SeeBeyond ICAN Suite

e*Gate Integrator Installation Guide

Release 5.0.5 for Schema Run-time Environment (SRE)

Version 20051011161456.

Contents

List of Figures

List of Tables

Chapter 1

Introduction

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

What's in This Chapter

1.1 About This Document

The sections below provide information about this document, such as an overview of its contents, scope, and intended audience.

1.1.1 What's In This Document

This guide contains the following information:

- **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 Windows"** provides instructions on how to install e*Gate on Windows XP and Windows 2000 systems.
- **Chapter 4 "Installation Instructions for UNIX"** provides instructions on how to install e*Gate on a UNIX system.
- **Chapter 5 "Installation Instructions for Linux"** provides instructions on how to install e*Gate on a UNIX system.
- **Chapter 6 "Installation Instructions for z/OS"** provides instructions on how to install e*Gate on a z/OS system.

- **Chapter 7 "Troubleshooting"** describes issues that may arise during the installation process and provides tips and solutions to resolve these issues.
- **Chapter 8 "Frequently Asked Questions"** lists some common questions that may be encountered during installation and the answers to those questions.
- **Appendix A "UNIX and Linux Patches"** lists all the UNIX patches for release 5.0.5 SRE.
- **Appendix B "Classic JVM and Hotspot JVM"** provides instructions on how to set up which JVM your system starts at run time.

1.1.2 Scope

This user's guide describes the procedures necessary to install the SeeBeyond Technology Corporation™ (SeeBeyond™) e*Gate product suite from the e*Gate installation CD-ROMs.

Note: *There can be as many as 13 CD-ROMs. Use e*Gate Integrator for SRE 5.0.5 Disc 1 to install the e*Gate Registry Host and Participating Host, use e*Gate Integrator for SRE 5.0.5 Disc 2 to install the GUI, use the single disc that contains e*Insight for SRE 5.0.5 and e*Xchange for SRE 5.0.5 to install the e*Xchange Partner Manager and e*Insight Business Process Manager, and use the remaining CD-ROMs to install the add-ons, samples, and ETD libraries (if applicable). For information on installing e*Xchange Partner Manager, see the* ***e*Xchange™ Partner Manager Installation Guide****, and for information on installing e*Insight Business Process Manager, see the* ***e*Insight™ Business Process Manager Installation Guide****.*

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 e*Gate documentation set and online Help systems.

1.1.3 Intended Audience

The reader of this guide is presumed to have the following responsibilities and possess these skill sets:

- A developer or system administrator with responsibility for maintaining the e*Gate system.
- Moderate to advanced level knowledge of Windows, UNIX, and/or z/OS operations and administration.
- Thoroughly familiar with Windows-style GUI operations.

1.1.4 Document Conventions

The following conventions are observed throughout this document.

Table 1 Document Conventions

Text	Convention	Example
Names of buttons, files, icons, parameters, variables, methods, menus, and objects	**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, code samples	`Fixed` font. Variables are shown in ***`bold italic`***.	`bootstrap -p` ***`password`***
Hypertext links	**Blue** text	See **"Document Conventions" on page 14**
Hypertext links for Web addresses (URLs) or email addresses	**Blue underlined** text	**http://www.seebeyond.com** **docfeedback@seebeyond.com**

Additional Conventions

Windows Systems: The e*Gate system is fully compliant with Windows 2000 and Windows XP operating systems. When this document refers to Windows, such statements apply to all the Windows platforms.

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

Note: *The e*Gate system is fully compatible with HP Tru64 Version 4.0F.*

1.1.5 Screenshots

Depending on what products you have installed, and how they are configured, the screenshots in this document may differ from what you see on your system.

1.2 Related Documents

The following SeeBeyond documents provide additional information about the e*Gate Integrator system as explained in this guide:

- *Creating an End-to-end Scenario with e*Gate Integrator*
- *e*Gate Integrator Alert Agent User's Guide*
- *e*Gate Integrator Alert and Log File Reference Guide*
- *e*Gate Integrator Collaboration Services Reference Guide*
- *e*Gate Integrator Intelligent Queue Services Reference Guide*
- *e*Gate Integrator SNMP Agent User's Guide*
- *e*Gate Integrator System Administration and Operations Guide*
- *e*Gate Integrator User's Guide*
- *e*Insight Business Process Manager Implementation Guide*
- *e*Insight Business Process Manager User's Guide*
- *e*Xchange Partner Manager Implementation Guide*
- *e*Xchange Partner Manager Installation Guide*
- *e*Xchange Partner Manager User's Guide*
- *Monk Developer's Reference*
- *SeeBeyond eBusiness Integration Suite Deployment Guide*
- *SeeBeyond eBusiness Integration Suite Primer*
- *Standard e*Way Intelligent Adapters User's Guide*
- *UN/EDIFACT ETD Library User's Guide*
- *Working with Collaboration IDs*
- *X12 ETD Library User's Guide*
- *XML Toolkit*

See the *SeeBeyond eBusiness Integration Suite Primer* for a complete list of e*Gate-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 e*Way Intelligent Adapter), see the user's guide for that product.*

1.3 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/

1.4 SeeBeyond Documentation Feedback

We appreciate your feedback. Please send any comments or suggestions regarding this document to:

docfeedback@seebeyond.com

Chapter 2

Overview of Installation

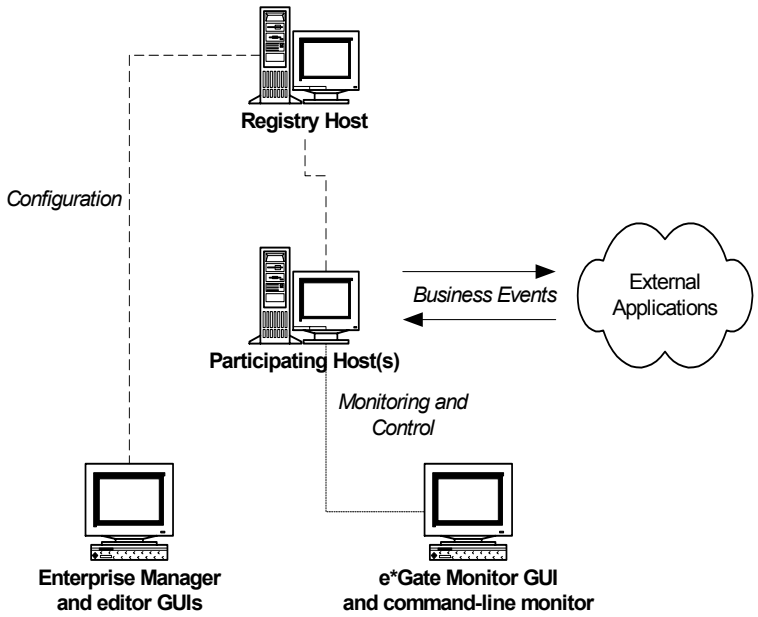
This chapter gives you an overview of the installation process.

What's in This Chapter

2.1 Overview of the Installation Process

The installation process is divided into phases, each of which installs one of the major e*Gate components (shown in the Figure 1):

Figure 1 e*Gate components: Overview



Phase one installs the **Registry Host**: the Registry daemon/service, associated utility applications, and the e*Gate Registry's file repository. The Registry maintains separate executable files and libraries for each operating system that supports its Participating Host(s), which are installed in the next phase.

Phase two installs the **Participating Host**: the Control Broker daemon/service, associated utility applications, and other executable files that handle the processing, translation, and transport of data within the e*Gate system. The basic Participating Host installation also includes the components necessary to do basic communication between the e*Gate system and external systems. To do any communications above the most basic level, you will need to install add-on components, which are installed in phase four. You may install the Registry Host components and the Participating Host components on the same system, however, a single Registry Host can provide services for multiple Participating Hosts.

Phase three installs the e*Gate **GUIs**: the Schema Designer, which enables you to configure the e*Gate system; the Schema Manager, which enables you to monitor and control processes running on Participating Hosts; and various editors for configuring a range of e*Gate components. You must install the e*Gate GUIs on a Windows system.

Phase four installs the **add-on** components: depending on your installation, these can include e*Way adapters for communication with specific external systems or alerting agents that increase your ability to monitor e*Gate operations.

2.1.1 System Requirements

The specific chapters for each platform list the system requirements for that platform. See the appropriate chapters for each system's requirements.

*Be sure to read the **Readme.txt** file on the e*Gate installation CD-ROM for additional information.*

2.1.2 Order of Installation

If you are installing all e*Gate components on the same machine (including installing upgrades to existing installations), you must always install the Registry Host components ***first***. Otherwise, you can specify another host where the Registry is already installed.

Important: *You must install e*Gate components in the order in which they appear on e*Gate Integrator for SRE 5.0.5 Discs 1 and 2, and if required, the disc that contains e*Insight for SRE 5.0.5 and e*Xchange for SRE 5.0.5. Do not attempt to install the components located on any of the other CD-ROMs before installing the components on e*Gate Integrator 5.0.5 SRE Disc 1.*

*If ordered, the e*Ways and samples are located on e*Gate Add-ons/Samples for SRE 5.0.5. Discs 1 through 5, UN/EDIFACT ETD Libraries for 5.0.5 SRE Discs 1 and 2, and X12 ETD Library for SRE 5.0.5 Discs 1 through 3.*

2.1.3 Rebooting After Completing an Installation

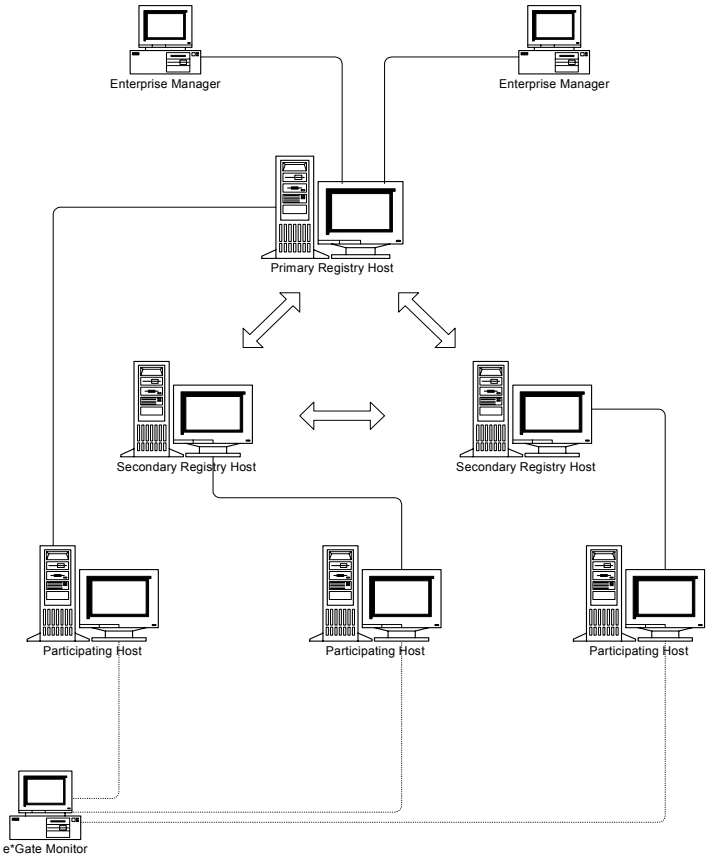
After completing an e*Gate installation, you must reboot the machine on which you performed the installation for all the e*Gate-related files to update properly.

Important: *If the reboot is not performed, there may be a discrepancy in the timestamps for some files (such as* ***egate.jar*** *and* ***stcjcs.jar****) and you may not be able to open the properties window of certain modules.*

2.1.4 The Distributed Registry

Figure 1 on page 17 illustrates the simplest e*Gate installation with a single Registry Host. You may also choose a distributed Registry configuration, in which Registry services are provided by more than one system (as shown in Figure 2).

Figure 2 A distributed Registry configuration



In a distributed Registry, the primary Registry Host contains the master copy of the Registry, which is automatically distributed to any secondary Registry Hosts. Participating Hosts can obtain the same configuration information from any Registry Host (primary or secondary).

If you want to set up a distributed Registry, you must decide which host will be the primary Registry Host; all others will be secondary Registry Hosts. You must also decide the order of Registry Hosts from which Control Brokers will seek their configuration information on startup. The installation process will prompt you at the appropriate time for this information. For more complex configurations, please consult SeeBeyond technical support.

Note: *For more information about the Distributed Registry, see the* ***e*Gate Integrator System Administration and Operations Guide****, which is available on CD-ROM 2 (****\docs\System_Administration_Guide.pdf****).*

2.1.5 e*Gate Host Names and User Names

e*Gate maintains its own list of host names and user names; it does not poll the operating system or network to obtain or validate user names or host names. To simplify system administration, we recommend that you use your current naming conventions for host and user names, and that you make e*Gate host/user names identical to the corresponding host/user names on your existing systems.

e*Gate host and user names (as well as passwords) are case sensitive, even on Windows systems. Names can be up to 56 characters in length; valid characters include all letters and numbers, dashes, and underscores. Periods, spaces, and other punctuation are not valid characters for any e*Gate user or component name.

Note: *For more information on passwords, see the* ***e*Gate Integrator System Administration and Operations Guide****.*

Default "Administrator" user name

The default "Administrator" user name and password are stored in the files **Readme.txt** and **Readme.htm** on the root directory of e*Gate Integrator 5.0 SRE Disc 1.

Note: *For additional information on the Administrator, see the* ***e*Gate Integrator System Administration and Operations Guide****.*

2.1.6 Schema and Schema Names

An e*Gate *schema* is a namespace in which e*Gate organizes configuration information. During the Participating Host installation, you will be prompted for the name of the schema that the host you are installing will support. You can select any name you like (the default is "MySchema"), but you cannot rename a schema once it has been created. You can, however, create a new schema and modify the Participating Host to support the new schema; see the *e*Gate Integrator System Administration and Operations Guide* for more information.

Schema names can be up to 56 characters and can contain letters, numbers, underscores, and dashes. Spaces and other punctuation are not valid characters for schema names.

2.1.7 Java 2 SDK and Java Runtime Environment

This section contains installation information for Java 2 SDK (which is sometimes referred to as JDK) and the Java Runtime Environment (JRE).

Note: *SeeBeyond certifies its product on Java 2 SDK 1.3.1_02.*

JRE Usage

Table 2 lists which platforms use JRE and which portion of e*Gate installs it.

Table 2 Platform Use of JRE

Platform	Registry Host	Participating Host	GUI
Windows	No JRE	JRE is installed when the product is installed.	JRE 1.3.1
IBM AIX	No JRE	JRE is installed when the product is installed.	N/A
HP Tru64	No JRE	JRE is installed when the product is installed.	N/A
HP-UX	JRE 1.3.1	JRE is installed when the product is installed.	N/A
Sun Solaris	No JRE	JRE is installed when the product is installed.	N/A
Red Hat Linux and SuSE Linux	No JRE	JRE is installed when the product is installed.	N/A

When the JRE is installed, the file **java.exe** is placed in the following directory:

- **eGate\client\JRE\1.3\bin\java.exe**
  This version of **java.exe** is installed during the GUI installation and is required for the Schema Designer, Schema Manager, Java Collaboration Editor, and Java ETD Editor, which are written in Java, to run. It is also required for run time.

JDK Usage

JDK is only installed on Windows; it is used when you compile Java Collaborations and Java ETDs.

2.1.8 Classic JVM and Hotspot JVM

For information on setting which JVM (Classic or Hotspot) starts at run time, see **Appendix B**.

2.1.9 Directory Structure

Refer to the *e*Gate Integrator System Administration and Operations Guide* for a complete listing of the e*Gate client/server directory and subdirectory structure.

2.2 Preparing for Installation

The following sections list important information.

2.2.1 What Must Be Determined Prior to Installing e*Gate

Before you install e*Gate, you must determine the following:

1. Select the system that serves as the Registry Host or, if you are installing a Distributed Registry, the system that acts as the primary Registry Host.
2. If you are installing a Distributed Registry, select the system(s) that will serve as secondary Registry Hosts.
3. Select the system(s) that will serve as Participating Hosts. It is possible for the same system to serve both as a Registry and a Participating Host. Whether you decide to do this depends on the requirements of your installation; contact SeeBeyond technical support if you need assistance making this determination.

Note: *Do not install a Participating Host if you are going to use Registry Replication.*

4. Select the system(s) that will have the e*Gate GUIs installed. The e*Gate GUIs only run on Windows systems.
5. Determine which add-on applications you will require.

Be sure that each system that you select meets e*Gate's system requirements; see the Windows and UNIX installation chapters for more information.

2.2.2 Information Required Before Installing e*Gate

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

1. The default e*Gate "Administrator" password for Windows installations (see **"Default "Administrator" user name" on page 20**) and for UNIX installations, the root password for the operating system.

Note: *For additional information on the Administrator and passwords, see the* ***e*Gate Integrator System Administration and Operations Guide****.*

2. The name of each system that will become a Registry or Participating Host (see **"e*Gate Host Names and User Names" on page 20**).
3. The name of the schema that the Participating Host will support (see **"Schema and Schema Names" on page 20**).

The installation process will prompt you for the directory in which to install each e*Gate component. Although you are free to select any drive or partition, we ***strongly*** recommend that you do not change the recommended default directory names.

2.2.3 Privileges Required for Installations

When e*Gate is installed, it includes a "default" schema. This schema contains an "Administrator" user which has been assigned "Administration" privileges. To install e*Gate modules, a user must be assigned a role that has Administration privileges inside the default schema.

If an Administrator role is changed in any new schema, but the role still has Administration privileges in the default schema, the user using this role will still have the capability to install additional e*Gate modules, such as add-ons and Participating Hosts.

Roles and privileges that are assigned in the default schema are carried forward into new schemas that are later created. For roles and privileges to be carried forward in the expected manner, when a user is created (for example: User1), it *must* be assigned a role with Administration privileges inside the default schema. User1 *must* be created inside the default schema to perform upgrade installations.

Note: *A Registry installation cannot import the User1 role assignment properly if schemas (other than the default schema) contain a user (User1 in this example) which is* ***not*** *assigned a role with Administration privilege. This is by design. To ensure that all schemas can import properly, they* ***must*** *contain a user (User1 in this example) which has a role with Administration privileges. For more information, see the* ***e*Gate Integrator System Administration and Operations Guide****.*

2.2.4 Backing Up Existing Schema Information

When upgrading e*Gate, it is recommended you back up your existing schema information prior to the installation as follows:

1 Log on to the e*Gate Schema Designer and open the schema you want to export.

Important: *The e*Gate Registry must be running before you (or the installation utility) can back up any existing schemas.*

2 Export your schema—including your **monk_scripts**, **monk_library**, and configuration files—using the Schema Designer export feature.

Note: *See the* ***e*Gate Integrator System Administration and Operations Guide*** *for step-by-step instructions on how to use the Schema Designer export feature.*

In e*Gate release 4.5.1 and later, all export files are full schema **.zip** files and not **.exp** files (as they were in previous versions of e*Gate). After completing the export process, the component definitions for the current schema are exported to an archive file. For example:

C:\eGate\client\schema_to_archive.zip

3 Perform the program upgrade.

4 To import a schema, log on to the e*Gate Schema Designer and open the schema into which you want to import the schema definitions and files.

5 Use the Import Wizard GUI to import the schema and its associated files into the current schema.

Note: *See the **e*Gate Integrator System Administration and Operations Guide** for step-by-step instructions on how to use the Schema Designer import feature.*

The Import Wizard allows you to change the host, Control Broker, or IQ Manager name, as well as change the port numbers, during the import procedure.

Note: *If importing an **.exp** file, you must resubmit all the supporting files to the Sandbox after the import.*

2.2.5 Registry Connection Protection

Because serious problems can result when a version mismatch occurs between the Registry Host, the Participating Host, and/or the GUI—such as the overwriting of later executable files with earlier executable files—the registry does not allow connections from Control Brokers which have an earlier version than the Registry Host.

Please note that earlier versions (4.5.0 and 4.5.1) of the GUI and Participating Host installations unnecessarily and incorrectly committed some core components to the Registry. These installations are prevented from updating the Registry (version 4.5.3 and higher) by the Registry Connection Protection facility. The installations can still be done, and the GUI and Participating Host installations on the client machines will not be blocked by Registry Connection Protection.

2.2.6 Upgrading from e*Gate Release 4.1.2 to e*Gate Release 5.0.5 SRE

Do not mix components from e*Gate release 4.1.2 or 4.5 with e*Gate release 5.0.5 SRE components. When you upgrade to e*Gate 5.0.5 SRE, all the components on your system must be upgraded to release 5.0.5 SRE. For example: You cannot upgrade your Registry Host, Participating Host, and add-ons to release 5.0.5 SRE, while retaining your GUI from release 4.1.2 (even if the GUI is installed on another box).

Important: *Ensure that no e*Gate components, including e*Ways, BOBs, or IQ Managers, are running when you perform an upgrade.*

2.2.7 Upgrading to e*Gate Release 5.0.5 SRE

Before upgrading to e*Gate 5.0.5 SRE, first make a full backup of your current release of e*Gate.

Important: *Before upgrading from a previous release of e*Gate to e*Gate 5.0.5 SRE, see Section B, "Upgrading or Reinstalling Over an Existing Installation," in the* ***SeeBeyond Readme for SeeBeyond eBusiness Integration Suite 5.0.5 SRE*** *(**README.TXT**, found on e*Gate Integrator for SRE 5.0.5 Disc 1), for instructions on how to perform the upgrade.*

"Administration" role privileges during installation

A user with "Administration" role privileges can install

- Registry Host
- Participating Host
- Add-ons

A user with non-Administration role privileges can install

- e*Gate GUI

Draining JMS IQs before upgrading

When upgrading, you must drain your JMS IQs (JMS Topics or Queues only).

To drain your IQs, shut down your publishers. This allows the subscribers to process all messages in the queues without any new ones being added by publishers.

When using IBM AIX v 4.X of the OS and upgrading AIX with e*Gate 5.0.5 SRE

Entering the root password during an upgrade

When prompted the user *must* specify the root password during an AIX upgrade in order to unload shared memory. If the root password is not supplied, files may not be over-written properly.

Important: *If you do not do this, the startup may be improper.*

Multi-Mode e*Ways and recompiling Java Collaborations

If you upgrade to e*Gate release 5.0.5 SRE and have Java Collaborations calling **rawInput()**, you must call the new method **(jCollabController.enableSaveInboundImage())** in the **userInitialize()** method and recompile your Java Collaborations.

Upgrading an e*Gate 4.5.X system with default schema modifications to release 5.0.5 SRE

If your e*Gate 4.5.X system contains added or modified files in the default schema directory, you need to migrate those files separately. For detailed information about moving default schema modifications to a target system, see Chapter 6 of the ***e*Gate Integrator System Administration and Operations Guide***.

JRE versions and locations have changed for release 5.0.5 SRE

If you want to use a different version of JRE, you must ensure that your path variables and **egateclient.sh** and/or **egateclient.csh** point to the correct version of JRE.

Change the LD_LIBRARY_PATH components to point to the new installation of JRE

For example, if **LD_LIBRARY_PATH** contained:

```
<egate_install_dir>/client/j2re1_3_0_02/lib/sparc
```

it should be changed to:

```
<egate_install_dir>/client/JRE/1.3.1_02/lib/sparc
```

Source egateclient.sh/egateclient.csh

For your environment to match the current installation, you must source **egateclient.sh** or **egateclient.csh** on your UNIX terminals after upgrading.

After upgrading to 5.0.5 SRE, you must log off your UNIX terminals and log back on. You must also source **egateclient.sh**/**egateclient.csh** to have the current version of JRE (1.3.1_02) in the library path.

Chapter 3

Installation Instructions for Windows

This chapter provides instructions on how to install e*Gate on Windows XP and Windows 2000 systems. If you have any questions or problems, please contact SeeBeyond's technical support group at (800) 798-0447. For online support, contact us at http://www.seebeyond.com and select **SERVICES** and then **SUPPORT**.

What's in This Chapter

3.1 Overview

Before installing e*Gate on your Windows system, please read the following sections to ensure a smooth and error-free installation.

Note: *You must have Administrator privileges to successfully install e*Gate.*

3.1.1 System Requirements

The **Readme.txt** file on the e*Gate installation CD-ROM contains the most up-to-date operating system requirements for the supported platforms. The requirements listed below are in addition to the operating system requirements.

e*Gate is available on the following operating systems:

- Windows 2000 SP2 and SP3, Windows XP SP1a and SP2, and Windows Server 2003
- Chinese Windows 2000 SP2 and SP3, Windows XP SP1a and SP2, and Windows Server 2003
- Japanese Windows 2000 SP2 and SP3, Windows XP SP1a and SP2, and Windows Server 2003

- Korean Windows 2000 SP2 and SP3, Windows XP SP1a and SP2, and Windows Server 2003

Additional considerations

- Neither Citrix Metaframe nor Windows Terminal Services are supported with e*Gate GUI tools.

To use e*Gate, as a minimum you should have the following:

- An e*Gate Participating Host, version 5.0.5 SRE.
- A TCP/IP network connection.
- 512 MB RAM (minimum).
- 700 MB virtual memory (minimum required to run the SeeBeyond Editors).
- 20 GB free disk space for executable, configuration, library, and script files.
- CPU: minimum 700 MHz; dual (or multi) CPUs recommended for best performance.

Note: *For accurate sizing of a test or production system, consult "Determining Hardware Requirements" in the* ***SeeBeyond eBusiness Integration Suite Deployment Guide*** *(****Deployment_Guide.pdf****).*

To verify the Windows XP or Windows 2000 Service Pack version

1. At the command prompt, type **Winver**.
2. The **About Windows** window appears (this is the same window that appears when you choose **Help** on the menu bar and click **About Windows** with Microsoft Explorer open). However, by using the command prompt, the full version and service pack are displayed.

External System Requirements

- Internet Explorer 5.5 or later is required for the e*Gate GUI to work properly.
- Java Runtime Environment (JRE) 1.3.1, which is supplied with the e*Gate installation. Depending upon the language that is selected during the installation, e*Gate automatically installs the correct version of JRE. For more information, see **"Java 2 SDK and Java Runtime Environment" on page 20**.
- Java™ 2 SDK Version 1.3.1_02. For more information, see **"Important Java 2 SDK v 1.3.1_02 information" on page 34**.
- The partial OEM version of Exceed 7.0, which is supplied with the e*Gate installation (required for the GUIs).

Note: *If the partial OEM version of Exceed 7.0 is not on your system, you will be asked to install it.*

- For information on Oracle and Sybase requirements, see the *e*Gate Integrator Intelligent Queue Services Reference Guide*.

Windows 2000 / Windows XP for GUI only

- Windows XP SP1a and SP2
- Windows XP SP1a and SP2 (Japanese)
- Windows XP SP1a and SP2 (Korean)
- Windows XP SP1a and SP2 (Traditional Chinese)
- Windows 2000, Windows 2000 SP1, Windows 2000 SP2, and Windows 2000 SP3
- Windows 2000 (Japanese), Windows 2000 SP1 (Japanese), Windows 2000 SP2 (Japanese), and Windows 2000 SP3 (Japanese)
- Windows 2000 (Korean), Windows 2000 SP1 (Korean), Windows 2000 SP2 (Korean), and Windows 2000 SP3 (Korean)
- Windows 2000 (Traditional Chinese), Windows 2000 SP1 (Traditional Chinese), Windows 2000 SP2 (Traditional Chinese), and Windows 2000 SP3 (Traditional Chinese)

To use e*Gate, as a minimum you should have the following:

- 256 MB RAM (minimum)
- 4 GB disk space
- CPU: minimum 700 MHz; dual (or multi) CPUs recommended for best performance.

Note: *For accurate sizing of a test or production system, consult "Determining Hardware Requirements" in the* ***SeeBeyond eBusiness Integration Suite Deployment Guide*** *(****Deployment_Guide.pdf****).*

Required Windows Scripts

For the e*Gate Java ETD Editor and e*Gate Collaboration Editor to run properly, do not disable the following keys in the Windows Registry:

- **HKEY_CLASSES_ROOT\Scripting.FileSystemObject**
- **HKEY_CLASSES_ROOT\WScript.Shell**
- **HKEY_LOCAL_MACHINE\SOFTWARE\Classes\Scripting.FileSystemObject**

Note: *If these scripts are disabled, the user may receive error messages, such as "Password is not defined."*

Conferring Sufficient Privileges on Members of the Power Users Group

If a member of the Power Users group is required to do any of the following, they must have full Registry control on the HKEY_LOCAL_MACHINE hive:

- Run the "eGate Service Installer (JINTEGRA)."
- Run all installations, including e*Gate.
- Run the ETD Editor and the Collaboration Rules Editor.

An authorized person in MIS can use the HKEY_LOCAL_MACHINE hive in the Windows Registry to confer Administrator privileges for the Power User.

Important: *At a minimum, a user must be in the Power Users group to install e*Gate and run the SeeBeyond Editors.*

3.1.2 Disk Space Requirements

These disk space requirements are recommendations only, and may not be exact for your system. Also, they can differ, depending upon which version of e*Gate you are running.

RegistryHost	60 MB (when supporting Windows only)
	320 MB (when supporting all platforms)
Participating Host	50 MB
GUI and documentation	320 MB
OEM Exceed 7.0	40 MB
e*Insight	70 MB
e*Xchange	40 MB (for e*Gate schema, eRM, ePM Web GUI)
	540 MB (for database)
Add-ons	Varies

The easiest way to determine space requirements is during the installation. Clicking on a selected add-on allows you to see the required amount of space that add-on requires. e*Ways can range between 3 and 10 MB in size, and Event Type libraries can range between 1 and 100 MB or larger in size.

You can also determine individual add-on size requirements by reading the **Stcaddon.ini** file, which is on each of the add-on CD-ROMs. Most likely this would only occur if you later determine that you need to add a component and want to check space requirements before beginning the installation process.

Note: *The disk space requirement listed for the Participating Host does not include space for the IQs and log files that are created by the user as e*Ways and BOBs are executed.*

3.2 Pre-installation

Exit from all Windows programs prior to running the setup.

You need Administrator privileges to install e*Gate.

3.2.1 Uninstalling e*Gate

If you need to do a complete uninstall of e*Gate, make sure you stop the e*Gate Installer service and the e*Gate Control Broker service (if it is running as a service), as well as any other services that are running. If you only want to do a partial uninstall, you only need to stop the services that are related to the component that you are uninstalling.

Important: *The e*Gate Registry service must be running if you wish to back up any existing schema.*

To access Windows services

1. Click **Start**.
2. Point to **Settings** and then click **Control Panel**.
3. Choose **Services**.

Note: *If you are using Windows 2000 Professional, you cannot access* **Services** *directly from the Control Panel—you must go into* **Administrative Tools**, *then select* **Services**.

4. Select the service to stop and click **Stop**.

Note: *Windows 2000 Professional does not have a* **Stop** *option. Instead, right-click the service and the click* **Stop** *or choose* **Action** *and then* **Stop** *from the menu bar.*

5. Repeat step 4 until all e*Gate services are stopped.

To uninstall e*Gate

1. Click **Start**.
2. Point to **Settings** and then click **Control Panel**.
3. Choose **Add/Remove Programs**.
4. Select the e*Gate module to uninstall and click **Add/Remove**. If you uninstall the **e*Gate GUI**, you must also uninstall the **SeeBeyond Editors**.

Note: *Windows 2000 Professional does not have the* **Add/Remove** *option. Instead, click* **Change/Remove**, **OK**, *and then* **Finish**.

5. Click **OK** when the uninstall has completed.

6 Repeat step 4 until all e*Gate modules are removed.

Note: *Note: Do not forget to remove **SeeBeyond Editors** and **SeeBeyond ETD Wizards** if they were previously installed on your system. Click **Remove** and then **Yes**.*

7 Reboot the machine.

Note: *If any e*Gate components are not uninstalled automatically, use Windows Explorer to remove the files (such as **egate.properties** or **.egate.store**).*

3.2.2 Pre-installation check for Exceed

e*Gate requires a partial (OEM) version of Exceed for optimal performance (the full version does not provide the same performance for certain e*Gate editors as the partial version does). Answer the questions below to determine whether you need to do any other steps in preparation for the e*Gate GUI installation.

1 **Do you have any versions of Exceed installed?**

If you are not sure whether you have Exceed installed, search your system for a file called **exceed.exe**. If you have this file in any directory, you have a version of Exceed installed.

- **No version of Exceed installed**: You are ready to proceed to the installation. Skip the rest of these questions; you are ready to install e*Gate.
- **At least one version of Exceed installed**: Continue with the next question.

2 **Do you have the full version of Exceed?**

If you are not sure whether you have the full version, use Windows Explorer to navigate to the Exceed directory. It is usually named **Exceed.nt**, **Exceed**, or some similar name, and it can usually be found under "Program Files." Once you find the Exceed directory, look for a file called **x.exe**. If you find this file, you have the *partial* version of Exceed.

Be sure to check in every Exceed directory (some users may have more than one version installed).

- **Only the partial version**: If you are upgrading a release prior to e*Gate 4.1.2, we recommend that you uninstall this version of Exceed if possible. When you are prompted during the GUI installation, install Exceed in a directory with a unique name, such as **Exceed-eGate**. Skip the rest of these questions; you are ready to install e*Gate.
  - If you have e*Gate 4.1.2 and are upgrading to 5.0.5 SRE, you do not need to uninstall the partial version of Exceed.
  - If you have e*Gate 4.5 or later and are upgrading to 5.0.5 SRE, you do not need to uninstall the partial version of Exceed.
- **Only the full version**: Proceed to the next question.
- **Two versions (both full and partial)**: We recommend that you uninstall the partial version of Exceed if at all possible. Proceed to the next question.

3 **Is your full version of Exceed earlier than 7.0?**

- **Earlier than 7.0**: If you were planning on upgrading this version of Exceed to 7.0, we recommend that you exit the installation and upgrade now. Upgrading Exceed after you install e*Gate will require some extra work (see **"If you upgrade Exceed after you install e*Gate" on page 33**). When you are prompted during the GUI installation, install Exceed in a directory with a unique name, such as **Exceed-eGate**. ***Be sure that you do not install the e*Gate (partial) version of Exceed in the same directory as your full version.*** You are ready to install e*Gate.
- **7.0 or later:** You are ready to install e*Gate. When you are prompted during the GUI installation, install Exceed in a directory with a unique name, such as **Exceed-eGate**. ***Be sure that you do not install the e*Gate (partial) version of Exceed in the same directory as your full version.*** You are ready to install e*Gate.

If you upgrade Exceed after you install e*Gate

If you upgrade a full version of Exceed to 7.0 after you install e*Gate, you must reinstall the partial version of Exceed supplied with e*Gate to insure the best performance of the e*Gate X-GUI Editors.

The installation program **setup.exe** is found on e*Gate Integrator for SRE 5.0.5 Disc 2 in the directory:

/setup/gui/exceed/

Caution: *Be sure that you* **never** *install a partial version of Exceed in the same directory as a full version of Exceed. We recommend that you install the partial version of Exceed in a directory with a unique name, such as* **Exceed-eGate**, *to distinguish it from your full version.*

3.2.3 Default User Names and Passwords

e*Gate's default "Administrator" user name and password are found in the **Readme.txt** file in the root directory of the installation CD-ROM.

Note: *For additional information on the Administrator and passwords, see the* ***e*Gate Integrator System Administration and Operations Guide****.*

3.2.4 Prior to Installing e*Gate Release 5.0.5 SRE

To insure that you have a smooth e*Gate release 5.0.5 SRE GUI installation, make sure that there are no **jrew** processes running in your Task Manager prior to beginning the installation.

Note: *If there is a* **jrew** *process running (for example:* **jrew.exe***), you will receive an e*Gate 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.*

3.3 Using the Master Installation Wizard

You can install the entire e*Gate suite, or selected components, using a "master" installation wizard. The setup applications are based upon InstallShield® Wizards, which are very easy to use.

Note: *We presume that the reader is familiar with InstallShield's* **Back**, **Next**, **Cancel**, **Yes**, **No**, *and* **Finish** *buttons. In each dialog box, select the appropriate button as you finish entering required information.*

Important Java 2 SDK v 1.3.1_02 information

Java™ 2 SDK Version 1.3.1_02 for Windows (which is sometimes referred to as JDK 1.3.1_02—do not confuse this term with JRE 1.3.x) is required to use the SeeBeyond Java Editors. If Java 2 SDK has not been previously installed, the e*Gate GUI installation prompts you to install it. If the Java 2 SDK is not installed, you will not be able to use the new GUIs to create Collaborations and Event Type Definitions. For more information, see **"Java 2 SDK and Java Runtime Environment" on page 20**. SeeBeyond certifies its product on Java 2 SDK 1.3.1_02. Only version 1.3.x installations will be recognized.

If you need to download Java 2 SDK Standard Edition Version 1.3.1_02 after e*Gate has been installed, go to the following source:

http://java.sun.com/products/archive/j2se/1.3.1_02/

Note: *After installing Java 2 SDK 1.3.1_02, set your path so that its* ***bin*** *directory is prepended to your current path.*

For example: If the Java 2 SDK 1.3.1_02 were installed in folder
X:\jdk1.3.1_02
you would need to run the following command:
set PATH=X:\jdk1.3.1_02\bin\;%PATH%

Note: *SeeBeyond supports Java 2 SDK 1.3.1_02. Because this is third party software, SeeBeyond cannot certify all versions of the software that become available on the Sun Web site.*

To launch the wizard that installs the entire e*Gate product suite

1 If you are installing the e*Gate suite using the "master installation" wizard, the installation launches automatically when you insert e*Gate Integrator 5.0 SRE Disc 1 into the CD-ROM drive. Otherwise, do the following:

Open the **Setup** folder of e*Gate Integrator 5.0 SRE Disc 1.

Important: *The e*Gate suite of products can be delivered on as many as 13 installation CD-ROMs. The Registry and Participating Hosts are on e*Gate Integrator 5.0 SRE Disc 1, and the GUI is on e*Gate Integrator 5.0 SRE Disc 2.*

2 Double-click the  **Setup** icon.

3 Follow the on-screen prompts to navigate through the introductory screens and to accept the license agreement.

4 When the **Customer Information** dialog box appears, type your **User Name** and **Company Name**, and then click **Next**.

5 The **Please choose the product to install** dialog box appears. Make sure that **e*Gate Integrator** is selected and click **Next**.

6 The **Please choose the product to install** dialog box remains open. Two components are selected: **Registry Host** and **Participating Host**. Depending upon what you are installing, you can clear a check box to remove a component from the installation. See **"Overview of the Installation Process" on page 17** for more information about the installation. When ready to proceed, click **Next**.

Important: *If you are going to use Registry Replication, you must clear the* ***Participating Host*** *check box. See* **step 5** *in the "Installing the Registry Host" section, which discusses the* ***Choose registry setup type*** *dialog box options.*

7 The **Check Setup Information** window appears. Click **Next** to confirm your setup selections. In a moment, the first component install wizard launches. See the appropriate section in this manual for additional assistance with the individual component wizards:

- **"Installing the Registry Host" on page 37**
- **"Installing the Participating Host" on page 41**
- **"Installing the GUI" on page 44**
- **"Installing the Add-ons" on page 47**

Note: *When you install the entire e*Gate suite, the install wizard will not prompt you to insert the next CD-ROM prior to continuing the installation.*

Important: *If you choose to restart your computer when prompted by the installation procedure, you will need to insert the next CD-ROM into the CD-ROM drive before continuing with the installation.*

3.4 Launching Individual Installation Applications

The installation applications for each of the phases of the e*Gate installation are contained in separate folders within the **\setup** directory of the installation CD-ROM. A separate "master installation" wizard installs the entire e*Gate product suite.

3.4.1 Overview: e*Gate Installation Components

The e*Gate Registry Host must be installed first if everything is being installed on the same host. The rest of the e*Gate components—the Participating Host, GUI (Graphical User Interface), and any add-ons—must be installed in the order in which they appear on the CD-ROMs. The setup applications are based upon InstallShield Wizards, which are very easy to use. The installation is contained on a number of CD-ROMs, depending upon what was ordered.

- **e*Gate Integrator for SRE 5.0.5 Disc 1** contains:
  - e*Gate Integrator
    - Registry Host
    - Participating Host
- **e*Gate Integrator for SRE 5.0.5 Disc 2** contains:
  - e*Gate GUI
  - Exceed
  - Documentation/Online Help in **.pdf** and **.chm** format, respectively
  - SDK
- A single CD-ROM, labeled **e*Insight for SRE 5.0.5 e*Xchange for SRE 5.0.5**, contains:
  - e*Insight Business Process Manager
  - e*Xchange Partner Manager

Note: *If you order e*Xchange Partner Manager, you will receive 13 CD-ROMs; If you order e*Insight Business Process Manager but not e*Xchange Partner Manager, you will receive the CD-ROMs listed above but not those listed below (containing add-ons).*

- **Add-ons/Samples for SRE 5.0.5 Disc 1** contains:
  - Add-ons
    - e*Ways/documentation (with dependencies)
    - ETD builders
- **Add-ons/Samples for SRE 5.0.5 Disc 2** contains:
  - Add-ons
    - e*Ways/documentation (without dependencies)

- Agents
- IQs

- **Add-ons/Samples for SRE 5.0.5 Disc 3** contains:
  - ETD Libraries not on discs 7 through 13
- **Add-ons/Samples for SRE 5.0.5 Disc 4** contains:
  - Swift ETD Library Templates
- **Add-ons/Samples for SRE 5.0.5 Disc 5** contains:
  - xCBL ETD Library Templates
- **UN/EDIFACT ETD Library for SRE 5.0.5 Disc 1 through 3** contain:
  - The UN/EDIFACT ETD Library Templates
- **X12 ETD Library for SRE 5.0.5 Disc 1 through 3** contain:
  - The X12 ETD Library Templates

Note: *We presume that the reader is familiar with InstallShield's* **Back**, **Next**, **Cancel**, **Yes**, **No**, *and* **Finish** *buttons. In each dialog box, select the appropriate button as you finish entering required information.*

The procedures shown below provide a general outline of the basic steps to install the individual components.

To install an individual e*Gate component

1. Open the **setup** folder on the appropriate CD-ROM.
2. Open the appropriate folder.
3. Double-click the  **Setup** icon.
4. Skip ahead to the appropriate section in this manual for more assistance with the individual component wizards.

3.4.2 Installing the Registry Host

The e*Gate Registry Host installation performs the following operations:

- Installs the e*Gate Registry service and utilities.
- Creates the default schema with the default services and monitors, and creates the e*Gate "Administrator" user.
- Installs the common Registry Repository files.
- Installs client files in the repository for Participating Hosts on different platforms.

Caution: *When specifying Registry Hosts, you must specify hosts that are known to the system where the installation is being performed. It is not recommended to use IP addresses. Instead, use logical names for host names.*

The default logical name for the Registry is the name of the computer on which it is being installed.

Important: *The Registry Host name is limited to 15 characters when installing e*Gate on Windows 2000. Exceeding the 15-character limit creates minor complications.*

Note: *If you are upgrading an earlier version of e*Gate, you may be prompted at various times during the installation to delete old RDB files, to back up existing Registries, or to stop a running Registry service (the questions you receive depend on the state of your e*Gate installation). We recommend you answer "yes" to all of these questions.*

To install the Registry Host

1. If you are installing the e*Gate suite using the "master installation" wizard, the installation for the Registry Host launches automatically. Otherwise, do the following:
   - On e*Gate Integrator 5.0 SRE Disc 1, navigate to the **\Setup\Registry** folder.
   - Double-click the  **Setup** icon.
2. Follow the online prompts in the InstallShield Wizard to navigate through the introductory screens and to accept the license agreement.
3. When the **Customer Information** dialog box appears, type your **User Name** and **Company Name**, and then click **Next**.
4. If the install utility detects an existing version of e*Gate, you will be asked whether to back up and restore your existing schema. We recommend that you exit the installation and follow the instructions for retaining your schemas and **monk_scripts** in **"Preparing for Installation" on page 22**.
5. The **Choose registry setup type** dialog box appears. What you do next depends on the type of Distributed Registry you want to set up (see **"The Distributed Registry" on page 19** for more information).

Important: *You must set up a primary Registry Host before you can set up a secondary Registry Host. For detailed information on setting up Registry Replication, see the **e*Gate Integrator System Administration and Operations Guide**.*

- If you do not want to set up any Distributed Registry features, select **No Registry Replication**, and then click **Next**. Skip ahead to step 7.
- If you want to set up a primary Registry Host, select **Primary Registry**, and then click **Next**. Skip ahead to step 7.
- If you want to set up a secondary Registry Host, select **Secondary Registry**, and then click **Next**. Proceed to the next step (step 6).

If you are going to use Registry Replication, you should have already cleared the ***Participating Host*** *check box on the* ***Please choose the product to install*** *dialog box. See* **step 6** and its accompanying Important note regarding Registry Replication.

Note: *If you do not specify a secondary Registry Host during the installation, but later decide to specify one, see the* ***e*Gate Integrator System Administration and Operations Guide****, which is available on e*Gate Integrator 5.0 SRE Disc 2 (****docs\System_Admin_Guide.pdf****).*

6 If you are installing a secondary Registry Host:

- You are prompted for the name of the primary Registry Host. Enter the host's name and click **Next.**
- You are prompted for the Administrator user name and password. Enter the requested information and click **Next.**

Note: *For additional information on the Administrator and passwords, see the* ***e*Gate Integrator System Administration and Operations Guide****.*

- Continue with step 7.

Caution: *When specifying secondary hosts, you must specify hosts that are known to the system where the installation is being performed. It is not recommended to use IP addresses. Instead, use logical names for host names.*

7 In a few moments, the **Choose Destination Location** dialog box appears. We strongly recommend that you do not change the "eGate\Server" folder name, but you are free to select a different drive or partition. You cannot install e*Gate to a UNC path (as in "\\hostname\path"). When ready for the e*Gate Registry to be installed in the designated folder, click **Next**.

Important: *Spaces are not valid characters in e*Gate path names.*

Note: *See* **step 9** *if a question dialog box appears regarding ACL and/or* **step 10** *if a question dialog box appears regarding RDB files.*

8 A warning message appears: "e*Gate JMS Message Server has a new format for storing messages. To avoid lost or duplicated messages it is important to not leave any data in these queues before upgrading!"

Note: *You only see this message when you are upgrading the Registry.*

To exit the installation and remove data from the queues, click **No**. To continue with the installation, click **Yes**.

9 When the installation informs you that e*Gate permits the use of Access Control List (ACL) security, make your selection. For more information on ACL security see the *e*Gate Integrator System Administration and Operations Guide*.

Note: *You can enable or disable this feature at a later time.*

10 Depending upon your selection in step 5, the installation may detect e*Gate Registry RDB files. If so, you are prompted to delete them to proceed with the installation. You are informed that you must have a current Registry running if you want to preserve old schemas.

11 When the **Select platforms to support in Registry repository** dialog box appears, select the platform(s) that the schema will support, and then click **Next**. You can select as many platforms as necessary. Do not select more than you need as this creates additional overhead.

Note: *During installation of the primary Registry Host, you must select the platform of both the primary Registry Host and the secondary Registry Host.*

12 If you are prompted for a directory for the Replication Participating Host and IQ Manager, you must select a directory at this point.

13 Follow the on-screen prompts to complete the installation.

After installing the primary Registry

If you installed a primary Registry Host on a drive *other than C*, you must check your **.egate.store** file in the location specified by the environment variable USERPROFILE. You must stop the Registry Replication Control Broker, then edit the **.egate.store** file in **%USERPROFILE%** to match the **.egate.store** file in:

%HOMEDRIVE%\%HOMEPATH%

Then you can restart the Control Broker. Perform this operation as follows:

1 Stop **stccb** (Registry Replication), that is, the Control Broker service using the Windows **Start > Settings > Control Panel > Services** feature.

2 Find **%USERPROFILE%\.egate.store**.

3 Copy **%HOMEDRIVE%\%HOMEPATH%\.egate.store %USERPROFILE%**.

4 Restart the Control Broker service.

If you installed the secondary Registry on the C-drive, you do not need to take these steps. For more information on registry replication, see the *e*Gate Integrator System Administration and Operations Guide*.

Installing a secondary Registry

At the end of the installation process, you will see this message:

> Before any e*Gate applications begin using the secondary Registry Host, you must manually copy the primary Registry Host's "<Installed Directory>\registry\repository" directory tree (including all files and subdirectories) to the secondary Registry Host. You can use any method you like to copy the files, but you must do so BEFORE allowing any e*Gate applications to access the secondary Registry Host.

Before you install other e*Gate components such as add-ons, which will rely upon the secondary Registry Host (registry replication) that you have just installed, you must

perform this step and copy the **\registry\repository** directory tree from the Primary Registry Host to the corresponding tree on the secondary Registry Host. This is the only time you will need to copy files manually. Subsequent changes to the primary Registry Host will automatically be propagated to the secondary Registry Host.

Note: *Adding another secondary Registry Host after you have installed the primary and secondary Registry Hosts breaks the replication configuration. If a secondary Registry Host is added at this time, you must open your* ***Registry Replication*** *schema, change all your pub-subs, and add an IQ Manager to the schema.*

After installing the secondary Registry

If you installed a secondary Registry Host on a drive *other than C*, you must check your **.egate.store** file in the location specified by the environment variable USERPROFILE. Follow the instructions in **"After installing the primary Registry" on page 40** to complete this task.

3.4.3 Installing the Participating Host

Note: *If you have installed Registry Replication, you should not install another Participating Host.*

The e*Gate Participating Host installation performs the following:

- Installs common e*Gate modules including e*Ways, BOBs, and the IQ Manager.
- Installs and starts the Control Broker and the Lightweight Installer under a user-specified Registry Host and schema. The Lightweight Installer must be run at least once for every e*Gate schema that is installed.

Caution: *When specifying Participating Hosts, you must specify hosts that are known to the system where the installation is being performed. It is not recommended to use IP addresses. Instead, use logical names for host names.*

To install the Participating Host

1. If you are installing the e*Gate suite using the master install wizard, the installation for the Participating Host launches automatically. Otherwise, do the following:
   - On e*Gate Integrator 5.0 SRE Disc 1, navigate to the **\Setup\Parthost** folder.
   - Double-click the  **Setup** icon.
2. Follow the online prompts in the InstallShield Wizard to navigate through the introductory screens and to accept the license agreement.

Note: *You must know both the Registry Host name and the schema name before you install this module. The default schema name is* ***MySchema****.*

3 When the **Customer Information** dialog box appears, type your **User Name** and **Company Name**, and then click **Next**.

Note: *If the install utility detects an existing version of e*Gate, the setup utility will ask whether to stop the existing services. If you are so prompted, click* **Yes**.

4 The **Java 2 SDK Dependency** dialog box appears if you do not have Java 2 SDK loaded on your system; it is required for In-Schema debugging. Decide if you want to launch a browser to install it now or if you want to install it at a later time.

If you choose to download load it now, the **Java(TM) 2 SDK Standard Edition v 1.3.1_02** window appears, follow the instructions to download the software to a temporary directory. Only version 1.3.x installations will be recognized.

- When the **Choose Destination Location** dialog box appears, accept the default (for example: **X:\jdk1.3.1_02**) or click Browse to select another location. Click **Next** when you are ready to continue.
- When the **Select Browsers** dialog box appears, select a browser, and then click **Next**.
- When the **Select Component** dialog box appears, clear the components you do not want to install and then click **Next**.
- When **Setup Complete** dialog box appears, click **Finish**.
- Close the java.sun.com Web page and continue the Participating Host installation.

5 In a few moments, the **Choose Destination Location** dialog box appears. We strongly recommend that you do not change the "eGate\client" folder name, but you are free to select a different drive or partition. You cannot install e*Gate to a UNC path (as in "\\hostname\path"). When ready for the e*Gate files to be installed in the designated folder, click **Next**.

Note: *Spaces are not valid characters in e*Gate path names.*

*The e*Gate Registry maintains its own names for network hosts, which must be entered when the system is configured. Use host names that match the actual network host names since e*Gate does not poll the network to obtain host names. Obtain the correct host name(s)* ***PRIOR*** *to installing this component.*

6 A warning message appears: "e*Gate JMS Message Server has a new format for storing messages. Setup has detected schemas with JMS Queue Managers. To avoid lost or duplicated messages it is important to not leave any data in these queues before upgrading!"

Note: *You only see this message if you have schemas with JMS Queue Managers.*

To exit the installation and remove data from the queues, click **No**. To continue with the installation, click **Yes**.

7 When the **Check Setup Information** dialog box appears, confirm your installation settings, and then click **Next**.

The setup utility copies files to your system.

8 The **Registry Host and Schema** dialog box appears.

- In the **Hostname** box, type the name of the Registry Host that will service this Participating Host. The default is the network name of the system on which you are installing e*Gate.
- In the **Schema** box, type the schema name that this Participating Host will support. The default is **MySchema**.

When finished, click **Next**.

9 The **Administrator Account Information** dialog box appears.

- In the **Username** box, type the name of the e*Gate "Administrator" user. Unless you have created additional "administrative" accounts, use the default name **Administrator**.
- In the **Password** and **Confirm** boxes, type and verify the appropriate password.

Note: *e*Gate user names and passwords are case-sensitive. For additional information on the Administrator and passwords, see the* ***e*Gate Integrator System Administration and Operations Guide****.*

When ready, click **Next**.

10 You are prompted if you want to specify secondary Registry Hosts.

Note: *A secondary Registry Host is a backup of your primary Registry Host. It only becomes active if your primary Registry Host becomes unavailable.*

Important: *The secondary Registry Host should have already been installed. If it has not been, halt the installation process and install the secondary Registry Host. See* **"To install the Registry Host" on page 38** *and follow steps 6 through 9 to install a secondary Registry Host.*

If you select **Yes**, the **Secondary Registry Hosts** dialog box appears. Enter a comma-delimited list of secondary Registry Hosts.

11 When prompted in the **Password File Path** dialog box, enter the path name to the e*Gate password file. Unless you have created a different password file, use the default. Then click **Next**.

Note: *For additional information on passwords, see the* ***e*Gate Integrator System Administration and Operations Guide****.*

12 The **Control Broker Logical Name** dialog box appears. Type the logical name for the Control Broker on the Participating Host you are installing and click **Next**. The default is **<*Participating-Host-Name*>_cb**.

13 When the installation informs you that e*Gate permits the use of Access Control List (ACL) security, make your selection. For more information on ACL security see the *e*Gate Integrator System Administration and Operations Guide*.

Note: *You can enable or disable this feature at a later time.*

14 Follow the on-screen prompts to complete the installation.

Note: *After completing the installation of the Participating Host, the install wizard prompts you to restart your computer. You must restart your computer before using e*Gate. However, it is not necessary to restart your computer before continuing with the installation.*

*Before installing the e*Gate GUI, you must remove e*Gate Integrator 5.0 SRE Disc 1 from the CD-ROM drive and insert e*Gate Integrator 5.0 SRE Disc 2 into the drive.*

3.4.4 Installing the GUI

The e*Gate GUI is located on e*Gate Integrator 5.0 SRE Disc 2. Installing it performs the following:

- Installs the e*Gate Schema Designer, Schema Manager, Intelligent Queue Administrator, JMS Administrator, X Windows-based editors (Collaboration Rules Editor, ID Collaboration Rules Editor, and Event Type Definition Editor), and other utilities.

Note: *For the GUIs for the e*Gate Editors and e*Gate Wizards to work, the user must be either an Administrator or Power User.*

- Creates shortcuts for the e*Gate Schema Designer and Schema Manager.

Note: *The GUI installation application will install a partial (OEM) version of Exceed 7.0.* **Do not install the OEM version of Exceed in the same directory as an existing full version of Exceed**. *Be sure that you read* **"Pre-installation check for Exceed" on page 32** *before you begin the GUI installation. See* **Chapter 7** *for additional troubleshooting information.*

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

To install the GUI

1. After inserting e*Gate Integrator 5.0 SRE Disc 2 into the drive the GUI installation launches automatically. If it does not, navigate to the **\Setup\Gui** folder, and double-click the  **Setup** icon.
2. Follow the online prompts in the InstallShield Wizard to navigate through the introductory screens and to accept the license agreement.
3. When the **Customer Information** dialog box appears, type your **User Name** and **Company Name**, and then click **Next**.
4. When the **Please choose the product to install** dialog box appears, select **e*Gate Integrator** and then click **Next**.
5. The **Please choose the product to install** dialog box remains open. If you do not want to install the **GUI**, clear the check box. When ready, click **Next**.
6. When the **Check Setup Information** dialog box appears, accept the selections and click **Next** to begin installing the files.
7. If you selected to install the GUI, the **Welcome to the InstallShield Wizard for e*Gate GUI** dialog box appears. Click **Next**.
8. Follow the online prompts in the InstallShield Wizard to navigate through the introductory screens and to accept the license agreement.
9. When the **Please choose the product to install** dialog box appears, make sure that both the **e*Gate Schema Designer** and the **Schema Manager** are selected, and then click **Next**.

Note: *Installing the Schema Manager is not mandatory.*

10. When the **Customer Information** dialog box appears, type your **User Name** and **Company Name**, and then click **Next**.
11. In the **Choose Language** dialog box, select the language that will be used by the e*Gate GUI and then click **Next**.

Note: *You must match the language selected with the language the system uses (that is: English Windows, Japanese Windows, Korean Windows, or Chinese Windows).*

12. Depending on what version(s) of Exceed is installed on your system, you may be prompted to install Exceed 7.0. Install Exceed if you are required to do so (see **"Pre-installation check for Exceed" on page 32** for more information about installing Exceed 7.0). The installation application will exit if you decline to install Exceed.

    If you already have an existing version of Exceed, **do not install the partial OEM version of Exceed in the same directory as an existing full version of Exceed**. When prompted for a directory name, enter a unique name (such as **eGate-Exceed**). The Exceed installation also uses an InstallShield wizard; follow the on-screen prompts.

13 After the Exceed installation completes, the **Choose Destination Location** dialog box appears. We strongly recommend that you do not change the "eGate\client" folder name, but you are free to select a different drive or partition. You cannot install e*Gate to a UNC path (as in "\\hostname\path"). When ready for the e*Gate GUI files to be installed in the designated folder, click **Next**.

Note: *Spaces are not valid characters in e*Gate path names.*

14 The **Select Program Folder** dialog box appears. Keep the default (**SeeBeyond eBusiness Integration Suite**) or select another program folder. Click **Next**.

15 When the **Check Setup Information** dialog box appears, accept the selections and click **Next** to begin installing the files.

16 The **Microsoft Data Access Components 2.6 Setup** dialog box appears. Microsoft Data Access Components (MDAC) enable Microsoft's data access technologies known as Universal Data Access, which in turn allows data-driven client/server applications to integrate information from a variety of sources over a LAN or the Web.

Note: *If MDAC has already been installed on your system, the installation moves on to step 17.*

For additional information about MDAC, see:

- **http://www.microsoft.com/data/** for additional information about MDAC.
- **http://www.microsoft.com/data/mdac21info/MDACinstQ.htm** for information about the installation of MDAC; what it does and how it should be handled.
- **http://msdn.microsoft.com/library/default.asp?url=/library/en-us/mdac200/html/mdac3sc7.asp** for information about the components.

Important: *MDAC are system components. The MDAC installer upgrades operating system files; removing MDAC at a later time would entail replacing operating system files that were affected by the installation.*

- Only **Cancel** is active. To make **Next** active, select **I accept all of the terms of the preceding license** agreement. When ready, click **Next**.
- Click **Finish** to begin the installation.
- After the installation completes, click **Close**.

17 When the **Registry Hostname** dialog box appears, click **Next**.

Note: *If the Registry Host name is not in the dialog box, you must enter it.*

18 The **Administrator Account Information** dialog box appears.

- In the **Username** box, type the name of the e*Gate "Administrator" user. Unless you have created additional "administrative" accounts, use the default name **Administrator**.
- In the **Password** and **Confirm** boxes, type and verify the appropriate password.

Note: *For additional information on the Administrator and passwords, see the* ***e*Gate Integrator System Administration and Operations Guide****.*

When ready, click **Next**.

19 The online e*Gate GUI Help may require an update of HTML Help. If your browser is not the most recent version of IE 5, click **Yes**.

Note: *If you are using Registry Replication, you must update the two Collaboration Rules in the* ***RegistryReplication*** *schema (on all Registry Hosts) to use the* ***Pass Through*** *service.*

20 After a short while the **InstallShield Wizard Complete** window appears, informing you that the e*Gate GUIs successfully installed. Click **Finish** to exit this part of the installation and move onto the add-on installation.

Note: *After completing the installation of the Participating Host, the install wizard prompts you to restart your computer. You must restart your computer before using e*Gate. However, it is not necessary to restart your computer before continuing with the installation.*

*Before installing the e*Gate Add-ons, you must remove e*Gate Integrator 5.0 SRE Disc 2 from the CD-ROM drive and insert the CD-ROM for the specific Add-ons you want to install into the drive.*

3.4.5 Installing the Add-ons

The e*Gate Add-ons are located on separate CD-ROMs (see **"Overview: e*Gate Installation Components" on page 36**). Installing them performs the following:

- Installs the add-on applications components.
- Installs add-on package files on the local client subdirectories and in the specified e*Gate Registry Repository.
- Installs Monk template files only in the specified Registry.

To install the Add-ons

1 After inserting the appropriate CD-ROM into the drive the Add-on installation launches automatically. If it does not, navigate to the **\Setup\Addons** folder, and double-click the  **Setup** icon.

2 Follow the online prompts in the InstallShield Wizard to navigate through the introductory screens and to accept the license agreement.

3 When the **Customer Information** dialog box appears, type your **User Name** and **Company Name**, and then click **Next**.

4 The **Please choose the product to install** dialog box appears. Select **e*Gate Integrator** and click **Next**.

5 The **Please choose the product to install** dialog box remains open with **Add-ons** selected. Click **Next**.

6 The **Check Setup Information** dialog box appears. Confirm your selections and click **Next**.

7 Follow the online prompts in the InstallShield Wizard to navigate through the introductory screens and to accept the license agreement.

8 When the **Customer Information** dialog box appears, type your **User Name** and **Company Name**, and then click **Next**.

9 When prompted, select the destination directory into which to install the add-ons in the **Choose Destination Location** dialog box. The setup utility recommends the appropriate directory for your e*Gate installation; we recommend you do not change the default. Click **Next**.

Note: *Spaces are not valid characters in e*Gate path names.*

10 When the **Select Components** dialog box appears, highlight a component that you want to install (without selecting the item), and then click **Change**. This allows you to select the sub-components that you want to install. Although the sub-components appear to be in alphabetical order, some may be out of order. When satisfied with your installation selections, click **Continue** to return to the **Select Components** dialog box.

Note: *Repeat step 10 for each component that you are installing.*

When ready to continue with the installation, click **Next**.

11 Some add-ons have dependencies. If you select an add-on with dependencies, the **Check Add-ons Dependencies Information** dialog box appears. It informs you of additional components that will be selected if you have not already selected them. To change any settings, click **Back**. If satisfied, click **Next**.

12 The **Select Program Folder** dialog box appears. Choose a program folder (the default is **SeeBeyond eBusiness Integration Suite**) and click **Next**.

13 When the **Check Setup Information** dialog box appears, confirm your selections and click **Next**.

Note: *If your add-on selections require additional installation instructions (such as the e*Gate SNMP Agent or the BroadVision e*Way), see the **.pdf** files specific to that application. The **.pdf** files are located on e*Gate Integrator for SRE 5.0.5 Disc 2 in*

the **Docs** *directory, and are also installed to the* **\client\docs\html** *directory in which you installed e*Gate.*

14 When prompted for the Registry Host on which these add-ons should be installed, enter the Registry Host's name (if installing to a Distributed Registry system, enter the primary Registry Host's name) and click **Next**.

15 The **Administrator Account Information** dialog box appears.

- In the **Username** box, type the name of the e*Gate "Administrator" user. Unless you have created additional "administrative" accounts, use the default name **Administrator**.
- In the **Password** and **Confirm** boxes, type and verify the appropriate password.

Note: *For additional information on the Administrator and passwords, see the* ***e*Gate Integrator System Administration and Operations Guide****, which is available on e*Gate Integrator for SRE 5.0.5 Disc 2 (****docs\System_Admin_Guide.pdf****).*

When ready, click **Next**.

16 The **Select Platforms to Support for Add-on** dialog box appears. Select the platforms that the selected Registry Host(s) support and click **Next**.

The installation utility begins installing add-on files and committing them to the e*Gate Registry. The amount of time this process takes depends upon the number and size of add-ons you are installing.

17 Follow the on-screen prompts to complete the installation.

Note: *After completing the installation of the Add-ons, the install wizard prompts you to restart your computer. You must restart your computer before using e*Gate. However, it is not necessary to restart your computer at this time.*

18 Repeat the above steps to install additional Add-ons.

3.4.6 Installing the UN/EDIFACT ETD Library Add-ons

The UN/EDIFACT Add-ons are located on three CD-ROMs:

- **UN/EDIFACT Library for SRE 5.0.5 Disc 1** (hereafter, in this section only, "Disc 1")
- **UN/EDIFACT Library for SRE 5.0.5 Disc 2** (hereafter, in this section only, "Disc 2")
- **UN/EDIFACT Library for SRE 5.0.5 Disc 3** (hereafter, in this section only, "Disc 3")

For a complete list of e*Gate 5.0.5 SRE Integrator CD-ROMs, see **"Overview: e*Gate Installation Components" on page 36**.

Note: *Before installing the UN/EDIFACT Add-ons, you must remove the previous CD-ROM from the CD-ROM drive and and insert the CD-ROM for the library or libraries you want to install into the drive.*

Installing them performs the following:

- Installs the UN/EDIFACT add-on applications components.
- Installs add-on package files on the local client subdirectories and in the specified e*Gate Registry Repository.
- Installs the Java and Monk template files only in the specified Registry.

Table 3 lists which UN/EDIFACT ETD Libraries are located on which CD-ROM.

Table 3 Location of UN/EDIFACT ETD Libraries on CD-ROMs

Disc 1		Disc 2		Disc 3
edifact_d95a	java_edifact_d95a	edifact_d00a	java_edifact_d00a	java_edifact_d02a
edifact_d95b	java_edifact_d95b	edifact_d00b	java_edifact_d00b	java_edifact_d02b
edifact_d96a	java_edifact_d96a	edifact_d01a	java_edifact_d01a	java_edifact_d03a
edifact_d96b	java_edifact_d96b	edifact_d01b	java_edifact_d01b	java_edifact_d03b
edifact_d97a	java_edifact_d97a	edifact_d01c	java_edifact_d01c	java_edifact_d04a
edifact_d97b	java_edifact_d97b	edifact_V3		
edifact_d98a	java_edifact_d98a	edifact_V4		
edifact_d98b	java_edifact_d98b			
edifact_d99a	java_edifact_d99a			
edifact_d99b	java_edifact_d99b			
edifact_V3				
edifact_V4				

To install the UN/EDIFACT ETD Library Add-ons

1. Insert the installation CD-ROM into the CD-ROM drive.
2. If the CD-ROM drive's Autorun feature is enabled, the setup application should launch automatically. Otherwise, navigate to the **\Setup\Addons** folder on the CD-ROM and double-click **Setup.exe**.

Note: *Repeat this procedure until you have installed all the UN/EDIFACT ETD Libraries you require.*

3. The InstallShield setup application launches. Follow the on-screen instructions until you come to the **Customer Information** dialog box. Type your name and company name and then click **Next**.
4. The **Please choose the product to install** dialog box appears. Select **e*Gate Integrator** and click **Next**.
5. The **Please choose the product to install** dialog box remains open with **Add-ons** selected. Click **Next**.
6. The **Check Setup Information** dialog box appears. Confirm your selections and click **Next**.

7 Follow the online prompts in the InstallShield Wizard to navigate through the introductory screens and to accept the license agreement.

8 When the **Customer Information** dialog box appears, type your name and company name, and then click **Next**.

9 The **Choose Destination Location** dialog box appears. The setup utility recommends the appropriate destination folder; we strongly recommend that you do not change the default. Click **Next**.

Note: *Spaces are not valid characters in e*Gate path names.*

10 When the **Select Components** dialog box appears, make sure that **ETD Libraries** is highlighted without selecting the item, and then click **Change**.

11 When the **Select Sub-components** dialog box appears, select the UN/EDIFACT ETD templates that you want to install. Each library (for example: EDIFACT ETD Library 5.0.5 SRE Version d01b) contains both the Java and the Monk templates. You must include the v3 and v4 templates. When satisfied with your installation selections, click **Continue** to return to the **Select Components** dialog box.

Note: *The space required to install the highlighted library displays at the bottom of the dialog box.*

12 Click **Next** to continue with the installation.

13 Some add-ons have dependencies. If you select an add-on with dependencies, the **Check Add-ons Dependencies Information** dialog box opens. It informs you of additional components that will be selected if you have not already selected them. To change any settings, click **Back**. If satisfied, click **Next**.

14 The **Select Program Folder** dialog box appears. Choose a program folder (the default is **SeeBeyond eBusiness Integration Suite**) and click **Next**.

15 When the **Check Setup Information** dialog box appears, confirm your selections and click **Next**.

16 When prompted for the Registry Host on which these add-ons should be installed, enter the Registry Host's name (if installing to a Distributed Registry system, enter the primary Registry Host's name) and click **Next**.

17 The **Administrator Account Information** dialog box appears.

- In the **Username** box, type the name of the e*Gate "Administrator" user. Unless you have created additional "administrative" accounts, use the default name **Administrator**.
- In the **Password** and **Confirm** boxes, type and verify the appropriate password.

Note: *e*Gate user names and passwords are case-sensitive. For additional information on the Administrator and passwords, see the* ***e*Gate Integrator System Administration and Operations Guide****.*

When ready, click **Next**.

18 The **Select Platforms to Support for Add-ons** dialog box appears. Select the platforms that the selected Registry Host(s) support and click **Next**.

The installation utility begins installing add-on files and committing them to the e*Gate Registry. The amount of time this process takes depends upon the number and size of add-ons you are installing.

19 Follow the on-screen prompts to complete the installation. Then repeat this process to install the UN/EDIFACT ETD Libraries that are located on the other CD-ROM.

Note: *After completing the installation, the install wizard prompts you to restart your computer. You must restart your computer before using e*Gate. However, it is not necessary to restart your computer at this time.*

3.4.7 Installing the X12 ETD Library Add-ons

The X12 ETD Add-ons are located on three CD-ROMs:

- **X12 ETD Library for SRE 5.0.5 Disc 1** (hereafter, in this section only, "Disc 1")
- **X12 ETD Library for SRE 5.0.5 Disc 2** (hereafter, in this section only, "Disc 2")
- **X12 ETD Library for SRE 5.0.5 Disc 3** (hereafter, in this section only, "Disc 3")

For a complete list of e*Gate 5.0.5 SRE Integrator CD-ROMs, see **"Overview: e*Gate Installation Components" on page 36**.

Note: *Before installing the X12 ETD Add-ons, you must remove the previous CD-ROM from the CD-ROM drive and insert the CD-ROM for the library or libraries you want to install into the drive.*

Installing them performs the following:

- Installs the X12 ETD add-on applications components.
- Installs add-on package files on the local client subdirectories and in the specified e*Gate Registry Repository.
- Installs the Java and Monk template files only in the specified Registry.

Note: *When a library begins with "Java" in Table 4 (for example: Java X12 ETD Library Version 2000), it indicates that there is only a Java version for this library.*

Table 4 lists which X12 ETD Libraries are located on which CD-ROM.

Table 4 Location of X12 ETD Libraries on CD-ROMs

Disc 1		Disc 2		Disc 3	
Java X12 ETD Library Version 2000	X12 ETD Library Version 3032	Java X12 ETD Library Version 3072	X12 ETD Library Version 4012	Java X12 ETD Library Version 4041	X12 ETD Library Version 4040

Table 4 Location of X12 ETD Libraries on CD-ROMs (Continued)

Disc 1		Disc 2		Disc 3	
X12 ETD Library Version 2001	X12 ETD Library Version 3040	X12 ETD Library Version 3070	X12 ETD Library Version 4020	X12 ETD Library Version 4030	X12 ETD Library Version 4042
X12 ETD Library Version 2002	X12 ETD Library Version 3041	X12 ETD Library Version 3071	X12 ETD Library Version 4021	X12 ETD Library Version 4031	X12 ETD Library Version 4050
X12 ETD Library Version 2003	X12 ETD Library Version 3042	X12 ETD Library Version 4010	X12 ETD Library Version 4022	X12 ETD Library Version 4032	X12 ETD Library Version 4051
X12 ETD Library Version 2040	X12 ETD Library Version 3050	X12 ETD Library Version 4011			
X12 ETD Library Version 3010	X12 ETD Library Version 3051				
X12 ETD Library Version 3020	X12 ETD Library Version 3052				
X12 ETD Library Version 3022	X12 ETD Library Version 3060				
X12 ETD Library Version 3030	X12 ETD Library Version 3061				
X12 ETD Library Version 3031	X12 ETD Library Version 3062				

To install the X12 ETD Add-ons

1. Insert the installation CD-ROM into the CD-ROM drive.
2. If the CD-ROM drive's Autorun feature is enabled, the setup application should launch automatically. Otherwise, navigate to the **\Setup\Addons** folder on the CD-ROM and double-click **Setup.exe**.

Note: *Repeat this procedure until you have installed all the X12 ETD Libraries you require.*

3. The InstallShield setup application launches. Follow the on-screen instructions until you come to the **Customer Information** dialog box. Type your name and company name and then click **Next**.
4. The **Please choose the product to install** dialog box appears. Select **e*Gate Integrator** and click **Next**.

5 The **Please choose the product to install** dialog box remains open with **Add-ons** selected. Click **Next**.

6 The **Check Setup Information** dialog box appears. Confirm your selections and click **Next**.

7 Follow the online prompts in the InstallShield Wizard to navigate through the introductory screens and to accept the license agreement.

8 When the **Customer Information** dialog box appears, type your name and company name, and then click **Next**.

9 The **Choose Destination Location** dialog box appears. The setup utility recommends the appropriate destination folder; we strongly recommend that you do not change the default. Click **Next**.

Note: *Spaces are not valid characters in e*Gate path names.*

10 When the **Select Components** dialog box appears, make sure that **ETD Libraries** is highlighted without selecting the item, and then click **Change**.

11 When the **Select Sub-components** dialog box appears, select the X12 ETD templates that you want to install. Each library (for example: X12 ETD Library Version 4040) contains both the Java and the Monk templates.

Note: *There are several libraries that are only in Java format; these have the word "Java" at the beginning of the library name.*

When satisfied with your installation selections, click **Continue** to return to the **Select Components** dialog box.

Note: *The space required to install the highlighted library displays at the bottom of the dialog box.*

12 Click **Next** to continue with the installation.

13 The **Select Program Folder** dialog box appears. Choose a program folder (the default is **SeeBeyond eBusiness Integration Suite**) and click **Next**.

14 When the **Check Setup Information** dialog box appears, confirm your selections and click **Next**.

15 When prompted for the Registry Host on which these add-ons should be installed, enter the Registry Host's name (if installing to a Distributed Registry system, enter the primary Registry Host's name) and click **Next**.

16 The **Administrator Account Information** dialog box appears.

- In the **Username** box, type the name of the e*Gate "Administrator" user. Unless you have created additional "administrative" accounts, use the default name **Administrator**.
- In the **Password** and **Confirm** boxes, type and verify the appropriate password.

Note: *e*Gate user names and passwords are case-sensitive. For additional information on the Administrator and passwords, see the* ***e*Gate Integrator System Administration and Operations Guide****.*

When ready, click **Next**.

17 Select the platforms that the selected Registry Host(s) support and click **Next**.

The installation utility begins installing add-on files and committing them to the e*Gate Registry. The amount of time this process takes depends upon the number and size of add-ons you are installing. If you install e*Gate add-ons on a Windows 98 system, the installation program may open a series of DOS windows. If this occurs, simply close the DOS windows, and the installation program will proceed normally.

18 Follow the on-screen prompts to complete the installation. Then repeat this process to install the X12 ETD Libraries that are located on the other CD-ROMs.

3.5 Installing e*Gate on Laptops

3.5.1 Overview

Before installing e*Gate on your laptop, please read the following sections to ensure a smooth and error-free installation.

3.5.2 System Requirements

The e*Gate system laptop PC requirements are the same as listed in **"System Requirements" on page 27**.

3.5.3 Pre-Installation Notes

Before you install e*Gate on your laptop, do the following:

1 Install the loopback adapter (if you are not able to ping your machine while you are off the network).

2 Boot the machine in the standalone mode and ping the laptop by its network name.

3 Configure the network configuration to bring up the loopback adapter as the first adapter at system boot.

4 You are ready to install e*Gate, using the directions in earlier sections of this chapter.

3.6 Installation Log Files

The e*Gate installation utilities create log files to assist support personnel in troubleshooting installation problems.

Log files are created in the directory specified by the **TEMP** environment variable, or in the directory **C:\TEMP** if the **TEMP** variable is undefined.

Log File Names: The name of the log file indicates the name of the install utility that created it. The log files are:

- **stcreghost_install.log**
- **stcparthost_install.log**
- **stcgui_install.log**

No log files are created by add-on installations.

Chapter 4

Installation Instructions for UNIX

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

What's in This Chapter

4.1 Overview

Before installing e*Gate on your UNIX system, please read the following sections to ensure a smooth and error-free installation.

Note: *We recommend that you log on as a regular user when installing e*Gate.*

4.1.1 System Requirements

The **Readme.txt** file on the e*Gate installation CD-ROM contains the most up-to-date operating system requirements for the supported platforms. The requirements listed below are in addition to the operating system requirements.

e*Gate is available on the following UNIX:

- HP Tru64 V5.1A and HP Tru64 V5.1B with required patches and ulimit settings
- HP-UX 11.0, 11i (PA-RISC), and 11i v2.0 (11.23) with required patches and parameter changes
- IBM AIX 5L versions 5.1, 5.2, and 5.3 with required maintenance level patches

- Sun Solaris 8 and 9 with required patches
- Chinese Sun Solaris 8 and 9 with required patches
- Japanese HP-UX 11.0, 11i (PA-RISC), and 11i v2.0 (11.23) with required patches and parameter changes
- Japanese IBM AIX 5L versions 5.1, 5.2, and 5.3 with required maintenance level patches
- Japanese Sun Solaris 8 and 9 with required patches
- Korean HP-UX 11.0, 11i (PA-RISC), and 11i v2.0 (11.23) with required patches and parameter changes
- Korean IBM AIX 5.1L and 5.2 with required patches
- Korean Sun Solaris 8 and 9 with required patches

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.*

For eGate to run on SuSE, the lock daemon must be running (and put into the auto start files).

To use e*Gate, as a minimum you should have the following:

- An e*Gate Participating Host, version 5.0.5 SRE
- A TCP/IP network connection
- 512 MB RAM
- 20–30 GB free disk space for executable, configuration, library, and script files.
- CPU: minimum 400 MHz; dual (or multi) CPUs recommended for best performance.

Note: *For accurate sizing of a test or production system, consult "Determining Hardware Requirements" in the* ***SeeBeyond eBusiness Integration Suite Deployment Guide*** *(****Deployment_Guide.pdf****).*

External System Requirements

- For information on Oracle and Sybase requirements, see the *e*Gate Integrator Intelligent Queue Services Reference Guide*.

4.1.2 Disk Space Requirements

e*Gate components require the following minimum disk space. Additional space is required for data storage; those requirements vary based upon each installation's implementation. See **Table 5 on page 59**.

Table 5 UNIX Platform Disk Space Requirements

Operating System	Registry Host	Participating Host
IBM AIX	100–320 MB	125 MB
HP Tru64 UNIX	70–315 MB	75 MB
HP-UX	65–310 MB	100 MB
Sun Solaris	55–330 MB	75 MB
Note: *The Registry Host column presents a range: The lower figure installs only that platform while the higher figure installs all supporting platforms.*		

For add-on size requirements, check the e*Gate Add-on Applications installation on the CD-ROM. Clicking on a selected add-on allows you to see the required amount of space that add-on requires. e*Ways can range between 3 and 10 MB in size, and Event Type libraries can range between 1 and 100 MB or larger in size.

4.2 Pre-Installation

This section explains issues you must consider before you begin your UNIX installation.

Note: *If you have the environmental variable TEMP set to any value during the installation, that value must be a directory path location (writable by the installing user). Otherwise, the installation will fail.*

4.2.1 The “egate” User

The user name under which you install the e*Gate files owns the e*Gate files, and all e*Gate processes are run under this user name. We suggest that you create an “egate” user for this purpose, but you can use any user name that meets your installation’s security requirements.

Required privileges

You need regular (non-root) user access to begin the e*Gate installation. You do not need root privileges. However, the installation utility will prompt you for the root password to install e*Gate startup files in protected directories. If you do not have access to the root password, the installation utility will create startup files that you can ask a system administrator to install for you.

Note: *It is not recommended to run as root. See the* **procedure on page 143** (**13**)*. For additional information on passwords, see the* ***e*Gate Integrator System Administration and Operations Guide****, which is available on the installation CD-ROM 2 (****docs\System_Admin_Guide.pdf****).*

Disk-space quota limitations

The "egate" user, or any user that you use to install the e*Gate system, must have ***no*** disk-quota limitations imposed. e*Gate calculates "available disk space" in terms of total disk space available on the system, and does no quota checking. If you impose a disk-quota restriction on the "egate" user, you risk losing data when IQ-storage demands exceed the user's quota.

4.2.2 Uninstalling e*Gate

To uninstall e*Gate:

1. Kill the following e*Gate processes:
   - Registry
   - Control Broker(s) and any other SeeBeyond processes
   - Lightweight Installer (**stcinstd**)
2. Remove the e*Gate directories.
3. Remove the following files:
   - **.egate.store**
   - **egate.ini**

4.2.3 Sun Solaris

nscd must be running on Solaris to install e*Gate successfully

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

4.2.4 HP Tru64 UNIX

This section details changes to the installation procedure required to install e*Gate on HP Tru64 UNIX systems.

Installation procedure

The basic installation procedure for HP Tru64 UNIX systems is essentially the same as installing e*Gate on other UNIX systems. For complete UNIX installation instructions, see **"Installation Instructions for UNIX" on page 57**.

Important: *The e*Gate system is compatible with HP Tru64 UNIX V4.0F, V5.0A, and V5.1A.*

Installation procedures for e*Gate add-ons in Tru64 are the same as those explained under UNIX instructions in the appropriate add-on user's guide.

Changes

When installing e*Gate on a HP Tru64 UNIX system, use the procedure for UNIX installation with the following changes:

- During installation and operation, e*Gate requires that both **rpc.lockd** and **statd** be running.
- SeeBeyond recommends using **/opt/gnu/bin/tar** to extract the files from the archive.

4.2.5 IBM AIX Patches

The following patches are required for IBM AIX:

IBM AIX 5L version 5.1 Patches

```
Java131.rte.lib.1.3.1.11
Java131.rte.bin.1.3.1.11
```

Install IBM AIX patches and copy the JRE to where e*Gate was installed

The patches can be obtained at the following URLs:

IBM AIX 5L version 5.1

http://techsupport.services.ibm.com/server/aix.fdc

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

```
cp -R /usr/java131/jre <egate_home>/egate/client/JRE/1.3.1
```

where <*egate_home*> is the home directory for e*Gate.

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

4.2.6 IBM AIX Memory Limitations

In IBM AIX a program is limited to use 8 memory segments (one memory segment equals 256 MB) for dynamic memory allocation and memory mapping if an environment variable, **EXTSHM**, is not set to **ON**.

e*Gate programs are compiled with the **-bmaxdata0x80000000** option. This allows an e*Gate program to use a maximum of 8 memory segments, which is 2 GB (8 x 256 MB), for dynamic memory allocation. If the program attempts to memory map files, one memory segment out of the eight will be made available. This means the program can only memory map files of a combined size no larger than 256 MB. In the meantime, the amount of memory available for dynamic allocation is reduced to 1.75 GB.

If you want an e*Gate program to be able to memory map files of a combined size larger than 256 MB (both the Standard Queue Manager and the Control Broker use memory mapped files extensively), do one of the following:

- Set the **EXTSHM** environment variable to **ON** (for example: **setenv EXTSHM ON**). This makes three additional memory segments available to a program. In this case an e*Gate program can memory map files of a combined size of 750 MB (3 x 256 MB) and can dynamically allocate 2 GB memory.

or

- Lower the number of memory segments allocated for dynamic memory allocation for the e*Gate program. This will make additional memory segments available for memory mapping. To change the number, run the following command:

```
/usr/bin/echo '\0060\0\00' | dd of=executable name bs=4 count=1
seek=19 conv=notrunc
```

This sets the maximum number of memory segments for dynamic memory allocation to 3 in the finished executable, making 5 memory segments available for memory mapping. The values for different memory segment settings are as follows:

```
8 = '0200\0\0\0'
7 = '0160\0\0\0'
6 = '0140\0\0\0'
5 = '0120\0\0\0'
4 = '0100\0\0\0'
3 = '0060\0\0\0'
2 = '0040\0\0\0'
1 = '0020\0\0\0'
```

4.2.7 Default User Names and Passwords

e*Gate's default "Administrator" user name and password are found in the **Readme.txt** file in the root directory of the installation CD-ROM. Be aware that these names are case sensitive when the installation process prompts for them.

Note: *For additional information, see the **e*Gate Integrator System Administration and Operations Guide**, which is available on the e*Gate Integrator 5.0 SRE Disc 2 (**docs\System_Admin_Guide.pdf**).*

4.3 e*Gate Installation Modules

The e*Gate installation must be performed in the following order:

1. e*Gate Registry Server
2. e*Gate Participating Host
3. e*Gate Add-on Applications

Important: *The e*Gate GUIs must be installed on a Windows system; see* **Chapter 3** *for more information.*

4.3.1 Using the Install Application

While running the install script, type **-** (hyphen) to back up to the previous step or **QUIT** (all capitals) to exit the installation.

Press **Enter** to continue with the installation.

4.3.2 Privileges Required to Install e*Gate

Even though root privileges are not required for the user running the install application, you will be prompted for the root password during installation. Please see **The "egate" User on page 59** for additional information.

4.3.3 The Installation Disc Set

The installation disc set can include any or all of the following thirteen discs—depending on what products were purchased:

- e*Gate Integrator for SRE 5.0.5 Disc 1 and Disc 2
- e*Insight for SRE 5.0.5 e*Xchange for SRE 5.0.5
- Add-ons/Samples for SRE 5.0.5 Disc 1 through Disc 5
- UN/EDIFACT ETD Library for SRE 5.0.5 Disc 1 and Disc 2
- X12 ETD Library for SRE 5.0.5 Disc 1 through Disc 3

4.3.4 Launching the Installation Script

The installation script **setup.sh** is located in the **/Setup** folder of the e*Gate Integrator 5.0 SRE Disc 1.

To launch the installation script

1. Log in as either a non-root or root user on the workstation containing the CD-ROM drive, and insert the CD-ROM into the drive.
2. If necessary, mount the CD-ROM drive. On HP-UX systems, you must mount the drive with this command:

   mount -F cdfs -o cdcase -r /dev/dsk/c0t<extension> /cdrom

   where **/cdrom** is the mount point.

Note: *To mount the installation CD-ROM, you must have root privileges. If the directory 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 Figure 3 for additional mounting commands.*

Figure 3 Mounting a CD-ROM Drive Locally

Platform	Mount Command
IBM AIX	**mount -V cdrfs -r /dev/cd<extension>/cdrom**
Sun Solaris 2.6, 7, and 8	**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**

Figure 3 Mounting a CD-ROM Drive Locally

Platform	Mount Command
Red Hat Linux and SuSE 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.)

Caution: *Before beginning an installation, check whether the file* ***/tmp/stcregutil.log*** *has been generated by another user. If so, ask the user who generated this file to delete it. Otherwise, your installation will fail, and you will receive a permission error message that asks you to remove this file.*

3 At the shell prompt, type:

cd /cdrom/setup

4 Start the installation script by typing:

setup.sh

Note: *You must install Registry Host components first.*

4.4 Installing and Running Different Versions of e*Gate on UNIX

When installing two different versions of e*Gate on the same server, each version must to be installed separately. If the same user installs both versions, the user's home directory must be changed. If separate users install the different versions, changes to the users' home variables are not necessary.

For this example the user installs e*Gate versions 4.1.2 and 5.0.5 SRE:

Note: *In this example, the e*Gate 4.1.2 components will not be able to interact with the eGate 5.0.5 SRE or the eGate 5.0.5 Repository.*

1 Log in and change the home directory to:

```
/home/<user name>/412
```

Using the bash shell, the command would be:

```
export HOME =/home/<user name>/412/export
```

2 Install e*Gate 4.1.2 to this directory. This ensures that all files are installed in this directory (for example: **.egate.store** and **rc3.d**).

3 After installation is complete, change your home directory to:

```
/home/<user name>/50SRE
```

4 Install e*Gate 5.0.5 SRE to this directory.

If separate users are installing, all they have to do is ensure that they do not install to the same location.

4.5 Installing the Registry Host

The Registry Host is located on the e*Gate Integrator for SRE 5.0.5 Disc 1. See **"The Installation Disc Set" on page 63** for a listing of the location of the e*Gate components on the installation CD-ROMs.

To install the Registry Server

1. Start the installation script (discussed in the **procedure on page 63**).
2. A message appears; it notifies you that services do not start automatically for non-root users. Press **Enter** to continue.
3. A message appears; it confirms that you are running the e*Gate installation script, and reminds you that you can type **-** (hyphen) to back up a step or **QUIT** (all capitals) to exit the install program. Press **Enter** to continue.
4. You are prompted to accept the license agreement. Type **y** and press **Enter**.

   The platform type and a menu of options displays:

```
Installation type (choose one):
0. Finished with installation. Quit.
1. e*Gate Participating Host (Client)
2. e*Gate Registry Server
```

Note: *The actual installation order is reverse of how the steps are numbered. For example, menu option 2, "e*Gate Registry Server," would be the first step you perform, and menu option 0, "Finished with installation. Quit," would be the third step you perform.*

5. Type **2** and press **Enter** to install the Registry Server.
6. You are prompted for the installation path. Press **Enter** to accept the default path, or enter a new path and press **Enter**.
   - If you are logged in under a user name, the suggested path is **/home/*username*/egate/server**.
   - If you are logged in as root, the suggested path is **/opt/egate/server**.

Note: *It is not recommended to run as root. See the* **procedure on page 143** (**13**).

   Whether you install e*Gate to a **/home** directory or to an application directory such as **/opt**, we strongly recommend that you use the recommended relative path **egate/server** as the destination directory for the Registry Host installation.

7. This version of e*Gate permits the use of Access Control List (ACL) security. For more information on ACL security see the *e*Gate Integrator System Administration and Operations Guide*, which is available on the e*Gate Integrator 5.0 SRE Disc 2 (**docs\System_Admin_Guide.pdf**).

```
Do you wish to enable ACL security now [no]:
```

The default is "no;" to select it press **Enter**. To select "yes," type **y** and press **Enter**.

Note: *You can enable or disable ACL security at any time.*

8 A warning message appears: "e*Gate JMS Message Server has a new format for storing messages. To avoid lost or duplicated messages it is important to not leave any data in these queues before upgrading!"

Note: *You only see this message when you are upgrading the Registry.*

```
Do you wish to continue with the e*Gate Upgrade (Y)es, (N)o? [no].
```

To exit the installation and remove data from the queues, accept the default **[no]** by pressing **Enter**. To continue with the installation, type **Y** and press **Enter**.

9 You are prompted to select a Registry Replication option. See **"The Distributed Registry" on page 19** for more information about the available types of Registry Hosts. For detailed information on setting up Registry Replication, see the *e*Gate Integrator System Administration and Operations Guide*.

```
Choose Registry Replication Option.
* indicates previous installation detected.
  1. None
  2. Primary
  3. Secondary
```

Type the appropriate number and press **Enter**.

10 What you do next depends on the type of Registry Host you are installing.

- If you are installing a Primary Registry Host, skip ahead to the section **"Primary Registry Host Installation" on page 68**.
- If you are installing a Secondary Registry Host, skip ahead to the section **"Secondary Registry Host Installation" on page 69**.

Note: *If you do not specify a Secondary Registry Host during the installation, but later decide to specify one, see the* ***e*Gate Integrator System Administration and Operations Guide****, which is available on the* e*Gate Integrator 5.0 SRE Disc 2 (***docs\System_Admin_Guide.pdf****).*

- If you are not installing Registry Replication, continue with the next step.

11 The installation process begins. From time to time, you are prompted to press **Enter** as different stages of the installation are completed. Press **Enter** each time that you are prompted to do so.

12 The root password is now required to enable autostart of the e*Gate Registry Service. Enter it at the password prompt.

If you do not know the root password, or do not want to install the startup scripts at this time, press **Enter** at the password prompt.

13 After a number of files have been installed, a new menu of options displays:

```
Choose participating host platform to install in repository.
* indicates previous installation detected.
  0. Finished installing client platforms; continue.
  1. hpux11
  2. sparc26
  3. aix43
  4. win32
  5. ctru64_4
  6. linux6x86
```

This menu selects which operating systems will be supported by this Registry Host. Type the number corresponding to the platform that you want this Registry Host to support and press **Enter**.

14 The requested files are installed, and the "participating host platform" menu appears again. Repeat step 13 above to install support for each additional platform as required. When you have installed all the required files, type **0** and press **Enter** to continue.

15 A message appears regarding the creation of helper scripts. Press **Enter** when you are prompted to do so.

16 If you are not upgrading an earlier version of e*Gate, skip this step.

If you are upgrading an earlier version of e*Gate, you are asked whether to backup existing schema. We recommend you do back them up; enter **y** or **n** as appropriate, then press **Enter**.

17 When prompted, enter and verify the e*Gate **Administrator** password. (This only sets the e*Gate Administrator password and does not affect any passwords or users at the operating-system level.) The default password is listed in the **Readme.txt** file in the root directory of the installation CD-ROM.

Note: *e*Gate user names and passwords are case-sensitive. For additional information, see the* ***e*Gate Integrator System Administration and Operations Guide****, which is available on the* e*Gate Integrator 5.0 SRE Disc 2 (***docs\System_Admin_Guide.pdf****).*

18 The setup utility is ready to start the Registry service.

```
Please specify the registry port number [23001]: nnnnn
```

Press **Enter** to accept the default port number (23001) or type a different port number and then press **Enter**.

Note: *Using different Registry port numbers allows additional users to use this machine.*

19 The installation utility then imports default services, default monitors, and the system init (boot-time) files. At each stage, you are prompted to press **Enter** to continue; press **Enter** each time as requested.

20 When the "installation type" menu appears, the Registry Host installation is complete. Do one of the following:

- To exit the setup utility, type **0** and press **Enter**.

- Select another option and continue installing the other installation types. Instructions for installing the Participating Host appear in **"Installing the Participating Host" on page 72**. For instructions regarding the add-on applications, see **"Installing the Add-on Applications" on page 75**.

4.5.1 Primary Registry Host Installation

The installation procedure for the Primary Registry Host continues here. If you have not already begun the installation, go back to **"Launching the Installation Script" on page 63**.

Note: *If you are upgrading an earlier version of e*Gate, the installation asks whether to backup existing schema. We recommend you do back them up. When prompted, enter* ***y*** *or* ***n*** *as appropriate, then press* ***Enter****.*

To install the Primary Registry Host

1. Enter and verify the Administrator password on the Primary Registry Host.

Note: *For additional information on the Administrator and passwords, see the* ***e*Gate Integrator System Administration and Operations Guide****, which is available on the* e*Gate Integrator 5.0 SRE Disc 2 *(****docs\System_Admin_Guide.pdf****).*

2. If you are upgrading an earlier version of e*Gate, you are asked whether to backup existing schema. We recommend you answer "yes."
3. The installation proceeds. From time to time, you may be prompted to press **Enter** to continue; press **Enter** when prompted to do so.
4. When you are asked to choose the participating-host platforms that this Registry Host will support, select a platform and press **Enter**. Repeat this step until all platforms have been installed; then, select **0** and press **Enter**.

Note: *During installation of the Primary Host, you must select the platform of both the Primary Host and the Secondary Host.*

5. You may be prompted to re-enter the root password (this is required so that startup files can be installed in a protected directory). Enter the password and press **Enter**, or simply press **Enter** to skip installing the startup files.
6. The installation proceeds. From time to time, you may be prompted to press **Enter** to continue; press **Enter** when prompted to do so.
7. When you are prompted for the installation path for the Participating Host components required to perform Registry Replication, press **Enter** to accept the default path, or enter a new path and press **Enter**.
   - If you are logged in under a user name, the suggested path is **/home/*username*/egate/client**.
   - If you are logged in as root, the suggested path is **/opt/egate/client**.

Note: *It is not recommended to run as root. See the* **procedure on page 143 (13)***.*

Whether you install e*Gate to a **/home** directory or to an application directory such as **/opt**, we strongly recommend that you use the recommended relative path **egate/client** as the destination directory for the Registry Host installation.

8 The installation process continues. From time to time, you will be prompted to press **Enter** as different stages of the installation are completed. Press **Enter** each time that you are prompted to do so. You will also be asked to re-enter the root password. When prompted, enter the password, or simply press **Enter** if you do not have the password available.

9 When the "installation type" menu appears, the Registry Host installation is complete. Do one of the following:

- To exit the setup utility, type **0** and press **Enter.**
- Select another option and continue installing the other installation types. Instructions for installing the Participating Host appear in **"Installing the Participating Host" on page 72**. For instructions regarding the add-on applications, see **"Installing the Add-on Applications" on page 75**.

Note: *If you have installed Registry Replication, you should not install another Participating Host.*

Important: *If you installed a primary Registry Host on a drive other than C, see* **"After installing the primary Registry" on page 40**.

Caution: *When specifying Registry Hosts, primary or secondary, you must specify hosts that are known to the system where the installation is being performed. It is not recommended to use IP addresses. Instead, use logical names for host names.*

4.5.2 Secondary Registry Host Installation

Note: *If you are upgrading an earlier version of e*Gate, the installation asks whether to backup existing schema. We recommend you do back them up. When prompted, enter* ***y*** *or* ***n*** *as appropriate, then press* ***Enter****.*

Note: *Adding another Secondary Registry Host after you have installed the Primary and Secondary Registry Hosts breaks the replication configuration. If a Secondary Registry Host is added at this time, you must open your Registry Replication schema, change all your pub-subs, and add an IQ Manager to the schema.*

The installation procedure for the Secondary Registry Host continues here. If you have not already begun the installation, go back to **"Launching the Installation Script" on page 63**.

1 Enter the Primary Host's logical name.

2 Enter and verify the Administrator password on the Primary Registry Host.

Note: *For additional information on the Administrator and passwords, see the* ***e*Gate Integrator System Administration and Operations Guide****, which is available on the installation CD-ROM 2 (****docs\System_Admin_Guide.pdf****).*

3 When prompted, enter the installation directory. We recommend that you use the suggested default.

4 The installation proceeds. When you install a Secondary Registry Host, the installation utility automatically sets up the Registry Replication schema, including a Control Broker. From time to time, you may be prompted to press **Enter** to continue; press **Enter** when prompted to do so.

5 You may be prompted to re-enter the root password (this is required so that startup files can be installed in a protected directory). Enter the password and press **Enter**, or simply press **Enter** to skip installing the startup files.

6 When you are prompted for the installation path, press **Enter** to accept the default path, or enter a new path and press **Enter**.

- If you are logged in under a user name, the suggested path is **/home/*username*/egate/server**.
- If you are logged in as root, the suggested path is **/opt/egate/server**.

Note: *It is not recommended to run as root. See the* **procedure on page 143** (**13**)*.*

Whether you install e*Gate to a **/home** directory or to an application directory such as **/opt**, we strongly recommend that you use the recommended relative path **egate/server** as the destination directory for the Registry Host installation.

7 The installation process continues. From time to time, you are prompted to press **Enter** as different stages of the installation are completed. Press **Enter** each time that you are prompted to do so.

8 After a number of files have been installed, a new menu of options displays:

```
Choose participating host platform to install in repository.
* indicates previous installation detected.
  0. Finished installing client platforms; continue.
  1. hpux11
  2. sparc26
  3. aix43
  4. win32
  5. ctru64_4
  6. linux6x86
```

This menu selects which operating systems will be supported by this Registry Host. Type the number corresponding to the platform that you want this Registry Host to support and press **Enter**.

9 The requested files are installed, and the "participating host platform" menu reappears. Repeat step 8 above to install support for each additional platform as required. When you have installed all the required files, type **0** and press **Enter** to continue.

10 A message regarding the creation of helper scripts appears. Press **Enter** when you are prompted to do so.

11 If you are not upgrading an earlier version of e*Gate, skip this step.

If you are upgrading an earlier version of e*Gate, you are asked whether to backup existing schema. We recommend you do back them up; enter **y** or **n** as appropriate, then press **Enter**.

12 When prompted, enter and verify the e*Gate **Administrator** password. (This only sets the e*Gate Administrator password and does not affect any passwords or users at the operating-system level.) The default password is listed in the **Readme.txt** file in the root directory of the e*Gate Integrator 5.0 SRE Disc 1.

Note: *e*Gate user names and passwords are case-sensitive. For additional information, see the* ***e*Gate Integrator System Administration and Operations Guide****, which is available on the* e*Gate Integrator 5.0 SRE Disc 2 (***docs\System_Admin_Guide.pdf****).*

13 The setup utility attempts to start the Registry service. Press **Enter** to continue when the prompt appears.

14 The installation utility now imports default services, default monitors, and the system init (boot-time) files. At each stage, you are prompted to press **Enter** to continue; press **Enter** each time as requested.

At the end of the installation process, the following message appears:

```
Before any e*Gate applications begin using the Secondary Registry
Host, you must manually copy the Primary Registry Host's "<Installed
Directory>\registry\repository" directory tree (including all files
and subdirectories) to the Secondary Registry Host. You may use any
method you like to copy the files, but you must do so BEFORE allowing
any e*Gate applications to access the Secondary Registry Host.
```

Before you install other e*Gate components (such as add-ons) that will rely upon the Secondary Registry Host that you have just installed, you must perform this step and copy the "\registry\repository" directory tree from the Primary Host to the corresponding tree on the Secondary Registry Host. This is the only time you will need to copy files manually. Subsequent changes to the Primary Registry Host are automatically propagated to the Secondary Registry Host.

Note: *Adding another Secondary Registry Host after you have installed the Primary and Secondary Registry Hosts breaks the replication configuration. If a Secondary Registry Host is added at this time, you must open your* ***Registry Replication*** *schema, change all your pub-subs, and add an IQ Manager to the schema.*

If you do not specify a Secondary Registry Host during the installation, but later decide to specify one, see the ***e*Gate Integrator System Administration and Operations Guide****, which is available on the* e*Gate Integrator for SRE 5.0.5 Disc 2 (***docs\System_Admin_Guide.pdf****).*

15 When the "Installation type" menu appears, the Registry Host installation is complete. Do one of the following:

- To exit the setup utility, type **0** and press **Enter.**
- Select another option and continue installing the other installation types. Instructions for installing the Participating Host appear in **"Installing the**

Participating Host" on page 72. For instructions regarding the add-on applications, see "Installing the Add-on Applications" on page 75.

Caution: *When specifying Registry Hosts, primary or secondary, you must specify hosts that are known to the system where the installation is being performed. It is not recommended to use IP addresses. Instead, use logical names for host names.*

4.6 Installing the Participating Host

The Participating Host is located on the e*Gate Integrator for SRE 5.0.5 Disc 1. See "The Installation Disc Set" on page 63 for a listing of the location of the e*Gate components on the installation CD-ROMs.

If you later attempt to install the GUI on a computer that has a Participating Host that is version 4.5.2 or earlier, the GUI installation quits and you are advised to install a Participating Host that has a version number that matches the GUI. This protects you from having later executable files overwritten by earlier files. For more information, see "Registry Connection Protection" on page 24. Remember that to upgrade your e*Gate system to e*Gate 5.0.5 SRE, you must install the e*Gate 5.0.5 SRE installation on *every* GUI host and Participating Host.

Note: *If you have installed Registry Replication, you should not install another Participating Host.*

Important upgrade information

If you are upgrading from an earlier version of e*Gate, make sure that the Registry Host supporting this Participating Host is up and running on the default port. However, you must also make sure that all e*Gate client programs as well as any Control Brokers and the lightweight install daemon (**stcinstd.exe**) are stopped before proceeding with this installation.

Caution: *When specifying Participating Hosts, you must specify hosts that are known to the system where installation is being performed. It is not recommended to use IP addresses. Instead, use logical names for host names.*

To install the Participating Host

1 If you have not already done so, start the installation script (discussed in the procedure on page 63), acknowledge the initial prompts, and accept the license agreement (see steps 2 through 4 in the procedure on page 65).

The platform type and a menu of options display:

```
Installation type (choose one):
0. Finished with installation. Quit.
1. e*Gate Participating Host (Client)
2. e*Gate Registry Server
```

Note: *The actual installation order is reverse of how the steps are numbered. For example, menu option 1, "e*Gate Registry Server," would be the first step you perform, and*

menu option 0, "Finished with installation. Quit," would be the third step you perform.

2 Type **1** and press **Enter** to select the e*Gate Participating Host (Client) as the installation type.

3 Select the installation path.

- If you are logged in under any user name, we recommend that you enter **/home/*username*/egate/client**.
- If you are logged in as root, we recommend that you enter **/opt/egate/client**.

Note: *It is not recommended to run as root.*

Whether you install e*Gate to a **/home** directory or to an application directory such as **/opt**, we strongly recommend that you use the recommended relative path **egate/client** as the destination directory for the Participating Host installation.

4 Next you are required to enable or disable In-schema debugging (the e*Gate Java Debugger) for this Participating Host:

```
Do you wish to enable In-schema debugging on this parthost? [yes]:
```

Type **y** for yes or **n** for **no** if you do not intend to use this option. If you select **y**, you will be prompted to enter the location of your Java 2 SDK installation. Make sure to enter the location of the Java 2 SDK; JRE will not work with In-schema debugging.

Note: *For more information on this option, see Appendix A, "e*Gate Java Debugger," in the **e*Gate Integrator User's Guide**.*

5 When the installation informs you that e*Gate permits the use of Access Control List (ACL) security, make your selection:

```
U)pdate or M)ove [U]:
```

Type **U** for Update or **M** for Move. Updating replaces shared **.exe** and **.dll** files. Moving copies the old files to another directory and informs you of the location of the directory.

If you do not want to select either of the above choices, type **-** at the prompt.

When ready, press **Enter**.

Note: *For more information on ACL security see the **e*Gate Integrator System Administration and Operations Guide**.*

6 A warning message appears: "e*Gate JMS Message Server has a new format for storing messages. Setup has detected schemas with JMS Queue Managers. To avoid lost or duplicated messages it is important to not leave any data in these queues before upgrading!"

Note: *You only see this message if you have schemas with JMS Queue Managers.*

```
Do you wish to continue with the e*Gate Upgrade (Y)es, (N)o? [no].
```

To exit the installation and remove data from the queues, accept the default **[no]** by pressing **Enter**. To continue with the installation, type **Y** and press **Enter**.

7 Enter the name of the Registry Server that will support this Participating Host. If the installation utility detects a Registry Host running on the current host, it will suggest that host's name.

- To accept the default, press **Enter**.
- To enter another Registry Host name, type the name and then click **Enter**.

8 Enter the port number for the Registry Host.

- To accept the default, press **Enter**.
- To enter another port number, type the number and then click **Enter**.

Note: *The port number must match the Registry's port number.*

9 Enter the name of the schema that this Participating Host will support.

10 You are prompted for the "Administration Login" (an e*Gate user with sufficient privilege to create components within a schema). The default is **Administrator**; unless you have created a different "administrative" user name, press **Enter** to accept the default. The default password is listed in the **Readme.txt** file in the root directory of the e*Gate Integrator for SRE 5.0.5 Disc 1.

11 Enter and confirm the password for the user specified in the step above.

Note: *e*Gate user names and passwords are case-sensitive. For additional information, see the* ***e*Gate Integrator System Administration and Operations Guide****, which is available on the e*Gate Integrator for SRE 5.0.5 Disc 2 (****docs\System_Admin_Guide.pdf****).*

12 Enter a name for the Participating Host's Control Broker. The suggested default is ***hostname*_cb**. We recommend you accept the default name.

13 The installation script unpacks and installs Participating Host files, creates helper scripts, and adds information to the e*Gate Registry. From time to time, you are prompted to press **Enter** to continue; press **Enter** each time you are prompted to do so.

14 In a few minutes, you are prompted for the location of the e*Gate password file. Press **Enter** to accept the suggested default, then press **Enter** again when prompted.

15 You are prompted to enter the root password; enter it now, or simply press **Enter** if you do not know the password. If you do not know the password, you are reminded that **rc** scripts will be stored in your home directory; press **Enter** to continue.

16 The installation proceeds. From time to time, you are prompted to press **Enter** to continue; press **Enter** each time you are prompted to do so.

17 The setup utility attempts to start the Control Broker. Press **Enter** to continue when the prompt appears.

18 A message appears; it lists shell scripts and the directory in which they will be created. You must execute these scripts or add their contents to your **.profile** or **.cshrc** file prior to executing e*Gate applications from the command line.

19 When the "Installation type" menu appears, the Participating Host installation is complete. Do one of the following:

- To exit the setup utility, type **0** and press **Enter**.
- Select another option and continue installing the other installation types. See **"Installing the Add-on Applications" on page 75** for instructions on installing the add-on applications.

Note: *If you are using Registry Replication, you must update the two Collaboration Rules in the* ***RegistryReplication*** *schema (on all Registry Hosts) to use the* ***Pass Through*** *service.*

4.7 Installing the Add-on Applications

Note: *The add-ons can be found on Add-ons/Samples for SRE 5.0.5 Disc 1 through Disc 5; UN/EDIFACT ETD Library for SRE 5.0.5 Disc 1 and Disc 2; and X12 ETD Library for SRE 5.0.5 Disc 1 through Disc 3. See* **"Overview: e*Gate Installation Components" on page 36** *for additional information.*

To install the add-on applications

1 If you have not already done so, load and mount one of the add-on CD-ROMs, start the installation script (discussed in the **procedure on page 63**), acknowledge the initial prompts, and accept the license agreement (see steps 2 through 4 in the **procedure on page 65**).

The platform type and a menu of options display:

```
Installation type (choose one):
0. Finished with installation. Quit.
1. e*Gate Add-on Applications
```

Note: *The actual installation order is reverse of how the steps are numbered. For example, menu option 1, "e*Gate Registry Server," would be the first step you perform, and menu option 0, "Finished with installation. Quit," would be the second step you perform.*

Note: *If you are installing an add-on application that includes a Build tool add-on to the ETD Editor, you must install the Windows version of the add-on on the appropriate system,* ***in addition to*** *the UNIX version, in order to access the Build tool.*

2 Type **1** to select the **e*Gate Addon Applications** and press **Enter**.

3 You are prompted for the installation path. Press **Enter** to accept the default path, or enter a new path and press **Enter**.

- If you are logged in under any user name, the suggested path is **/home/*username*/egate/client**.
- If you are logged in as root, the suggested path is **/opt/egate/client**.

Note: *It is not recommended to run as root. See the* **procedure on page 143** (**13**).

Whether you install e*Gate to a **/home** directory or to an application directory such as **/opt**, we strongly recommend that you use the recommended relative path **egate/client** as the destination directory for the add-on-application installation.

Note: *When the installation of add-ons is initiated on a Participating Host, the contents of its Registry changes. The Registry Host will propagate this change to all Participating Hosts connected to that Registry.*

4 When prompted, type **U** to update (overwrite) and press **Enter**.

Note: ***U*** *updates the installation, overriding files as necessary.* ***M*** *creates a directory and moves everything in the current directory to* ***directoryname.old****.*

If you selected **U**, you will see a warning regarding shared **.exe** and **.dll** files. Read this warning and press **Enter** to continue.

5 Enter the name of the Registry Server supporting these add-on applications. If the installation utility detects a Registry Host running on the current host, it will suggest that host's name.

- To accept the default, press **Enter**.
- To enter another Registry Host name, type the name and then click **Enter**.

6 Enter the port number for the Registry Host.

- To accept the default, press **Enter**.
- To enter another port number, type the number and then click **Enter**.

Note: *The port number must match the Registry's port number.*

7 You are prompted for the "administration login" (an e*Gate user with sufficient privilege to create components within a schema). The default is **Administrator**; unless you have created a different "administrative" user name, press **Enter** to accept the default. The default password is listed in the **Readme.txt** file in the root directory of the *e*Gate Integrator for SRE 5.0.5 Disc 1*.

8 Enter and confirm the password for the user specified in the step above.

Note: *e*Gate user names and passwords are case-sensitive. For additional information, see the* ***e*Gate Integrator System Administration and Operations Guide****, which is available on the e*Gate Integrator for SRE 5.0.5 Disc 2 (****docs\System_Admin_Guide.pdf****).*

9 A menu of add-on options that is dependent upon your platform appears. For example:

For AIX:

```
Choose Add-on categories to install.
 0. Finished choosing add-on categories; continue
 1. eWays
 2. Agents
 3. IQs
 4. ETD Libraries
```

Type the number corresponding to the add-on package you want to install and press **Enter**. For example: "eWays."

For Compac Tru 64:

```
Choose Add-on categories to install.
 0. Finished choosing add-on categories; continue
 1. eWays
 2. Agents
 3. ETD Libraries
```

Type the number corresponding to the add-on package you want to install and press **Enter**. For example: "ETD Libraries."

For Solaris:

```
Choose Add-on categories to install.
 0. Finished choosing add-on categories; continue
 1. eWays
 2. Agents
 3. IQs
 4. ETD Libraries
```

Type the number corresponding to the add-on package you want to install and press **Enter**. For example: "IQs."

Important: *You must install the add-ons that your system requires.*

Note: *If you install the HL7 Libraries, make sure you install them before installing the HL7 e*Way.*

10 A menu list of sub-components appears (as in the first example, "eWays"):

```
Choose Add-on eWays packages to install.
 0. Finished installing add-on eWays packages; continue
 1. Apache Web Server e*Way Client
 2. Apache Web Server e*Way Server
 3. ATG Dynamo e*Way
 ...
```

Type the number that corresponds to the add-on package you want to install and press **Enter**. Selecting any of the above options prompts for support of other platforms.

11 Selecting additional platforms on which the option will be available, creates softlinks for **.exe** files in **/home/sbondada/egate/client/bin**. For example:

```
Support hpux11 for Java_eWay add-on [No]:
Support sparc26 for Java_eWay add-on [No]:
Support win32 for Java_eWay add-on [No]:
...
```

The default for each platform is **No**. To accept the default for a platform, press **Enter**. To make the option available on a selected platform, type **Y** or **Yes** and press **Enter**.

12 After the add-on application has been installed, the "Choose add-on categories" menu appears. Repeat steps 9 through 12 to install additional packages, or type **0** and press **Enter** to continue.

13 When the "installation type" menu appears, the Add-on Applications installation is complete. Do the following:

- To exit the setup utility, type **0** and press **Enter**.

4.7.1 After Completing the Installation

After executing the Registry and Participating Host installations, a Bourne Shell (**.sh**) file and C Shell (**.csh**) file are created in the user-specified installation directory. You must run either script (depending on your shell) before executing e*Gate executables; you can also append the contents to your profile or **.cshrc** file.

Bourne Shell

Use the Bourne Shell (**.sh**) files **egateclient.sh** and **egatereg.sh** with **.profile**. There are two ways to use the e*Gate Bourne Shell (**.sh**) files with the **.profile** file:

- Copy and paste their contents into the **.profile** file.

  or

- Source these files from the **.profile** file by adding two lines in the **.profile** file:

```
. <path to location of file>/egateclient.sh
. <path to location of file>/egatereg.sh
```

Note: *There must be a blank space between the initial period (.) and the start of the path for both lines.*

C Shell

Use the C Shell (**.csh**) files **egateclient.csh** and **egatereg.csh** with **.cshrc**. There are two ways to use the e*Gate C Shell (**.csh**) files with the **.cshrc** file:

- Copy and paste their contents into the **.cshrc** file.

  or

- Source these files from the **.cshrc** file by adding two lines in the **.cshrc** file:

```
source <path to location of file>/egateclient.csh
source <path to location of file>/egatereg.csh
```

Other shell files

Korn Shell

When you use the Korn Shell (ksh), the contents of the **.profile** file is not read by the shell unless it is a login shell. Consult the Korn Shell documentation (that is, the "man" page) to ensure that a login shell is used. If this is not done, the measure taken in the section on the **"Bourne Shell" on page 78** is ineffective.

To consult the Korn Shell documentation:

- At the UNIX prompt, type: **man <subject matter>**.

Note: *<subject matter> could equal* ***ksh*** *or* ***bash****.*

Bourne Again Shell

When you use the Bourne Again Shell (bash), the contents of the **.profile** file is not read by an interactive shell session unless it is a login shell; the file is *not* read if the session is an interactive shell that is not a login shell. Consult the Bourne Again Shell documentation to ensure the correct shell conditions exist for the measure discussed in the section on the **"Bourne Shell" on page 78** to work.

Chapter 5

Installation Instructions for Linux

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

What's in This Chapter

5.1 Overview

Before installing e*Gate on your Linux system, please read the following sections to ensure a smooth and error-free installation.

Note: *We recommend that you log on as a regular user when installing e*Gate.*

Important: *You must mount the CD-ROM using the option* ***-o check=r*** *with the mount command (that is,* ***mount -o check=r cdrom****).*

5.1.1 System Requirements

The **Readme.txt** file on the e*Gate installation CD-ROM contains the most up-to-date operating system requirements for the supported platforms.

e*Gate for Linux is available on the following operating systems:

- Red Hat Enterprise Linux AS 2.1 (Intel x86)
- SuSE Linux Enterprise Server 8 (Intel x86)

To use e*Gate on Linux, you need the following:

- An e*Gate Participating Host, version 5.0.5 SRE

- A TCP/IP network connection

To use e*Gate, as a minimum you should have the following:

- An e*Gate Participating Host, version 5.0.5 SRE
- A TCP/IP network connection
- 512 MB RAM
- 20–30 GB free disk space for executable, configuration, library, and script files.
- CPU: minimum 400 MHz; dual (or multi) CPUs recommended for best performance.

Note: *For accurate sizing of a test or production system, consult "Determining Hardware Requirements" in the* ***SeeBeyond eBusiness Integration Suite Deployment Guide*** *(****Deployment_Guide.pdf****).*

External System Requirements

For information on Oracle and Sybase requirements, see the *e*Gate Integrator Intelligent Queue Services Reference Guide*.

5.1.2 Disk Space Requirements

e*Gate components require the following minimum disk space. Additional space is required for data storage; those requirements vary based upon each installation's implementation. See Table 6.

Table 6 Linux Disk Space Requirements

Operating System	Registry Host	Participating Host
Linux	100 MB	90 MB

For add-on size requirements, check the e*Gate Add-on Applications installation on the CD-ROM. Clicking on a selected add-on allows you to see the required amount of space that add-on requires. e*Ways can range between 3 and 10 MB in size, and event type libraries can range between 1 and 100 MB or larger in size.

5.2 Pre-Installation

5.2.1 The "egate" User

The user name under which you install the e*Gate files owns the e*Gate files, and all e*Gate processes are run under this user name. We suggest that you create an "egate" user for this purpose, but you can use any user name that meets your installation's security requirements.

Required privileges

You need regular (non-root) user access to begin the e*Gate installation. You do not need root privileges.

Note: *It is not recommended to run as root. If you want the registry and services to autostart on a machine re-boot, you will need to either install as root, or after the install, log in as root and copy the script in the* ***/rc3.d*** *directory to* ***/etc****. See the* **procedure on page 143** (**13**)*.*

Disk-space quota limitations

The "egate" user, or any user that you use to install the e*Gate system, must have ***no*** disk-quota limitations imposed. e*Gate calculates "available disk space" in terms of total disk space available on the system, and does no quota checking. If you impose a disk-quota restriction on the "egate" user, you risk losing data when IQ-storage demands exceed the user's quota.

NFS file locking

In its default configuration, the RedHat Linux system does not have the NFS file locking service enabled. e*Gate requires NFS locking if it is to use a file system that is mounted from a remote server. Before starting the e*Gate setup program in such an environment, as the root user issue the following commands:

chkconfig --add nfslock

/etc/init.d/nfslock start

Note: *It is not recommended to run as root. See the* **procedure on page 143** (**13**)*.*

5.2.2 Uninstalling e*Gate

To uninstall e*Gate:

1. Kill the following e*Gate processes:
   - Registry
   - Control Broker(s) and any other SeeBeyond processes
   - Lightweight Installer (**stcinstd**)
2. Remove the e*Gate directories.
3. Remove the following files:
   - **egate.store**
   - **egate.ini**

5.2.3 Default User Names and Passwords

e*Gate's default "Administrator" user name and password are found in the **Readme.txt** file in the root directory of the installation CD-ROM. Be aware that these names are case sensitive when the installation process prompts for them.

Note: *For additional information, see the **e*Gate Integrator System Administration and Operations Guide**, which is available on the installation CD-ROM 2 (**docs\System_Admin_Guide.pdf**).*

5.3 e*Gate Installation Modules

The e*Gate installation must be performed in the following order:

1. e*Gate Registry Server
2. e*Gate Participating Host
3. e*Gate Add-on Applications

The e*Gate GUIs must be installed on a Windows system; see **Chapter 3** for more information.

5.3.1 The Installation Disc Set

The installation disc set can include any or all of the following twelve discs—depending on what products were purchased:

- e*Gate Integrator 5.0 SRE Disc 1 and Disc 2
- e*Gate Add-ons/Samples 5.0 SRE Disc 1 through Disc 5
- UN/EDIFACT Templates 5.0 SRE Disc 1 and Disc 2
- X12 Templates 5.0 SRE Disc 1 through Disc 3

5.3.2 Using the Install Application

While running the install script, type **-** (hyphen) to back up to the previous step or **QUIT** (all capitals) to exit the installation.

Press **Enter** to continue with the installation.

5.3.3 Launching the Installation Script

The installation script **setup.sh** is located in the **/setup** folder of the e*Gate Integrator 5.0 SRE Disc 1.

Important: *Because Linux is incapable of using the **su** command in a script, you must perform the installation as the root user for the e*Gate Registry to automatically start on Linux after the system has been rebooted. If you do not complete the*

*installation as the root user, the scripts will be deposited in the **$HOME/rc3.d/** directory, and you will have to manually use the **stcregd** command to open the Registry.*

It is not recommended to run as root. See the **procedure on page 143** *(number* **13***).*

To launch the installation script

1. Log in as a non-root user on the workstation containing the CD-ROM drive, and insert the CD-ROM into the drive.
2. If necessary, mount the CD-ROM drive. On HP-UX systems, you must mount the drive with this command:

   /etc/mount -F cdfs -o cdcase /dev /cdrom

   where **/cdrom** is the mount point.

Caution: *Before beginning an installation, check whether the file **/tmp/stcregutil.log** has been generated by another user. If so, ask the user who generated this file to delete it. Otherwise, your installation will fail, and you will receive a permission error message that asks you to remove this file.*

3. At the shell prompt, type:

   cd /cdrom/setup

4. Start the installation script by typing:

   setup.sh

Note: *You must install Registry Host components first.*

5.4 Installing the Registry Host

The Registry Host is located on the e*Gate e*Gate Integrator 5.0 SRE Disc 1. See **"The Installation Disc Set" on page 83** for a listing of the location of the e*Gate components on the installation CD-ROMs.

To install the Registry server

1. Start the installation script (discussed in the **procedure on page 84**).
2. A message appears; it notifies you that services do not start automatically for non-root users. Press **Enter** to continue.
3. A message appears; it confirms that you are running the e*Gate installation script, and reminds you that you can type **-** (hyphen) to back up a step or **QUIT** (all capitals) to exit the install program. Press **Enter** to continue.
4. You are prompted to accept the license agreement. Type **y** and press **Enter**.

   The platform type and a menu of options displays:

```
Installation type (choose one):
```

```
0. Finished with installation. Quit.
1. e*Gate Participating Host (Client)
2. e*Gate Registry Server
```

Note: *The actual installation order is reverse of how the steps are numbered. For example, menu option 2, "e*Gate Registry Server," would be the first step you perform, and menu option 0, "Finished with installation. Quit," would be the third step you perform.*

5 Type **2** and press **Enter** to install the Registry Server.

6 You are prompted to select a Registry Replication option (see **"The Distributed Registry" on page 19** for more information about the available types of Registry Hosts).

```
Choose Registry Replication Option.
* indicates previous installation detected.
  1. None
  2. Primary
  3. Secondary
```

Type the appropriate number and press **Enter**.

7 What you do next depends on the type of Registry Host you are installing.

- If you are installing a Primary Registry Host, skip ahead to the section **"Primary Registry Host Installation" on page 87**.
- If you are installing a Secondary Registry Host, skip ahead to the section **"Secondary Registry Host Installation" on page 88**.

Note: *If you do not specify a Secondary Registry Host during the installation, but later decide to specify one, see the* ***e*Gate Integrator System Administration and Operations Guide****, which is available on the* e*Gate Integrator 5.0 SRE Disc 2 *(****docs\System_Admin_Guide.pdf****).*

- If you are not installing Registry Replication, continue with the next step.

8 You are prompted for the installation path. Press **Enter** to accept the default path, or enter a new path and press **Enter**.

- If you are logged in under a user name, the suggested path is **/home/*username*/egate/server**.
- If you are logged in as root, the suggested path is **/opt/egate/server**.

Note: *It is not recommended to run as root. See the* **procedure on page 143** *(**13**)*.

Whether you install e*Gate to a **/home** directory or to an application directory such as **/opt**, we strongly recommend that you use the recommended relative path **egate/server** as the destination directory for the Registry Host installation.

9 The installation process begins. From time to time, you are prompted to press **Enter** as different stages of the installation are completed. Press **Enter** each time that you are prompted to do so.

10 After a number of files have been installed, a new menu of options displays:

```
Choose participating host platform to install in repository.
* indicates previous installation detected.
  0. Finished installing client platforms; continue.
  1. hpux11
  2. sparc26
  3. aix43
  4. win32
  5. ctru64_4
  6. linux6x86
```

This menu selects which operating systems will be supported by this Registry Host. Type the number corresponding to the platform that you want this Registry Host to support and press **Enter**.

11 The requested files are installed, and the "participating host platform" menu reappears. Repeat step 10 above to install support for each additional platform as required. When you have installed all the required files, type **0** and press **Enter** to continue.

12 A message regarding the creation of helper scripts appears. Press **Enter** when you are prompted to do so.

13 If you are not upgrading an earlier version of e*Gate, skip this step.

If you are upgrading an earlier version of e*Gate, you are asked whether to backup existing schema. We recommend you do back them up; enter **y** or **n** as appropriate, then press **Enter**.

14 When prompted, enter and verify the e*Gate **Administrator** password. (This only sets the e*Gate Administrator password and does not affect any passwords or users at the operating-system level.) The default password is listed in the **Readme.txt** file in the root directory of the installation CD-ROM.

Note: *e*Gate user names and passwords are case-sensitive. For additional information, see the* ***e*Gate Integrator System Administration and Operations Guide****, which is available on the* e*Gate Integrator 5.0 SRE Disc 2 (***docs\System_Admin_Guide.pdf****).*

15 The setup utility is ready to start the Registry service.

```
Please specify the registry port number [XXXXX].
```

Press **Enter** to accept the default port number or type a different port number and then press **Enter**.

Note: *Using different Registry port numbers allows additional users to use this machine.*

16 The installation utility then imports default services, default monitors, and the system init (boot-time) files. At each stage, you are prompted to press **Enter** to continue; press **Enter** each time as requested.

17 When the "installation type" menu appears, the Registry Host installation is complete. Do one of the following:

- To exit the setup utility, type **0** and press **Enter**.

- Select another option and continue installing the other installation types. Instructions for installing the Participating Host appear in **"Installing the Participating Host" on page 90**. For instructions regarding the add-on applications, see **"Installing the Add-on Applications" on page 93**.

5.4.1 Primary Registry Host Installation

The installation procedure for the Primary Registry Host continues here. If you have not already begun the installation, go back to **"Launching the Installation Script" on page 83**.

Note: *If you are upgrading an earlier version of e*Gate, the installation asks whether to backup existing schema. We recommend you do back them up. When prompted, enter* ***y*** *or* ***n*** *as appropriate, then press* ***Enter****.*

1. Enter and verify the Administrator password on the Primary Registry Host.
2. If you are upgrading an earlier version of e*Gate, you are asked whether to backup existing schema. We recommend you answer "yes."
3. The installation proceeds. From time to time, you may be prompted to press **Enter** to continue; press **Enter** when prompted to do so.
4. When you are asked to choose the participating-host platforms that this Registry Host will support, select a platform and press **Enter**. Repeat this step until all platforms have been installed; then, select **0** and press **Enter**.

Note: *During installation of the Primary Host, you must select the platform of both the Primary Host and the Secondary Host.*

5. The installation proceeds. From time to time, you may be prompted to press **Enter** to continue; press **Enter** when prompted to do so.
6. You will be prompted for the installation path for the Participating Host components required to perform Registry Replication. Press **Enter** to accept the default path, or enter a new path and press **Enter**.
   - If you are logged in under a user name, the suggested path is **/home/*username*/egate/client**.
   - If you are logged in as root, the suggested path is **/opt/egate/client**.

Note: *It is not recommended to run as root. See the* **procedure on page 143** (**13**)*.*

   Whether you install e*Gate to a **/home** directory or to an application directory such as **/opt**, we strongly recommend that you use the recommended relative path "egate/client" as the destination directory for the Registry Host installation.
7. The installation process continues. From time to time, you will be prompted to press **Enter** as different stages of the installation are completed. Press **Enter** each time that you are prompted to do so.

8 When the "installation type" menu appears, the Registry Host installation is complete. Do one of the following:

- To exit the setup utility, type **0** and press **Enter.**
- Select another option and continue installing the other installation types. Instructions for installing the Participating Host appear in **"Installing the Participating Host" on page 90**. For instructions regarding the add-on applications, see **"Installing the Add-on Applications" on page 93**.

Note: *If you have installed Registry Replication, you should not install another Participating Host.*

Caution: *When specifying Registry Hosts, primary or secondary, you must specify hosts that are known to the system where the installation is being performed. It is not recommended to use IP addresses. Instead, use logical names for host names.*

5.4.2 Secondary Registry Host Installation

Note: *If you are upgrading an earlier version of e*Gate, the installation asks whether to backup existing schema. We recommend you do back them up. When prompted, enter **y** or **n** as appropriate, then press **Enter**.*

Note: *Adding another Secondary Registry Host after you have installed the Primary and Secondary Registry Hosts breaks the replication configuration. If a Secondary Registry Host is added at this time, you must open your **Registry Replication** schema, change all your pub-subs, and add an IQ Manager to the schema.*

*If you do not specify a Secondary Registry Host during the installation, but later decide to specify one, see the **e*Gate Integrator System Administration and Operations Guide**.*

The installation procedure for the Secondary Registry Host continues here. If you have not already begun the installation, go back to **"Launching the Installation Script" on page 83**.

1 Enter the Primary Host name.

2 Enter and verify the Administrator password on the Primary Registry Host.

3 When prompted, enter the installation directory. We recommend that you use the suggested default.

4 The installation proceeds. When you install a Secondary Registry Host, the installation utility automatically sets up the Registry Replication schema, including a Control Broker. From time to time, you may be prompted to press **Enter** to continue; press **Enter** when prompted to do so.

5 When you are prompted for the installation path, press **Enter** to accept the default path, or enter a new path and press **Enter**.

- If you are logged in under a user name, the suggested path is **/home/*username*/egate/server**.

- If you are logged in as root, the suggested path is **/opt/egate/server**.

Note: *It is not recommended to run as root. See the* **procedure on page 143** (**13**)*.*

Whether you install e*Gate to a **/home** directory or to an application directory such as **/opt**, we strongly recommend that you use the recommended relative path **egate/server** as the destination directory for the Registry Host installation.

6 The installation process continues. From time to time, you are prompted to press **Enter** as different stages of the installation are completed. Press **Enter** each time that you are prompted to do so.

7 After a number of files have been installed, a new menu of options displays:

```
Choose participating host platform to install in repository.
* indicates previous installation detected.
  0. Finished installing client platforms; continue.
  1. hpux11
  2. sparc26
  3. aix43
  4. win32
  5. ctru64_4
  6. linux6x86
```

This menu selects which operating systems will be supported by this Registry Host. Type the number corresponding to the platform that you want this Registry Host to support and press **Enter**.

8 The requested files are installed, and the "participating host platform" menu reappears. Repeat step 7 above to install support for each additional platform as required. When you have installed all the required files, type **0** and press **Enter** to continue.

9 A message regarding the creation of helper scripts appears. Press **Enter** when you are prompted to do so.

10 If you are not upgrading an earlier version of e*Gate, skip this step.

If you are upgrading an earlier version of e*Gate, you are asked whether to backup existing schema. We recommend you do back them up; enter **y** or **n** as appropriate, then press **Enter**.

11 When prompted, enter and verify the e*Gate **Administrator** password. (This only sets the e*Gate Administrator password and does not affect any passwords or users at the operating-system level.) The default password is listed in the **Readme.txt** file in the root directory of the e*Gate Integrator for SRE 5.0.5 Disc 1.

Note: *e*Gate user names and passwords are case-sensitive. For additional information, see the **e*Gate Integrator System Administration and Operations Guide**.*

12 The setup utility attempts to start the Registry service. Press **Enter** to continue when the prompt appears.

13 The installation utility now imports default services, default monitors, and the system init (boot-time) files. At each stage, you are prompted to press **Enter** to continue; press **Enter** each time as requested.

At the end of the installation process, the following message appears:

```
Before any e*Gate applications begin using the Secondary Registry
Host, you must manually copy the Primary Registry Host's "<Installed
Directory>\registry\repository" directory tree (including all files
and subdirectories) to the Secondary Registry Host. You may use any
method you like to copy the files, but you must do so BEFORE allowing
any e*Gate applications to access the Secondary Registry Host.
```

Before you install other e*Gate components (such as add-ons) that will rely upon the Secondary Registry Host that you have just installed, you must perform this step and copy the "\registry\repository" directory tree from the Primary Host to the corresponding tree on the Secondary Registry Host. This is the only time you will need to copy files manually. Subsequent changes to the Primary Registry Host automatically propagate to the Secondary Registry Host.

Note: *Adding another Secondary Registry Host after you have installed the Primary and Secondary Registry Hosts breaks the replication configuration. If a Secondary Registry Host is added at this time, you must open your* ***Registry Replication*** *schema, change all your pub-subs, and add an IQ Manager to the schema.*

14 When the "installation type" menu appears, the Registry Host installation is complete. Do one of the following:

- To exit the setup utility, type **0** and press **Enter**.
- Select another option and continue installing the other installation types. Instructions for installing the Participating Host appear in **"Installing the Participating Host" on page 90**. For instructions regarding the add-on applications, see **"Installing the Add-on Applications" on page 93**.

Caution: *When specifying Registry Hosts, primary or secondary, you must specify hosts that are known to the system where the installation is being performed. It is not recommended to use IP addresses. Instead, use logical names for host names.*

5.5 Installing the Participating Host

The Participating Host is located on the e*Gate Integrator for SRE 5.0.5 Disc 1. See **"The Installation Disc Set" on page 83** for a listing of the location of the e*Gate components on the installation CD-ROMs.

If you later attempt to install the GUI on a computer that has a Participating Host that is version 4.5.2 or earlier, the GUI installation quits and you are advised to install a Participating Host that has a version number that matches the GUI. This protects you from having later executable files overwritten by earlier files. For more information, see **"Registry Connection Protection" on page 24**. Remember that to upgrade your e*Gate system to e*Gate 5.0.5 SRE, you must install the e*Gate 5.0.5 SRE installation on *every* GUI host and Participating Host.

Note: *If you have installed Registry Replication, you should not install another Participating Host.*

Important upgrade information

If you are upgrading from an earlier version of e*Gate, make sure that the Registry Host supporting this Participating Host is up and running on the default port. However, you must also make sure that all e*Gate client programs as well as any Control Brokers and the lightweight install daemon (**stcinstd.exe**) are stopped before proceeding with this installation.

Caution: *When specifying Participating Hosts, you must specify hosts that are known to the system where installation is being performed. It is not recommended to use IP addresses. Instead, use logical names for host names.*

To install the Participating Host

1 If you have not already done so, start the installation script (discussed in the **procedure on page 84**), acknowledge the initial prompts, and accept the license agreement (see steps 2 through 4 in the **procedure on page 84**).

The platform type and a menu of options display:

```
Installation type (choose one):
0. Finished with installation. Quit.
1. e*Gate Participating Host (Client)
2. e*Gate Registry Server
```

Note: *The actual installation order is reverse of how the steps are numbered. For example, menu option 1, "e*Gate Registry Server," would be the first step you perform, and menu option 0, "Finished with installation. Quit," would be the third step you perform.*

2 Type **1** and press **Enter** to select the e*Gate Participating Host (Client) as the installation type.

3 Select the installation path.

- If you are logged in under any user name, we recommend that you enter **/home/*username*/egate/client**.
- If you are logged in as root, we recommend that you enter **/opt/egate/client**.

Note: *It is not recommended to run as root. See the* **procedure on page 143** (**13**)*.*

Whether you install e*Gate to a **/home** directory or to an application directory such as **/opt**, we strongly recommend that you use the recommended relative path "egate/client" as the destination directory for the Participating Host installation.

4 Enter the name of the Registry Server that will support this Participating Host. If the installation utility detects a Registry Host running on the current host, it will suggest that host's name.

- To accept the default, press **Enter**.
- To enter another Registry Host name, type the name and then click **Enter**.

5 Enter the port number for the Registry Host.

- To accept the default, press **Enter**.

- To enter another port number, type the number and then click **Enter**.

Note: *The port number must match the Registry's port number.*

6 Enter the name of the schema that this Participating Host will support.

7 You are prompted for the "Administration Login" (an e*Gate user with sufficient privilege to create components within a schema). The default is **Administrator**; unless you have created a different "administrative" user name, press **Enter** to accept the default. The default password is listed in the **Readme.txt** file in the root directory of the e*Gate Integrator for SRE 5.0.5 Disc 1.

8 Enter and confirm the password for the user specified in the step above.

Note: *e*Gate user names and passwords are case-sensitive. For additional information, see the* ***e*Gate Integrator System Administration and Operations Guide****.*

9 Enter a name for the Participating Host's Control Broker. The suggested default is ***hostname*_cb**. We recommend you accept the default name.

10 The installation script unpacks and installs Participating Host files, creates helper scripts, and adds information to the e*Gate Registry. From time to time, you are prompted to press **Enter** to continue; press **Enter** each time you are prompted to do so.

11 In a few minutes, you are prompted for the location of the e*Gate password file. Press **Enter** to accept the suggested default, then press **Enter** again when prompted.

12 You are prompted that **rc** scripts will be stored in your home directory; press **Enter** to continue.

13 The installation proceeds. From time to time, you are prompted to press **Enter** to continue; press **Enter** each time you are prompted to do so.

14 A message appears; it lists shell scripts and the directory in which they will be created. You must execute these scripts or add their contents to your **.profile** or **.cshrc** file prior to executing e*Gate applications from the command line.

15 When the "Installation type" menu appears, the Participating Host installation is complete. Do one of the following:

- To exit the setup utility, type **0** and press **Enter**.
- Select another option and continue installing the other installation types. See**"Installing the Add-on Applications" on page 93** for instructions on installing the add-on applications.

Note: *If you are using Registry Replication, you must update the two Collaboration Rules in the* ***RegistryReplication*** *schema (on all Registry Hosts) to use the* ***Pass Through*** *service.*

5.6 Installing the Add-on Applications

Note: *The add-ons can be found on Add-ons/Samples for SRE 5.0.5 Disc 1 through Disc 5; UN/EDIFACT ETD Library for SRE 5.0.5 Disc 1 and Disc 2; and X12 ETD Library for SRE 5.0.5 Disc 1 through Disc 3. See* **"Overview: e*Gate Installation Components" on page 36** *for additional information.*

To install the add-on applications

1. If you have not already done so, load and mount the appropriate CD-ROM, start the installation script (discussed in the **procedure on page 84**), acknowledge the initial prompts, and accept the license agreement (see steps 2 through 4 in the **procedure on page 84**).

   The platform type and a menu of options display:

   ```
   Installation type (choose one):
   0. Finished with installation. Quit.
   1. e*Gate Add-on Applications
   ```

Note: *The actual installation order is reverse of how the steps are numbered. For example, menu option 1, "e*Gate Registry Server," would be the first step you perform, and menu option 0, "Finished with installation. Quit," would be the second step you perform.*

Note: *If you are installing an add-on application that includes a Build tool add-on to the ETD Editor, you must install the Windows version of the add-on on the appropriate system,* ***in addition to*** *the Linux version, in order to access the Build tool.*

2. Type **1** to select the **e*Gate Addon Applications** and press **Enter**.
3. You are prompted for the installation path. Press **Enter** to accept the default path, or enter a new path and press **Enter**.
   - If you are logged in under any user name, the suggested path is **/home/*username*/egate/client**.
   - If you are logged in as root, the suggested path is **/opt/egate/client**.

Note: *It is not recommended to run as root. See the* **procedure on page 143** (**13**)*.*

Whether you install e*Gate to a **/home** directory or to an application directory such as **/opt**, we strongly recommend that you use the recommended relative path "egate/client" as the destination directory for the Add-on Applications installation.

Note: *When the installation of add-ons is initiated on a Participating Host, the contents of its Registry changes. The Registry Host will propagate this change to all Participating Hosts connected to that Registry.*

4. When prompted, type **U** to update (overwrite) and press **Enter**.

Note: ***U*** *updates the installation, overriding files as necessary.* ***M*** *creates a directory and moves everything in the current directory to* ***directoryname.old****.*

If you selected **U**, you will see a warning regarding shared EXE and DLL files. Read this warning and press **Enter** to continue.

5 Enter the name of the Registry Server supporting these add-on applications. If the installation utility detects a Registry Host running on the current host, it will suggest that host's name.

- To accept the default, press **Enter**.
- To enter another Registry Host name, type the name and then click **Enter**.

6 Enter the port number for the Registry Host.

- To accept the default, press **Enter**.
- To enter another port number, type the number and then click **Enter**.

Note: *The port number must match the Registry's port number.*

7 You are prompted for the "administration login" (an e*Gate user with sufficient privilege to create components within a schema). The default is **Administrator**; unless you have created a different "administrative" user name, press **Enter** to accept the default. The default password is listed in the **Readme.txt** file in the root directory of the e*Gate Integrator for SRE 5.0.5 Disc 1.

8 Enter and confirm the password for the user specified in the step above.

Note: *e*Gate user names and passwords are case-sensitive. For additional information, see the* ***e*Gate Integrator System Administration and Operations Guide****.*

9 A menu of add-on options appears:

```
1. eWays
2. Agents
3. IQs
4. converters
5. monktemplates
```

Type the number corresponding to the add-on package you want to install and press **Enter**.

10 A menu list of sub-components appears. Type the number that corresponds with the component you want to install and press **Enter**. Follow the on-screen instructions to complete the installation for the selected add-on application.

11 After the add-on application has been installed, the "Choose add-on categories" menu appears. Repeat steps 9 through 11 to install additional packages, or type **0** and press **Enter** to continue.

12 When the "installation type" menu appears, the Add-on Applications installation is complete. Do one of the following:

- To exit the setup utility, type **0** and press **Enter.**
- Select another option to continue the installation.

5.6.1 After Completing the Installation

After executing the Registry and Participating Host installations, a Bourne Shell (**.sh**) file and C Shell (**.csh**) file are created in the user-specified installation directory. You must run either script (depending on your shell) before executing e*Gate executables; you can also append the contents to your profile or **.cshrc** file.

Bourne Shell

Use the Bourne Shell (**.sh**) files **egateclient.sh** and **egatereg.sh** with **.profile**. There are two ways to use the e*Gate Bourne Shell (**.sh**) files with the **.profile** file:

- Copy and paste their contents into the **.profile** file.

  or

- Source these files from the **.profile** file by adding two lines in the **.profile** file:

```
. <path to location of file>/egateclient.sh
. <path to location of file>/egatereg.sh
```

Note: *There must be a blank space between the initial period (.) and the start of the path for both lines.*

C Shell

Use the C Shell (**.csh**) files **egateclient.csh** and **egatereg.csh** with **.cshrc**. There are two ways to use the e*Gate C Shell (**.csh**) files with the **.cshrc** file:

- Copy and paste their contents into the **.cshrc** file.

  or

- Source these files from the **.cshrc** file by adding two lines in the **.cshrc** file:

```
source <path to location of file>/egateclient.csh
source <path to location of file>/egatereg.csh
```

Other shell files

Korn Shell

When you use the Korn Shell (ksh), the contents of the **.profile** file is not read by the shell unless it is a login shell. Consult the Korn Shell documentation (that is, the "man" page) to ensure that a login shell is used. If this is not done, the measure taken in the section on the **"Bourne Shell" on page 95** is ineffective.

To consult the Korn Shell documentation:

- At the UNIX prompt, type: **man <subject matter>**.

Note: *<subject matter> could equal **ksh** or **bash**.*

Bourne Again Shell

When you use the Bourne Again Shell (bash), the contents of the **.profile** file is not read by an interactive shell session unless it is a login shell; the file is *not* read if the session is

an interactive shell that is not a login shell. Consult the Bourne Again Shell documentation to ensure the correct shell conditions exist for the measure discussed in the section on the **"Bourne Shell" on page 95** to work.

Chapter 6

Installation Instructions for z/OS

This chapter provides instructions on how to install e*Gate on a z/OS system. If you have any questions or problems, please contact SeeBeyond's technical support group at (800) 798-0447. For online support, contact us at **http://www.seebeyond.com** and select **Service/Support** from the **SERVICES** menu bar.

What's in This Chapter

6.1 Overview

The purpose of this chapter is to aid you in completing an error-free z/OS installation. Before installing e*Gate on your z/OS system, please read the sections listed in **"What's in This Chapter" on page 97** to ensure a smooth and error-free installation.

6.2 Features and Requirements

This section lists the operational features of z/OS, as well as system, disk space, and technical expertise requirements.

6.2.1. e*Gate Components and Features Available with z/OS

Available components

The following e*Gate components are available for z/OS:

- Registry Service
- Control Broker Service
- JMS IQ Manager
- SeeBeyond Standard IQ Manager
- IQ Services
  - Standard
  - JMS
- Collaboration Services
  - Monk
  - "C"
  - Java
- Business Object Broker (BOB)
- Multi-Mode e*Way
- e*Ways
  - Batch e*Way
    - File
    - FTP

Note: *The Batch e*Way supports IBM z/OS V1.3 and V1.4 for the Monk version only. The Batch e*Way Java version does not support z/OS.*

  - CICS e*Way (Java only)
  - DB/2 e*Way
  - e*Gate API Kit
    - COB OL
    - Java
  - Generic e*Way

- Monk
- "C"
- Java

- IMS e*Way (Java and Monk)
- MQ Series e*Way
- TCP/IP e*Way

Available Features

The following e*Gate features are available when using z/OS.

Viewing Log Files and Archived Files from the e*Gate GUI

The release of z/OS has the same capability to view log files and view and republish archived files as the other platforms of e*Gate. For detailed information see the *SeeBeyond JMS Intelligent Queue User's Guide* and the *e*Gate Integrator Intelligent Queue Services Reference Guide*.

- **Viewing Log Files from the e*Gate Monitor**

  z/OS has the capability to view log files from the e*Gate Monitor. With the **Summary** tab active in the Message pane of the Monitor, double-click the icon or right-click the icon and select **View Log** from list (see the *e*Gate Integrator Alert and Log File Reference Guide* for more information).

- **Viewing and Republishing Archived Files**

  The function to view and republish archived files on z/OS performs the same as on any other platform. For information about the JMS Administrator and the IQ Administrator, including steps on how to view and republish archived files, see the *SeeBeyond JMS Intelligent Queue User's Guide* and the *e*Gate Integrator Intelligent Queue Services Reference Guide*.

  - **Before Viewing Log Files and Archived Files from the GUI**
    Before viewing log files or archived files on z/OS, you must first do one of the following:

    - Share the directories where the files are stored using NFS or SMB.

      or

    - Manually transfer the files from the mainframe to the local PC that is running the e*Gate GUI via FTP or another file transfer program.

SeeBeyond Java Debugger

SeeBeyond's Java Debugger is available for z/OS. However, before debugging you must first set the **stack**, **heap** and **anyheap** sizes in **.profile** and the **Initial Heap Size** in the e*Way's configuration.

Note: *Before making these changes, note your initial values.*

To set the stack, heap, and anyheap in .profile

1 Open the **.profile** in a text editor.

2 Change the **stack**, **heap**, and **anyheap** values in **export_CEE_RUNOPTS=** to match the following sample:

```
export _CEE_RUNOPTS="all31(on),rptstg(off),stack(8M,2M,anywhere,
keep),heap(180M,16M,anywhere,keep),anyheap(180M,16M,anywhere,keep)"
```

To set the Initial Heap Size for the JVM in a Multi-Mode e*Way configuration

Another way to set the Initial Heap Size for the JVM, which works for all e*Ways, is to specify the **-jvmprops** option in the **Collaboration Rules Properties** dialog box (see Chapter 4, Section 3, of *e*Gate Integrator Collaboration Services Reference Guide* for details). In the property file specified by **-jvmprops** add **-Xms2m** for a two mega bytes initial heap size.

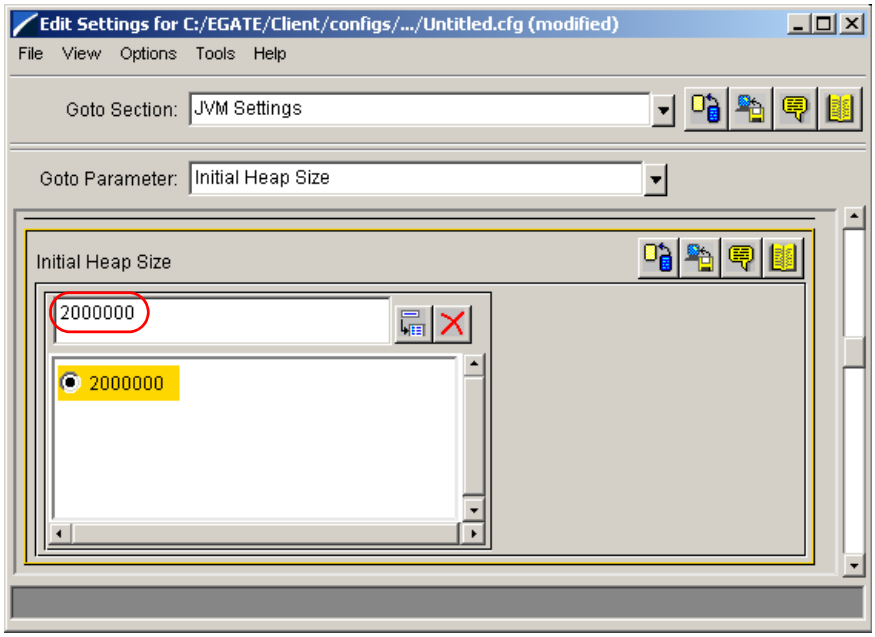
1 In the Enterprise Manager, open the **Properties** dialog box for a Multi-Mode e*Way.

2 Under Configuration file, click **Edit** (or **New** if this is a new configuration). The **Edit Settings** dialog box opens.

3 In the **Goto Section**, select **JVM Settings**.

4 In the **Goto Parameter**, select **Initial Heap Size** (see Figure 4).

Figure 4 Edit Settings for Multi-Mode e*Way



5 For the **Initial Heap Size**, enter **2000000**.

6 When you have finished debugging, change the **_CEE_RUNOPTS** in your **.profile** back to their original values.

Displaying EBCDIC data in the Java Debugger

If you set up your Collaborations as detailed in **"Data Conversion" on page 118**, EBCDIC data will be viewable in the SeeBeyond Java Debugger.

6.2.2. System Requirements

The **Readme.txt** file on e*Gate Integrator for SRE 5.0.5 Disc 1 contains the most up-to-date operating system (OS) requirements for the supported platforms. The requirements listed below are in addition to the operating system requirements.

Before beginning the e*Gate installation process for z/OS, the following requirements must be addressed:

Hardware

- IBM S/390, z/800, z/900, or equivalent processor capable of running z/OS V1.3 or V1.4 with at least 2 GB of DASD space for use with e*Gate.

Software

- z/OS V1.3 or V1.4
- IBM TCP/IP stack
- Java 1.3.1 PTF UQ70881 (Oct. 5, 2002 Build)
  This is the minimum required Java version.
- Language Environment
- The following USS Services are required by e*Gate:
  - Telnet
  - FTP
  - Hierarchal File System (HFS) or zSeries File System (ZFS)

Note: *For additional additional information on z/OS, see:*

http://www-1.ibm.com/servers/eserver/zseries/zos/

For additional information on USS, see:

http://www.s390.ibm.com/bookmgr-cgi/bookmgr.exe/Shelves/BPXSH0A0

6.2.3. Technical Expertise Requirements

Technical requirements include the following:

- Experience with Resource Access Control Facility (RACF) or equivalent security packages (for example: ACF2 and Top Secret) for securing the USS environment.
- Knowledge of z/OS administration.
- Knowledge of USS administration and tuning.

6.2.4. Disk Space and Requirements

e*Gate requires the following minimum disk space. Additional space is required for data storage; those requirements vary based upon each installation's implementation.

Table 7 z/OS Platform Minimum Disk Space Requirements

Operating System	Registry Host	Participating Host
z/OS	250 MB Allows for the installation of the **.taz** files.	250 MB

Table 8 Typical Memory Use of e*Gate Components

Component	Memory Use
Registry	10 MB RAM
Control Broker	9 MB RAM
Java e*Way	40 MB and up, depending on the business rule processing.
JMS IQ	40 MB and up, depending upon the amount of data.

Note: *The numbers represented in* **Table 8 on page 102** *may vary depending upon the amount of throughput required.*

6.2.5. Required IBM Maintenance for z/OS

The following IBM maintenance must be applied to z/OS before beginning the e*Gate installation:

- APARs: OW57751, OW53000, OW53735, OW55469, OW55469, OW56763, OA01953

The following informational APARs should be reviewed and the recommended PTFs applied:

- For z/OS 1.3 and z/OS 1.4 (FMID HDZ11G0) II13353

Java 1.3.1 *must* be the October 5, 2002, build (PTF UQ70881) or later.

Note: *Java 1.4 is not supported for e*Gate 4.5.3 z/OS. Also, the LE library* ***CBC.SCLBDLL*** *must be included in the link list for MVS as it is required for JMS IQs.*

6.3 SeeBeyond e*Gate z/OS Installation

The z/OS installation is different from the graphical GUI-based installation of other platforms. z/OS requires the installation files to be copied by FTP or another file transfer program to the host system.

e*Gate can be installed either from a CD-ROM that is mounted on the workstation where the GUI is installed or from a 3480 tape.

Important: *Installing a local CD-ROM on the mainframe is not supported.*

The 3480 tape contains a tar copy of the files that are distributed on the e*Gate Integrator for SRE 5.0.5 Disc 1.

Important: *e*Gate must be installed in an HFS or ZFS file system.*

e*Gate will not work properly if it is installed on a remotely mounted NFS file system. The e*Gate Registry must be installed before a Participating Host is installed.

Refer to the **Readme.txt** file in the root directory of the installation CD-ROM (e*Gate Integrator for SRE 5.0.5 Disc 1) for updated information on:

- Common programs that are required on all e*Gate systems
- GUI changes that are required for the e*Gate Monitor and e*Gate Enterprise Manager

6.3.1. Default User Names and Passwords

e*Gate's default "Administrator" user name and password are found in the **Readme.txt** file in the root directory of the installation CD-ROM (e*Gate Integrator for SRE 5.0.5 Disc 1).

6.3.2. Required Privileges

- Root privileges are not required for e*Gate installation.
- The EGATE USER should be allowed to "Login" to the system. It is not advisable to apply pseudo user authority with e*Gate.

6.3.3. Assumptions

Before beginning the installation, ensure that:

- The level of z/OS is at 1.3 or 1.4,
- The USS environment has been customized and is operational,
- TCP/IP is configured and active on the z/OS system,
- Required IBM maintenance has been applied,
- You have a PC with a CD-ROM drive and FTP access to z/OS,

- You have access to a userID that can perform RACF or equivalent security administration, and
- You have read all the instructions before starting.

6.3.4. Recommendations for USS Settings and System Limits

SeeBeyond suggests that the following parameters and limits be applied to your USS system. These values are suggestions only. Your installation may require different values based on your workload and the complexity of your schemas. Some of these settings may be controlled on an individual user basis via the RACF OMVS segment.

- **SHRLIBMAXPAGES(15000)**
- **MAXCPUTIME(86400)** – This is the equivalent of the **TIME=1440** JCL parameter.
- **MAXPROCSYS(200)** – The default setting.
- **MAXUIDS(200)** – The default setting.
- **MAXPTYS(800)** – The default setting.
- **MAXMMAPAREA(40960)** – The default setting.
- **MAXSHAREPAGES(131072)** – The default setting.
- **SHRLIBRGNSIZE(67108863)** – The default setting.
- **MAXPROCUSER(100)**
- **MAXFILEPROC(2000)** – The default setting.
- **MAXTHREADTASKS(2000)**
- **MAXTHREADS(5000)**
- **MAXFILESIZE(NOLIMIT)** – The default setting.
- **MAXASSIZE(307200000)** – The default is around 200 MB. SeeBeyond recommends a minimum of 300 MB. **MAXASSIZE** requirements vary depending on the complexity of your schema and the business rule processing within Collaborations.

Note: *For more details on these parameters, refer to the following IBM manuals:* ***z/OS UNIX System Services Planning*** *and* ***z/OS MVS Initialization and Tuning Reference****.*

File System suggestions

By default, HFS files run Sync Point Processing every 60 seconds.

SeeBeyond has observed setting Sync Point Processing to 60 seconds causes a significant degradation in overall throughput of e*Gate. SeeBeyond recommends setting the **Sync Default** (**SYNC**) parameter of the mount statement to 30 seconds.

SYNC(0) can be used, but overall z/OS system performance may suffer depending on the amount of updates that occur.

As with all BPX parameters, you will have to monitor and tune your system as e*Gate is implemented.

Resources for USS, Java, and HFS performance tuning

- IBM's z/OS UNIX Performance:

  http://www-1.ibm.com/servers/eserver/zseries/zos/unix/bpxa1tun.html

- IBM's Redbook Web site:

  http://www.redbooks.ibm.com

- Peter Enrico has several excellent White Papers regarding USS Performance and
- tuning at his Enterprise Performance Strategies Web site:

  http://www.epstrategies.com

6.3.5. z/OS System Performance Recommendations

Workload Manager recommendations

e*Gate processes are long running transactions. You should review your Workload Manager settings and ensure e*Gate Started Tasks get the proper level of service.

e*Gate Started Tasks should have Velocity goals and not transaction completion time goals. If e*Gate runs in a service class with transaction completion goals on a busy system, e*Gate may get swapped out and never be swapped back in.

You may also wish to place the separate components of e*Gate (Registry, Control Broker, e*Ways, et cetera) in their own performance groups (service classes) or reporting groups. This will enable you to break down the resource consumption by component.

e*Gate should be considered in the same category as CICS or DB/2, a critical component of the production environment.

IPS/ICS recommendations

You may want to put e*Gate Started Tasks into their own domain (workload).

This will enable you to monitor resource consumption at the domain (workload) level with RMF or /CMF.

You can use the results of these reports to tune your system.

6.3.6. Contents of the Installation CD-ROM

Listed below are the contents of the s390 installation tree:

- **s390inst.txt** – Text file that contains basic installation instructions for the S390 Systems Programmer (located in the **scripts** directory).

- **scripts** – Directory that contains sample scripts.
- **setup.tar** – Tar image of the e*Gate installation scripts for z/OS.
- **cltar.Z** – Participating Host image for z/OS.
- **svtar.Z** – Registry Host image for z/OS.

Location of sample JCL

Samples of the following JCL can be found in the **scripts** directory.

- **ADDEGX.JCL** – Sample JCL that can be used to create the EGATE USER.
  - The EGATE USER is the owner of the e*Gate files, and since all e*Gate processes are run under this user name, you must create an EGATE USER. You can use any user name that meets your installation's security requirements.
- **ALLOCHFS.JCL** – Sample JCL to create an HFS file.
- **ESTART.JCL** – Sample MVS JCL to run the Registry from the MVS command line.
- **ESTOP.JCL** – Sample MVS JCL to stop the Registry from the MVS command line.
- **MOUNTHFS.JCL** – Sample JCL to mount an HFS file on USS.
- **UNLOAD.JCL** – When you perform a tape installation, use this sample JCL to copy a **.tar** file of the installation CD-ROM to z/OS.

6.3.7. e*Gate z/OS Installation

Before starting the e*Gate installation, make sure that the IBM maintenance listed in section **"Required IBM Maintenance for z/OS" on page 102** is applied. The IBM maintenance is critical to the successful operation of e*Gate. Many of the listed APARs correct HFS corruption issues.

Note: *All of the JCL examples listed are available in the Scripts directory of the CD-ROM.*

Important: *At this time e*Gate must be installed in the user's **$HOME** directory.*

*After you FTP the files over from the CD-ROM, you will see the following files in **$HOME**: **svtar.Z**, **cltar.Z**, and **setup.tar**. After you untar **setup.tar** you will have a **scripts** directory in **$HOME**.*

*Type: **cd $HOME/scripts** and then run **./setup**. This command creates the two directories where you must install e*Gate:*

$HOME/server
$HOME/client

1 Define the EGATE USER to the Security System. The example shown below uses RACF syntax. For ACF2 or Top Secret, please refer to the Administration manuals for the correct syntax of ACF2 or Top Secret commands.

If "EGATE" is not an acceptable userID, modify it as necessary and substitute that name wherever "EGATE" is found.

```
//ADDEGX   JOB   (),NOTIFY=&SYSUID
//*
//*    This JCL is supplied as an EXAMPLE. All parameters must be
//*    verified for adherence to your system standards and practices.
//*    The commands assume that RACF is the security product in use.

//*
//S0       EXEC PGM=IKJEFT01,DYNAMNBR=75,TIME=100,REGION=6M
//SYSPRINT DD SYSOUT=*
//SYSTSPRT DD SYSOUT=*
//SYSTERM  DD DUMMY
//SYSUADS  DD DSN=SYS1.UADS,DISP=SHR
//SYSLBC   DD DSN=SYS1.BRODCAST,DISP=SHR
//SYSTSIN  DD *
AU EGATE DFLTGRP(EGATEGRP) NAME('SeeBeyond: egate for z/OS') +
OWNER(EGATEGRP) PASSWORD(EGATE) +
TSO(ACCTNUM(ACCT#) +
   COMMAND('ISPF') +
   HOLDCLASS(X) JOBCLASS(A) MSGCLASS(X) SYSOUTCLASS(X) +
   PROC(ISPFPROC) SIZE(006133)) +
OMVS(UID(800453) HOME('/egate') PROGRAM('/bin/sh') +
     MMAPAREAMAX(8000000) ASSIZEMAX(500000000) +
     THREADSMAX(1024))

BPXBATCH SH mkdir '/egate'
BPXBATCH SH chown egate:egategrp '/egate'
BPXBATCH SH chmod 777 '/egate'
CO EGATE GROUP(TSOUSER) OWNER(TSOUSER)
ALU EGATE NOEXPIRE RESUME PASSWORD(EGATE)
/*
```

2 Create a 600 cylinder, or larger (500 MB or larger), HFS or ZFS file system for the e*Gate files. The example shown below creates an HFS file system. To create a ZFS file system, please refer to IBM's *Redbook: z/OS Distributed File Service zSeries File System Implementation*.

```
//ALLOCHFS   JOB   (),NOTIFY=&SYSUID
//*
//*        This JCL is supplied as an EXAMPLE. All parameters must be
//*    verified for adherance to your system standards and practices.
//*
//ALLOCHFS EXEC PGM=IEFBR14
//DD1 DD DSN=EGATE.EGATE453.HFS,
//    DCB=(RECFM=U,DSORG=PO),
//    SPACE=(CYL,(800,100)),DSNTYPE=HFS,
//    DISP=(,CATLG),UNIT=SYSDA
```

3 Mount this newly created file system in the directory created in **step 1** above. To mount a file system, issue the mount command from ISHELL, telnet or the example batch job provided below:

```
//MOUNTHFS JOB   (),NOTIFY=&SYSUID
//STEP001 EXEC PGM=IKJEFT1B,REGION=6M
//SYSPRINT DD SYSOUT=*
//SYSTSPRT DD SYSOUT=*
//SYSTSIN DD *
MOUNT FILESYSTEM('EGATE453.HFS') +
TYPE(HFS) MODE(RDWR) +
SYNC(30) +
MOUNTPOINT('/egate')
```

4 The MOUNTHFS Job must be run from a userID with **UID=0** or sufficient rights to the file system. If MOUNTHFS fails with a **6f/5b220107**, check the MVS Syslog for RACF Security violations. Add this file system to the MOUNT section of your **BPXPRMxx** member in **SYS1.PARMLIB**. ZFS file systems can be specified in **BPXPRMxx** members starting in z/OS 1.3.

5 Verify the newly mounted file system has the correct **Owner**, **Group**, and **File Permissions** required for the "egate" user.

These commands can be issued from OMVS, ISHELL, or Telnet.

A To change file permissions: **chmod 777 /egate**

B To change owner: **chown egate /egate**

C To change the group: **chown egategrp /egate**

Note: *Telnet access to the mainframe is required. While e*Gate may be started from the OMVS screen, it is impractical, as you will have to press ENTER every time the messages fill the TSO screen. During schema development several telnet sessions will be required at the same time to run e*Gate components. When using the OMVS shell this becomes very difficult.*

Depending upon which type of installation you are performing, continue with the appropriate subsection:

- **"To install e*Gate from 3480 tape" on page 108**
- **"To install e*Gate from CD-ROM" on page 109**

To install e*Gate from 3480 tape

1 Copy the file on the e*Gate distribution tape to your local system.

The example below contains sample JCL to copy the tar file to the mainframe.

```
//UNLOAD JOB 'EGATE','Unload e*Gate',NOTIFY=&SYSUID,REGION=0M
//STEP010  EXEC PGM=IEBGENER
//SYSPRINT DD SYSOUT=*
//SYSUT2   DD DSN=hlq.EGATE453.TAR,DISP=(NEW,CATLG),
//         UNIT=diskunit,SPACE=(CYL,(100,100),RLSE)
//SYSUT1   DD DSN=STC.EGATE453.TAPE,DISP=SHR,
//         UNIT=tapeunit,VOL=SER=STC390
//SYSIN    DD DUMMY
```

A Modify this Job to as per your installation requirements.

B Change **hlq**, **diskunit**, and **tapeunit** to fit your needs. If the DSN in the above Job has changed, use the same DSN in the tar command in **step 2** and **step 3**.

2 Once the file has been copied to your MVS system, perform the following:

A **telnet** to USS.

B **chdir** to your e*Gate home directory as defined in **step 1** in "e*Gate z/OS Installation" on page 113.

C Run the following command to untar the e*Gate tar file:

```
tar -xfov "//'hlq.EGATE453.TAR'"
```

3 The **hlq.EGATE453.TAR** file can be deleted after these steps are completed.

4 To continue the z/OS installation, go to **"Continue installation" on page 109**.

To install e*Gate from CD-ROM

1 Open an FTP session to your mainframe system.

2 Log in as the EGATE USER defined in **step 1** in **"e*Gate z/OS Installation" on page 106**.

3 Make sure you are in the 'home' directory where e*Gate will be installed.

- Change directories if required (for example: **cd /egate**).

4 Set the mode to **BINARY** (Representation type is Image).

5 Type: **put e:\setup.tar setup.tar** (where **e:** represents the drive letter of the CD-ROM drive).

6 If you intend to run a Registry Host on the mainframe, enter: **put e:\svtar.Z svtar.Z**.

Note: *If you **do not** want to install the server, do not FTP the **svtar.Z** image. The installation script will complain, but will not fail. The "Z" must be capitalized.*

7 If you intend to run a Participating Host on z/OS, **put e:\cltar.Z cltar.Z**.

Note: *If you **do not** want to install the client, do not FTP the **cltar.Z** image. The installation script will complain, but will not fail. The "Z" must be capitalized.*

8 To continue the z/OS installation, go to **"Continue installation" on page 109**.

Continue installation

Information required for e*Gate set up on z/OS:

- Name of the e*Gate userID
- z/OS host name
- Location of the e*Gate home directory
- Port number the e*Gate Registry will use

After copying the e*Gate files to z/OS, log on Telnet to z/OS and log in as the EGATE USER.

1 List the directory contents. Type: **ls -1**.

2 You should see **setup.tar** and several other files in your home directory.

3 Create the required files in the script directory. Type: **tar -xvof setup.tar**.

4 Change the directory to the **scripts** directory. Type: **cd scripts**.

5 Type: **chmod +x setup**.

6 Type: **./setup** and follow the on-screen instructions.

7 Your monitor displays the following as the e*Gate files install:

```
***** Installing eGate files *****
```

- Enter your selected e*Gate user name. Type: <***EGATE***>.
  (This is the user name your z/OS administrator gave you.)
- Enter your s390 host name. Type: <***os390***>
  (This is the host name your z/OS administrator gave you.)
- Enter the name of your home directory. Type: <***egate***>.
  (This is the home directory your z/OS administrator gave you.)
- Do you want to keep the installation files [Y/N]?
  (Keeps the compressed images for future use.)
- Enter the Port Number for the Registry. Type: **<*new port number*>** or press **Enter** to accept the default.

  Entering the above examples, performs the following:

  - Obtains installation parameters,
  - Creates a customized **.profile** for the <*EGATE*> USER,
  - Customizes the control scripts for the Registry and Participating Host sections,
  - Uncompresses and installs the server side (10–20 min.),
  - Uncompresses and installs the client side (10–20 min.),
  - Loads ETD wizards, and
  - Updates the default schema.

Post-installation notes

The installation script backs up the existing **.profile** and **.egate.store** in the home directory of the EGATE USER.

- **.profile** is saved as **.profile.yyyymmddHHMMSS**
- **.egate.store** is saved as **.egate.store.yyyymmddHHMMSS**

Where:

yyyy = year
mm = month
dd = day
HH = hour (based upon 24 hrs.)
MM = minutes
SS = seconds

The installation script then creates a new customized **.profile** in the home directory of the EGATE USER. Run your **.profile**. For example:

```
cd $HOME
. ./.profile
```

If you change the customized **.profile**, SeeBeyond values from the customized **.profile** must precede any values you add to the **.profile**. However, SeeBeyond does not

guarantee the usability of a **.profile** that is different from the one created by the e*Gate installation program.

The Registry and Participating Hosts can be run from the <*EGATE*> userID. In the scripts directory are sample shell scripts (**stcregd**, **stcregdown**, and **scb1**) to start and stop a Registry Host and Control Broker. Modify these scripts to your installation standards before using them. These scripts may be invoked from JCL in a Started Task or Batch Job. This allows the Registry, Control Broker, and other e*Gate components to be started at system IPL or by a scheduling system.

```
(/u/<egate>/scripts/stcregd)

LD_LIBRARY_PATH=/u/<egate>/server/bin:$LD_LIBRARY_PATH
PATH=/u/<egate>/server/bin:$PATH
SHLIB_PATH=/u/<egate>/server/bin:$SHLIB_PATH
LIBPATH=/u/<egate>/server/bin:$LIBPATH
export LD_LIBRARY_PATH
export SHLIB_PATH
export LIBPATH
export PATH
echo $PATH
export $PATH
export STC_TRACEMASK=0x00000000
/u/<egate>/server/bin/stcregd.exe -ss -lnos390r29
-bd /u/<egate>/server -pr23001 -pc23002 -mc1024
```

Note: *Machine versions of the above scripts/JCL are on the installation media.*

```
#!/bin/sh
# eGate453GA
# Copyright (2001,2002) SeeBeyond
# This script assumes that $HOME $HOSTNAME, and $REG_PORT have been
properly set
LD_LIBRARY_PATH=$HOME/server/bin:$LD_LIBRARY_PATH
PATH=$HOME/server/bin:$PATH
SHLIB_PATH=$HOME/server/bin:$SHLIB_PATH
LIBPATH=$HOME/server/bin:$LIBPATH
export LD_LIBRARY_PATH
export SHLIB_PATH
export LIBPATH
export PATH
# The following assumes you have the correct permissions to set
_BPX_JOBNAME and
# will set the MVS Jobname for the Registry to: EGATER
export _BPX_JOBNAME=EGATER
# TRACE Registry only
export STC_TRACEMASK=0x04000010
# TRACE Everything except tcpip
export STC_TRACEMASK=0xbffffff7f
# TRACE Nothing
export STC_TRACEMASK=0x00000000
export X=$HOME/server
# Uncomment the following to clear the registry Log at startup
#rm $HOME/server/logs/*
cd $X/bin
# Uncomment the following line to set the base Started Task name
# export _BPX_JOBNAME=EGLREG #sets jobname for Registry
# The following will start registry service as a DAEMON
# and logging turned on.
stcregd.exe -ss -bs -d -bd $X -pr $REG_PORT -ln $HOSTNAME
```

- In the scripts directory you will find two sample procedures for starting and stopping e*Gate from a Started Task: **ESTART.JCL** and **ESTOP.JCL**. These files can be copied to a system PROCLIB.

  One method of copying these files is the TSO **OGET** command. From the ISPF option 6:

  Type: **OGET '/<*egate*>/scripts/ESTART.JCL "USER.PROCLIB(ESTART)"'**

- **EDIT** these members to point to the home directory of **<*egate*>** and modify any other items to conform with your system conventions and standards.

Note: *After the installation, if you commit files to the Registry Host using the* ***stcregutil*** *command, the files that you commit (including the* ***.dll*** *and* ***.exe*** *files) must be local (not NFS mounted file system) before running* ***stcregutil****. See the* ***e*Gate System Administration and Operations Guide*** *for more information.*

Installation of additional add-ons

Add-on components may be installed using the e*Gate Integrator add-on installation. See the appropriate e*Gate add-on manual.

6.4 Installing Additional Platform Support on the z/OS Registry

e*Gate provides **.taz** files for the executable modules for each supported platform; these files are located on Installation CD-ROM 1. The **.taz** files are named **<*xxxx*>.taz**, where <*xxxx*> represents the specific platform, such as win32, os390, AIX, sparc26, et cetera. For example, the **.taz** file for the Solaris executables that should be placed on the z/OS is named **sparc26.taz** and is located in the **../setup/repostry/sparc26.taz** directory on the CD-ROM. Before using the executable modules, FTP the **.taz** files in binary format to the z/OS e*Gate user's "home" directory.

To install support for a specific platform on the z/OS Registry

1. Insert the installation CD-ROM into the CD-ROM drive on your workstation.
2. From the command prompt, change the directory to the directory where the **.taz** files are located on the CD-ROM. Type: **../setup/repostry/**.
3. FTP the **.taz** file in binary mode (for example: ***sparc26*.taz**). Assuming you have installed the Installation CD-ROM on your selected z/OS host with a user ID of **<*egate*>**, FTP the **sparc26.taz** file in binary format from the CD-ROM repository directory to your $HOME directory where e*Gate was installed on the z/OS.
4. Use the **untaz** script (it is located in the **scripts** directory on the CD-ROM) to unpack the **.taz** files.

   The **untaz** script requires one parameter:

   - A complete path to the **.taz** file.

To execute the **untaz** script and open the files in the destination directory, type: **./untaz $HOME/sparc26.taz $HOME/server/registry/repository/default**.

5 When the **untaz** script displays the final path and asks if the path is correct, type **Y** (for yes) or **N** (for no). The "Y" or "N" must be capitalized.

6 The file is uncompressed and the individual modules are distributed to the following directories:

- **default/bin/sparc26**
- **default/collabservices/sparc26**
- **default/iqservices/sparc26**

7 When the **.taz** file is no longer needed, erase it by typing: **rm *sparc26*.taz**.

6.5 How e*Gate Can Influence USS Behavior

The following sections provide information about how e*Gate can influence USS behavior:

6.5.1. .profile Environment Settings

BPX_SHAREAS

BPX_SHAREAS controls whether a new address space is created when a process Spawns a child task.

- **BPX_SHAREAS=YES** keeps all child tasks in a single address space.
- **BPX_SHAREAS=NO** allows USS to create a new address space when a process Spawns a child task. This is the setting recommended by SeeBeyond for optimum performance.

Setting **BPX_SHAREAS=YES** causes the IQ Managers, BOBs, et cetera, to run in a single address space that can climb to over 600 MB of real storage. This could result in a situation where the single e*Gate Started Task may be swapped out and unable to swap back in to get CPU resources. Setting **BP_SHAREAS=NO** will cause e*Gate to start several Started Tasks. For example, if you run a schema with **BPX_SHAREAS=NO**, you will have a separate Started Task for the Registry, Control Broker, queues, e*Ways, et cetera.

See **"BPX_SHAREAS Affects How e*Gate Components Start and Stop" on page 115** for additional information about **BP_SHAREAS** settings.

6.5.2. USS Started Task Monitoring

When a task is started in USS, the operating system creates an MVS Started Task with a name that is based on the e*Gate userID plus 1 character that is automatically assigned by the Operating System. When many components are running, it is difficult to match the e*Gate components to the MVS Started Tasks.

You can create a list of all processes and MVS tasks by querying USS from either the Operator consoles or SDSF.

- Issue the command **D OMVS,A=ALL** to generate a list of all USS processes.
- Issue the command **D OMVS,U=EGATE** to limit the list to just the **EGATE*** tasks.

6.5.3. Setting MVS Started Task Names

e*Gate includes a feature where the Started Task base name may be specified for the Registry, Control Brokers, e*Ways, et cetera. Unique MVS Jobnames can be assigned to each e*Gate component running on z/OS. A system variable **_BPX_JOBNAME** is used at module invocation to set the MVS value.

For example:

export _BPX_JOBNAME=MYCCB

In addition, if you export a variable that is the same as the Logical Name (**-ln**), then that component will show up as its value.

For example:

export MyQmanager=MYQM1

Important: *You are limited to a maximum of 7 characters when naming a MVS JOB NAME.*

Below is a sample snippet of environmental settings of a shell script that starts a Control Broker:

```
export _BPX_JOBNAME=EGLDATA    # sets jobname for ctl broker
export ew_IN=EGLSIN            #jobname for inbound eway
export ewOUT=EGLDOUT           #jobname for outbound
export MVS_iqmgr=EGLIQ         #jobname for iq manager
```

To specify a custom Started Task Base Name, the e*Gate login userID must have **READ** access to the **RACF BPX.JOBNAME** Facility Class.

If you are running e*Gate SRE Control Brokers on z/OS 1.4, add the following line to your Control Broker startup scripts:

export _EDC_PUTENV_COPY=YES

Because of the way **putenv** commands are now processed, this environment variable must be set to **YES** for Started Task renaming to work. For details, see IBM APAR PQ61928.

6.5.4. BPX_SHAREAS Affects How e*Gate Components Start and Stop

If Control Broker components are started from the GUI, the **BPX_SHAREAS** in the EGATE USERS .**profile** determines whether a new address space is created. At this time the spawning behavior of components started from the GUI cannot be changed.

If you start Control Broker components from Batch Jobs, Shell Scripts, or Started Tasks, you can include the **BPX_SHAREAS** environment variable in each script to fit your needs. If this behavior is desired, SeeBeyond recommends that IQs and BOBs run best in separate address spaces while ETDs can be grouped in a single address space.

SeeBeyond recommends **BPX_SHAREAS=** be set to **NO**.

Note: ***BPX_SHAREAS=YES*** *will limit you to one of each component type.*

6.6 Marshaling, Unmarshaling, and Delimiters

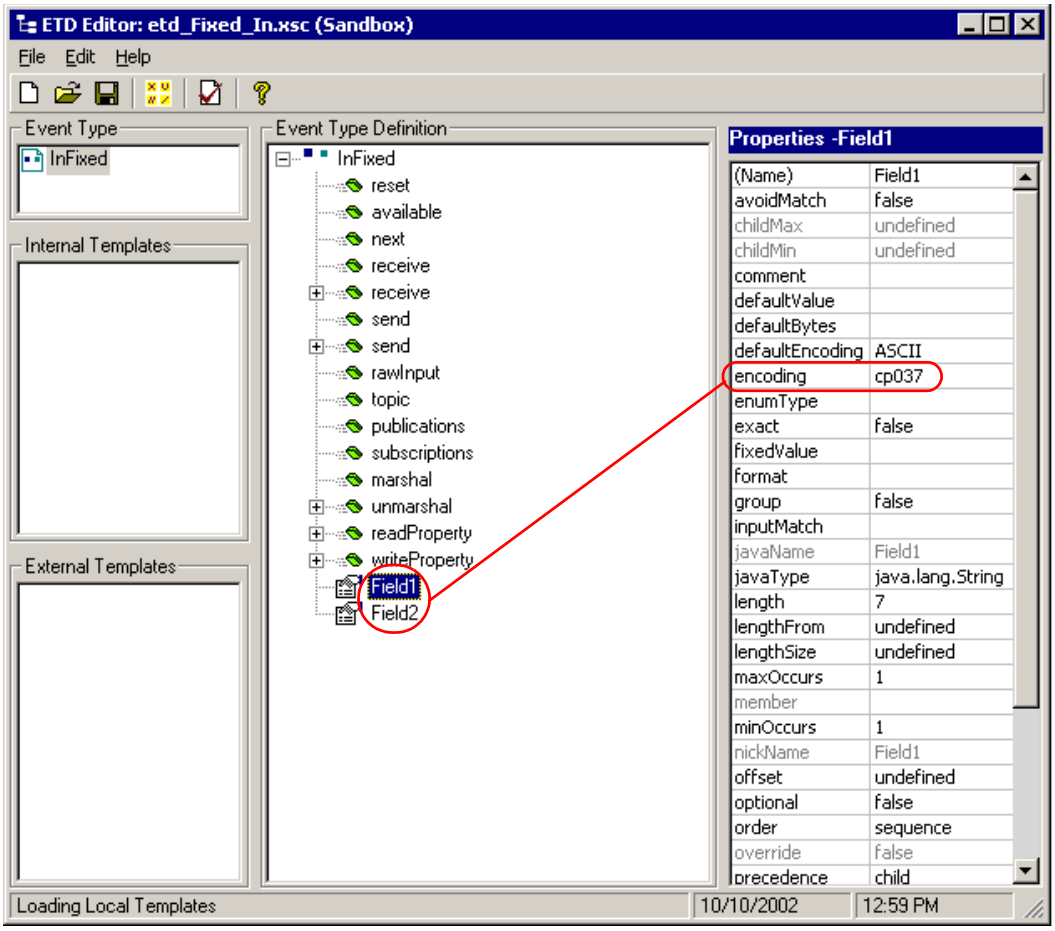
For delimiters to function properly when marshaling or unmarshaling EBCDIC data on the z/OS requires that you use separate ETDs for both inbound and outbound Events because of encoding and conversions requirements.

Note: *The following discussions assume a code page of cp037 if different substitutions are appropriate.*

To use EBCDIC delimiters when unmarshaling

1 For an inbound ETD, set the **encoding** for all fields to **cp037**. This converts incoming EBCDIC data to UTF-8 during the unmarshaling operation (see **Figure 5 on page 116**).

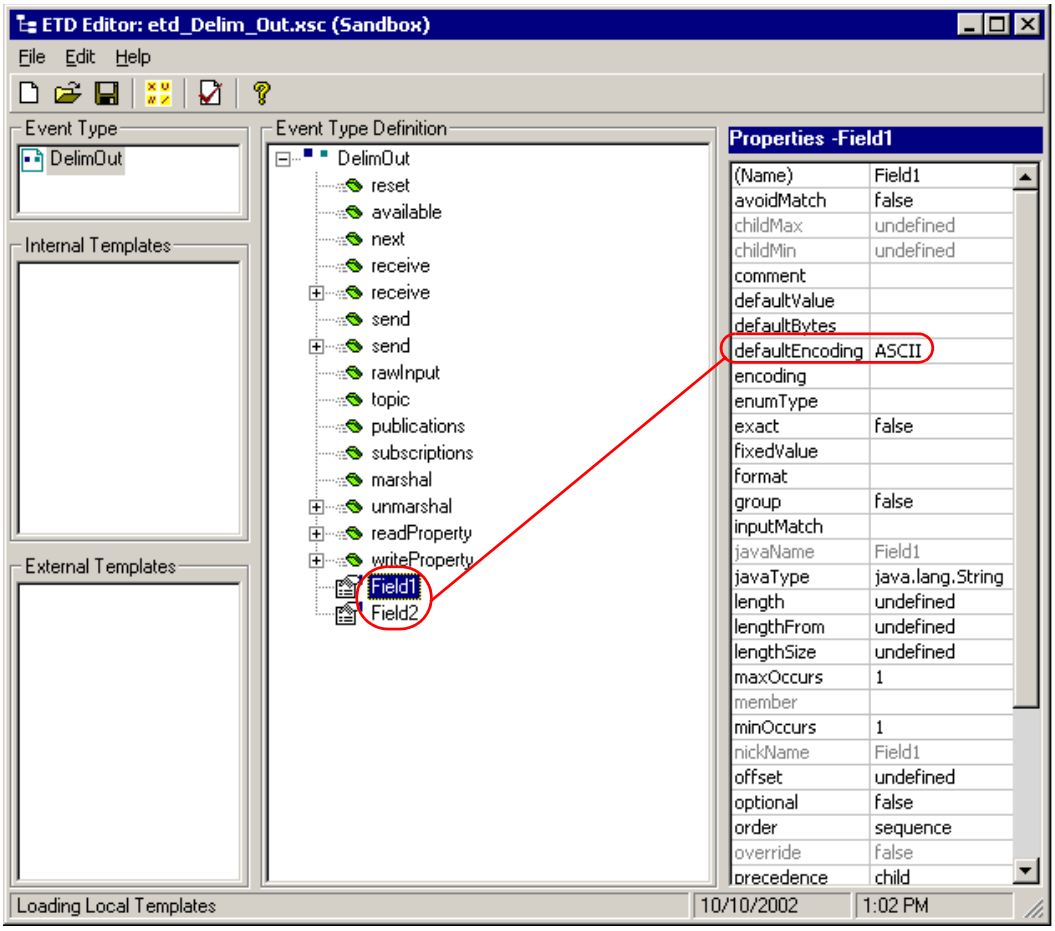
Figure 5 Inbound ETD Example



To use EBCDIC delimiters when marshaling

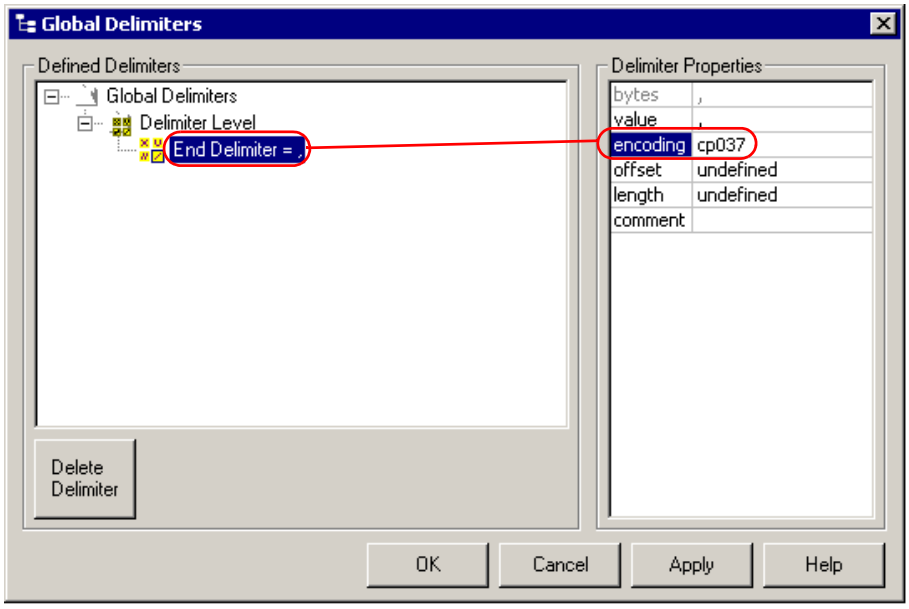
1 For an outbound ETD, set the **defaultEncoding** to **ASCII** (see **Figure 6 on page 117**). This is required if you use **jCollabController.setMarshalEncoding("GenericOut","cp037")**.

Figure 6 Outbound bound ETD Example



2 For an outbound ETD, use the **Global Delimiters** dialog box to set the **encoding** for the ending delimiter (End Delimiter = ,) in the outbound ETD to **cp037**. This converts the ending delimiter from UTF-8 to EBCDIC during the marshaling operation.

Figure 7 Ending Delimiter Example



6.7 Data Conversion

There are differences in character sets and data representation between z/OS and Windows and UNIX that require conversion. This section lists various conversions that could be needed when dealing with sending or receiving data from z/OS and e*Gate.

http://java.sun.com/j2se/1.3/docs/guide/intl/encoding.doc.html

6.7.1. Conversions for Java Collaborations Running on z/OS

From EBCDIC to ASCII

To convert a value in a Java string from EBCDIC to UTF-8 (ASCII):

```
String str = new String (str.getBytes("UTF-8"), "cp037");
```

Note: *For additional information see* **"Marshaling EBCDIC Data When Running on z/OS" on page 120**.

From ASCII to EBCDIC

To convert a value in a Java string from UTF-8 (ASCII) to EBCDIC:

```
String str = new String (str.getBytes("cp037"), "UTF-8");
```

Note: *For additional information see* **"Marshaling EBCDIC Data When Running on z/OS" on page 120**.

From EBCDIC to an Integer

To convert a value in a Java string that is in EBCDIC to an integer:

```
int  i = Integer.parseInt(new String(str.getBytes("UTF-8"),
"cp037"));
```

From an Integer back to the Java string

It is possible to convert an integer that previously had been converted from a Java string back to a Java string. To see data in EBCDIC, the integer must be converted from ASCII to EBCDIC.

```
String str = i;
str = new String(str.getBytes("cp037"), "UTF-8");
```

6.7.2. Conversions for Java Collaborations Running on Windows or UNIX

From ASCII to EBCDIC

To convert a value in a Java string from UTF-8 (ASCII) to EBCDIC:

```
String str = new String (str.getBytes("cp037"), "UTF-8");
```

Note: *For additional information see* **"Marshaling EBCDIC Data When Running on z/OS" on page 120**.

From EBCDIC to ASCII

To convert a value in a Java string from EBCDIC to ISO-8859-1 (ASCII):

```
String str = new String (str.getBytes("UTF-8"), "cp037");
```

Note: *For additional information see* **"Marshaling EBCDIC Data When Running on z/OS" on page 120**.

From EBCDIC to an Integer

To convert a value in a Java string that is in EBCDIC to an Integer:

```
int  i = Integer.parseInt(new String(str.getBytes("UTF-8"), "cp037"));
```

6.7.3. Marshaling EBCDIC Data When Running on z/OS

The following Java Collaboration Service encoders should be used during initialization when marshaling data.

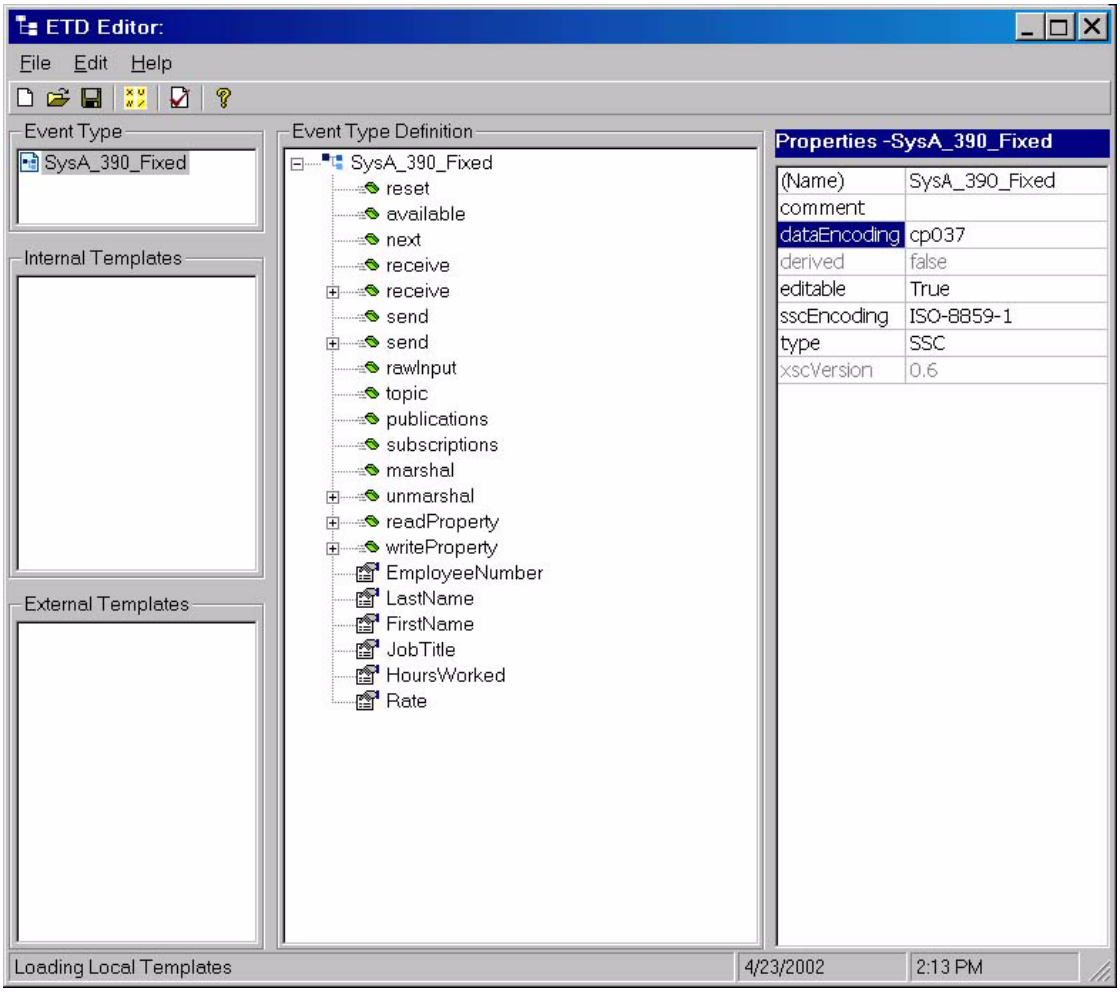
```
jCollabController.setMarshalEncoding("OutputETD","cp037");
```

Note: *All outgoing data that is marshaled must be encoded as UTF-8. For additional information, see the* ***jCollabController Class*** *in Appendix A of the* ***e*Gate Integrator User's Guide****.*

6.7.4. Alternate Way for Converting EBCDIC Data to UTF-8

Another way to convert incoming EBCDIC data to UTF-8 is to add the code page on the incoming ETD. The following example will convert all incoming fields that are defined as a string from EBCDIC (cp037) to UTF-8. See the **Properties** pane in **Figure 8 on page 120** for the necessary encoding.

Figure 8 Example for Converting EBCDIC Data to UTF-8



6.8 Usage Notes for Java Collaborations on z/OS

For Java Collaborations to run properly on z/OS, the following actions must be performed.

6.8.1. Marshaling EBCDIC Data

When marshaling EBCDIC in a Java Collaboration on z/OS, you must perform the following in the **userInitialize** section in the Business Rules pane of a Java Collaboration. Perform these initializations once and only once.

```
jCollabController.setMarshalEncoding("In2","cp037");
```

6.8.2. Support for XML messages in EBCDIC

Unmarshaling XML messages in EBCDIC

If an XML Message has been encoded in EBCDIC format, then it must include an XML Declaration Header that contains a valid encoding for that format.

For example:

```
<?xml version="1.0" encoding="cp037"?>
<!DOCTYPE el1 SYSTEM "C:\eGate\client\xml.dtd">
<el1>
      <a>Text</a>
        <b>Text</b>
        <A>Text</A>
</el1>
```

Note: *Specifying an encoding for UTF-8 is not valid for XML messages that have been encoded in EBCDIC format. This causes an Unmarshal Exception to be thrown in Java Collaboration Services.*

Marshaling XML messages in EBCDIC

The following **jCollabController** Encoder can be coded in the **User Initialization** section of a Java Collaboration to create an XML message in EBCDIC format:

```
jCollabController.setMarshalEncoding("Instance_name", "cp037")
```

6.9 Java Methods for Accessing MVS Datasets

There are seven new Java methods for accessing MVS datasets and issuing TSO commands, and they are listed below.

runCommand

Spawns and executes an MVS system command that generates a return code.

Syntax

```
public static int runCommand(java.lang.String command)
```

Parameters

Name	Type	Description
command	java.lang.String	An MVS command string to be executed.

Returns

The return code from the executed command.

MVSalloc

Allocates an MVS file. **unitInfo** and **volLabel** are optional. These fields require some form of input. To omit these fields from the Allocate command, code "" in the input field.

Syntax

```
public static int MVSalloc(java.lang.String datasetName,
                           int primary,
                           int secondary,
                           int recordLength,
                           java.lang.String recordFormat,
                           int blockSize,
                           java.lang.String spaceUnit,
                           java.lang.String unitInfo,
                           java.lang.String volLabel)
```

Parameters

Name	Type	Description
datasetName	java.lang.String	The data set name.
primary	int	The space allocation for primary quantity.
secondary	int	The space allocation for secondary quantity.
recordLength	int	The record length.
recordFormat	java.lang.String	The record format; "VB" and "FB" are supported.
blockSize	int	The block size.
spaceUnit	java.lang.String	The space unit; "cylinders" and "tracks are supported.
unitInfo	java.lang.String	The unit information (optional); "SYSDA", "TAPE" and "3390" are supported, or use null string ("") to omit them.
volLabel	java.lang.String	The volume label (optional); or use null string ("") to omit it.

Returns

The command return code.

MVSalloc Return Codes

Code	Meaning
0	Allocation successful.
12	Allocation unsuccessful. An error message has been issued.

Note: *For more information on the TSO* ***ALLOCATE*** *command, refer to the section entitled "Allocating Data Sets" in the IBM document* ***TSO/E User's Guide****.*

MVSdelete

Deletes an MVS file.

Syntax

```
public static int MVSdelete(java.lang.String fileName)
```

Parameters

Name	Type	Description
fileName	java.lang.String	A valid MVS file name.

Returns

The command return code.

MVSdelete Return Codes

Code	Meaning
0	Processing successful. Information messages might have been issued.
4	Processing successful, but a warning message has been issued.
8	Processing was completed, but specific details were bypassed.
12	Processing unsuccessful.
16	Severe error or problem encountered.

MVSopenRB

Opens a random-access record file.

Syntax

```
public static com.stc.common.utils.IRandomAccessRecordFile
                                    MVSopenRB(java.lang.String fileName,
                                              java.lang.String mode,
                                              int recordLength,
                                              java.lang.String recordFormat)
```

Parameters

Name	Type	Description
fileName	java.lang.String	The file name.
mode	java.lang.String	A string that specifies either “r” or “rw” (read or read/write).
recordLength	int	The logical record length.
recordFormat	java.lang.String	A string that specifies the record format. Both “VB” and “FB” are supported.

Returns

An instance of the **RandomAccessRecordFile**.

Throws

java.io.IOException: an input-output exception.

MVSreadRB

Reads bytes from this input record stream into an array of bytes. If the underlying **RecordFile** record length is greater than **buffer.length**, then the trailing bytes will be

discarded. Similarly, if **buffer.length** is greater than the underlying **RecordFile** record length, then only record-length bytes will be read into the buffer.

Syntax

```
public static int
     MVSreadRB(com.stc.common.utils.IRandomAccessRecordFile instance,
               byte[] buffer)
```

Parameters

Name	Type	Description
instance	IRandomAccessRecordFile	An instance of the RandomAccessRecordFile.
buffer	byte array	The buffer into which the data is read.

Returns

The total number of bytes read into the buffer, or **-1** if there is no more data because the end of the file has been reached.

Throws

java.io.IOException: an input-output exception.

MVSwriteRB

Writes bytes from the specified byte array to this file output record stream. The number of bytes written is equal to the record length of the underlying **RecordFile**. The bytes written are truncated or padded if the length of bytes is greater than or less than the record length, respectively. If padding is necessary, the bytes used for padding are unspecified.

Syntax

```
public static void
     MVSwriteRB(com.stc.common.utils.IRandomAccessRecordFile instance,
                byte[] buffer)
```

Parameters

Name	Type	Description
instance	IRandomAccessRecordFile	An instance of the RandomAccessRecordFile.
buffer	byte array	The data.

Returns

None.

Throws

java.io.IOException: an input-output exception.

MVScloseR

Closes a random-access record file stream and releases any system resources associated with the stream.

Syntax

```
public static void
      MVScloseR(com.stc.common.utils.IRandomAccessRecordFile instance)
```

Parameters

Name	Type	Description
instance	IRandomAccessRecordFile	An instance of the RandomAccessRecordFile.

Returns

None.

Throws

java.io.IOException: an input-output exception.

6.9.1. Using MVSFile in the Collaboration Editor

This section explains what you must do prior to getting MVSFile to work in the Collaboration Rules Editor, and then presents an example of the Java code for a Collaboration.

The recordio.jar file

Before MVSFile will work properly in the Collaboration Editor, you must first make the IBM **.jar** file **recordio.jar** available to use in the Enterprise Manager. To do this:

1. Locate the **recordio.jar** file in your **<*java*>\lib\ext** directory on your MVS system.
2. FTP the **recordio.jar** file to your PC in binary mode. For convenience, put it in **<*egate*>\client\classes**.

Committing the recordio.jar file to the classes directory

The **recordio.jar** file must then be placed in the **classes** directory from the Enterprise Manager while the selected schema is open.

1. Open the selected schema in the Enterprise Manager.

2 Commit the **recordio.jar** file to the **classes** directory of the schema by selecting **File** and then **Commit to Sandbox** from the menu bar. The **Select Local File to Commit** dialog box appears.

Note: *If this schema is the Default schema, then all schemas you create from it will have the* ***recordio.jar*** *file.*

3 Navigate to the directory where **recordio.jar** is located (as per **step 2** in **The recordio.jar file** on page 126: **<*egate*>\client\classes**), select it, and then click **Open**.

4 In the **Select Directory for Committed File** dialog box, select **classes**, and then click **Select**.

5 A **File Committed** window appears informing you that the file has been committed to your Sandbox. Click **OK**.

Placing the recordio.jar file in two locations in the Collaboration Rules Editor

Next you must place the **recordio.jar** file in two locations.

1 In Enterprise Manager, start the Collaboration Rules Editor. On the **Tools** menu, click **Options**.

2 Select **Add file**. The **Open** dialog box appears.

3 In the **classes** directory, select **recordio.jar** and click **Open**.

4 Select **Tools** and then **Java Imports** from the menu bar.

5 Under **<*directory*> recordio.jar** in the **Classes in Class path** pane, open **com** to expose the **record** and **recordio** classes. Select first one class and then the other (**record** and **recordio**) and move them to the **Selected Packages and Class** pane using the double-arrow icon.

6 Navigate to **stcjcs.jar** in **com\stc\common\utils** in the **Classes in Class path** pane, find **MVSFile**, and move it to the **Selected Packages and Class** pane.

7 Click **OK**.

You are now ready to build an MVS schema. The seven Java methods documented in **"Java Methods for Accessing MVS Datasets" on page 122** are now available in the Method Browser.

Note: *The only file object that SeeBeyond supports is the* ***IRandomAccessRecordFile****.*

6.9.2. Example of an MVSFile Functions Sample Schema

The purpose of this sample schema is to demonstrate the use of MVSFile functions. These are convenience wrappers on selected methods of the IBM JRIO package. See the following URL:

ftp://ftp.hursley.ibm.com/pub/java/os390/doc/11/118/jrio/user-api/Package-com.ibm.recordio.html

for a complete description of those classes. Only a subset of JRIO is wrapped here.

This schema has two functions

1. The "setup" and "mvs_create" components allocate and populate an MVS Variable-blocked test file named **STC.QA.TEST**.
2. The "seeder" and "mvs_file" components allocate an MVS file named **STC.QA.OUT**, copy 10 records from **STC.QA.TEST**, issue an **MVSrunCommand** to **cp** the **STC.QA.TEST** file to a location in USS, delete the **STC.QA.TEST** file and quit.

Note: *There are no dataclass or volume specifications!*

Both the setup and seeder data files should only contain one entry – any 10 characters followed by a "|".

Important: *PLEASE look carefully at the schema before altering it or running it.*

General directions

1. Import the schema **JRIO_test**; it is located in the **samples\mvsfile** directory on the installation CD-ROM.
2. Use the directions in **"The recordio.jar file" on page 126** to FTP the **recordio.jar** file to your PC.
3. Open the schema with your Enterprise Manager and "commit" the **recordio.jar** file to the "classes" directory.

   This would be a good time to change any file names or locations. You will also need to change the host name – (os390r2a).
4. FTP the **scbjr.sh** file to your e*Gate userID and make it executable.
5. Tailor the **scbjr.sh** script (see **"scbjr.sh" on page 129** for an example) to point to your data areas, ... et cetera.
6. Setup your input files: for setup, use **js.setup**, and for seeder, use **jc.~in** (you will change the name later).
7. Run the **scbjr.sh** script to start the Control Broker. This script starts only the Control Broker; all elements must be started manually from the e*Gate Monitor.
8. Start the IQ Manager, the **mvs_create**, and the setup. Verify that all started and your input file is renamed. You should have processed one Event.
9. Using TSO/ISPF, check for the existence of the test file named **STC.QA.TEST**.

10 If **STC.QA.TEST** is okay, start the "mvs_file" and the "seeder" components and rename your **jc.~in** file to **jc.mvs**.

11 The schema should pick up one Event and then stop.

12 View the "log" file for "mvs_file.stderr" - it should look something like this:

```
Opening input file //STC.QA.TEST
Allocating STC.QA.OUT
Return code from alloc was 0
Opening STC.QA.OUT
len= 44
len= 57
len= 70
len= 83
len= 96
len= 109
len= 122
len= 135
len= 148
len= 161
10 records copied
MVS files closed
file copied to /u/egatex/DATA/qaout
//STC.QA.OUT Deleted
```

13 Verify that "qaout" exists in your USS directory.

scbjr.sh

```
# This script starts a control broker for schema JRIO_test
# Assumes that the .profile has set the HOSTNAME and USERID vars set
# clean out logfile and iq's left over
echo "Clearing logs, Notification queues, and iq directories"
rm -r $HOME/client/logs/* 2> /dev/null
rm -r $HOME/client/iq/* 2> /dev/null
rm -r $HOME/client/Notifi* 2> /dev/null
echo Renaming data file
#mv $HOME/DATA/jc.~in $HOME/DATA/jc.mvs
#mv $HOME/DATA/js.~in $HOME/DATA/js.setup
echo Starting Control Broker for JRIO_test
export STATVFS=F
cd $HOME/client/bin
stccb.exe -d -rh os390r2a -rs JRIO_test -un Administrator -up STC -ln
os390r2a_cb  -n
```

6.10 BinDI

BinDI (Binary Data Image), an ETD type tailored to handling largely non-textual data, is based on a flat-text metadata format. The BinDI builder is a one-pass builder for high-performance use on all platforms that convert complex fixed-length and binary data. During the conversion, a BinDI (**.bdi**) input file is converted into a single **.xsc** file and a single **.jar** file.

The release of e*Gate supplies the following BinDI files: **bindi_schema.zip**, **data.fin**, and **Simple.bdi**. These files are located in the **samples\bindi** directory on the installation CD-ROM. The release also supplies a BinDI wizard, which launches from the ETD Editor and allows f or BinDI ETD marshaling and unmarshaling.

Note: *Repeating fields and the "union" keyword have not been implemented.*

6.10.1. To create a BinDI ETD

Use the following steps to create a BinDI ETD:

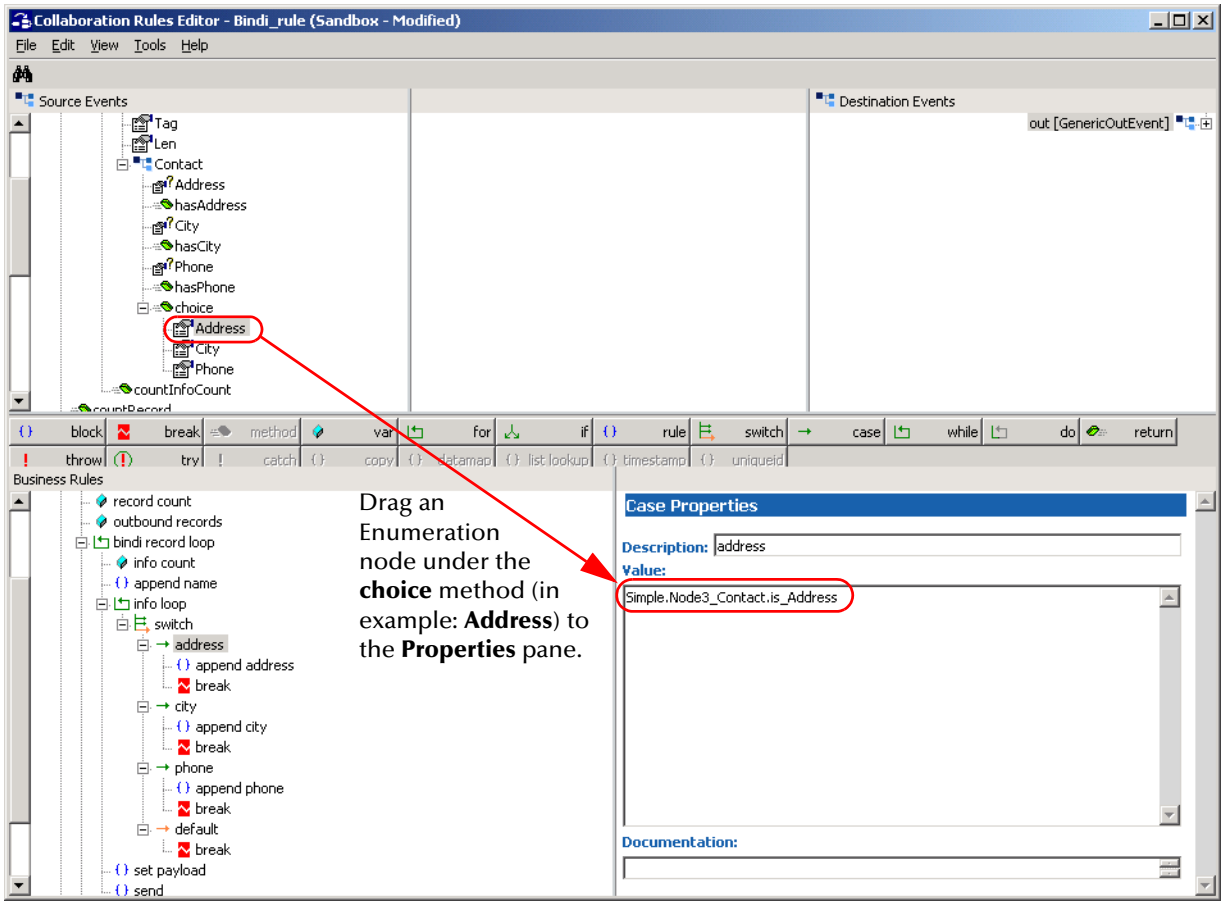
1. With the Event Type Definition (ETD) Editor open select **New** from the **File** menu. The **NewETD** selection window appears.
2. Select the **BinDI Wizard** icon and click **OK**. The **BinDI Wizard - Introduction** page appears.
3. Click the **Next** button. The **BinDI Wizard - Step 1** page appears.
4. Enter the following:
   A. A **Package Name** (see the *e*Gate Integrator User's Guide* for more information).
   B. Click **Browse** to search for and select a **BinDI File** (**.bdi**).
   C. Enter the **Root Node Name**.
   D. When ready, click **Next**. The **BinDI Wizard - Summary** page appears.
5. Click **Finish**.

   The system builds a BinDI ETD using the selected **.bdi** file, placing enumerated values as child nodes to the applicable methods.

To set enumerated method parameters values

1. With the Java Collaboration Editor (JCE) open, select a business rule for the BinDI ETD that was just created. The business rules code in the **Properties** pane displays.
2. Drag and drop an Enumeration node under the **choice** method of the "oneof" node (in the example, **Address**: see **Figure 9 on page 131**) from either the **Source Event** or **Destination Event** pane into the **Properties** pane. The value of the Enumeration node is inserted at the user-specified position.

Figure 9 Example of Drag and Drop in a BinDI Collaboration



Note: *Drag-and-drop operations on Enumeration nodes to anywhere else other than the* ***Properties*** *pane in the Java Collaboration Editor result in no action.*

6.10.2. BinDI Command Line Interface

The command line interface takes a local metadata file as input, and produces a local **.xsc** file and a local **.jar** file as output using the following options:

Option	Function
-b	Does not allow marshaling or unmarshaling.
-d	Allows debugging.
-j (jarpath)	The assumed JAR path in <javaProps>.
-m	Suppresses standard XSC method information.
-n (name)	The class basename for the ETD.
-o (directory)	The output directory.

Option	Function
-t (directory)	The temporary directory to use (defaults to random).
-T	Does not clear the temporary file (for debugging).

For example:

```
javac com.stc.jcs.bindi.Bindi.build [-option ...] <file.bdi>
```

6.10.3. Metadata Format

The metadata format describes both a logical data structure as a tree-like hierarchy, and a set of rules on how to convert an external representation to this internal format.

Nodes can be either simple or composite. A simple node has a Java type for the internal representation, and a description on how to get from a byte-array to that internal representation. A complex node can be a sequence, choice, permutation, or union.

```
etd ::= "bindi" number ";" {qualifier} body
node ::= kind {qualifier} (body | ";")
kind ::= "field" | "group" | "oneof" | "allof" | "union"
qualifier ::= size | count | mode | type | code | tag
tag ::= ("by" field) | ("tag" "any") | ("tag" number)
size ::= "size" bound
count ::= "count" bound
mode ::= "in" | "out" | "inout" | "dummy"
type ::= "type" string
code ::= "code" string
bound ::= ("is" number) | (["from" number] ["to" number"]
          ["by" field ["plus" number]])
body ::= "{" {node} "}"
```

The input encoding is assumed to be UTF-8. Comment starts with "#" and extends to the end of the line. Strings literals may be quoted with either single or double quotes, and have the usual Java/Cescape convention: **\n, \r, \t, \b, \f, \xNN, \uNNNN**. You can also escape a quote by doubling it. Number literals are signed decimal integers. Commas currently count as white space. Source is free format; line breaks count as simple white space. All keywords and identifiers are case-sensitive.

The number after "bindi" is the so-called BinDI syntax version number; it must currently be "1". It is intended as future insurance as the input format evolves.

Examples

This section includes three examples with an explanation for each one.

Example 1

```
bindi 1;
{
  Header: field, size is 12;
  Length: field, size is 4, type "int";
  Payload:  field, size by Length;
}
```

This example defines a record with a fixed 12-byte header, followed by a 4-byte big-endian unsigned binary length field, followed by a payload. The size of the "Payload"

(in bytes) is taken from the contents of the “Length” field. Note that the first line (the “bindi” version declaration) will be the same in all BinDI input files. The header and payload fields will have bean-like accessors of type “byte[]” in the ETD, the length field with be of type “int”.

Example 2

```
bindi 1;
{
  Record : group, count to any
  {
    Total  : field, size is 2, type “int”;
    Header : field, size is 22;
    Item1  : group, size by Total plus -24
    {
      Item2 : oneof, count from 0 to any
      {
      ACCOUNT : group
      {
        Tag     : field, size is 2, match “\x00\x00”;
        Len     : field, size is 2, type “int”;
        Content : field, size by Len, type “String” code “Cp037”;
      }
      ACQUIRER : group
      {
        Tag     : field, size is 2, match “\x00\x01”;
        Len     : field, size is 2, type “int”;
        Content : field, size by Len, type “String” code “Cp037”;
      }
      Trailer : field dummy size from 4 to any; # filler...
      }
    }
  }
}
```

This example defines a message consisting of one or more records. Each record has a 24-byte header that starts of with a 2-byte unsigned big-endian binary length field that givens the total length of the record. Following the header is any number of items. An item can be an account structure, an acquirer structure, or a trailer. The account and acquirer structure each have a 2-byte tag, a 2-byte length field, and a content field whose length is given by the length field; the content is an EBCDEC encoded string. The filled is at least 4 bytes, and will match anything until the end of its parent (the item). The “oneof” keyword designates a choice, so (assuming “N5_Item” is the item’s implementation class) a Collaboration can do something like:

```
switch (in.getRecord(i).getItem(j).choice())
{
case N5_Item.is_ACCOUNT:
    in.getRecord(i).getItem(j).getACCOUNT.setContent(“hello”);
    break;
case N5_Item.is_ACQUIRER:
    in.getRecord(i).getItem(j).getACQUIRER.setContent(“world”);
    break;
}
```

For large choice groups, this is a lot more efficient than a series of consecutive has-tests:

```
if (in.getRecord(i).getItem(j).hasACCOUNT())
{
    in.getRecord(i).getItem(j).getACCOUNT.setContent(“hello”);
}
else if (in.getRecord(i).getItem(j).hasACQUIRER())
```

```
{
    in.getRecord(i).getItem(j).getACQUIRER.setContent("world");
}
```

The "set" accessors on choice members automatically set the choice; the "get" accessors throw an exception if the current choice does not match.

The "by Total plus -24" qualifier on Item1 means the complete repeated set of Item2 occurrences has a total length defined by the "Total" field, minus 24 bytes. The "plus" qualifier can only appear together with "by". The "dummy" access mode qualifier on the trailer just means there will be no set/get accessors for the field; it is parsed but skipped, and not stored in the internal data tree.

Example 3

```
bindi 1;
{
  MyTag: field, size is 1;
  Data : oneof by MyTag
  {
    One: field, tag 1, code "Cp037";
    Two: field, tag 2, code "UTF-8";
    Non: field, tag any, code "ASCII";
  }
}
```

In this example the first byte of the message selects for an EBCDIC, UTF-8, or ASCII encoded field. The Collaboration can switch on this just like for an untagged choice node. The (potentially slower) alternative is using three group nodes, each containing the tag, and using a "match" qualifier on those tag fields.

6.10.4. JCS Flags

The "**Bindi.xmlDump**=true" JCS flag switches on support for "built-in" testing for ETDTester use. Cf. the "-b" option to the ETDTester CLI.

The "**Bindi.valid**=true" JCS flag invokes the XSC validator on the XSC output. As the validator in 4.5.2 is broken, this does not help much...

The "**Bindi.genTest**=true" JCS flag causes the generated code to include a "main" method that has taken 3 arguments: a data file name, repeat a count, and a progress size P. When called, it reads the input data, then calls unmarhsal() on the data as often as specified by the count, prints out progress information every P unmarshal calls, and finally prints out the average time per unmarshal.

6.10.5. Importing the BinDI Sample Schema

The e*Gate installation CD-ROM contains a sample schema to demonstrate a simple scenario using BinDI. Use the following steps to import the sample BinDI schema and look at its code.

1. Copy the file named **bindi_schema.zip** from the **samples\bindi** directory on the installation CD-ROM to your desktop or to a temporary directory.
2. Start the e*Gate Enterprise Manager.
3. Import the schema (**bindi_schema.zip**) into e*Gate.

4 Copy the file named **data.fin** from the **samples\bindi** directory on the installation CD-ROM to **<*egate*>\client\indata**.

5 Start the e*Gate Monitor, and then start all the modules in the schema.

6 View the output file, which is called **simple_bindi_output%d.dat**, in **<*egate*>\client\data**.

Note: *"%d" represents any integer.*

Open the Collaboration Rules (it is called **Bindi_rule**) for the sample BinDI Collaboration in the Enterprise Manager, and look at the code to see how the "oneof" node is used.

6.11 Commit Published Events

Two instance methods that commit Events without requiring a Java Collaboration to exit are now available. They only commit messages received from and published to a JMS and Standard IQ. The methods are:

- **commitPublishedEvents()**
- **commitReceivedEvents()**

The following example shows how to call the two commit methods, assuming we have an instance called "out":

- **out.commitPublishedEvents()**
- **out.commitReceivedEvents()**

Messages committed this way will not be reflected in the status of the module in the Monitor.

Users with ETDs compiled before installing this new version (or ESR) must recompile the ETDs if they want to take advantage of these two new commit methods. However, if using SeeBeyond provided pre-compiled ETD templates, you will not be able to use these two functions.

6.12 Testing EBCDIC and ASCII Data in the ETD Editor Before Testing

The procedure for testing EBCDIC and ASCII data in the ETD Editor is different depending upon which encoding the ETD is using. When performing a test on an z/OS ETD where your Registry Host and Participating Host are on z/OS and the data is located on a Windows drive, you must do one of the following before clicking the **Run Test** icon (or selecting **File** from the menu bar and then clicking **Run Test**):

EBCDIC

Before testing EBCDIC data, you must first edit the **.ssc** file before testing the data in the ETD Editor.

1 Open the **.ssc** file in a text editor. The file will look something like the following after you have made the changes which are bolded:

```
;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
;;;;;;;;;;
;:- STC MsgStruct Version 3.1

;:- MsgStructure Header
;:- MsgStructure "SysA"
;:- UserComment "Created by GenSsc [+]"
;:- Version "eGate Version 4.5"
;:- FormatOption DELIMITED
;:- RepSeparator "Repetition Delimiter" " "
;:- Escape "Escape Character Delimiter" "\\"
;:- DefaultDelimiters "OTHER"
;:- End MsgStructure Header
(set-file-encoding-method :EBCDIC)

;:- Delimiter Structure
(define SysA-delm '(
  ("\o153")
))

;:- Global Template Reference
;:- End Global Template Reference

;:- Local Template Definition
;:- End Local Template Definition

;:- MsgStructure Definition
(define SysA-struct ($resolve-event-definition (quote
  (SysA ON 1 1 und und und -1
    (((Ed "\o153")) EmployeeNumber ON 1 1 und und und -1)
    (((Ed "\o153")) LastName ON 1 1 und und und -1)
    (((Ed "\o153")) FirstName ON 1 1 und und und -1)
    (((Ed "\o153")) JobTitle ON 1 1 und und und -1)
    (((Ed "\o153")) HoursWorked ON 1 1 und und und -1)
    (((Ed "\o153")) Rate ON 1 1 und und und -1)
  )
)))
;:- End MsgStructure Definition
```

2 Edit the following lines:

A Add **EBCDIC** to **(set-file-encoding-method :)** as shown above in bold font.

B Add **\o153** to **(define SysA-delm '(("")** as shown above in bold font.

C Add **\o153** to each instance of **(((Ed ""))**, which are under **(SysA ON 1 1 und und und -1** as shown above in bold font.

3 Open the ETD Editor in the Enterprise Manager and load a valid ETD.

4 Select the **Run Test** icon. An **Open** window appears.

5 Navigate to, and select, the **<*filename*>.dat** file that you want to test and click **OK**. The **Test Dialog** window appears and the test is performed.

The top half of the **Test Dialog** window populates with the data mapped for the ETD if your test concluded successfully.

ASCII

When testing data that is in ASCII format, the ETD Editor must run the test a second time after you have made selected "UTF8" as documented below.

1 Open the ETD Editor in the Enterprise Manager and load a valid ETD.

2 Select the **Run Test** icon. An **Open** window appears.

3 Navigate to, and select, the **<*filename*>.dat** file that you want to test and click **OK**. The **Test Dialog** window appears and the test is performed.

4 After the test completes, the data will not be readable when you expand the ETD. Click **Encoding**. The **Encoding Setting** dialog box appears.

A Select the **Use Collab Controller** check box.

B From the **Incoming Encoding** list, select **UTF8**.

C From the **Unmarshal Encoding** list, select **UTF8**.

D When ready, click **OK**.

5 When the **Test Dialog** window reappears, click **Re-Test**.

6 When the **Open** window reappears, select the **<*filename*>.dat** file that you want to test a second time and click **OK**.

The top half of the **Test Dialog** window populates with the data mapped for the ETD if your test concluded successfully.

6.13 z/OS Performance

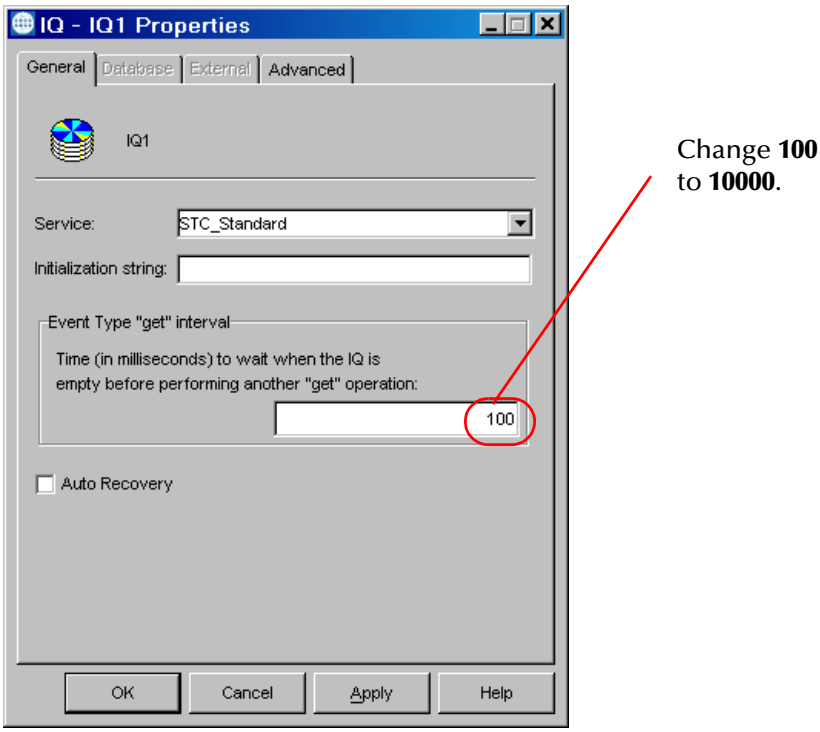
The following sections discuss how to improve z/OS performance.

6.13.1. Improving Performance for JMS and Standard IQs

When JMS and Standard queues are idle they constantly check for new work. On z/OS this checking can consume a great deal of CPU and TCP/IP resources. To reduce this overhead and improve z/OS performance for both JMS and Standard IQs:

1. Open the Enterprise Manager and select an IQ.
2. Right-click the IQ and select **Properties**. The **IQ Properties** dialog box appears.

Figure 10 IQ Properties Dialog Box



3. Under **Event Type "get" interval** on the **IQ Properties** dialog box, the default is 100 milliseconds. Change the default to **10000** milliseconds and click **OK**.

6.13.2. Setting Parameters on a Collaboration

If a Collaboration requires any Java command line parameters, those parameters must be specified on all Java components for the same Participating Host in that schema.

Chapter 7

Troubleshooting

This chapter describes issues that may arise during the installation process and provides tips and solutions to resolve these issues.

What's in This Chapter

7.1 Troubleshooting the Schema Designer GUI

If you are not able to open the Schema Designer GUI, there are two ways to correct this problem.

A

1. Right-click the **e*Gate Schema Designer** on the desktop.
2. On the pop-up menu, click **Properties**.
3. Select the **Shortcut** tab.
4. In the Target box, add **-v** after the command **stcguistart.exe**.

Note: *Do not change any other flags on the command line.*

5. Click **OK**.
6. Double-click the desktop's **Schema Designer** icon to launch the application.

An information window will appear. Check the environment variables as follows:

CLASSPATH must include **\egate\client\classes**
PATH must include **\egate\client\bin, egate\server\bin**
DISPLAY must be set to **:1.0**
XSERVER must point to the directory that contains the file **x.exe** (frequently, **C:\EXCEED**)

B

You can check ...**\client\logs** for the X GUI log files. If it says "cannot open display," set the DISPLAY envelope variable to:

LOCALHOST :**1.0**
or
LOCALHOST :**0.0**

If NO text is shown on any of the menus or rules

Both the full version of Exceed 7.0 and the partial OEM version of Exceed 7.0 were installed into the same directory. They cannot reside in the same directory.

Caution: *When **upgrading** from e*Gate version 4.01 to 4.1, you must clean out the old IQ directory before starting the upgrade operation. Otherwise, if any schema attempts to run after the upgrade is completed, the schema indicates corrupted IQs. This problem only occurs with this particular upgrade.*

7.2 Troubleshooting Tips

The following list provides some general guidelines for troubleshooting particular problems that may happen:

- **Outlook and Lotus Notes Servers:** When you are installing e*Gate on servers that also contain these applications, the installation can run extremely slow. The degree of slowness varies with the amount of disk space, memory, and other factors. To avoid this problem, make sure these applications (if present) are not running when you install e*Gate.
- **Dr. Solomon's NetShield:** This application affects any e*Gate installation that uses the Generic e*Way or any e*Way that loads large numbers of Monk files at once. Dr. Solomon's NetShield™ does not return the files fast enough to the calling application, so they fail to load. This problem can cause strange results in the Generic e*Way, including tight loops that produce large amounts of log-file data, which rapidly fill the hard disk. The work-around is to exclude the Monk directories (which are ASCII) from the directories checked by Dr. Solomon's NetShield.
- The JINTEGRA service must be running. If it is not running, the e*Gate ETD Wizards will not run and the Collaboration Editor will not compile.

Chapter 8

Frequently Asked Questions

This chapter lists some common questions that may be encountered during installation and the answers to those questions.

What's in This Chapter

8.1 Installation FAQs

1. **The installation program stopped responding while an X server or Microsoft Outlook was running.**

   You must exit all applications before running the installation utility. Programs such as Microsoft Outlook cause the install programs to slow down significantly. X servers must also be stopped.

   The exception is during an e*Gate Registry upgrade when you want to back up existing schema. To be able to back up schema, the current e*Gate Registry must be running. Use the Control Panel's Services applet to make sure that the e*Gate Registry Service is running.

2. **The installation does not proceed properly after I cancelled a previous installation attempt using the Task Manager.**

   If you cancel the installation via the Task Manager, you must delete the ***destination-directory*\setup\.isu** files before restarting the installation (where ***destination-directory*** is the directory in which you were attempting to install e*Gate).

3. **The SNMP Agent will not install on my Windows system.**

   The **$WINDIR\system32\drivers\etc\services** file must be updated. Port 161 must not be already assigned. If it is assigned, reassign the other services using it.

4. **I received an error stating that the software cannot communicate with the Registry.**

   A. Check that the Registry is up using the Control Panel's Services applet or the Task Manager.

   B. Use the **ping** command to confirm that your computer's IP address is correct. If it is not correct, see **"Installing e*Gate on Laptops" on page 55**.

5 **I received the error "Unable to retrieve converter.ini from the e*Gate Registry" when installing add-ons.**

This error can appear when a large number of add-ons are being installed at the same time. Try installing only two or three add-ons at one time.

6 **There were problems installing the Registry Host after uninstalling an earlier version.**

A At the command prompt, type the following to remove existing Registry, Control Broker, and Lightweight Installer services:

stcutil -rs stcregd*
stcutil -rs stccb*
stcutil -rs stcinstd*

B Reinstall the Registry Host.

7 **The X12 add-on takes a long time to install and requires a large amount of disk space.**

The X12 add-on includes a large number of Event Type Definition (ETD) files, which require both time to install and space to store.

8 **I received the message "Unable to obtain Win32 environment."**

This is usually caused by one of the following reasons:

- You have installed e*Gate to a path that contains spaces.
- You are installing e*Gate over a network (shared) drive.

Do whichever of the following is appropriate:

- Uninstall e*Gate, then reinstall it using the suggested defaults. Do not specify spaces within the path name.
- Install e*Gate from a local drive.

9 **I installed the UNIX version of an add-on application, but the accompanying Build tool for the ETD Editor was not installed.**

Install the Windows version of the add-on application in addition to the UNIX version. Because the e*Gate GUIs only run on Windows systems, the Build tools are packaged with the Windows versions of the add-ons.

10 **I would like to install more than one version/release of e*Gate on my machine, but the install process will not let me install the second version/release without trying to install it over the top of the originally installed e*Gate.**

e*Gate will allow only one version/release to exist on a given system at one time.

11 **I installed an add-on from a different build than the build I have on the machine even though the version/release number is the same and now it will not work.**

In any given e*Gate build, any number of inter-related files may be modified. Any time a module or add-on needs to be installed from a different build, you must reinstall the entire e*Gate suite. All components in the e*Gate system must be installed from the same build number.

12 **When I installed Java and Java Run Time, I got the message: Installing 4.5.x GUI, get "JRE not found.....".**

Make sure that the correct version of JRE is installed, and that you are using JRE 1.3.1_02. Check the Windows registry settings by using **regedit**. Check the value of:

\HKEY_LOCAL_MACHINE
SOFTWARE\JavaSoft\Java Runtime Environment\1.3.x\MicroVersion

to find out which version of JRE is installed.

13 **We have e*Gate installed on HPUX11. Stcregd and stcinstd are started by the root user while stccb is started by the "egate" user. Can this cause problems? Should all three be started by the "egate" user?**

Do not start any of these processes by root. Instead, create a user for the Registry and start these processes under that user.

To create a user for the Registry

A Have the **/etc/rc3.d** script contain something like:

su - egate -c "sh rc3.d/startcb"

B In the "egate" user's home directory, create a subdirectory called **rc3.d**.

C In the **rc3.d** directory, place a shell script called **startcb**, which contains the commands to start the Control Broker.

When executed as root at boot time, **su - egate -c "sh rc3.d/startcb"** reads the "egate" user's profile (or **.login** if it defaults to **csh**), and then executes the **startcb** shell script as the "egate" user. The Control Broker now runs as "egate" and not root.

Syntax for the su command

The syntax for the **su** (substitute user) command is as follows:

su - <user> -c <command>

su executes the specified command as the specified user, after running through the login process (for example, reading the user **.profile**).

If you just want to execute the command without running through the login process, remove the first "**-**":

su <user> -c <command>

*Note: When the **su** command is executed by the user "root," it does not ask for a password. When the **su** command is executed as any other user, it does ask for a password.*

14 **Using e*Gate version 4.1.2 or a later version, can I directly copy a schema file (.rdb file) in a previous version from one host to another?**

You cannot do this operation using e*Gate version 4.1.2 or later. In this and later versions, you can only copy a schema file from an earlier version to another host using the upgrade installer.

15 I have created my own password for logging on to e*Gate and I do not use the default. I am now upgrading to a later version. To do the upgrade, do I need to use the password I created or use the default?

Use the password you created. The upgrade installer recognizes the new password.

Appendix A

UNIX and Linux Patches

This appendix lists all the certified UNIX and Linux patches for e*Gate 5.0.5 SRE. The patches are the same for International platforms.

What's in This Chapter

A.1 HP Tru64 UNIX Patches

SeeBeyond has tested the system against the following patches:

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

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, we recommend 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.*

HP Tru64 UNIX V5.1A patches

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

```
- T64V51AB24AS0006-20031031 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
```

HP Tru64 UNIX V5.1B patches

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

```
- T64V51BB24AS0003-20030929 OSF540
```

A.2 HP-UX System Parameter Changes

If you are installing e*Gate on an HP-UX 11.0 or an HP-UX 11i system (see Table 9), make the following changes to system parameters:

Table 9 e*Gate 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. See the* **procedure on page 143 (13)***.*

8.1.1 HP-UX Operating System Patches

If you encounter a problem with an HP-UX OS patch while installing e*Gate, 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.3 HP-UX Patches

This section lists certified patches for HP-UX platforms.

HP-UX 11.0 Patches

Table 10 lists the certified patches for HP-UX 11.0.

Table 10 Certified HP-UX 11.0 Patches

Patch	Version	Explanation
HWE1100	B.11.00.0403.3	Hardware Enablement Patches for HP-UX 11.00, March 2004
QPK1100	B.11.00.64.4	Quality Pack for HP-UX 11.00, March 2004

HP-UX 11i (PA-RISC) Patches

Table 11 lists the certified patches for HP-UX 11i (PA-RISC).

Table 11 Certified HP-UX 11i (PA-RISC) Patches

Patch	Version	Explanation
GOLDAPPS11i	B.11.11.0412.5	Gold Applications Patches for HP-UX 11i v1, December 2004
GOLDBASE11i	B.11.11.0412.5	Gold Base Patches for HP-UX 11i v1, December 2004
HWEnable11i	B.11.11.0412.5	Hardware Enablement Patches for HP-UX 11i v1, December 2004

HP-UX 11i v2.0 (11.23) Patches

Table 12 lists the certified patches for HP-UX 11i v2.0 (11.23).

Table 12 Certified HP-UX 11i v2.0 (11.23) Patches

Patch	Version	Explanation
BUNDLE11i	B.11.23.0409.3	Required Patch Bundle for HP-UX 11i v2 (B.11.23), September 2004
HWEnable11i	B.11.23.0403.5	Hardware Enablement Patches for HP-UX 11i v2, March 2004
QPKBASE	B.11.23.0403.4	Gold Base Patches for HP-UX 11i v2, March 2004

A.4 IBM AIX 5L Patches

Version 5.1 Patches

There is one certified patch for version 5.1:

```
5100-07_AIX_ML (Maintenance Level 7)
```

For required version 5.1 patches, see the following:

- **"IBM AIX 5L version 5.1 Patches" on page 61**

Version 5.2 Patches

There is one certified patch for version 5.2:

```
5200-05_AIX_ML (Maintenance Level 5)
```

Version 5.3 Patches

There is one certified patch for version 5.3:

```
5300-02_AIX_ML (Maintenance Level 2)
```

A.5 Red Hat Linux Patches

Red Hat Enterprise Linux AS 2.1 (Intel x86)

There is one certified patch for Red Hat Enterprise Linux AS 2.1 (Intel x86):

```
2.4.9-e.16
```

Red Hat Linux 8 (Intel x86)

There is one certified patch for Red Hat Linux 8 (Intel x86):

```
2.4.20-20.8
```

A.6 Sun Solaris Patches

Sun Solaris 8 Patches

There is one certified patch for Sun Solaris 8:

```
Solaris 8 Maintenance Update 7, July 10, 2003
```

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

Sun Solaris 9 Patches

There is one certified patch for Sun Solaris 9:

```
Solaris 9 Maintenance Update 4
```

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

A.7 SuSE Linux Enterprise Server 8 Patches

SuSE Linux Enterprise Server 8 (Intel x86)

There is one certified patch for SuSE Linux Enterprise Server 8 (Intel x86):

```
Service Pack 3
```

Appendix B

Classic JVM and Hotspot JVM

Sun's Java Virtual Machine (JVM) is the environment in which Java programs run. There are two implementations of JVM: "Classic JVM" and "Hotspot JVM." Classic JVM interprets bytecodes whereas Hotspot JVM uses what is called "adaptive optimization" to enhance performance. After monitoring and interpreting the code, Hotspot JVM determines what percentage of the code is executed most of the time—the "hot spot." It then compiles this code and optimizes it.

What's in This Chapter

B.1 Setting the JVM

You determine which JVM your system starts at run time.

B.1.1 Setting the JVM for All Platforms

The procedure for setting Classic JVM or Hotspot JVM to start at run time is the same for all platforms, and is performed in the **Collaboration Rules Properties** dialog box in the Schema Designer.

Note: *Hotspot JVM is not available for AIX; IBM performs run-time optimization the same as Hotspot VM.*

Hotspot is the default JVM on Windows and Solaris. On Solaris, you can choose from the two types of Hotspot JVM: Server mode and Client mode. Client mode Hotspot VM is the default JVM on Solaris.

Setting Hotspot JVM

1. In the Schema Designer in the Navigator pane, select an e*Way.
2. In the Editor pane, right-click the Collaboration and then click **Properties**.
3. On the **General** tab, click **Edit** for the **Collaboration Rules**.
4. When the **Collaboration Rules Properties** dialog box appears, enter the string for Hotspot JVM in the **Initialization string** box.

For example, setting up Server mode on Solaris:

```
-jnidll /home/<user>/egate/client/JRE/1.3.1_02/lib/sparc/server/
libjvm.so
```

Note: *This will overwrite the e*Way configuration properties. For additional information, see the* ***e*Gate Integrator Collaboration Services Reference Guide****.*

5 Click **OK** twice to save the file and commit it to the repository.

6 If you are running on HP Tru64, Solaris, or Linux, after setting the above properties, change your **egateclient.sh**. That is, change **LD_LIBRARY_PATH** to point to the corresponding JVM.

Note: *If you want to use HP Tru64 Fast32 or Fast64 versions of the JVM, append the* ***native_threads*** *directory to your shared library path variable.*

For example, if you specify:
egate/client/JRE/1.3.1_02/lib/alpha/fast32/libjvm.so

in the ***JNI DLL absolute pathname****, you must also add the following to your shared library path:*
egate/client/JRE/1.3.1_02/lib/alpha/native_threads

7 If you are running on HP-UX, change **SHLIB_PATH** to point to the corresponding JVM.

Note: *If you use the C shell, modify* ***egateclient.csh*** *accordingly.*

B.1.2 Setting the JVM in a Multi-Mode e*Way Configuration File

As an alternative to setting the JVM in the Collaboration Rules, you can also set it in the configuration file of a Multi-Mode e*Way.

Setting the JVM

1 In the Schema Designer

2 , open the **Multi-Mode e*Way Properties** dialog box.

Note: *The executable file must be* ***stceway.exe****.*

3 Under **Configuration file**, click **Edit**.

4 In the **Goto Section**, select **JVM Settings** from the list.

5 In the **Goto Parameter**, select **JNI DLL absolute pathname** from the list.

6 In the **JNI DLL absolute pathname** box, enter the path for the platform for which you are setting up JVM.

For example, setting up Client mode Hotspot JVM on Linux:

```
/home/<username>/egate/client/JRE/1.3.1_02/lib/i386/client/
libjvm.so
```

Server mode Hotspot JVM on Linux is at:

```
/home/<username>/egate/client/JRE/1.3.1_02/lib/i386/server/
libjvm.so
```

Note: *For additional information, see the* ***e*Gate Integrator Collaboration Services Reference Guide****.*

7 In the **Goto Parameter**, select **Auxiliary JVM configuration file** from the list.

8 In the **Auxiliary JVM configuration file** box, enter the path for the configuration file which you use to configure JVM.

For example:

```
/home/<username>/<egatedir>/<configuration file path>/
<configuration file name>
```

9 When finished save the file (from the **File** menu, click **Save** or **Save As**).

Note: *If JVM is also set up in the Collaboration Rules, this setup will be overwritten.*

Index

Symbols

A

B

C

D

E

F

G

H

I

J

L

M

N

O

P

R

S

T

U

W

Z