity Pack** to launch the GUI to install the Collaboration Capacity Pack. The Welcome appears.
 3. At the Welcome screen, select **Next**. The Software License Agreement screen appears.
 4. Read and accept the terms of the Software License Agreement by selecting the radio button beside the entry **I accept the terms in the license agreement**, then select **Next**.

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

5. The InterChange Server Express screen requests the InterChange Server Instance Name, password for administrator, and ORB port number. Select **Next** and the Features Screen appears.
6. On the Feature screen, select one collaboration group from the list of available collaboration groups, by selecting the radio button beside its name, then select **Next**. For more information on the collaboration groups selectable from this screen, see “Deciding which collaboration group to install.” The Pre-Installation Summary screen appears.
7. 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.
8. 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 is called `/QIBM/ProdData/WBIServer43/CollabCP/install.log`.

Deciding which collaboration group to install

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

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

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

- Collaborations for Customer Relationship Management V1.0

- Collaboration for Contact Manager 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 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
- 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 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

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/wbi/serverexpress/infocenter>.

Uninstalling the Collaboration Capacity Pack

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

1. From the OS/400 system command line, enter QSH to start an interactive QShell session.

2. Type the following command and press enter:

```
java -jar /QIBM/ProdData/WBIServer43/CollabCP/_uninstCollabCP/uninstall.jar
```

After a few moments, the Uninstallation Welcome text appears.

3. Enter **1** for **Next**, or press **Enter** to accept the default navigation option in brackets, [1]. The Uninstallation Feature text appears. The installed components appear with an [x] next to them.
4. Leave any components selected that you want to be removed. To clear a feature or view its children, type its number. Press **Enter** (or enter **0**) to continue uninstalling. Then press **Enter** again to move to the next step.
5. Enter the InterChange Server name where the collaboration is installed, or press **Enter** to accept the default server instance, QWBIDFT.
6. Press **Enter** to continue uninstallation. The Pre-uninstallation Summary text appears.
7. Press **Enter** to confirm your selection. The uninstallation program removes the selected components. The Post-uninstallation Summary text appears.
8. Press **Enter** to exit the uninstallation program.

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 8. Manually configuring System Monitor and Failed Event Manager

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

Failed Event Manager is a tool that allows you to work with failed events in the WebSphere Business Integration Server Express or Express Plus system from the Web to set up role-based access to failed events. (To create custom roles, you must install the WebSphere Studio Site Developer tools. Refer to the instructions in “Installing WebSphere Studio Site Developer tools” on page 44 for details.) For more information on how to configure security for Failed Event Manager, see the *System Administration Guide*.

You do *not* need to follow the instructions in “Configuring System Monitor and Failed Event Manager to use WebSphere Application Server” if WebSphere Application Server version 5.0.2 or 5.1 or WebSphere Application Server Express version 5.1 existed on your OS/400 system before you installed the Web-based Tools 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 includes configuring an IBM HTTP Server and requires this product on the OS/400 system. Furthermore, there are no default port numbers and this information is requested during the installation process.

To utilize the new functionality in the Failed Event Manager, you must install WebSphere Studio Site Developer tools. Refer to the instructions in “Installing WebSphere Studio Site Developer tools” on page 44.

This chapter includes the following sections:

- “Configuring System Monitor and Failed Event Manager to use WebSphere Application Server”
- “Installing WebSphere Studio Site Developer tools” on page 44
- “Taking the next step” on page 45

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.

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

- WebSphere Application Server 5.0, WebSphere Application Server 5.1, or WebSphere Application Server Express version 5.1.

Note: You can install WebSphere Application Server Express v5.1 from the WebSphere Business Integration Server Express or Express Plus Launchpad.

- For OS/400, IBM HTTP Server (5722DG1) is a pre-requisite and is distributed as an optional part of the OS/400 operating system.

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_install.sh` located in the directory `/QIBM/ProdData/WBIServer43/bin` is supplied with WebSphere Business Integration Server Express and Express Plus. This script configures the System Monitor and Failed Event Manager along with an IBM HTTP Server powered by Apache.

Perform the following steps:

1. Run `CWDashboard_install.sh` with the following parameters:
 - HTTP port
 - SSL port
 - WAS port block (the first of a block of 12 unused ports)

For example: `/QIBM/ProdData/WBIServer43/bin/DWDashboard_install.sh 80 443 100`. The Web server plug-in is automatically regenerated by the script.

2. To access System Monitor, type the URL:

`http://hostname:xxxx/ICSMonitor`

where *hostname* is the name of the computer on which WebSphere Application Server is installed and *xxxx* is the port number.

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

`http://hostname:xxxx/FailedEvents`

where *hostname* is the name of the computer on which WebSphere Application Server is installed and *xxxx* is the port number.

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 change the port numbers after installation has been completed, you need to reinstall the System Monitor and Failed Event Manager.

Installing WebSphere Studio Site Developer tools

Failed Event Manager requires WebSphere Studio Site Developer tools to utilize the Failed Event Manager functionality.

To install WebSphere Studio Site Developer tools:

1. Insert the WebSphere Application Server for Windows CD in your CD drive.

2. Start the WebSphere Application Server Launchpad.
D:\IBMWASExp5.1\launchpad.exe
where D: is your CD drive.
3. Click **Install** to start the installation program.
4. Click **Next** to confirm that you want to install WebSphere Application Server - Express 5.1.
5. Accept the license agreement by selecting the radio button next to **I accept the terms in the license agreement**, and then click **Next** to continue.
6. Select **Custom**, and then click **Next** to continue.

Note: By default, the installation program chooses the Typical installation, however, to be sure that Studio Site Developer is selected on the Feature Panel, you must select Custom installation.

7. Select the **WebSphere Studio Site Developer 5.1.1 (with 5.1 Test Environment)** option from **Product Installation > Development Tools**, and then click **Next** to continue.
8. In the Destination panel, overwrite the default installation location with the following location:
C:\IBM\WebSphere\Express51.

Note: The default is C:\Program Files\IBM\WebSphere\Express51.

9. Once the installation starts, the installation program will ask you to insert disk 2 of WebSphere Application Server - Express.
10. Insert disk 2 and click **OK**.
11. When the file download is complete, click **Finish** to exit the wizard.

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 4, "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 9. Upgrading from WebSphere Business Integration Server Express to Express Plus

This chapter describes general procedures for upgrading WebSphere Business Integration Server Express v4.3.1 to Express Plus v4.3.1. It contains the following sections:

- “Meeting system prerequisites”
- “Preparing the existing system”
- “Starting the upgrade process” on page 50
- “Validating the upgrade” on page 53
- “Testing” on page 54
- “Backing up your upgraded version” on page 54
- “Taking the next step” on page 54

Meeting system prerequisites

The upgrade procedure described in this chapter assumes the following:

- WebSphere Business Integration Server Express v4.3.1 is already installed on your machine and you are now installing WebSphere Business Integration Server Express Plus v4.3.1.
- Installation is from the official product CDs.

Important information when installing from ESDs from Passport Advantage:

1. Refer to your Passport Advantage information for downloading instructions.
 2. Extract all ESDs to the same directory on your hard drive and install from the hard drive to ensure proper installer function. Do *not* create CDs based on the ESD images and attempt to install from them. If you do, installation can fail since configuration utilities for some software prerequisites might not be packaged with the ESDs containing the actual prerequisite software.
 3. Ensure that the component folders of the directory into which you extract the ESDs have no spaces in their names. For instance, C:\Program Files\WBISE is *not* a valid directory because the folder Program Files has a space in its name. C:\WBISE is a valid directory because the folder WBISE does not have a space in its name.
- You will perform the upgrade in a development environment, then move the upgrades to your production environment after system tests have been completed.
 - 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” on page 48
- “Backing up the system” on page 48
- “Shutting down the system” on page 49

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 InterChange Server Express repository using the `repos_copy` utility. For example, suppose your InterChange Server Express instance is named `QWBIDFT` 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 -sQWBIDFT -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, where the `servername` is the name of the ICS, with the default on OS/400 as `QWBIDFT` and that resides in the following directory:

```
/QIBM/UserData/WBIServer43/servername/mqseries/crossworlds_mq.tst
```
- IBM recommends taking a system backup of the *entire* InterChange Server Express product directory. On OS/400, this consists of the `/QIBM/UserData/WBIServer43` 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 InterChange Server 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: <code>ProductDir\DLMS</code>
Custom connectors	Include the following directory in your system backup: <code>ProductDir\connectors\connector_name</code> , where <code>connector_name</code> is the name of the custom connector.
Customized startup scripts	If you have customized any startup scripts, make sure that they are included in your system backup.
ICS Express configuration file (InterchangeSystem.cfg)	Include in your system backup the ICS Express configuration file that resides in the <code>/QIBM/UserData/WBIServer43/servername</code> directory, where <code>servername</code> is the ICS name. QWBIDFT is the default on OS/400.
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: <code>/QIBM/UserData/WBIServer43/servername/DLMS</code> , where <code>servername</code> is the ICS name. QWBIDFT is the default on OS/400.

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. End the QWBISVR43 subsystem using the following CL Command, ENDSBS SBS(QWBISVR43) OPTION(*IMMED).

Alternatively, issue a

`/QIBM/ProdData/WBIServer43/bin/stop_server_gracefully.sh serverName`

command from a QSH shell or through CL. Note that `serverName` matches the name of the WBI instance. This shell script can be used by CL to gracefully end the WBI server in preparation for shutdown.

3. End the MQ Queue Manager using the following CL command, WRKMQM. Find the queue name and then select the option to end the queue manager.

The queueName is `serverName.QUEUE.MANAGER` where `serverName` is the Interchange Server Express instance name. The default server is named QWBIDFT

and therefore, the queueName is QWBIDFT.QUEUE.MANAGER. Note that the *serverName* is provided entirely in uppercase in the queueName along with the rest of the name. This is mandatory.

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 v4.3.1”
- “Starting the new upgraded version” on page 53

Installing WebSphere Business Integration Server Express Plus v4.3.1

After you have backed up your installation, you are ready to install WebSphere Business Integration Server Express Plus v4.3.1. The Launchpad upgrades the Windows installation, OS/400 installation, or both. It determines which one needs to be upgraded and launches the Windows and OS/400 installation programs to accomplish the upgrade.

The Launchpad either does or determines the following:

- Determines if you have appropriate software prerequisites for those components you intend to upgrade or install anew.
- Installs WebSphere Business Integration Server Express Plus product components.
- Installs the new adapters you have selected.
- Does not drop your existing database.
- Retains your existing repository and does not redeploy it.

Each of the three major components has a separate installation program.

To start any of the installation programs:

1. Click **Install Product** at the bottom of the Software Prerequisites screen.
The Software License Agreement screen appears.
2. Read and accept the terms of the Software License Agreement by selecting the radio button beside the entry **I accept the terms in the license agreement**, and then click **Next**.

Refer to the following sections for instructions on how to finish the upgrade or installation process for each of the components:

- “Installing the Console” on page 51
- “Installing the WebSphere InterChange Server on the OS/400” on page 21
- “Installing the Toolset on Windows” on page 52
- “Installation Summary” on page 52

Note: Depending on the options you selected during the first part of the upgrade, you may encounter screens that are not mentioned in this guide. Each screen clearly requests information. Follow the instructions on each screen.

Installing the Console

If the Console feature is not already installed on your system and you selected it for installation during this upgrade, then the first installation program that launches after you complete installation of the software prerequisites is the Console installation program. If you did not choose to install the Console feature from the Launchpad, skip to the next subsection, “Installing the WebSphere InterChange Server on the OS/400” on page 21.

To install the Console:

1. In the Destination screen that appears after you have accepted the Software License Agreement, accept the default installation location of C:\IBM\WebSphereBusinessIntegrationConsole or browse for a different location, and then click **Next**.

Note: The directory path must not contain any spaces.

After you click **Next**, there are no additional input screens. The installation finishes and a Summary Information screen appears.

2. Click **Finish**.

If you chose to install the WebSphere InterChange Server for OS/400, then the server installation program will launch. Refer to the next section, “Installing the WebSphere InterChange Server on the OS/400” for detailed installation instructions.

If you did not choose to install the WebSphere InterChange Server for OS/400, but you chose to install the Administrative Tools or Development Tools, then the Tools installation program will launch to install the tools on your Windows client system. Refer to “Installing the Toolset on Windows” on page 52 for detailed installation instructions.

If you did not choose to install the WebSphere InterChange Server for OS/400 or the Administrative or Development Tools, you are finished.

Installing the WebSphere InterChange Server on the OS/400

If you chose to upgrade or install the WebSphere InterChange Server on the OS/400, the Server installation program launches after the Console installation program completes installation of the Console.

If you did not choose to upgrade or install the Console, the Server installation is the first installation program that launches after you click **Install Product** at the bottom of the Software Prerequisites screen.

If you did not choose to upgrade or install WebSphere InterChange Server on your OS/400 from the Launchpad, skip to the next subsection, “Installing the Toolset on Windows” on page 52.

To install WebSphere InterChange Server on the OS/400:

1. In the screen that appears if you selected to install the System Monitor or Failed Event Manager Web-based Tools, provide the following port information for the WebSphere Application Server that is configured to run the tools, and then click **Next**:
 - **HTTP Port** — for normal HTTP traffic
 - **SSL Port** — for secure HTTP traffic
 - **WAS 12 Port Block** — the port range for the WebSphere Application Server

Check with your network administrator for available ports.

If you did not choose to install the System Monitor or Failed Event Manager Web-based Tools, no input is required.

The installation program installs the WebSphere InterChange Server on the OS/400.

2. When the installation is complete, click **Finish**.

If you chose to upgrade or install the Administrative Tools or Development Tools, then the Windows installation program for Tools launches to install the tools on your Windows client system. Continue to "Installing the Toolset on Windows" for detailed installation instructions.

If you did not choose to install the Administrative or Development Tools, you are finished.

Installing the Toolset on Windows

If you chose to upgrade or install the Administrative Tools or the Development Tools from the Launchpad, the Windows installation program for Tools launches.

If you did not choose to install the Console or the WebSphere InterChange Server on the OS/400, then the Toolset installation is the first installation program that launches after you click **Install Product** at the bottom of the Software Prerequisites screen. Otherwise this installation program launches after the Console and the Server installation programs.

To install the Toolset on your Windows client:

1. In the Destination screen, accept the default installation location of `c:\IBM\WebSphereServer` or browse for a different location, and then click **Next**.

Note: The directory path must not contain any spaces.

As the installation process begins, the installer verifies that enough disk space exists for the installation. If enough space does not exist, the **Next** button is disabled since installation cannot be completed with the provided disk space. In this case, you must select **Back** and clear some features or sub-features or delete some unneeded space on the specified drive, or change the target location by changing the path in the **Directory** field in 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.

2. When the installation is complete, click **Finish**.

Installation Summary

The installation process has completed the following tasks, depending on the features you chose in the Launchpad:

- 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.
- InterChange Server Express is configured to automatically start with the TCP/IP auto servers.
- 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.

There are two log files containing information about the install process for the OS/400 installation:

- On OS/400, the `install.log` file is located in the directory `/QIBM/ProdData/WBIServer43/`.
- In Windows, if the tools are installed, the log file called `wbi_server_exp_install_log.txt` is located in the directory `ProductDir/log/`.

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. Start InterChange Server Express.

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 `/QIBM/UserData/WBIServer43/QWBIDFT` directory for the default instance.

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 48.

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 6, “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 7, “Installing the Collaboration Capacity Pack for WebSphere Business Integration Server Express Plus,” on page 39.

Appendix A. Meeting hardware and software requirements

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

This section contains the following sections:

- “Checking hardware requirements”
- “Checking software requirements”
- “Checking minimum database requirements” on page 58

Checking hardware requirements

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	Commercial Processing Workload rating of 300 running OS/400 V5R2 or OS/400 V5R3
Memory	1 GB
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.

Reference the following tables for information on software requirements:

- Table 4 on page 56 lists the Windows platforms on which WebSphere Business Integration Server Express and Express Plus are supported.
- Table 5 on page 56 lists the required software supplied with WebSphere Business Integration Server Express and Express Plus.
- Table 6 on page 56 lists other software required but *not supplied* with WebSphere Business Integration Server Express and Express Plus.

- Table 7 on page 57 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 57. If you find a problem in one of the third-party product versions that is no longer supported by the third-party vendor, an upgrade to a supported version may be necessary.

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

Software	Version and patch	Product components supported in a production environment	Product components supported in a development environment
Windows 2003 Standard and Enterprise	Base	Console	Console
Windows 2000 Professional, Server, and Advanced Server	Service Pack 4	Toolset Express, Console	Toolset Express, Console, and Integrated Test Environment
Windows XP	Service Pack 1A	Toolset Express, Console	Toolset Express, Console, and Integrated Test Environment.

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

Software	Version and patch	Comments
IBM DB2 Universal Database Server and Client Express Edition Building DB2 stored procedures requires a DB2-supported C or C++ compiler. A version is available at the following Web site: http://msdn.microsoft.com/visualc/vctoolkit2003/ .	Version 8.1, Express Edition	Although DB2 Express is provided, a DB2-supported compiler is not provided and must be obtained separately.
OS/400 WebSphere MQ	Version 5.3 with CSD06	
IBM WebSphere MQ Server and Client	Version 5.3.0.2 with CSD06	
IBM WebSphere Application Server, Express Web Application Server	Version 5.1	For System Monitor and Failed Event Manager.
IBM WebSphere Studio Site Developer Tools	Version 5.1.1	Required for 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:		

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
ClearCase LT	Version 4.2	For source control in System Manager.
Concurrent Version System (CVS)	Version 1.11	For source control in System Manager.
Java Development Kit Toolbox for Java QSHELL Interpreter HTTP Server	Version 1.3 and 1.4	5722JV1 options 5 and 6 5722JC1 522SS1 option 30 5722DG1
An SMTP mail protocol e-mail system (for example, Microsoft Outlook, Microsoft Exchange, or Eudora)		For e-mail support.
Adobe Acrobat Reader	Version 4.05 or later	Required to view documents. IBM recommends using Acrobat Reader with Search option so that you can take advantage of the PDF Search feature. Go to www.adobe.com for the latest version of Adobe Acrobat Reader for your platform.
One of the following browsers: Microsoft Internet Explorer Netscape Navigator	6 SP 1 Version 4.75	Required to use System Monitor and Failed Event Manager and to view documents. Required to use System Monitor and Failed Event Manager and to view documents.
Adobe SVG Viewer 3.0 plug-in	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)	 Version 8.1, FP 2 Enterprise Server Edition	These data bases are only used if the Integrated Test Environment is installed with Tools on Windows. DB2-supported compiler is not supplied with this product.

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

Software	Version and patch	Comments
Microsoft SQL Server 2000	2000, Version 8.00.384 with Service Pack 3	
Supported Web application servers for System Monitor and Failed Event Manager (either can replace supplied WebSphere Application Server Express Edition):	WebSphere Application Server Version 5.02 5733WS5	

Checking minimum database requirements

If installing the Integrated Test Environment, it is necessary to check the minimum database requirements. WebSphere Business Integration Server Express and Express Plus are certified for use with IBM DB2 Express version 8.1, IBM DB2 Enterprise version 8.1 FP2, and Microsoft SQL Server 2000 version 8.00.384 with Service Pack 3.

Checking DB2 Express and DB2 Enterprise requirements

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

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

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

Checking Microsoft SQL Server 2000 requirements

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

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

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

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

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

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

This chapter contains the following sections:

- “Silently installing WebSphere Business Integration Server Express and Express Plus”
- “Uninstalling WebSphere Business Integration Server Express and Express Plus” on page 60
- “Silently installing the Adapter Capacity Pack” on page 60
- “Silently uninstalling the Adapter Capacity Pack” on page 61
- “Silently installing the Collaboration Capacity Pack” on page 61
- “Silently uninstalling the Collaboration Capacity Pack” on page 61

For information about silently installing Windows components, refer to the Microsoft Windows Installation Guide for your version of Windows.

Silently installing WebSphere Business Integration Server Express and Express Plus

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

- For WebSphere Business Integration Server Express silent installation:
 - `WBIServerExpressResponseFile_iSeries.txt`
- For WebSphere Business Integration Server Express Plus silent installation:
 - `WBIServerExpressPlusResponseFile_iSeries.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.

Note: Setting `-P expressAdaptersFeature.active=true` in the response file will cause all of the adapters to be installed. To install individual adapters, set each desired adapter feature to true and set `-P expressAdaptersFeature.active=false`

2. Move to the directory containing the modified response file.
3. From a command line, issue the following command:

```
CD_drive_letter\Launchpad\iSeriesInstaller.exe -silent -options \  
response_file_name
```

Optionally, you can provide the OS/400 login information on the command line to avoid being prompted for that information:

```
CD_drive_letter\Launchpad\iSeriesInstaller.exe system userID password \  
-silent -options response_file_name
```

Silently installing the Console

To perform a silent installation of just the Console, do the following:

1. Copy the response file (WBIconsoleResponseFile_iSeries.txt) from the Console directory of the CD media to a directory of your choice and modify it with the settings needed for your installation.
2. Move to the directory.
3. From a command line, issue the following command:

```
CD_drive_letter\Console\ConsoleSetup.exe -silent -options \  
WBIconsoleResponseFile_iSeries.txt
```

Uninstalling WebSphere Business Integration Server Express and Express Plus

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

1. Move to the following directory:
 - in a WebSphere Business Integration Server Express installation move to /QIBM/ProdData/WBIServer43/product/_uninstWBIServerExp
 - in a WebSphere Business Integration Server Express Plus installation move to /QIBM/ProdData/WBIServer43/product/_uninstWBIServerExpPlus
2. From QShell, issue the following command:

```
java -jar uninstall.jar -silent
```

Silently uninstalling the Console

To silently uninstall just the Console, issue the following command:

```
installdir\_uninst\uninstaller.exe -silent
```

where *installdir* is the directory where the Console is installed. The default directory is: C:\IBM\WebSphereBusinessIntegrationConsole

Silently installing the Adapter Capacity Pack

The name of the response file used to silently install the Adapter Capacity Pack is `adaptercp_silent_ieseries.txt` and it is located on the CD in the directory `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\AdapterCapacityPack\iSeriesInstaller.exe -silent \
-options adaptercp_silent_iseries.txt
```

Optionally, you can provide the OS/400 login information on the command line to avoid being prompted for this information:

```
CD_drive_letter\AdapterCapacityPack\iSeriesInstaller.exe system \
userID password -silent -options adaptercp_silent_iseries.txt
```

Silently uninstalling the Adapter Capacity Pack

The name of the response file used to silently uninstall the Adapter Capacity Pack is `adaptercp_silent_uninst.txt` and it is located in the following directory on the OS/400:

```
/QIBM/ProdData/WBIServer43/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 `/QIBM/ProdData/WBIServer43/AdapterCapacityPack` to the directory `/QIBM/ProdData/WBIServer43/AdapterCapacityPack/_uninstAdapterCP`.
2. Modify the response file with the settings needed for your uninstallation.
3. Enter QShell by typing QSH at the OS/400 command line and change directory to `/QIBM/ProdData/WBIServer43/AdapterCapacity Pack/_uninstAdapterCP`.
4. From a command line, issue the following command:

```
java -jar uninstall.jar -silent -options adaptercp_silent_uninst.txt
```

Silently installing the Collaboration Capacity Pack

The name of the response file used to silently install the Collaboration Capacity Pack is `collabcp_silent_iseries.txt` and it is located on the CD in the directory `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\CollabCapacityPack\iSeriesInstaller.exe -silent \
-options collabcp_silent_iseries.txt
```

Optionally, you can provide the OS/400 login information on the command line to avoid being prompted for that information:

```
CD_drive_letter\CollabCapacityPack\iSeriesInstaller.exe system \
userID password -silent -options collabcp_silent_iseries.txt
```

Silently uninstalling the Collaboration Capacity Pack

The name of the response file used to silently uninstall the Collaboration Capacity Pack is `collabcp_silent_uninst.txt` located in the following directory on the OS/400: `/QIBM/ProdData/WBIServer43/CollabCP`

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

1. Copy the `collabcp_silent_uninst.txt` response file from `/QIBM/ProdData/WBIServer43/CollabCP` to `/QIBM/ProdData/WBIServer43/CollabCP/_uninstCollabCP`.
2. Enter QShell by typing `QSH` at the OS/400 command line and change directory to `/QIBM/ProdData/WBIServer43/CollabCP/_uninstCollabCP`
3. From the QShell command line, issue the following:

```
java -jar uninstall.jar -silent -options collabcp_silent_uninst.txt
```

Notices

Notices

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IBM WebSphere Business Integration Server Express V4.3.1 and IBM WebSphere Business Integration Server Express Plus V4.3.1

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