SeeBeyond ICAN Suite

eInsight Enterprise Service Bus User's Guide

Release 5.0

SEEBEYOND®

Contents

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Introduction

This chapter introduces you to the *eInsight ESB Installation Guide*, its general purpose and scope, and its organization. It also provides sources of related documentation and information.

1.1 Installation Guide Purpose and Scope

This installation guide describes the procedures necessary to install the SeeBeyond® Technology Corporation (SeeBeyond) eInsight ESB product.

After the product is installed, you must customize it to execute your site-specific business logic and to interact with your other systems as required. The steps necessary to perform those operations are discussed in the eInsight ESB documentation set and online Help systems.

1.2 Intended Audience

This guide is intended for experienced PC users who have the responsibility of helping to set up and maintain a fully functioning ICAN Suite system. This person must also understand any operating systems on which eGate will be installed (Windows or UNIX) and must be thoroughly familiar with Windows-style GUI operations.

1.3 Organization of Information

This document is organized topically as follows:

- **Chapter 1 "Introduction"** gives a general preview of this document, its purpose, scope, and organization.

- **Chapter 2 "Overview of Installation"** gives you an overview of the installation process.

- **Chapter 3 "Installation Instructions for Repository"** provides instructions on how to upload and install an eInsight ESB Repository.

- **Chapter 4 "Installation Instructions for Uploading Files to the Repository"** provides instructions on how to upload product files to the eInsight ESB Repository.

- **Chapter 5 "Installation Instructions for Enterprise Designer"** provides instructions on how to install the Enterprise Designer on a Windows computer. The Enterprise Designer GUI can only be installed on Windows.

- **Chapter 6 "Installation Instructions for Logical Host"** provides instructions on how to download and install the Logical Host.

- **Chapter 7 "Installation Instructions for ESRs"** provides instructions on how to install ESRs.

- **"Glossary"** lists eInsight ESB 5.0 terminology. It also cross-references 4.5.x terms with 5.0 terms.

- **Appendix A** lists the recommended and certified patches for UNIX systems.

1.4 Writing Conventions

The following writing conventions are observed throughout this document.

Table 1   Writing Conventions

Text	Convention	Example
Button, file, icon, parameter, variable, method, menu, and object names.	**Bold** text	- Click **OK** to save and close. - From the **File** menu, select **Exit**. - Select the **logicalhost.exe** file. - Enter the **timeout** value. - Use the **getClassName()** method. - Configure the **Inbound** File eWay.
Command line arguments and code samples	`Fixed` font. Variables are shown in ***bold italic***.	`bootstrap -p `***`password`***

Table 1   Writing Conventions (Continued)

Text	Convention	Example
Hypertext links	**Blue** text	For more information, see **"Writing Conventions" on page 7**.

Additional Conventions

Windows Systems

For the purposes of this guide, references to "Windows" will apply to Microsoft Windows Server 2003, Windows XP, and Windows 2000.

Path Name Separator

This guide uses the backslash ("\") as the separator within path names. If you are working on a UNIX system, please make the appropriate substitutions.

1.5   Supporting Documents

The following SeeBeyond documents provide additional information about the eInsight ESB system as explained in this guide:

- *eGate Tutorial*
- *eGate Integrator for eInsight Enterprise Service Bus User's Guide*
- *SeeBeyond ICAN Suite Deployment Guide*
- *SeeBeyond ICAN Suite Primer*
- *SeeBeyond ICAN Suite Upgrade Guide*

See the *SeeBeyond ICAN Suite Primer* for a complete list of eInsight ESB-related documentation. You can also refer to the appropriate Microsoft Windows or UNIX documents, if necessary.

Note: For information on how to use a specific add-on product (for example, an eWay Intelligent Adapter), see the user's guide for that product.

1.6   Online Documents

The documentation for the SeeBeyond ICAN Suite is distributed as a collection of online documents. These documents are viewable with the Acrobat Reader application from Adobe Systems. Acrobat Reader can be downloaded from:

http://www.adobe.com

1.7   About eInsight ESB 5.0

This section provides an overview of the operation, structure, architecture, and components of the eInsight ESB system.

1.7.1. eInsight ESB Basics

The purpose of the eInsight ESB system is to translate, transform, and route data between one or many external systems, and translate that data from one-to-many formats. eInsight ESB offers the following features:

- **Client/server Architecture**
  eInsight ESB leverages a Java-based client/server architecture that is open and flexible.

- **Effective Communication**
  eInsight ESB uses protocols and adapters that you select, allowing it to communicate with, and link together, multiple applications and databases across different operating systems.

- **Versatile Performance**
  eInsight ESB can interact with a large number of hardware systems, operating systems, message standards, communication protocols, and databases.

- **Multi-mode Operation**
  eInsight ESB operates in both real-time and batch/scheduled integration modes.

- **Convenient Bridges**
  eInsight ESB can bridge between older and newer systems, resulting in a centrally managed and unified enterprise.

1.7.2. eInsight ESB Components

The eInsight ESB system consists of the following:

- A Java 2 Platform Enterprise Edition (J2EE)-compatible transactional server (SeeBeyond Integration Server)

- A messaging service (JMS)

- Data repositories

- A Graphical User Interface (eGate Enterprise Designer GUI)

For a complete description of the eInsight ESB components, refer to the *eGate Integrator for eInsight Enterprise Service Bus User's Guide* and the *SeeBeyond ICAN Suite Primer.*

1.8 The SeeBeyond Web Site

The SeeBeyond Web site is your best source for up-to-the-minute product news and technical support information. The site's URL is:

http://www.seebeyond.com

Overview of Installation

This chapter gives you an overview of system requirements and the installation process.

This chapter contains

2.1 Overview

Although you can install the Repository and Logical Host on any supported platform, you must install the Enterprise Designer GUI on a Windows computer. After installing and starting the Repository, use your browser to connect to the Enterprise Manager. From the Enterprise Manager you can:

- Upload products to the Repository
- Download components (including Enterprise Designer and Logical Host)
- View product information home pages

Once the Enterprise Manager is installed, use it to download other components required to run eInsight ESB, such as the Enterprise Designer and the Logical Host.

Before installing the Repository, Enterprise Designer, and Logical Host on your system, please read the following sections to ensure a smooth and error-free installation.

2.2 System Requirements

This section lists the system requirements for each platform. The **Readme.txt** file (located in the root directory of the Repository CD-ROM) contains the most up-to-date operating system requirements for the supported platforms. The requirements listed in the following sections are in addition to the operating system requirements.

eInsight ESB is available on the following operating systems:

- Windows Server 2003, Windows XP SP1a, and Windows 2000 SP3
- HP Tru64 V5.1A with required patches
- HP-UX 11.0 and 11i with required patches and parameter changes

*Note: SeeBeyond only supports HP-UX running on 9000/8xx machines. 9000/800 is 64 bits, but can also run in 32 bits mode. To determine if the system is 32 or 64 bits, type: **getconf KERNEL_BITS**. This returns either 32 or 64.*

- IBM AIX 5.1 and 5.2 with required Maintenance level patches
- Red Hat Enterprise Linux AS 2.1
- Red Hat Linux 8 (Intel Version)
- Sun Solaris 8 and 9 with required patch (if Solaris 8)

2.2.1. Resource Considerations

eInsight ESB functions can be distributed across various types of computers, described below. Although the same computer can act in two or all three capacities simultaneously, the expectation is that all machines will be widely distributed and communicating via TCP/IP.

The roles for computers in an eInsight ESB environment are:

- **Repository Server**: A Repository Server must have maximal reliability and fast reliable access to long-term storage, in order to serve requests for configuration and security.

  A Repository Server can run on operating system platforms supported by eInsight ESB.

- **Enterprise Designer**: A Windows program that is used to design and configure eInsight ESB Projects. Enterprise Designer runs on Windows only.

- **Enterprise Manager**: A Web-enabled application used to install ICAN products and monitor eInsight ESB components.

- **Logical Host**: Logical Hosts handle routing, translation, and transformation of data. Most sites should tune their Logical Hosts to maximize throughput; this usually translates to plenty of RAM, fast cache, and fast I/O.

  A Logical Host can run on any of the operating system platforms supported by eInsight ESB.

For hardware/software resource requirements, see the following sections.

2.2.2. Internet Explorer Version

You must use Internet Explorer 6 with Service Pack 1 to access Enterprise Manager.

2.2.3. Windows System Requirements

The following table lists the minimum requirements for installing each of the eInsight ESB components on a Windows system. For the best performance, you should install these components on different computers. However, if you choose to install some or all of these components on the same machine (for example, in a lab environment), keep in mind that the requirements for each of these components is cumulative.

Table 2   Windows GUI System Requirements

eGate Component	CPU	RAM	Disk Space
Enterprise Designer	1200 MHz Pentium class	512 MB	250 MB
Enterprise Manager	600 MHz Pentium class	128 MB	5 MB

Table 3   Windows Repository and Logical Host System Requirements

eGate Component	CPU	RAM	Disk Space
Repository	1200 MHz Pentium class	256 MB	850 MB
Logical Host	1200 MHz Pentium class	512 MB	250 MB

Additionally, to use eInsight ESB on Windows, you will need the following:

- A TCP/IP network connection.
- Internet Explorer 6.0 with Service Pack 1.

Additional considerations

- The disk space requirement listed for the Logical Host does not include space for the queues and log files that are created by the user as Integration and Message Services are executed.

- For additional information regarding sizing of a test or production system, consult the *SeeBeyond ICAN Suite Deployment Guide*.

- eInsight ESB GUI tools have not been tested on a remote client product, such as Citrix Metaframe© or Windows Terminal Services©.

2.2.4. UNIX System Requirements

The following tables list the minimum requirements for installing the Repository and Logical Host on various UNIX systems. For the best performance, you should install these components on different computers. However, if you choose to install some or all of these components on the same machine (for example, in a lab environment), keep in mind that the requirements for each of these components is cumulative.

Dual (or multi) CPUs are recommended for best performance of the Logical Host, especially if you run the Repository and the Logical Host on the same computer.

Table 4 Solaris System Requirements

eGate Component	CPU	RAM	Disk Space
Repository	400 MHz	256 MB	850 MB
Logical Host	400 MHz	512 MB	400 MB

Table 5 HP-UX System Requirements

eGate Component	CPU	RAM	Disk Space
Repository	540 MHz	512 MB	1150 MB
Logical Host	540 MHz	1536 MB	500 MB

Table 6 AIX System Requirements

eGate Component	CPU	RAM	Disk Space
Repository	450 MHz	256 MB	900 MB
Logical Host	450 MHz	512 MB	450 MB

Table 7 HP Tru64 System Requirements

eGate Component	CPU	RAM	Disk Space
Repository	667 MHz	512 MB	1000 MB
Logical Host	667 MHz	512 MB	350 MB

Table 8 Red Hat Linux System Requirements

eGate Component	CPU	RAM	Disk Space
Repository	2000 MHz	256 MB	900 MB
Logical Host	450 MHz	512 MB	350 MB

Note: *The Enterprise Designer can only be installed on Windows systems.*

Additionally, to use eInsight ESB on UNIX, you will need the following:

- A TCP/IP network connection.
- FTP and Telnet capabilities.

Additional considerations

- The disk space requirement listed for the Logical Host does not include space for the queues and log files that are created by the user as Integration and Message Services are executed.

- For additional information regarding sizing of a test or production system, consult the *SeeBeyond ICAN Suite Deployment Guide*.

2.3 Pre-Installation

The following sections explain issues to consider before you begin your eInsight ESB installation.

2.3.1. Windows Pre-Installation

Exit from all Windows programs prior to running the setup.

You need Administrator privileges to install eInsight ESB.

Default User Names and Passwords

For eInsight ESB's default user name and password, see the **Readme.txt** file.

Prior to Installing eInsight ESB Release 5.0

Before installing eInsight ESB 5.0 GUI, ensure that there are no orphan processes left over from previous installation attempts, such as **jrew**. If necessary, reboot your computer before installing eInsight ESB.

Note: *If there is a* **jrew** *process running (for example:* **jrew.exe**)*, you will receive an eInsight ESB GUI error message during the installation of the GUI ("An error occurred during the move data process: -132"). To fix the problem, using the Task Manager, right-click on the* **jrew**, *choose* **End Process**, *and then return to the GUI installation.*

2.4 About the Installation

The installation is a multi-stage process that includes the following:

1 Installing the eInsight ESB Repository.

2 Uploading the product files.

3 Installing the Enterprise Designer GUI via the Enterprise Manager.

The Enterprise Designer installation procedure consists of downloading an archive file from a Web site and extracting it to a folder within your local machine.

Important: *The eInsight ESB GUIs must be installed on a Windows systems. See* **Chapter 5** *for more information.*

4 Installing the Logical Host(s) from the Repository, via Enterprise Manager.

5 Installing add-ons (as needed) from the Repository, via Enterprise Manager.

6 If you are installing eInsight ESB components on the same computer (including installing upgrades to existing installations), you must install the Repository *first*, followed by the Enterprise Designer and the Logical Host.

2.4.1. Overview of the Installation Process

The installation process is divided into phases (see **Figure 1 on page 18**).

- Step 1 installs the **Repository**, **Enterprise Manager**, and **Enterprise Monitor** from CD-ROM. The Repository stores and manages the setup, component, and configuration information for eInsight ESB Projects. Enterprise Manager is the tool from which you upload files to the Repository and download products to your computer.

- Step 2 starts the Repository.

- Step 3 uploads the license and eInsight ESB files to the Repository from CD-ROM via Enterprise Manager.

Note: *Before downloading and installing the Logical Host, add-on applications, and ESRs from the Repository (Steps 6, 8, and 9 respectively), they must first be uploaded to the Repository (Step 3).*

- Step 4 downloads the eInsight ESB **Enterprise Designer GUI**, which enables you to configure the eInsight ESB system.

- Step 5 launches the Enterprise Designer, creates a Project, creates a Logical Host, and deploys a Project. See the *eGate Tutorial* and *eGate Integrator for eInsight Enterprise Service Bus User's Guide* for detailed information on how to complete these tasks.

- Step 6 downloads the **Logical Host** to your system via Enterprise Manager and then installs it (you must first upload it to the Repository, see **Step 3**). The Logical Host is

an instance of the eInsight ESB runtime environment that contains the software and other installed components that are required at run time, such as:

- The **SeeBeyond Integration Server**, which provides middleware services for security and state maintenance, data access and persistence, and transactions.

- The **System Management Service**, which manages and monitors eInsight ESB deployments that may comprise other application servers in addition to the SeeBeyond Integration Server.

- The **SeeBeyond JMS IQ Manager**, which exchanges and tracks JMS messages.

Although the Logical Host installation also includes the components necessary for basic communication between the eInsight ESB system and files, communications with databases and other products will require you to add-on components.

- Step 7 starts the Logical Host from the Bootstrap.

- Step 8 downloads and installs the **add-on** components from the Repository to your computer via Enterprise Manager (you must first upload them to the Repository, see **Step 3**). Depending on your installation, the add-ons include eWay adapters for communication with specific external systems.

- Step 9 downloads and installs **Emergency Software Releases** (ESRs) from the Repository to your computer via Enterprise Manager (you must first upload them to the Repository; see **Step 3**). ESRs are updates that resolve known issues.

Figure 1 Overview of eInsight ESB installation

Step 1
Install Repository
(including Enterprise Manager and
Enterprise Monitor)
from CD-ROM

Step 2
Start Repository

Step 3
Via Enterprise Manager
on GUI computer,
upload license, eGate
files, Logical Host, add-
ons, and ESRs (as
necessary)
to Repository from
CD-ROM

Step 4
Download Enterprise
Designer from Repository
and install
it to computer
(via Enterprise Manager)

Step 6
Download Logical Host
from Repository and
install it to computer
(via Enterprise Manager)

Step 7
Use Bootstrap to start
the Logical Host

Step 5
Launch Enterprise Designer
- Create a Project
- Create a Logical Host
- Deploy a Project

Step 8
Download Add-on
Applications from Repository
and install them to computer
(via Enterprise Manager)

Notes:
Step 4 includes the download of .zip files,
extraction of eGate files, creation of a directory,
and the placement of an Enterprise Designer
icon on the Desktop.
Step 6 includes the download of the Bootstrap,
JRE, and download.jar. The Bootstrap
downloads the binaries and configurations.

Step 9
Download ESRs from Repository and
install them to computer
(via Enterprise Manager)

Installation Flexibility

eInsight ESB 5.0 is more flexible than earlier releases, and now allows you to:

- Install more than one Logical Host on a single computer.

- Install multiple versions of eInsight ESB (for example: 5.0, 5.1) on a single Repository.

- Manage multiple Projects on a single environment.

  - The separation of design from deployment makes it possible to use the same components in more than one Project.

- Centralize your software distribution.

  - After uploading software (including ESRs—Emergency Software Releases) into "software packages," Administrators select which physical server or groups of physical servers receive the software.

  - HTTP connections are used to upload and download the software to and from the Repository.

2.4.2. eInsight ESB Repository Names and User Names

eInsight ESB maintains its own list of Repository names and user names; it does not poll the operating system or network to obtain or validate user names or Repository names. To simplify system administration, SeeBeyond recommends that you use your current naming conventions for Repository and user names.

eInsight ESB Repository and user names (as well as passwords) are case sensitive, even on Windows systems. Although there is no limitation on the length of the names, SeeBeyond recommends that you limit them to 12 characters. Valid characters include all letters and numbers, dashes, and underscores.

Important: *Periods, spaces, and other punctuation are not valid characters for any eInsight ESB user name, password, or component name.*

Default "Administrator" User Name

For eInsight ESB's default user name and password, see the **Readme.txt** file.

2.4.3. Environment Names

After you complete a Project, you must set up an Environment and deploy it. An Environment is a collection of Logical Hosts that house Project components and information about external systems. You set up an Environment and deploy it after completing a Project. A deployment Environment includes:

- Logical Host (an instance of the eInsight ESB runtime environment)

- SeeBeyond Integration Server

- SeeBeyond JMS IQ Manager

Environment names can contain letters, numbers, dashes, and underscores. There is no character limit. Spaces and punctuation marks are not valid characters for Project names.

2.5 Preparing for Installation

The following sections list important information that you must decide upon prior to installing eInsight ESB.

2.5.1. What Must Be Determined Prior to Installing eInsight ESB

Before you install eInsight ESB, you must determine the following:

1 Select the computer that will host the Repository.

2 Select the computers that will serve as Logical Hosts. It is possible for the same system to serve both as a Repository and a Logical Host. Whether you decide to do this depends on the requirements of your installation. Contact SeeBeyond Support if you need assistance making this determination.

3 Select the Window(s) computers that will host the eInsight ESB Enterprise Designer.

4 Determine which add-on applications you will require.

Be sure that each system that you select meets eInsight ESB's system requirements. See the resource requirements in each of the following chapters for more information.

2.5.2. Information Required Before Installing eInsight ESB

You must have the following information at hand before you start the installation process:

1 The default eInsight ESB "Administrator" password for Windows installations (see **"Default "Administrator" User Name" on page 19**).

2 The name of each system that will become a Repository or Logical Host (see **"eInsight ESB Repository Names and User Names" on page 19**).

The installation process will prompt you for the directory in which to install each eInsight ESB component. Although you can select any drive or partition, SeeBeyond recommends that you do not change the recommended default directory names.

Installation Instructions for Repository

This chapter provides instructions on how to install the eInsight ESB Repository. If you have any questions or problems, please contact SeeBeyond's Support group at (800) 798-0447. For online support, contact us at **http://www.seebeyond.com** and select **SERVICES** and then **SUPPORT SERVICES**.

This chapter contains

- **"Installing the Repository" on page 21**
- **"Windows Installation of Repository" on page 22**
- **"UNIX Installation of Repository" on page 30**

3.1 Installing the Repository

The Repository installation includes the SeeBeyond Repository Server and the Repository Library. The system components (Management Agent, SeeBeyond Integration Server, and SeeBeyond JMS IQ Manager) are contained in the **eInsightESB.sar** file, which is later uploaded to the Repository Server via Enterprise Manager. This section leads you through the steps to successfully install the Repository on the various platforms.

The Repository can be installed on any eInsight ESB supported platform.

3.2 Windows Installation of Repository

This section provides instructions for uploading and installing the Repository from a CD-ROM. There are two ways to install the Repository on a Windows computer: using the GUI and using command line prompts.

Important: *The Repository Server process is not compatible with the Windows XP Firewall. It is important that you disable the Windows XP Firewall prior to installing and starting the Repository Server on a Windows XP system. See your Windows XP documentation for instructions on disabling the Windows XP Firewall.*

To install the Repository on Windows using the GUI

1 Exit from all Windows programs.

2 Insert the Repository - Disk 1 (Windows/Solaris/AIX/Linux) CD-ROM in the CD-ROM drive.

or

Map a network drive (for example, map **\\servername\sharename\install_image_location** to **F:**) and navigate to that network location.

Note: *If you are installing eInsight ESB from a network drive, you must map the install image location to a mapped drive. The install program will not run from a UNC path.*

3 If you do not have Autorun enabled, double-click **install.bat** at the top level of the CD-ROM.

4 The **License Agreement** dialog box appears (see Figure 2). After reading the license and agreeing to its conditions, click **Next**.

Figure 2   License Agreement
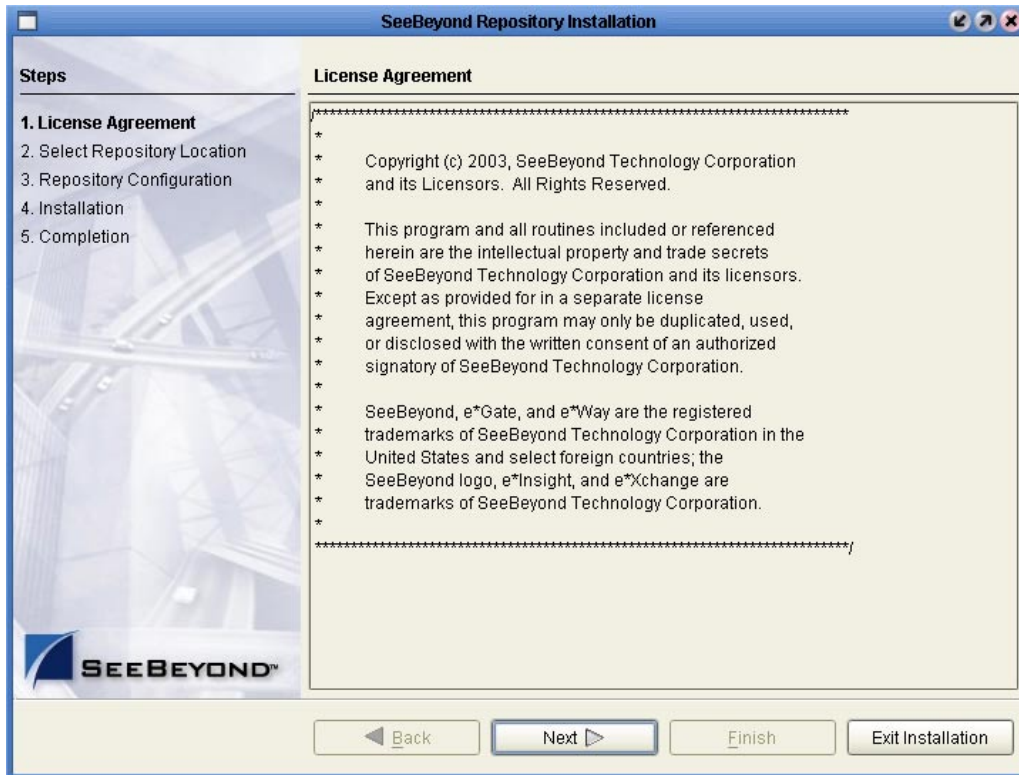
5   The **Select Repository Location** dialog box appears (see Figure 3). The location that you specify here will be used as the "root" for the eInsight ESB installation. For example, if you accept the default (**C:\ican50**), the Repository installation will create the **C:\ican50** directory and install the Repository to **C:\ican50\repository**.

If you want to enter another location, click **Browse**.

Note: *This must be a full path, including the drive letter. Also note that there can be no spaces in ICAN path names.*

When ready, click **Next**.

Figure 3 Select Repository Location
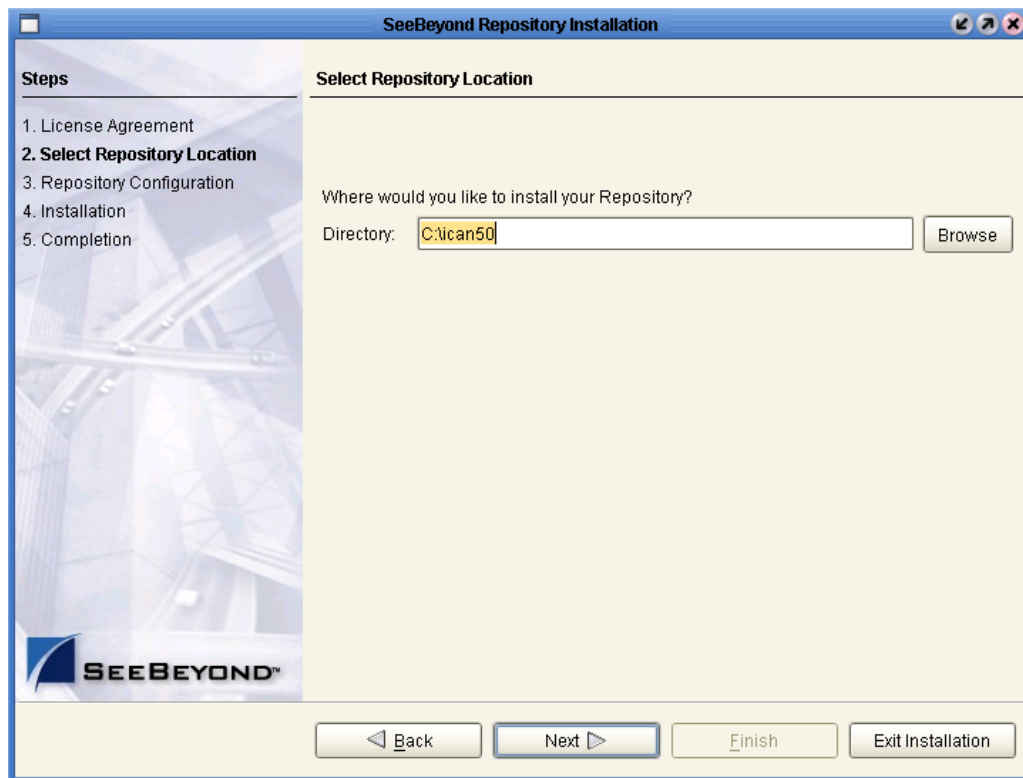
6   The **Repository Configuration** dialog box appears (see Figure 4). Enter the following information:

A   A name for the Repository in the **Name** box. The Repository name is the identifier for your eInsight ESB installation.

Note: Remember the name that you select. You will need it later.

B   The system automatically lists your host name or IP address in the **Host Name or IP** box. If you specify an IP address, this address must be a static IP address; a dynamic address (assigned by a DHCP server) will not be available for future sessions.

C   The **Port Number** box automatically lists 10 consecutive available ports (12000–12009 is the default). You will need the port number later when you connect to the Repository.

*Note: Make sure that the port number is not in use. To determine which ports are in use, type "**netstat -a**" at a command prompt. During the installation, the system selects nine additional port numbers which are sequentially above the port number you entered (for example: **12001** through **12009**). Be aware that the port checking performed at the time of the installation only detects ports that are in use at the time of the installation. This means that the installation will not detect ports that are configured to be used by other applications which are currently not running.*

D Select the **Run repository as Windows Service** check box if you want the server to start automatically. If you do not select this option at this time, you can add it later (see **"Starting the Repository as a Windows Service" on page 29**).

E When ready, click **Next**.

Figure 4 Repository Configuration
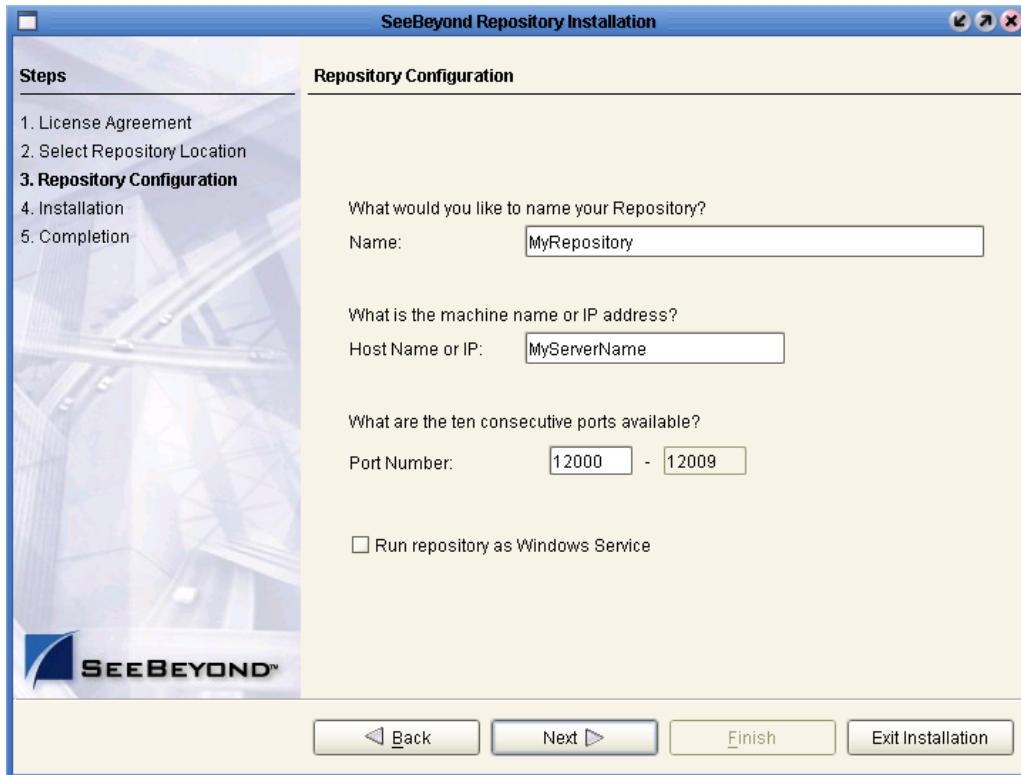
7 The **Installation** dialog box appears (see Figure 5). A progress bar indicates the approximate time remaining. When the installation is complete, click **Next**.

Figure 5   Installation
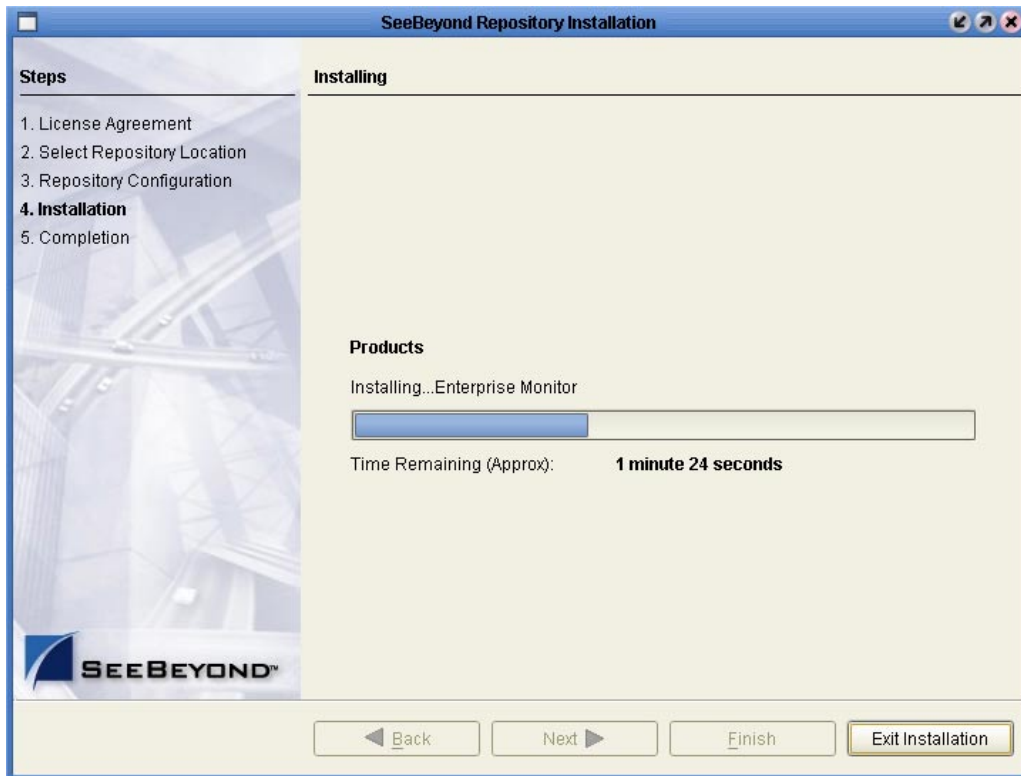
8 The **Completion** dialog box appears and informs you that the Repository installed successfully (see Figure 6), listing your selections during the installation:
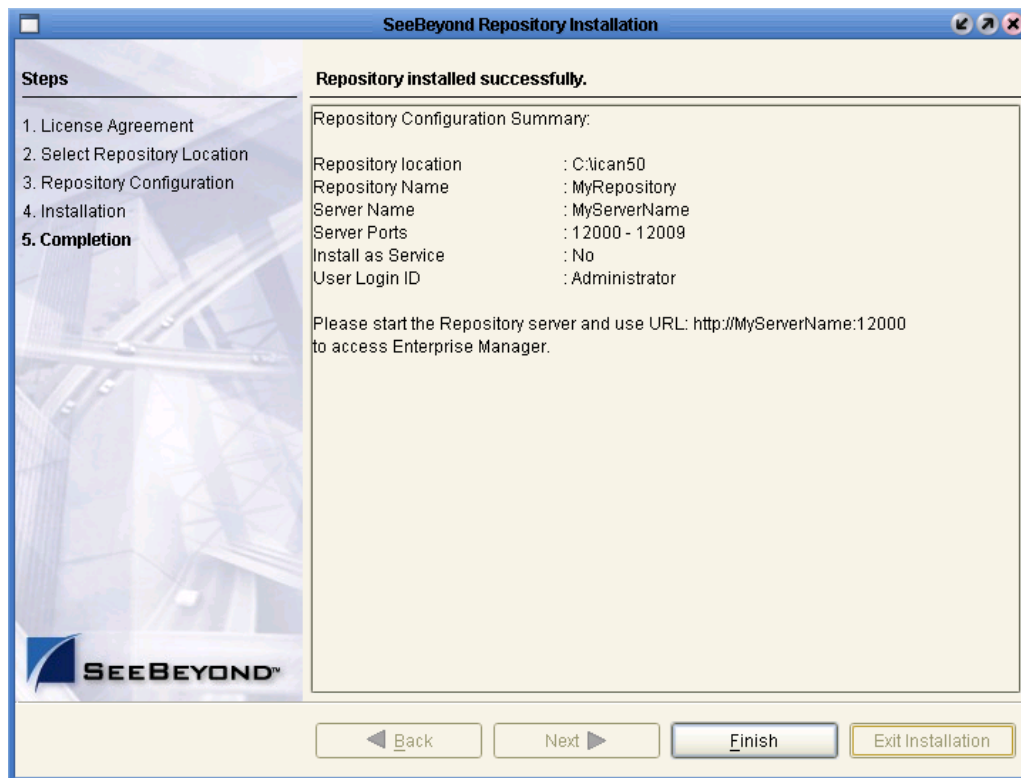
- Repository location
- Repository Name
- Server Name
- Server Ports
- Install as Service
- User Login ID

The dialog box also indicates the URL that you will use to access Enterprise Manager.

Note: It might be helpful to keep a copy of this page for later reference.

When ready, click **Finish**.

Figure 6 Completion

An installation log (**install.log**) is created in *<directory_path>***repository****logs**. Use this log file to view details about any problems you may encounter during the installation process.

To install the Repository on Windows using command line prompts

    1 Insert the Repository - Disk 1 (Windows/Solaris/AIX/Linux) CD-ROM in the CD-ROM drive.

    or

    Map a network drive (for example, map **\\servername\sharename\install_image_location** to **F:**) and navigate to that network location.

Note: *If you are installing* eInsight ESB *from a network drive, you must map the install image location to a mapped drive. The install program will not run from a UNC path.*

    2 At the command prompt, navigate to the top level of the CD-ROM and enter: **install.bat -text**. The following prompt appears:

```
Please enter the base directory to install the Repository:
```

    Type the full drive and path location (for example, **C:\ican50**) and press **Enter**.

The location that you specify here will be used as the "root" for the eInsight ESB installation. For example, if you specify **C:\ican50**, the Repository installation will create the **C:\ican50** directory and install the Repository to **C:\ican50\Repository**.

Note: *This must be a full path, including the drive letter. Also note that there can be no spaces in ICAN path names.*

3 The next prompt displays the following message:

```
Please enter name of the Repository:
```

Type the name to be used for your Repository and press **Enter**. The Repository name is the identifier for your eInsight ESB installation.

4 The next prompt displays the following message:

```
The Repository needs a range of 10 consecutive tcpip ports for http
and related services.  Please enter the starting port number:
```

Enter a Repository port number such as 12000. You will need the port number later when you connect to the Repository.

Note: *Make sure that the port number is not in use. To determine which ports are in use, type "**netstat -a**" at a command prompt. During the installation, the system selects nine additional port numbers which are sequentially above the port number you entered (for example: **12001** through **12009**). Be aware that the port checking performed at the time of the installation only detects ports that are in use at the time of the installation. This means that the installation will not detect ports that are configured to be used by other applications which are currently not running.*

5 The next prompt displays the following message:

```
Would you like to run the Repository as a Windows service? If you
decline, you can always install the Windows service later. (y/n)
[n]:
```

Answer **y** to start the Repository server automatically.

Note: *If you select **n**, see* **"Starting the Repository as a Windows Service" on page 29** *to perform the steps necessary to start the Repository as a Windows service.*

6 The next prompt displays the following message:

```
Enter the full machine name or IP address under which the
Repository Server will be accessible from other machines.
[10.18.73.68]:
```

The system automatically lists your host name or IP address. If you specify an IP address, this address must be a static IP address; a dynamic address (assigned by a DHCP server) will not be available for future sessions.

The Repository installs to the directory you specified in step 2 and an installation log (**install.log**) is created in *<directory_path>***\repository\logs**. Use this log file to view details about any problems you may encounter during the installation process.

To start and stop the Repository on Windows

1 Navigate to the directory where you installed the Repository (for example: **C:\ican50\repository**).

2 Double-click **startserver.bat**. The Repository starts on the port that you specified during installation.

The Repository will continue to run in the background. While the Repository is running, the log files generated in *<directory_path>***repository\server\logs** show the status of the Repository Server.

You can redirect Repository Server console messages to a text file by using the following command:

```
startserver.bat > ServerLog.txt 2>&1
```

3 To stop the Repository, double-click **stopserver.bat**.

3.2.1. Starting the Repository as a Windows Service

Installing the Repository as a Windows service configures the Repository to automatically start up at system startup. This makes it possible for the Repository to automatically restart after an abnormal system shutdown.

You must have Administrator rights to the local Windows machine in order to configure the Repository to start as a service. The installation script writes to the Windows Registry; this cannot be done without Administrator rights.

To start the Repository as a Windows Service

1 Use Windows Explorer to navigate to the Repository directory (for example, **C:\ican50\repository**).

2 Double-click **installwinsvc.bat**.

This runs the script that configures the Windows service to automatically run the Repository at system startup. The service will have the same name as the installed Repository.

3 The first time that you use the service, and prior to running Enterprise Manager, you must manually start it.

A Open the Windows **Control Panel**.

B Select **Administrative Tools**.

C Select **Services**, and then locate *<name_of_repository>*
where:
<name_of_repository> is the name of the Repository that you want to start as a service.

D Right-click *<name_of_repository>* and select **Properties**.

E Ensure that the **Startup type** is **Automatic**, and then click **Start**.

Note: *From this time forward, the Repository will start automatically at system startup or whenever the computer is rebooted.*

To remove the Repository Windows Service

1 Use Windows Explorer to navigate to the Repository directory (for example, **C:\ican50\repository**).

2 Double-click **uninstwinsvc.bat**.

   This runs the script that removes the Windows service that automatically starts the Repository at system startup.

You are now ready to upload product files to the Repository. Continue to **Chapter 4 "Installation Instructions for Uploading Files to the Repository" on page 33**.

3.3   UNIX Installation of Repository

This section explains how to install the eInsight ESB Repository on your UNIX system. You can mount the CD-ROM on your UNIX computer or FTP the installation files to your UNIX computer via a Windows computer. See **"UNIX System Requirements" on page 14** for additional information and installation requirements before proceeding.

To install the Repository on UNIX

1 If it is a UNIX computer, log in as either a non-root or root user on the workstation containing the CD-ROM drive, and insert the Repository - Disk 1 or Repository - Disk 2 CD-ROM (depending on which UNIX platform you are using) into the drive.

Note: *To mount the CD-ROM, you must have root privileges. If the directory that you want to mount over does not exist, you must create it. Once this directory is created, mount the CD-ROM, using the appropriate command. The correct arguments for the mount command vary for each operating platform. See the following table for additional mounting commands.*

Table 9   Mounting a CD-ROM Drive Locally

Platform	Mount Command
AIX	**mount -V cdrfs -r /dev/cd<extension>/cdrom**
Solaris 8 and 9	**mount -F hsfs -o ro /dev/dsk/c0t<extension> /cdrom** (On Sun Solaris systems, the CD-ROM drive mounts automatically if the volume manager is running.)
HP Tru64	**mount -t cdfs -r -o noversion -o rrip /dev/rz<extension>/cdrom**
Red Hat Linux	**mount -t iso9660 /dev/cdrom /cdrom** (On Linux systems, you may have to change the CD-ROM drive configuration from read-only to execute. By default, on Linux systems, CD-ROM drives have read-only permission.)
HP-UX	**pfs_mount -t rrip -r /dev/dsk/c0t<extension> /cdrom** where **/cdrom** is the mount point.

2 Navigate to the root directory of the CD-ROM on your UNIX computer.

3   To install the Repository, type **./install.sh** and press **Enter**. The following prompt appears:

```
Please enter the base directory to install the Repository:
```

Type the full drive and path location (for example, *<install_path>*/**ican50**) and press **Enter**.

The location that you specify here will be used as the "root" for the eInsight ESB installation. For example, if you specify *<install_path>*/**ican50**, the Repository installation will create the *<install_path>*/**ican50** directory and install the Repository to *<install_path>*/**ican50/repository**.

Note: *This must be an absolute path.*

4   The next prompt displays the following message:

```
   Please enter name of the Repository:
```

Type the name to be used for your Repository and press **Enter**. The Repository name is the identifier for your eInsight ESB installation.

5   The next prompt displays the following message:

```
The Repository needs a range of 10 consecutive tcpip ports for http
and related services.  Please enter the starting port number:
```

Enter a Repository port number such as 12000. You will need the port number later when you connect to the Repository.

Note: *Make sure that the port number is not in use. To determine whether a port is available, type "**netstat -a | grep <port_number>**" at a command prompt; this will return the name of any process using that port number. During the installation, the system selects nine additional port numbers which are sequentially above the port number you entered (for example: **12001** through **12009**). Be aware that the port checking performed at the time of the installation only detects ports that are in use at the time of the installation. This means that the installation will not detect ports that are configured to be used by other applications which are currently not running.*

6   The next prompt displays the following message:

```
Enter the full machine name or IP address under which the
Repository Server will be accessible from other machines.
[10.18.73.68]:
```

The machine name or IP address appears in square brackets. Enter a machine name or IP address or press **Enter** to accept the default value (recommended).

An installation log (**install.log**) is created in *<directory_path>*/**repository/logs**. Use this log file to view details about any problems you may encounter during the installation process.

7   After the installation completes, change the directory to the location where you installed the Repository. For example:

```
cd /home/your_username/ican50/repository
```

where *your_username* is your UNIX user name.

8 If you installed on HP Tru64 and the shell is **csh,** you must run the following command *before* starting the Repository:

```
unlimit
```

If you installed on HP Tru64 and the shell is **bash,** you must run the following command *before* starting the Repository:

```
ulimit -Sd 1048576
```

9 To start the Repository, type **./startserver.sh**. The Repository Server starts in the background. To confirm that the Repository Server has started, use your Web browser to type the URL and port number, for example:

```
http://<server_name>:<port_number>
```

where:

<server_name> is name of the UNIX server where you installed the Repository and

<port_number> is the port you specified previously.

To see the Repository Server console messages, use a text editor such as vi to view the contents of **/home/***your_username***/ican50/repository/logs/repository.log**. This is a useful way to view the progress of the Repository Server startup process.

You can redirect Repository Server console messages to a text file by using the following command:

```
startserver.sh > ServerLog.txt 2>&1
```

Important: *The Repository is a separate process from your shell; unlike Windows, it continues to run after you log off from your UNIX account. To stop the Repository, you must run* ***./stopserver.sh*** *before logging off.*

3.3.1. Starting the Repository as a UNIX Daemon

You can have the Repository start automatically upon startup of the UNIX system. To do this, create an init script that calls the **nohup** command with the **startserver.sh** script. For example:

```
nohup /home/jsmith/ican50/repository/startserver.sh &
```

The procedure for adding the init script to the init process depends on which UNIX platform you are using. For detailed instructions, see the system administration documentation for the UNIX platform.

You are now ready to upload product files to the Repository. Continue to **Chapter 4 "Installation Instructions for Uploading Files to the Repository" on page 33**.

Installation Instructions for Uploading Files to the Repository

This chapter provides instructions on how to upload files to the eInsight ESB Repository. If you have any questions or problems, please contact SeeBeyond's Support group at (800) 798-0447. For online support, contact us at **http://www.seebeyond.com** and select **SERVICES** and then **SUPPORT SERVICES**.

This chapter contains

- ▪ **"Overview" on page 33**
- ▪ **"Uploading Files to the eInsight ESB Repository" on page 34**
- ▪ **"Installing the Schema Runtime Environment (SRE) Monitor" on page 41**

4.1 Overview

Before SeeBeyond ICAN Suite products can be installed on client systems, the product installation files must be uploaded from the Products CD-ROMs to the eInsight ESB Repository. This step only needs to be performed one time for each product.

Regardless of what operating system your Repository is running on, you must upload the product installation files from a Windows PC to your Repository.

After you upload the product installation files to the Repository, the products will be available for downloading to the client machines.

4.2 Uploading Files to the eInsight ESB Repository

In the following procedures, you will use the Enterprise Manager, a Web-based application, to upload files from the Products CD-ROMs to the Repository.

The product **.sar** files must be uploaded to the Repository in the proper sequence. The following procedures indicate which order to upload the product **.sar** files.

These **.sar** files are required for all Repositories:

- **license.sar**

- **eInsightESB.sar**

- One or more of the following Logical Host **.sar** files:

  - **logicalhost_aix.sar** (required if the Logical Host is running on IBM AIX)

  - **logicalhost_hpux.sar** (required if the Logical Host is running on HP-UX)

  - **logicalhost_linux.sar** (required if the Logical Host is running on Red Hat Linux)

  - **logicalhost_sparc64.sar** (required if the Logical Host is running on Sun Solaris)

  - **logicalhost_tru64.sar** (required if the Logical Host is running on HP Tru64)

*Note: The **logicalhost_win32.sar** file for Windows is automatically installed in the Repository by default.*

- Any eWay product **.sar** files (optional)

*Note: The optional **.sar** file **stcmessageserver45x.sar** provides backward compatibility for e*Gate 4.5.x JMS.*

To start the Enterprise Manager

Note: *Before you can begin this procedure, your SeeBeyond Repository Server must be running. See* **Chapter 3 "Installation Instructions for Repository" on page 21** *for instructions for starting your Repository Server.*

1   Start Internet Explorer.

2   In the **Address** line, type **http://<hostname>:<port_number>**

    where:

   *hostname* is the TCP/IP host name of the server where you installed the Repository—not the name of the Repository itself.

    port_number is the port number that you specified during the installation of the Repository.

Note: *The system must be able to resolve the host name to an IP address using DHCP or any other name resolution protocol.*

When ready, press **Enter**.

The **SeeBeyond Customer Login** window of the Enterprise Manager appears (see Figure 7). The Enterprise Manager serves as an update center, management center, and a dashboard to gain access to available applications. In addition, system administrators use the Enterprise Manager to upload components to the Repository Server and to set user permissions.

Figure 7   SeeBeyond Customer Login window
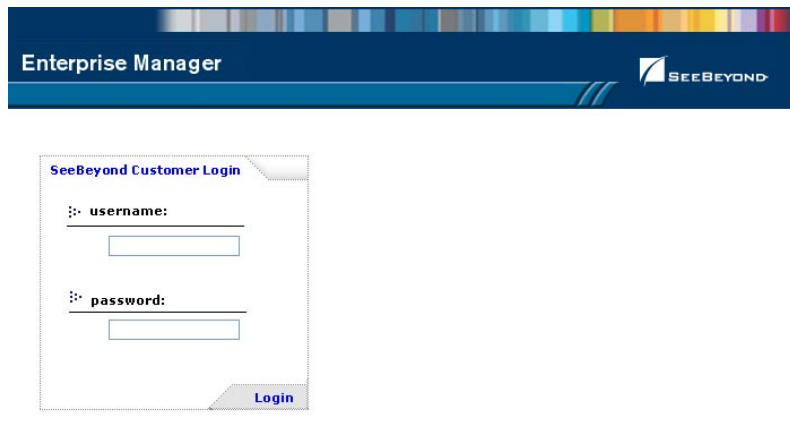
3   Enter your **username** and **password** and click **Login**. Note that this is your ICAN administrator username and password, not your username and password. See the **Readme.txt** file for the username and password.
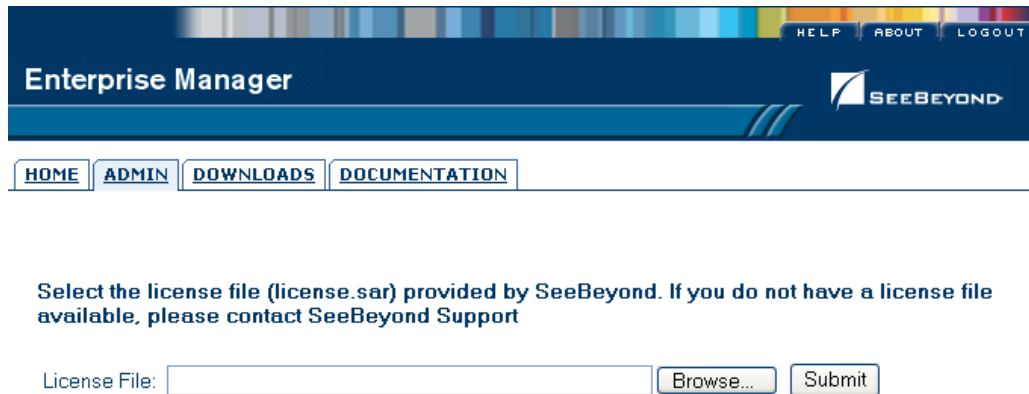
The Enterprise Manager appears with the **HOME** tab active.

To upload products to the Repository

1   Click the **ADMIN** tab to begin the process of selecting and uploading files to the
    Repository.

    The License file selection screen appears.

Figure 8   License File Selection

2   Click **Browse** to navigate to **license.sar**. After selecting it, click **Submit**.

Note: *The **license.sar** file is uniquely created for each customer. This file is packaged*
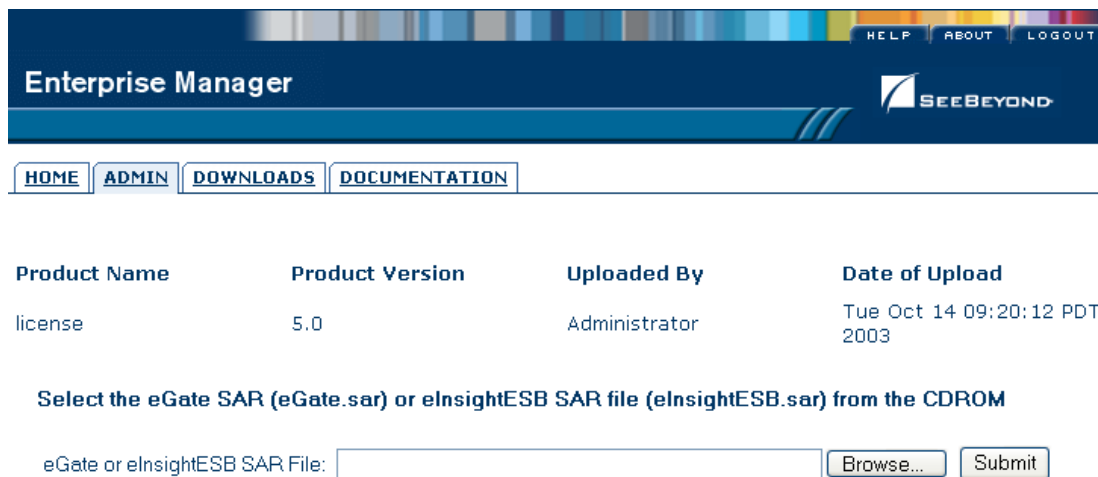   *separately from the rest of the ICAN installation media.*

3   After the license upload has completed, the Upload System Component Manifest
    screen indicates that the upload is finished (see Figure 9). Click **Back to component
    installation** to continue.

Figure 9 Completed License Upload

4 The next file to upload is **eInsightESB.sar**. This file is located on the Products -
    Disc 1 (eInsight ESB) CD-ROM. Click **Browse** to navigate to **eInsightESB.sar**. After
    selecting it, click **Submit**.

Figure 10 Upload eInsightESB.sar

5 **eInsightESB.sar** is a large file. Uploading **eInsightESB.sar** will take at least ten
    minutes.

    As product **.sar** files are uploaded to the Repository, two actions take place:

    ◆ The product **.sar** file is uploaded to the Repository Server from your installation
       media. The length of time required for the file transfer depends on the size of
       the file and the speed of your network.

    ◆ The product **.sar** file is un-compressed and installed into the Repository.

6   After the **eInsightESB.sar** upload has completed, the Upload System Component Manifest screen indicates that the upload is finished (as previously seen in **Figure 9 on page 37**). Click **Back to component installation** to continue.

The Admin page displays a list of the files that have been uploaded to the Repository so far (see Figure 11).

Figure 11   Product Manifest Selection
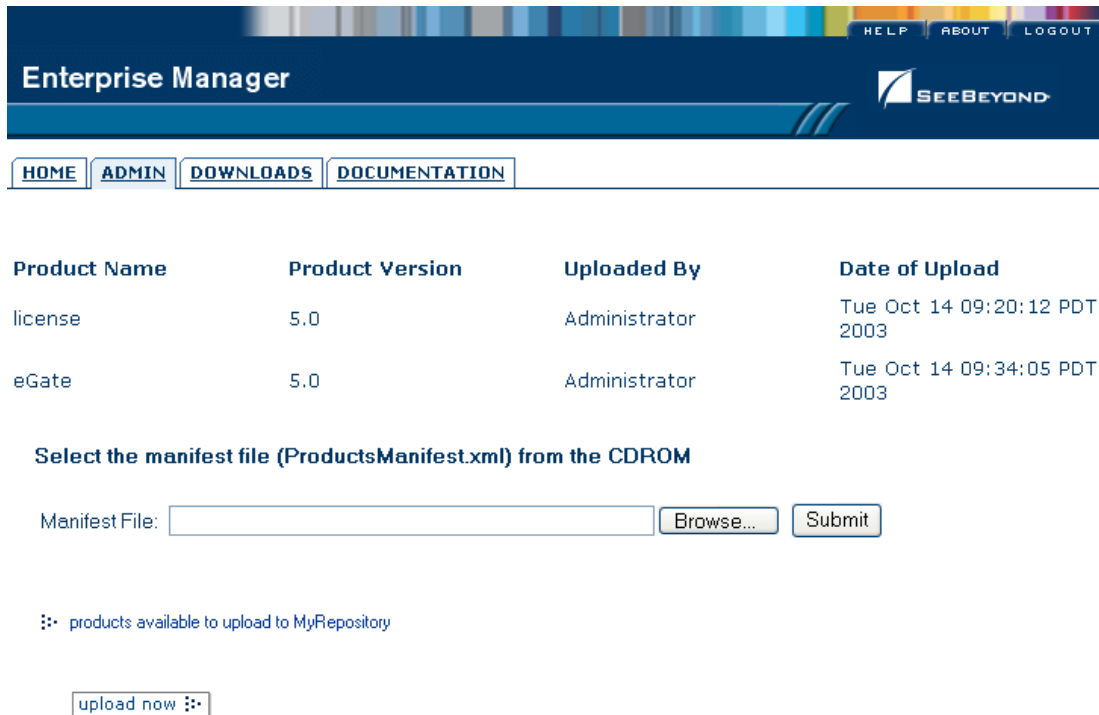
7   The next file to upload is **ProductsManifest.xml**. There are two versions of this file. The version for non-eWay products is located on the Products - Disc 1 CD-ROM. The version for eWay products is located on the Products - Disc 2 CD-ROM. Click **Browse** to navigate to **ProductsManifest.xml**. After selecting it, click **Submit**.

The Admin page now displays a list of all the ICAN products based on the contents of the Products Manifest file.

To upload additional products to the Repository

Each ICAN product requires one or more product **.sar** files to be uploaded to the Repository. For example, to install the File eWay, you must upload **FileeWay.sar**. Follow these steps to upload and install your product **.sar** files.

The product **.sar** files for non-eWay products are located on the Products - Disc 1 (eInsight ESB) CD-ROM. The product **.sar** files for eWay products are located on the Products - Disc 2 CD-ROM.

If you switch from one CD-ROM to the other, you can reupload **ProductsManifest.xml** to display the correct list of products.

1 Click the **Browse** button next to the product that you want to install. For example, to install the File eWay, click the **Browse** button next to the File eWay field.

Note: *You might want to upload the **.sar** files for the ICAN documentation first.*

2 Navigate to the location where the product **.sar** file resides and select the file that you want to install.

Note: *The **.sar** files for non-eWay documentation are located in the **\Documentation** directory on the Products - Disc 1 (eInsight ESB) CD-ROM. The **.sar** files for eWay documentation are located in the **\Documentation** directory on the Products - Disc 2 CD-ROM.*

3 Click **upload now** to upload the product **.sar** file to the Repository.

The Upload System Component page is displayed. The status bar indicates the progress of the file upload.

4 After the upload has completed, the Upload System Component Manifest screen indicates that the upload is finished (as previously seen in **Figure 9 on page 37**). Click **Back to component installation** to continue.

The Admin page now displays a list of all the ICAN products based on the contents of the Products Manifest file.

5 Repeat steps 1 through 4 to install additional products.

Refer to the documentation for those products or Add-ons for the specific **.sar** file names for those products. If you uploaded the documentation, you can access the manuals from the **DOCUMENTATION** tab.

To upload the Logical Host Files

1 Repeat the steps in the previous procedure to upload the appropriate Logical Host **.sar** file. See Table 10 to determine the correct Logical Host file(s) for your environment. The Logical Host **.sar** files are located on the Logical Host CD-ROM.

   SeeBeyond recommends that you upload the Logical Host **.sar** file at this time so that you do not have to return to the uploading process when you are downloading the Logical Host (see **Chapter 6**).

Table 10   Logical Host .sar files

Logical Host Platform	Logical Host .sar file
Windows	No **.sar** file is required for Windows; it is automatically uploaded.
IBM AIX	logicalhost_aix.sar
HP-UX	logicalhost_hpux.sar
Red Hat Linux	logicalhost_linux.sar
Sun Solaris	logicalhost_sparc64.sar
HP Tru64	logicalhost_tru64.sar

Note: *The **logicalhost_win32.sar** file (for Windows) is automatically uploaded to the Repository during the Repository installation.*

Continue to **Chapter 5 "Installation Instructions for Enterprise Designer" on page 42** for instructions for installing the Enterprise Designer GUI on your development PCs.

4.3   Installing the Schema Runtime Environment (SRE) Monitor

The Schema Runtime Environment (SRE) Monitor enables you to manage an e*Gate 4.x system from the eInsight ESB 5.0 Enterprise Manager.

This section describes how to install the SRE Monitor. The procedure involves installing the Tomcat Servlet/JSP container and the Java Development Kit (JDK), and then copying files provided by SeeBeyond to the Tomcat installation.

To install the SRE Monitor

1   Install the Tomcat Servlet/JSP container on a computer located on the same network as the e*Gate 4.x system. Tomcat is available from:

   http://jakarta.apache.org/tomcat/

   SeeBeyond recommends that you use Tomcat version 4.1.12 or higher. The SRE Monitor was not tested with Tomcat version 5.

Note: The default port number for Tomcat is 8080. Because this is a commonly used port number, you might want to change the port number to avoid a conflict.

2   If the computer does not contain a JDK, then download and install a JDK from:

   http://java.sun.com/j2se/

3   Insert the eInsight ESB CD-ROM into the CD-ROM drive, copy the **sreMonitor.sar** file to your hard drive, and unzip the **sreMonitor.sar** file.

4   Copy all of the WAR files to the **$CATALINA_HOME/webapps** directory.

5   Copy all of the JAR files to the **$CATALINA_HOME/shared/lib** directory.

6   Copy the **msg** directory and its contents to the **$CATALINA_HOME/shared/classes** directory

7   Restart Tomcat.

The initial SRE Monitor screen contains two buttons in the Environment Explorer. The left button enables you to add a Registry, and the right button enables you to refresh the Registry.

If you find that your session timeouts are too fast, you might want to increase the value of the **<session-timeout>** element in the Tomcat **server.xml** configuration file. The default value is 30 minutes.

Installation Instructions for Enterprise Designer

This chapter provides instructions on how to install the Enterprise Designer GUI on a Windows system. If you have any questions or problems, please contact SeeBeyond's Support group at (800) 798-0447. For online support, contact us at **http://www.seebeyond.com** and select **SERVICES** and then **SUPPORT SERVICES**.

Note: *The Enterprise Designer GUI can only be installed on Windows systems.*

This chapter contains

- **"Overview" on page 42**
- **"Installation of Enterprise Designer" on page 43**

5.1 Overview

The Enterprise Designer must be installed on a Windows computer. After uploading the product files to the Repository (see **Chapter 4**), you can download the Enterprise Designer from the Repository and install it on all Windows clients that will be used to build and configure eInsight ESB Projects. Although the Enterprise Designer must be installed on Windows PCs, the Enterprise Designer can connect to Repositories on any supported platform.

Note: *An extraction program, such as WinZip, is required prior to beginning the installation of the Enterprise Designer.*

5.2 Installation of Enterprise Designer

This section provides the steps to download the Enterprise Designer from the Repository via the Enterprise Manager.

Note: *Before you can begin this procedure, your SeeBeyond Repository Server must be running. See* **Chapter 3 "Installation Instructions for Repository" on page 21** *for instructions for starting your Repository Server.*

To log on to the Enterprise Manager

1 Start Internet Explorer.

2 In the **Address** line, type **http://<hostname>:<port_number>**

where:

hostname is the TCP/IP host name of the server where you installed the Repository—not the name of the Repository itself.

port_number is the port number that you specified during the installation of the Repository.

Note: *The system must be able to resolve the host name to an IP address using DHCP or any other name resolution protocol.*

When ready, press **Enter**.

The **SeeBeyond Customer Login** window of the Enterprise Manager appears (see Figure 12).

Figure 12   SeeBeyond Customer Login window

3 Enter your **username** and **password**. See the **Readme.txt** file for the default username and password.

4   Click **Login**. Enterprise Manager appears with the **HOME** tab active.

To install the Enterprise Designer GUI

1   Click the **DOWNLOADS** tab. The **products available to download from
     <repository_name>** window appears (see Figure 13).

Figure 13   Products available to download from <repository_name> window
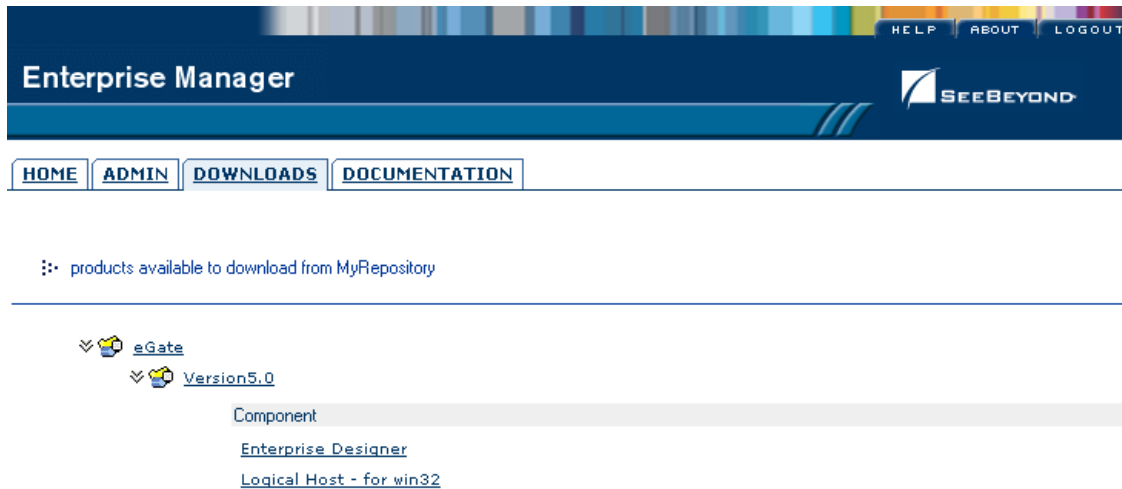
2   Click **Enterprise Designer**. If the **File Download** dialog box appears, click **Open**.
     The **edesigner.zip** file is opened by an extraction program (such as WinZip).

3   Extract all the files to the root directory (such as **C:\ican50**). The **\edesigner**
     directory path is created when the file is unzipped.

4   Close the extraction program and Internet Explorer.

5.2.1. Starting Enterprise Designer and Installing Required eInsight ESB Modules

After you start the Enterprise Designer for the first time, you must install all the
modules required to run the program.

To start the Enterprise Designer and install required modules

1   Navigate to **<C:\ican50>\edesigner\bin** and double-click **runed.bat**. Enterprise
     Designer starts.

2   You must update the eInsight ESB settings for your system. On the **Tools** menu,
     click **Update Center**. The **Update Center Wizard - Select location of modules**
     dialog box appears (see Figure 14).

Figure 14 Update Center Wizard - Select location of modules
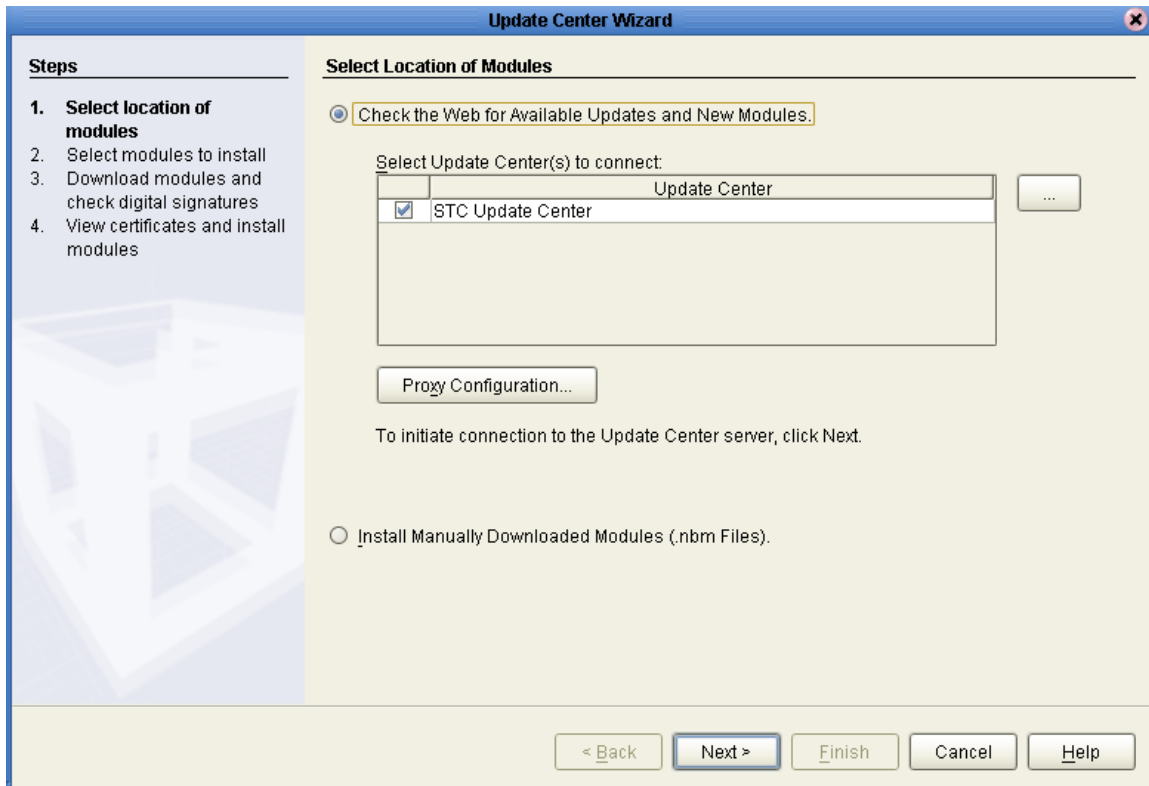
3 Click **Next**. The **Update Center Wizard - Select modules to install** dialog box appears (see Figure 15).

4 Click the **Add All** button (double-arrow button that is the third arrow button from top). All of the modules are moved to the **Include in Install** list.

Figure 15   Update Center Wizard - Select modules to install
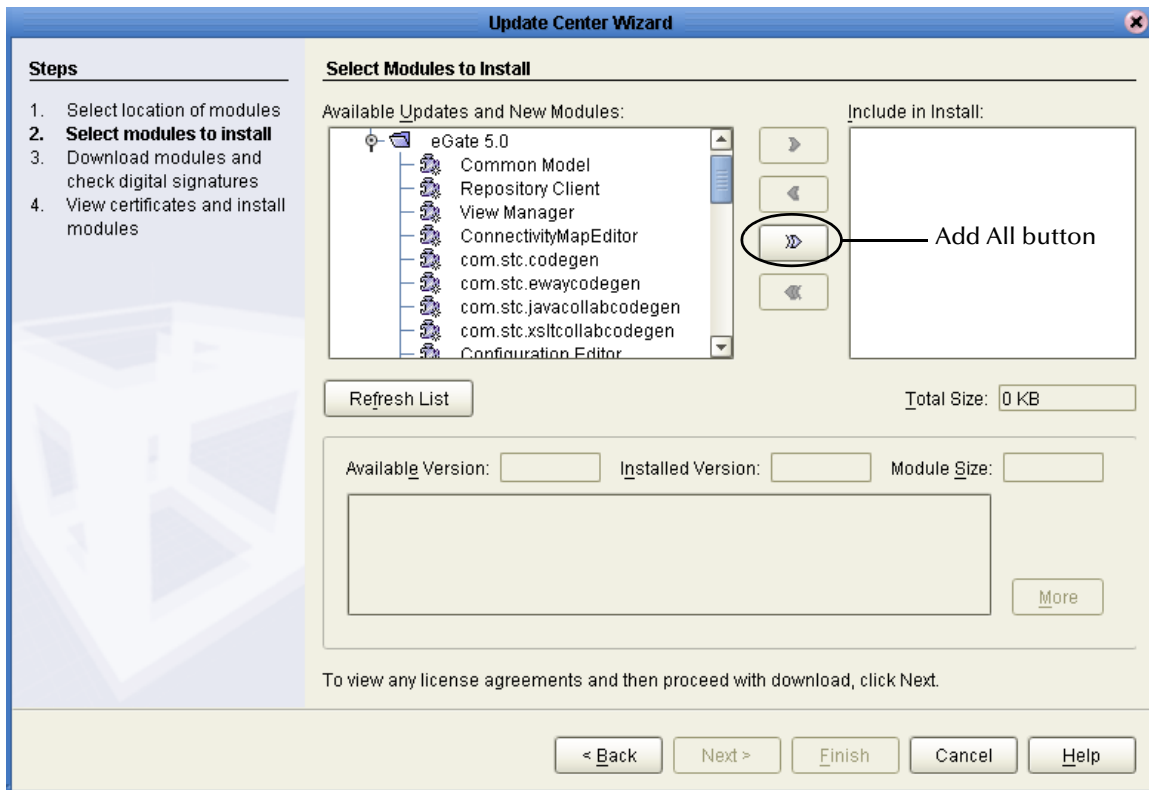
5   Click **Next**.

6   When the **License Agreement** appears, click **Accept**. The **Update Center Wizard -
    Download modules and check digital signatures** dialog box appears (see Figure
    16).

Figure 16 Update Center Wizard - Download modules and check digital signatures
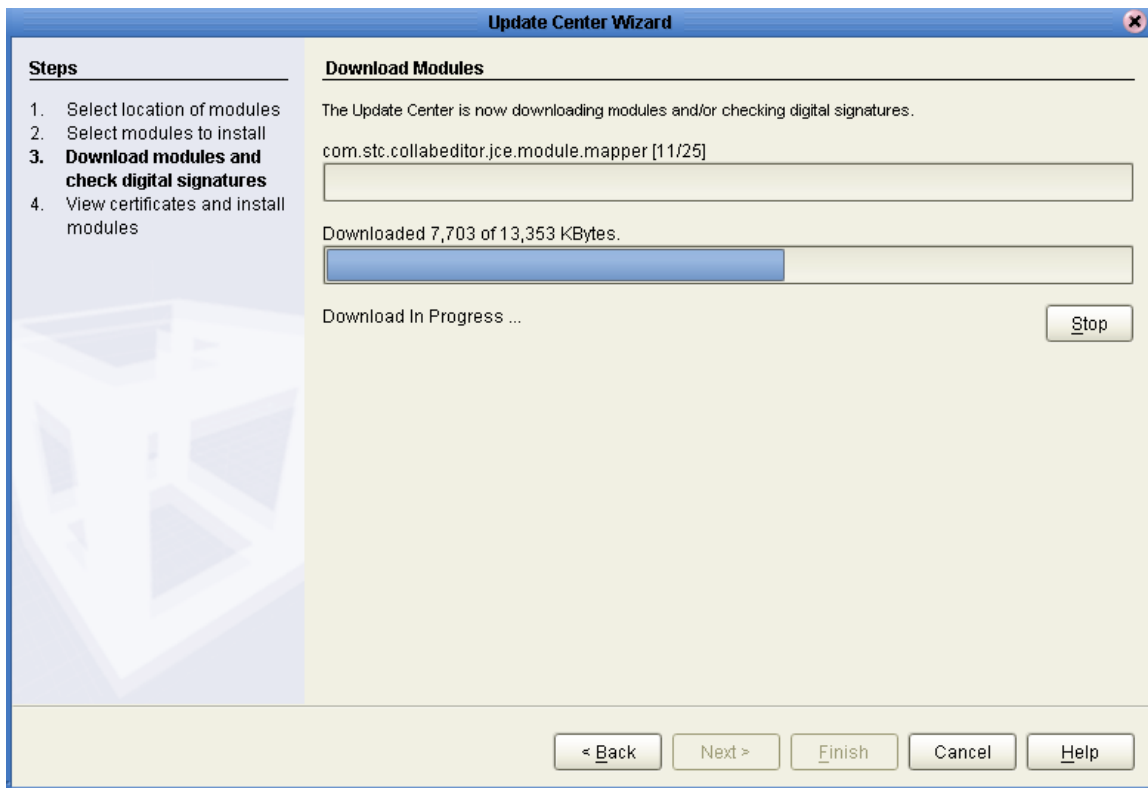
7   When the progress bar reaches 100 percent, click **Next**.

The **Update Center Wizard - View certificates and install modules** dialog box appears (see Figure 17). All of the modules must be installed for Enterprise Designer to fully function.

Figure 17   Update Center Wizard - View certificates and install modules
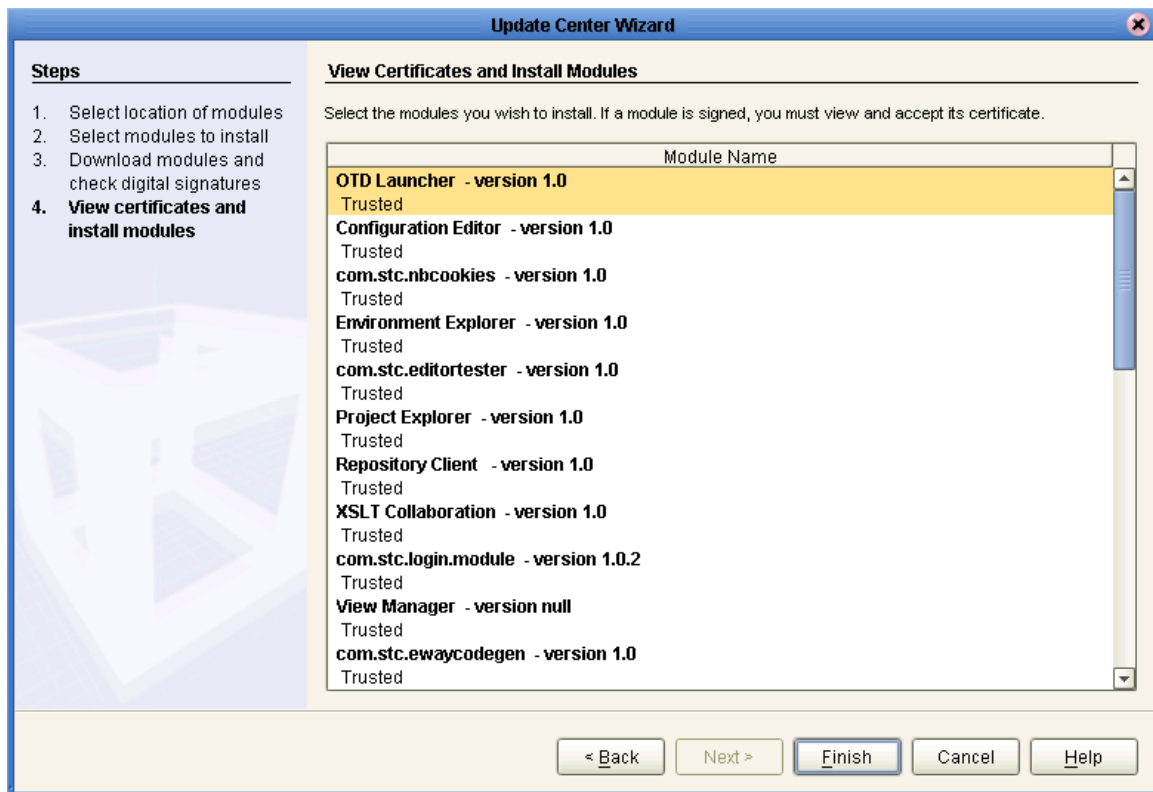
8   Click **Finish** to accept the certificates and install the modules. The **Restart the IDE** dialog box appears (see Figure 18).

Figure 18   Restart the IDE dialog box
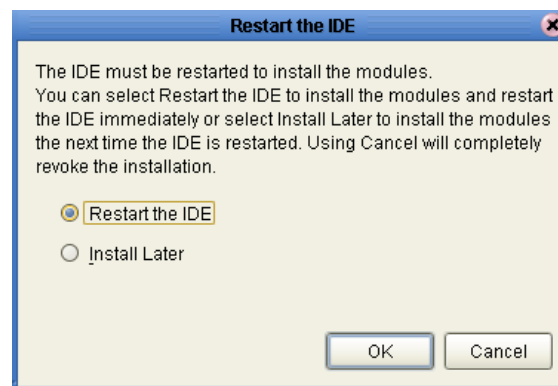
9   The modules that were installed in **step 8** must be reloaded before Enterprise Designer functions properly. To restart the IDE and install the modules, ensure that the **Restart the IDE** option is selected and then click **OK**.

10   The Enterprise Designer **Login** dialog box appears (see Figure 19). Enter your **Login ID** and **Password**, and then click **Login**. The Login ID is the same as the username.

SeeBeyond recommends that the first time you log in, it is as "Administrator." The Administrator can then create additional Login IDs (usernames).

The **SeeBeyond Enterprise Designer 5.0** window appears. You can now begin using the Enterprise Designer.

Note: *See the eGate Tutorial and the eGate Integrator for eInsight Enterprise Service Bus User's Guide for detailed instructions on using eInsight ESB.*

5.2.2. Starting Enterprise Designer GUI After Initial Logon

This section provides instructions for logging in for subsequent sessions of Enterprise Designer.

Before logging in for subsequent sessions of Enterprise Designer, the SeeBeyond Repository Server must be running.

To start Enterprise Designer GUI

1   Navigate to *<C:\ican50>\edesigner\bin* and double-click **runed.bat**.

The Enterprise Designer **Login** dialog box appears (see Figure 19).

Figure 19   Enterprise Designer Login dialog box
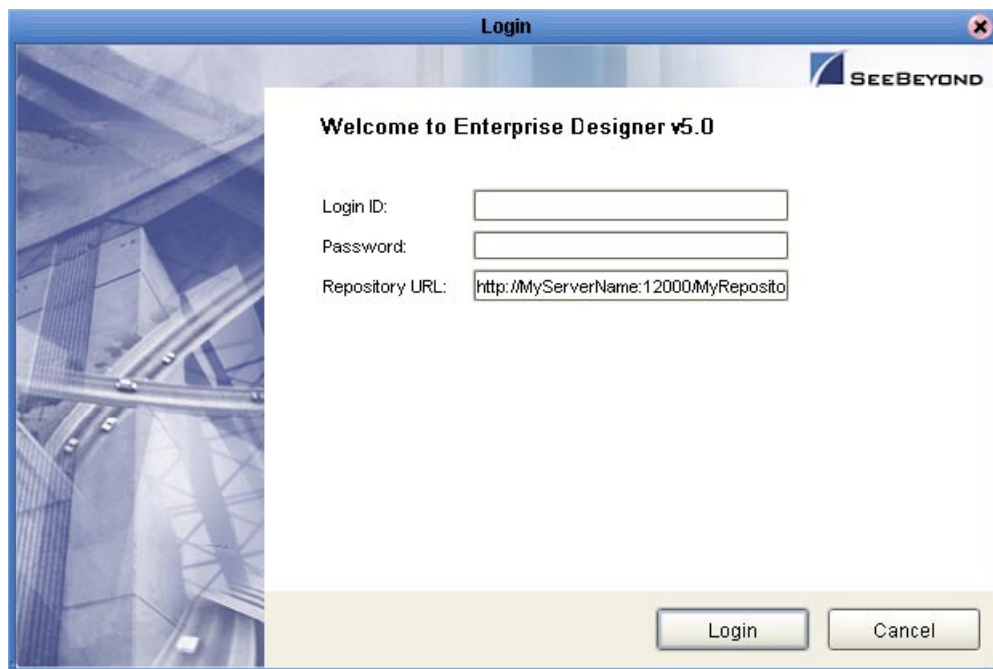
2   Enter your **Login ID** and **Password**, and then click **Login**.

The **SeeBeyond Enterprise Designer 5.0** window appears.

To exit Enterprise Designer

- Click the "X" in the upper right corner of the window.

  or

- On the **File** menu, click **Exit**.

Installation Instructions for Logical Host

This chapter provides instructions on how to install the Logical Host. If you have any questions or problems, please contact SeeBeyond's Support at (800) 798-0447. For online support, contact us at **http://www.seebeyond.com** and select **SERVICES** and then **SUPPORT SERVICES**.

This chapter contains

- **"Overview" on page 51**
- **"Windows Installation of Logical Host" on page 52**
- **"UNIX Installation of Logical Host" on page 54**

6.1 Overview

The Logical Host can be installed on any eInsight ESB supported platform. The Logical Host is installed after you have installed the Repository and the Enterprise Designer.

Note: *The Logical Host download and install is via Enterprise Manager, which only runs on Windows systems.*

6.2 Windows Installation of Logical Host

Before deploying a Project created in the Enterprise Designer, you must install a Logical Host. This section provides instructions for downloading and installing the Logical Host from the Repository.

Note: *Before you can begin this procedure, your SeeBeyond Repository Server must be running. See* **Chapter 3 "Installation Instructions for Repository" on page 21** *for instructions for starting your Repository Server.*

To install the Logical Host

Note: *If your browser is running and Enterprise Manager is open, skip to step 5.*

1 Start Internet Explorer.

2 In the **Address** line, type **http://<*hostname*>:<*port_number*>**

   where:

   <*hostname*> is the TCP/IP host name of the server where you installed the Repository—not the name of the Repository itself.

   <*port_number*> is the port number that you gave during the installation of the Repository.

   When ready, press **Enter**.

   The **SeeBeyond Customer Login** window of Enterprise Manager appears (see **Figure 12 on page 43**).

3 Enter your **username** and **password**. See the **Readme.txt** file for the default username and password.

4 When ready, click **Login**. Enterprise Manager appears with the **HOME** tab active.

5 Click the **DOWNLOADS** tab. The **products available to download from <*repository_name*>** window appears (see Figure 20). Use this window to download and install a Logical Host from your Repository.

Figure 20 Products available to download from <repository_name> window
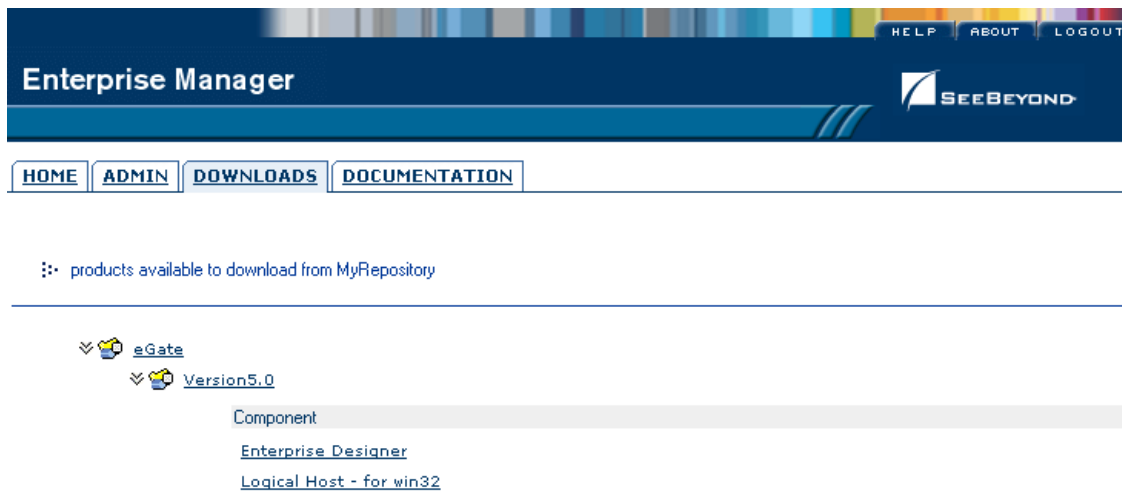
6   Click **Logical Host - for win32**. If the **File Download** dialog box appears, click
    Open. The **logicalhost-win32.zip** file is opened by an extraction program (such as
    WinZip).

7   Extract all the files to the root directory (such as **C:\ican50**). The **\logicalhost**
    directory path is created when the file is unzipped.

8   Close the extraction program and Internet Explorer.

6.2.1. Starting the Logical Host on a Windows System

For information on the following, see the *eGate Integrator for eInsight Enterprise Service
Bus User's Guide*:

- Manually starting the Logical Host on a Windows system

- Starting the Logical Host as a Windows service

Note: *If you set the Logical Host to start as a Windows service, it automatically starts each
          time your computer is rebooted. If the Logical Host is set to start manually, you will
          have to start it each time your computer is rebooted.*

6.3   **UNIX Installation of Logical Host**

Before deploying a Project created in the Enterprise Designer, you must install a Logical Host. This section provides instructions for downloading and installing the Logical Host from the Repository.

To install the Logical Host

Use the FTP feature of the Repository to download the Logical Host **.tar** file for a particular UNIX platform.

1   Connect to the Repository FTP server by typing: **ftp *<repository_host_name>* *<ftp_port_number>***

    where:

    <repository_host_name> is the TCP/IP host name of the server where you installed the Repository—not the name of the Repository itself.

    <ftp_port_number> is the base port number that you entered during the installation of the Repository plus **8**. That is, if the base port number is **12000**, then the FTP server port number would be **12008**.

    When ready, press **Enter**.

2   To browse for the downloadable Logical Hosts, type: **ls** and press **Enter**.

3   To begin the download, type: **get *<tar-file-name>***

    where:

    tar-file-name is the name of the **tar** file name that contains the Logical Host that you want to install.

4   Quit the FTP session by typing: **quit**.

5   Un-compress the **.tar** file by typing: **tar -xvf *<tar-file-name>***

    where:

    tar-file-name is the name of the **.tar** file name that contains the Logical Host that you want to install.

    When ready, press **Enter**. This creates a directory named "logicalhost" inside the directory where the **tar** command was executed.

Note: *Before downloading a specific Logical Host for any UNIX platform, that Logical Host must first be uploaded from the installation CD-ROM to the Repository.*

6.3.1. **Starting the Logical Host on a UNIX System**

For information on how to start the Logical Host on a UNIX system, see the *eGate Integrator User's Guide*. In addition, be aware of the following:

- If you installed the Logical Host on HP Tru64 and the shell is **csh**, you must run the following command *before* starting the Logical Host:

  ```
  unlimit
  ```

- If you installed the Logical Host on HP Tru64 and the shell is **bash**, you must run the following command *before* starting the Logical Host:

  ```
  ulimit -Sd 512000
  ```

Installation Instructions for ESRs

This chapter provides instructions on how to install Emergency Software Releases (ESRs), which are updates that resolve known issues. If you have any questions or problems, please contact SeeBeyond's Support at (800) 798-0447. For online support, contact us at **http://www.seebeyond.com** and select **SERVICES** and then **SUPPORT SERVICES**.

This chapter contains

- **"Overview" on page 56**
- **"Uploading ESRs to the Repository" on page 57**
- **"Installing Enterprise Designer ESRs" on page 58**
- **"Installing Logical Host ESRs" on page 62**

7.1 Overview

The Enterprise Designer has an Update Center that allows you to check for ESRs, which are updates that resolve known issues. Currently there are two interfaces that allow you to install ESRs:

- **Enterprise Designer**
  You install ESRs on each computer that has Enterprise Designer installed.

- **Logical Host**
  You install ESRs on each Logical Host within a Project, and must decide which ESRs you want to install on each Logical Host.

Before beginning the installation of ESRs, SeeBeyond recommends that you create a directory to store the ESRs. Also store the Manifest file you used during the initial installation in this directory—as this allows you to easily access the Manifest file when installing ESRs.

7.2   Uploading ESRs to the Repository

Before you can install an ESR, you must upload the ESR to the Repository. ESRs are distributed as .sar files.

To upload ESRs to the Repository

1   If your Repository is not running, start it.

2   Start Enterprise Manager by starting Internet Explorer and typing **http://<*hostname*>:<*port_number*>** in the **Address** line

where:

hostname is the TCP/IP host name of the server where you installed the Repository—not the name of the Repository itself.

port_number is the port number that you specified during the installation of the Repository.

Note: *The system must be able to resolve the host name to an IP address using DHCP or any other name resolution protocol.*

When ready, press **Enter**.

The **SeeBeyond Customer Login** window of the Enterprise Manager appears (see **Figure 7 on page 35**).

3   Enter your **username** and **password** and click **Login**. See the **Readme.txt** file for the default username and password.

Enterprise Manager appears with the **HOME** tab active.

4   Click the **ADMIN** tab.

5   You must now upload **ProductsManifest.xml**. This file is located on the Products - Disc 1 CD-ROM. Click **Browse** to navigate to **ProductsManifest.xml**, select it, and then click **Open**.

Note: *It is not mandatory that you use the same Manifest file that you used when you first installed eInsight ESB (although it can be). You can save a **ProductsManifest.xml** file to a directory of your choice and then select it as opposed to selecting the **ProductsManifest.xml** file from the Products - Disc 1 CD-ROM.*

6   When the **Manifest File** box shows the **ProductsManifest.xml** file, click **Submit**.

The Admin page now displays a list of all the ICAN products based on the contents of the Products Manifest file.

7   For each ESR that you want to upload, click **Browse** next to any product, navigate to the ESR .sar file (for example, **ESR0000001.sar**), and click **Open**.

Figure 21 shows an example of four selected ESRs.

Figure 21   Example of Selected ESRs

8   When you are done selecting ESRs, click **upload now**. The ESRs are uploaded.

7.3   Installing Enterprise Designer ESRs

This section describes how to install ESRs for Enterprise Designer components, as well as how to view and roll back installed Enterprise Designer ESRs.

Before you can perform the following procedure, you must have uploaded the ESRs to the Repository. See **"Uploading ESRs to the Repository" on page 57**.

Note: *Before you can roll back Enterprise Designer ESRs, you must upload a special ESR called Base ESR to the Repository and then install the Base ESR. You only need to upload this file once. The Base ESR is not required for rolling back Logical Host ESRs.*

To install Enterprise Designer ESRs

1   Start Enterprise Designer (see **"Starting Enterprise Designer GUI After Initial Logon" on page 49**).

2   On the **Tools** menu, click **Update Center**. The **Update Center Wizard - Select location of modules** dialog box appears (see Figure 22). Ensure that the **Check the Web for Available Updates and New Modules** option is active. When ready, click **Next**.

Figure 22 Update Center Wizard - Select location of modules
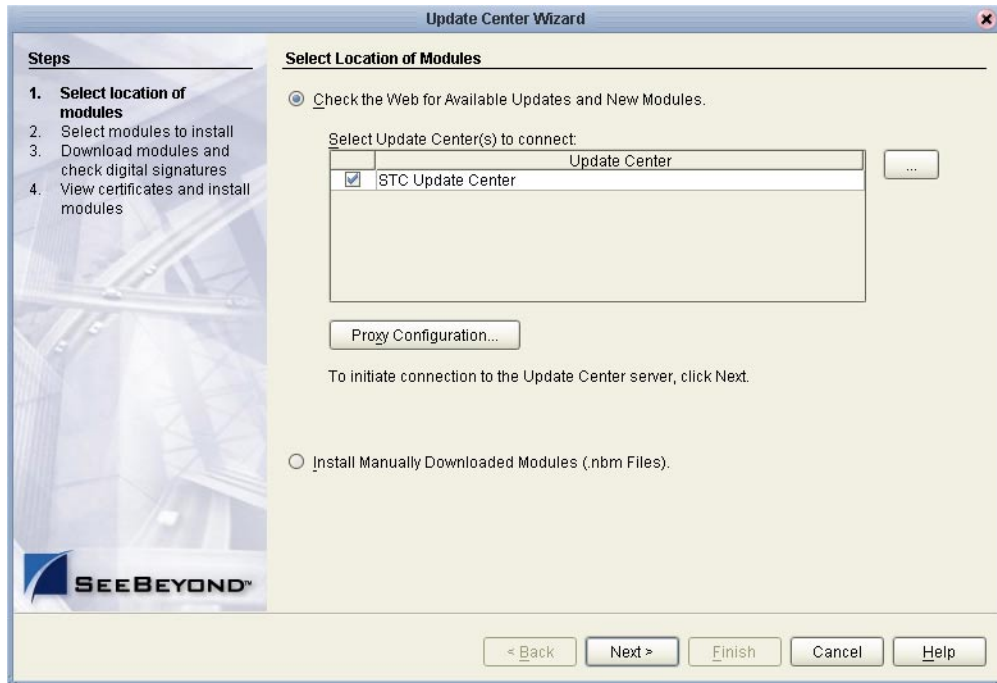
3 The **Update Center Wizard - Select modules to install** dialog box appears (see Figure 23). The available ESRs are listed in the **Available Updates and New Modules** box.

4 You can select an individual ESR by highlighting it and then clicking the single-right-arrow button to move the ESR to the **Include in Install** box. Repeat this procedure to move all the ESRs that you want to install.

or

Click the double-right-arrow button to move all the listed ESRs to the **Include in Install** box.

Figure 23   Update Center Wizard - Select modules to install
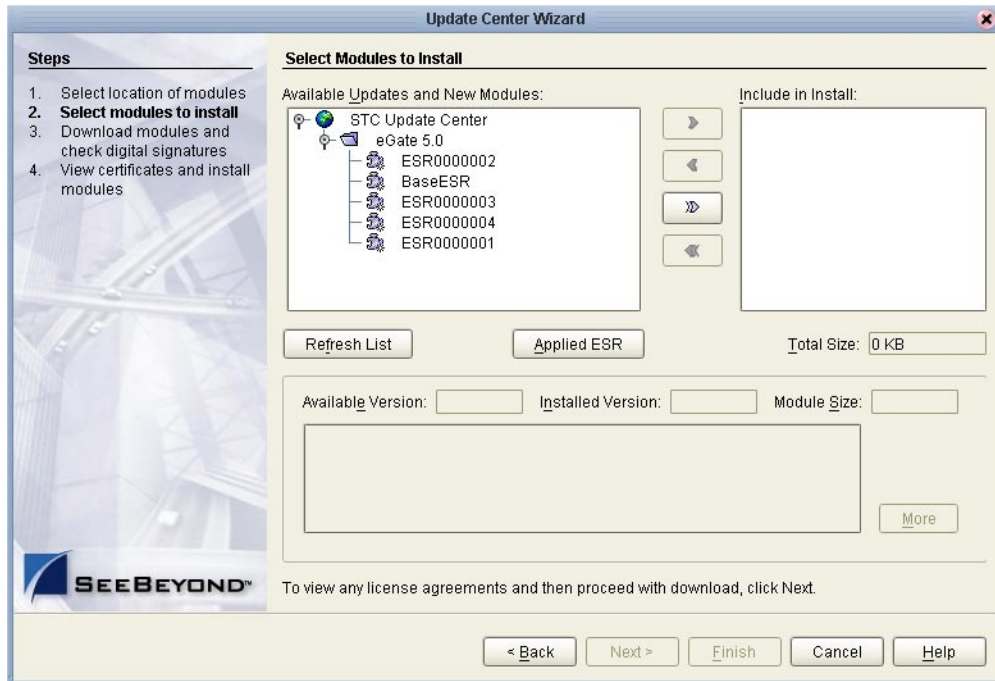
5   If you move an ESR that has dependencies on other ESRs, the other ESRs are automatically moved to the **Include in Install** area.

If you move an ESR that conflicts with another ESR, a message informs you of this situation.

If you move an ESR that supercedes another ESR, a message informs you of this situation.

6   When ready, click **Next**.

7   The **Update Center Wizard - Download modules and check digital signatures** dialog box appears (see Figure 24). When the progress bar reaches 100 percent, click **Next**.

Figure 24   Update Center Wizard - Download modules and check digital signatures
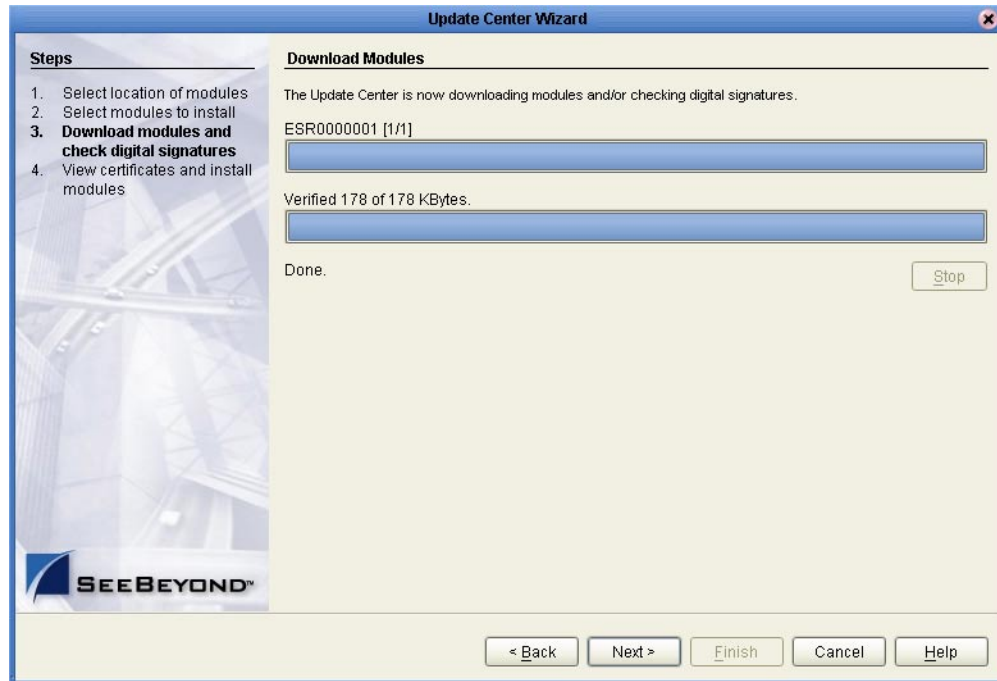
8   The **Update Center Wizard - View certificates and install modules** dialog box appears. Click **Finish**.

9   The **Restart the IDE** dialog box appears. Make sure that **Restart the IDE** is selected and click **OK**. Enterprise Designer restarts.

To view and roll back applied Enterprise Designer ESRs

Note: *Before you can roll back Enterprise Designer ESRs, you must upload a special ESR called Base ESR to the Repository and then install the Base ESR. You only need to upload this file once. The Base ESR is not required for rolling back Logical Host ESRs.*

1   On the **Tools** menu of Enterprise Designer, click **Update Center**. The **Update Center Wizard - Select location of modules** dialog box appears. Click **Next**.

2   The **Update Center Wizard - Select modules to install** dialog box appears. Click **Applied ESR**.

   The **Remove Installed ESR** dialog box shows which ESRs have been applied (see Figure 25).

Figure 25 Remove Installed ESR Dialog Box
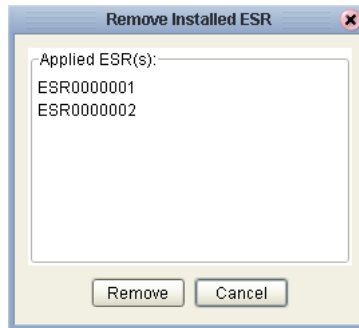
3 If you do not want to roll back ESRs, click **Cancel**.

4 If you do want to roll back ESRs, select the ESRs and click **Remove**.

7.4 Installing Logical Host ESRs

This section describes how to install ESRs for the Logical Host and its components (the Management Agent, SeeBeyond Integration Server, and SeeBeyond JMS IQ Manager), as well as how to roll back installed Logical Host ESRs.

Before you can perform the following procedure, you must have uploaded one or more ESRs to the Repository. See **"Uploading ESRs to the Repository" on page 57**.

To install Logical Host ESRs

1 Start Enterprise Designer (see **"Starting Enterprise Designer GUI After Initial Logon" on page 49**).

2 Click the **Environment Explorer** tab from the Enterprise Explorer.

3 Right-click the Logical Host that you want to update, and then click **ESR Setup**.

The **Logical Host ESR Setup** dialog box appears (see Figure 26). The ESRs that were uploaded to the Repository and that can be applied to this Logical Host appear in the **Available ESR(s)** area.

You can click on an ESR to display a brief description of that ESR. For a detailed description of the ESR, click **Detail Description**.

Note: *If you cannot get to a Logical Host, this is because the Logical Host must first be checked out. Right-click the Logical Host, and then click **Check Out**. Version control only affects personal Environments; shared Environments will not see your edits until you check them in (see the eGate Integrator for eInsight Enterprise Service Bus User's Guide).*

Figure 26 Logical Host ESR Setup
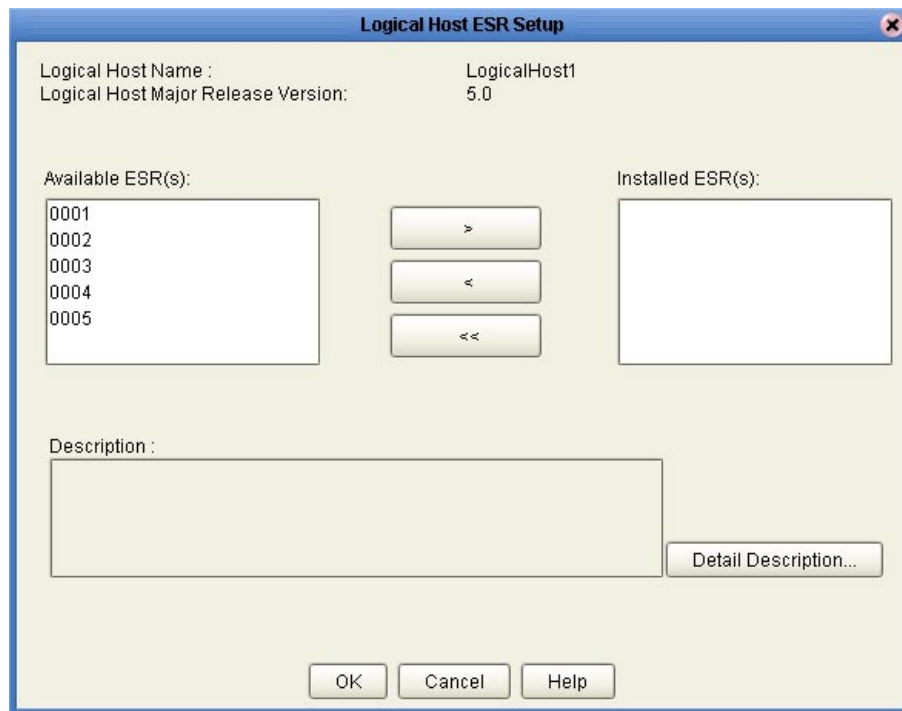
4 Move the ESRs that you want to install from the **Available ESR(s)** area to the **Installed ESR(s)** area. Only one ESR at a time can be moved.

5 If you move an ESR that has dependencies on other ESRs, the other ESRs are automatically moved to the **Installed ESR(s)** area.

   If you move an ESR that conflicts with another ESR, a message informs you of this situation and suggests that you remove the other ESR.

   If you move an ESR that supercedes another ESR, a message informs you of this situation and suggests that you remove the other ESR.

6 Click **OK**.

7 The ESRs will take effect when you reactivate the Deployment Profile or rerun the Logical Host bootstrap script.

To roll back applied Logical Host ESRs

1 Right-click the Logical Host that you want to update, and then click **ESR Setup**.

   The **Logical Host ESR Setup** dialog box appears.

2 Move the ESRs that you want to roll back from the **Installed ESR(s)** area to the **Available ESR(s)** area.

3 Click **OK**.

4 The rollback will take effect when you reactivate the Deployment Profile or rerun the Logical Host bootstrap script.

Glossary

Collaboration
(See Service and Collaboration Definition.)

Collaboration Definition
The encoding of business rules, in Java or XSLT format. Typically, the encoding consists of operations on OTDs (see **"OTD" on page 65**). Several Collaborations can have the same Collaboration Definition.

Connection
Consists of the configuration information that enables an eWay to connect to an external system.

Connectivity Map
Contains business logic and routing information about the data transmission. A Connectivity Map usually includes one or more Collaborations, Passthrough Collaborations, topics, queues, and eWays. A Connectivity Map is created under a Project. A Project may have multiple Connectivity Maps.

Constants
A name or value pair that is visible across a Project.

Deployment Profile
Contains the information about how the Project components will be deployed in an Environment. A Project can have multiple Deployment Profiles, but only one Deployment Profile can be activated for a Project in any one Environment.

Derived Collaboration
Collaboration that inherits operations from another, according to standard object-oriented practice.

eGate System
See **"Project"**.

Environment
A collection of physical resources and their configurations that are used to host Project components. An Environment contains logical hosts and external systems.

eWay
A link between a Collaboration and an external connection including the message server connection (topic or queue) or external application.

External Application

A logical representation of an external application.

External System

A representation of an external application system.

ICAN Suite

The SeeBeyond Integrated Composite Application Network Suite, which is based on eGate Integrator.

Integration Server

Software platform that houses the business logic container used to run Collaborations. Provides transaction services, persistence, and external connectivity.

Link

The JMS Connection between a Collaboration and a topic or queue in a JMS-compliant message server.

Linked Message Destination

A reference to a Message Destination defined in another Connectivity Map.

Logical Host

An instance of the eGate runtime Environment that is installed on a machine. A Logical Host contains the software and other installed components that are required at runtime, such as application and message servers.

Management Agent

Uses J2EE technology to manage and monitor an eGate 5.0 deployment that may contain other application servers in addition to the SeeBeyond Integration Server. Defines management interfaces and services designed for distributed environments, focusing on providing functionality for managing networks, systems, and applications.

Message Destination

A general term for a topic or queue. Two or more Projects can share a message destination that has the same name and is deployed on the same message server. A single Project may also have a single message destination referenced in multiple Connectivity Maps.

Message Server

JMS-compliant, guaranteed delivery store, forwarding, and queueing service.

OTD

An acronym for Object Type Definition. OTDs contain the data structure and rules that define an object. An OTD is used in Java Collaboration Definitions for creating data transformations and interfacing with external systems.

Project

Contains a collection of logical components, configurations, and files that are used to solve business problems. A Project organizes the files and packages and maintains the settings that comprise an eGate system in SeeBeyond's Enterprise Designer.

Queue

A JMS queue is a shareable object that conforms to the *point-to-point* (p2p, or PTP) messaging domain, where one sender delivers a message to exactly one receiver. When the SeeBeyond Message Server sends a message to a queue, it ensures it is received once and only once, even though there may be many receivers "listening" to the queue. This is equivalent to the subscriber pooling in other queue implementations. You can reference a queue that exists in another Connectivity Map or Project.

Repository

Stores and manages the setup, component, and configuration information for eGate Projects. The Repository also provides monitoring services for Projects, which include version control and impact analysis.

Schema Runtime Environment

An add-on in eGate 5.0 that provides the upgrade path for e*Gate 4.x users to upgrade to eGate 5.0. Also known as the SRE.

Security Server

A standalone server that is the connection point to underlying eGate security environments.

Service

Contains the information about executing a set of business rules. These business rules can be defined in a Java Collaboration Definition, XSLT Collaboration Definition, Business Process, eTL Definition, or other service. A Service also contains binding information for connecting to JMS Topics, Queues, eWays, and other services.

Subproject

An independent Project that is included as part of another Project and listed on the Enterprise Explorer tree beneath the main Project icon.

Topic

A JMS topic is a shareable object that conforms to the *publish-and-subscribe* (pub/sub) messaging domain, where one publisher broadcasts messages to potentially many subscribers. When the SeeBeyond Message Server publishes a message on a topic, it ensures that all subscribers receive the message.

XSLT

An acronym for Extensible Stylesheet Language Transformations. A file format used in eGate to generate Collaboration Definitions.

e*Gate 4.x Terms in eGate 5.0

Table 11 provides definitions for the terms that are new with eGate release 5.0, as well as equivalent terms from eGate release 4.x.

Table 11 eGate 5.0 Terms

5.0 Term	4.x Equivalent Term
Collaboration	Collaboration
Collaboration Definition	Collaboration Definition
Connection	e*Way Connection
Connectivity Map	Closest: Network View of an entire Schema
Deploy	Run the Control Broker
Deployment	<none>
Deployment Profile	Closest: Schema
Enterprise Designer	Enterprise Manager
Enterprise Manager	Enterprise Monitor
Environment	Schema (except only includes physical information, not business logic)
eWay	e*Way Connection e*Way
eWay Configuration	e*Way Connection Configuration
External Application	e*Way Connection
External System	e*Way Connection
JMS Connection	e*Way Connection
Integration Server	<none>
Link	JMS e*Way Connection
Linked Message Destination	<none>
Logical Host	Participating Host
Message Destination	Topic or queue
Message Server	JMS IQ Manager
Object Type Definition (OTD)	Event Type Definition (ETD)
Process Manager	Control Broker
Project	Schema (except not including physical layer)
Queue	JMS queue
Repository	Registry
Subproject	Schema

Table 11   eGate 5.0 Terms (Continued)

5.0 Term	4.x Equivalent Term
Topic	JMS topic
XSLT	<none>

UNIX Patches

This appendix lists the required and certified UNIX patches for eInsight ESB 5.0.

A.1 AIX 5.1L Patches

The following patches are required and certified patches for AIX:

Required AIX 5.1L Patches

There are two required patches for AIX 5.1L:

```
Java131.rte.lib.1.3.1.2
Java131.rte.bin.1.3.1.2
```

Install AIX patches and copy the JRE to where eInsight ESB was installed

You can obtain the patches at the following URL:

AIX 5.1L

> **http://techsupport.services.ibm.com/server/aix.fdc51**

You *must* install these patches on each of your AIX machines and then copy the patched JRE to where you installed eInsight ESB. For example:

```
cp -R /usr/java131/jre <esb_home>/esb/client/JRE/1.3.1
```

where *<esb_home>* is the home directory for eInsight ESB.

Important: *All AIX machines must be upgraded to this patch level.*

Certified AIX 5.1L Patches

There is one certified patch for AIX 5.1L:

```
5100-04_AIX_ML (Maintenance Level 4)
```

A.1.1 **HP-UX System Parameter Changes**

If you are installing eInsight ESB on an HP-UX 11.0 or an HP-UX 11i system (see Table 12), make the following changes to system parameters:

Table 12 eGate Values on an HP-UX 11 System

Parameter	Value
semmni	1024
semmns	16384
semmnu	2048
semume	256
shmmni	1024
shmseg	1024

Note: *Services installed are not autostarted on system boot for non-root users. Startup scripts for services installed will be stored in a directory **rc3.d** under your home directory. It is not recommended to run as root.*

A.1.2 **HP-UX Operating System Patches**

If you encounter a problem with an HP-UX OS patch while installing eInsight ESB, pull the following HP-UX patch:

PHNE_22397   (cumulative ARPA Transport patch)

and replace it with **PHNE_21767**.

Caution: *If you do not have a problem with the installation of the patches, do not replace the above patch.*

A.2 HP-UX 11.0 Patches

Table 13 lists the certified patches for HP-UX 11.0.

Table 13 Certified HP-UX 11.0 Patches

Patch	Version	Explanation
HWE1100	B.11.00.0209.5	Hardware Enablement Patches for HP-UX 11.00, September 2002
QPK1100	B.11.00.60.4	Quality Pack for HP-UX 11.00, March 2003
JDK 1.4	PHCO_23117, PHCO_23651, PHCO_24189, PHCO_26017, PHCO_26089, PHCO_26111, PHCO_27375, PHCO_28425, PHCO_29108, PHKL_18543, PHKL_20016, PHKL_23409, PHKL_24064, PHKL_25613, PHKL_27207, PHKL_27813, PHKL_27980, PHKL_28172 PHKL_28180, PHNE_27651 PHNE_27821, PHNE_28102, PHNE_28538, PHSS_26495, PHSS_26559, PHSS_26637, PHSS_26945, PHSS_27869, PHSS_28368, PHSS_28469, PHSS_28874	Patches with corresponding pre-requisites

For the HP-UX 11 Java patches, go to the following URL:

http://www.hp.com/products1/unix/java/infolibrary/patches.html

A.3 HP-UX 11i Patches

Table 14 lists the certified patches for HP-UX 11i.

Table 14 Certified HP-UX 11i Patches

Patch	Version	Explanation
GOLDAPPS11i	B.11.11.0306.4	Gold Applications Patches for HP-UX 11i, June 2003
GOLDBASE11i	B.11.11.0306.4	Gold Base Patches for HP-UX 11i, June 2003
HWEnable11i	B.11.11.0209.5	Hardware Enablement Patches for HP-UX 11i, September 2002

Table 14 Certified HP-UX 11i Patches

Patch	Version	Explanation
JDK 1.4	PHCO_24402, PHCO_27740, PHCO_27958, PHCO_29109, PHKL_25233, PHKL_25468 PHKL_25871, PHKL_25993, PHKL_25994, PHKL_27091, PHKL_27094, PHKL_27096, PHKL_27316, PHKL_27317, PHKL_27686, PHKL_28122, PHNE_28089, PHNE_28103, PHNE_28476, PHSS_26560, PHSS_26971, PHSS_26973, PHSS_26975, PHSS_26977, PHSS_28370, PHSS_28470	Patches with corresponding pre-requisites

For the HP-UX 11i Java patches, go to the following URL:

http://www.hp.com/products1/unix/java/infolibrary/patches.html

A.4 HP Tru64 UNIX V5.1A Patches

SeeBeyond has tested the system against the following patches:

▪ **"Certified HP Tru64 UNIX V5.1A Patches" on page 72**

Even though applications that are developed using the HP C++ compiler are shipped with the Tru64 UNIX operating system, they must be updated. This is because they require functionality that is provided in the C++ Run-Time Library, and newer versions of the run-time library are released with each new version of the compiler. These updates of the libraries provide bug fixes and support for new features in the compiler, and must be installed on Tru64.

If you do not have a compiler installed, SeeBeyond recommends that you download and install the correct libraries for your system from the following location:

ftp://ftp.compaq.com/pub/products/C-CXX/tru64/

Note: A specialized FTP browser is required to access an FTP site from this document.

Certified HP Tru64 UNIX V5.1A Patches

There is one certified patch for HP Tru64 UNIX V5.1A:

– `T64V51AB21AS0004-20030206 OSF520`

Note: There is a known threading problem with HP Tru64 UNIX V5.1A, in which you may occasionally see components hang. HP is currently working on the problem. If you encounter this problem, contact HP (problem reference number: NA020731023095).

For HP Tru64 UNIX V5.1A patches only

After installing the patches for HP Tru64 UNIX V5.1A, reconfigure the memory allocation from immediate to deferred mode by performing the following:

```
/etc/sysconfigtab

vm:
    vm-swap-eager=0
```

Note: *HP Tru64 UNIX used to be called Compaq Tru64 UNIX.*

A.5 Solaris 8 and 9 Patches

nscd must be running on Solaris to install eInsight ESB successfully

Solaris must have **nscd** running. If it is not running, the default Project fails to import properly during installation, and eInsight ESB cannot be installed.

Required Solaris Patches

Solaris 8 requires the following patch before eInsight ESB can be installed. If the patch is not installed, the setup program will detect it.

```
108435-13
```

This patch is available from Sun, either from a current operating system CD-ROM or downloaded from:

[**http://sunsolve.sun.com**](http://sunsolve.sun.com)

Certified Solaris 8 and 9 Patches

There are two certified patches for Solaris 8 and 9:

```
Solaris 8 Maintenance Update 7 2-2002
Solaris 9 Maintenance Update 3 4-2003
```

A complete list of the patches included in these Clusters is available from SeeBeyond Support.

Note: *These patches are recommended but not required.*

A.6 Red Hat Linux Patches

Certified Red Hat Enterprise Linux AS 2.1 Patches

There is one certified patch for Red Hat AS 2.1:

```
2.4.9e.16
```

Certified Red Hat Linux 8 Patches

There is one certified patch for Red Hat Linux 8:

```
2.4.18-14
```

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