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Preface

This preface provides information about the organization of this manual, related documentation, and an overview of installing and configuring IBM® Lotus® Enterprise Integrator for Domino™ (LEI).

Organization of This Manual

This manual contains the sections described in the following table.

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>The preface contains information about the organization of this manual, a list of related documentation, how to contact Support, and basic steps for getting started with LEI.</td>
</tr>
<tr>
<td>Chapter 1: Introduction to Installing and Configuring LEI</td>
<td>This chapter contains an overview and information about installing and configuring LEI on each of the supported platforms.</td>
</tr>
<tr>
<td>Chapter 2: Installing and Configuring LEI on Windows</td>
<td>This chapter contains information and instructions for installing LEI on Windows.</td>
</tr>
<tr>
<td>Chapter 3: Installing and Configuring LEI on UNIX</td>
<td>This chapter contains information and instructions for installing LEI on UNIX (AIX® and Solaris).</td>
</tr>
<tr>
<td>Chapter 4: Installing and Configuring LEI on iSeries</td>
<td>This chapter contains information and instructions for installing and configuring LEI on iSeries.</td>
</tr>
<tr>
<td>Chapter 5: Migrating from LEI or DECS</td>
<td>This chapter contains information and instructions for migrating from LEI Release 3.n or DECS to LEI Release 6.</td>
</tr>
<tr>
<td>Chapter 6: Uninstalling LEI</td>
<td>This chapter contains instructions for uninstalling LEI on all platforms.</td>
</tr>
</tbody>
</table>

Related Documentation

This section lists documentation that you may find useful as you learn about and use LEI.

Note  Two of the four LEI user documentation files (*Lotus Connectors and Connectivity Guide* — lccon6.nsf and *Lotus Connector LotusScript Extensions Guide* — lsxic6.nsf) are also part of the DECS documentation set and are now supplied with IBM® Lotus® Domino™ only, not LEI. To obtain these
two needed documentation databases, you must either install DECS or perform a custom install of the Domino server and select the DECS User Assistance option. These two files are also available at http://www.notes.net. Their PDF equivalents are available only at http://www.notes.net.

**LEI Documentation**

Documentation for LEI is available online with the product distribution and at http://www.notes.net. The LEI documentation set is listed below:


- **IBM Lotus Enterprise Integrator for Domino (LEI) Installation Guide** — Provides installation, configuration, and migration instructions for LEI (leiig.nsf and leiig.pdf).

- **Lotus Connectors and Connectivity Guide** — Provides information on how to set up and use the supplied Lotus Connectors, including information about required software and instructions for testing connectivity (lccon6.nsf). This documentation file is installed with Domino, not with LEI. The lccon6.pdf file is available for download at http://www.notes.net.

- **Lotus Connector LotusScript Extensions Guide** — Describes the Lotus Connector LotusScript® Extensions, which can be used in writing scripted sessions for accessing enterprise data (lsxl6.nsf). This documentation file is installed with Domino, not with LEI. The lsxl6.pdf file is available for download at http://www.notes.net.

- **IBM Lotus Enterprise Integrator for Domino (LEI) Release Notes** — The release notes (readme.txt) contain information about the current release of LEI that may not be included in the documentation set.

Current information about LEI can also be found at http://www.lotus.com/ei.

**Other Documentation**

For more information about related tools, refer to the following documents:

- **Domino Administrator’s Guide** — Provides information for configuring and administering a Domino installation.

- **LotusScript Language Reference** — Provides information about writing LotusScript programs. This is useful when using the LSX to write customized Activities.

- **Additional Domino Connector Documentation** — Lotus Software, IBM Software Group sells additional Lotus connectors for enterprise systems including Enterprise Resource Planning (ERP) and Transaction
Processing Systems. Specific documentation about these connectors is included with the connector software and package. You may need documentation for the specific databases, ERP, and transaction processing systems that you are using.

**Contact and Support Information**
Lotus Software, IBM Software Group provides extensive support for its products.

**Enterprise Integrator Web Site**
To obtain the latest information about LEI and DECS, visit the following Web site:

http://www.lotus.com/ei

**Note**  Domino-related product updates for iSeries can be found at following Web site:


**Technical Support**
To contact Customer Support with suggestions or questions regarding your Lotus Connector or LEI/DECS application, call 1-800-346-6388.

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**Getting Started with LEI Installation and Usage**
Listed below are the basic steps for getting started with LEI. Setup, installation, and migration is explored fully throughout the remainder of this guide. Usage is explored fully in the remainder of the documentation set.

1. Verify that a Domino server or IBM® Lotus® Notes® client exists on the local machine.
2. Verify connectivity to a Domino server (local or remote).
3. Ensure that you have upgraded to Domino 6. LEI Release 6 is not supported on earlier Domino releases.
4. Ensure that Domino is running and that DECS (if installed) is not running.
5. Perform all needed pre-installation setup. For example, if installing to UNIX, establish needed environment variables and X Window system display. Pre-installation tasks are documented in this guide.
6. Install this release of LEI.
7. Optionally migrate your LEI Release 3.n connections, activities, and script vault contents to this release of LEI. You can optionally migrate DECS Administrators into a single LEI Release 6 Administrator.

8. Test connectivity to intended data sources.
   You may need to install appropriate database communications software. This connectivity must be present on the machine to which you are installing the LEI server.

9. Start the LEI server.
10. Open the LEI Administrator database decsadm.nsf.
11. Build connections using the LEI Administrator.
12. Build activities using the LEI Administrator.
13. Run activities.
Chapter 1
Introduction to Installing and Configuring LEI

This chapter provides a general introduction to installing and configuring LEI. Specific platform installation instructions are presented in separate chapters.

Supported Platforms and Configurations
This section lists supported platforms, requirements, and configurations.

Supported Operating System Platforms
LEI is supported on the following platforms:

• Windows NT 4.0 with SP 6a
• Windows 2000
• AIX 4.3.3 and 5.1
• Solaris 2.8
• OS/400 V5R1

Upgrading LEI from an Unsupported Platform
When you install this release of LEI, the installer automatically upgrades your current LEI release 3.n Administrator. However, if your current LEI release 3.n Administrator resides on an unsupported platform, you must first move it to a supported platform before installing this release of LEI.

Software Requirements
This release of LEI requires the following:

• Notes R6 client to use the LEI Administrator
• Domino R6 server to manage the LEI Administrator
• Client libraries of the external systems to be accessed must be installed on the LEI server and the Domino server, which is often the same machine. When running activities, if the LEI server that you want the activity to run on and the Domino server where the LEI Administrator resides are on separate machines, the client libraries must be installed on both machines.
Note You can install the LEI server on a Notes client but the LEI Administrator must reside on a Domino server. However, LEI Advanced RealTime Activities are not supported in this configuration. For fully functional LEI, the Domino server, LEI server, and LEI Administrator must all reside on the same machine.

Read all documentation for Domino (including online) regarding the specific Windows patch-level Domino requires for its server. The patch level required by Domino is a prerequisite for a successful LEI installation. The patch requirements are updated periodically. See www.lotus.com/ei and the Domino documentation.


**Hardware Requirements**

The minimum hardware requirements are as follows:

- 40MB disk space on Windows
- 80MB of disk space on AIX, Solaris, and iSeries

**Accessing LEI Programmatically**

You can use the Lotus Connector LotusScript Extensions (LC LSX) to access LEI programmatically using a Scripted Activity. The LC LSX enables programmatic, native access and manipulation of Lotus Connector source data, allowing full programmatic control over data transfer. All supported Lotus Connectors use the same Lotus Connector API object model, exposed in LotusScript classes, to syntactically access a wide variety of enterprise data sources. The LC LSX is supplied with LEI.

**Supported Lotus Connector Versions**

The following Lotus Connectors, with the listed external system versions, are supported with this release of LEI.

- Lotus Connector for DB2 with UDB 6.x and 7.x
- Lotus Connector for Oracle 7 with Oracle 7.3.4 and 8.0.5
- Lotus Connector for Oracle 8 with Oracle 8.0.5 and 8i
- Lotus Connector for Sybase for Sybase 11.9.2
- Lotus Connector for OLE DB with SQL Server 2000 and Access 2000
- Lotus Connector for ODBC
LEI Support in a Domino Cluster

LEI is supported in a Domino cluster. This includes both LEI operating as a stand-alone application or in an LEI cluster.

- The LEI Administrator cannot be cluster replicated; however, multiple LEI Administrators can be used within a Domino cluster to control each of the instances of LEI running in the cluster.
- Non-RealTime Activities and Virtual Fields Activities operate successfully on multiple instances of a cluster replicated database.
- The Virtual Documents Activity can only be run against one instance of a cluster-replicated database; the other instances must have the data local; cluster replication will keep them in sync with one another.
- Running LEI on one instance of Domino in the cluster and DECS on the other instances of Domino in the cluster is not supported. The Domino cluster must use either DECS or LEI, not a combination of the two.
- You can run LEI on the iSeries platform as an addin, but not as a stand-alone application.

DECS and LEI Coexistence

The supported configurations for administering DECS and LEI Administrators are as follows:

- LEI 3.n Administrators must be administered using a Notes R4/R5 client.
- DECS R4/R5 Administrators must be administered using a Notes R4/R5 client.
- DECS Domino 6 Administrators must be administered using a Notes R6 client.
- LEI Release 6 Administrators must be administered using a Notes R6 client.

If you do not use a supported configuration, you may encounter LotusScript errors. For example, it is possible to configure your work environment so that you have an R5 Domino server in the same group as a Domino 6 server. However, if you run DECS on an R5 Domino server and use a Notes 6 client to access it, you will get LotusScript errors when you try to run some DECS agents (such as Initialize Keys). This behavior is the result of using an unsupported configuration. Unsupported configurations may also affect the outcome of code that uses LotusScript and LotusScript Extensions and possibly Scripted Activities. If you have an R5 Domino/DECS server in the same group as a Domino 6 server, you should also maintain an R5 Notes client in service to access and run the DECS Administrator that is on R5 Domino.
Installation Overview

There are two primary LEI components that may be installed by the LEI installation program.

- LEI Server
- LEI Administrator

During installation, if the LEI installation utility detects an existing LEI Release 3.n, it will upgrade the LEI program files and prepare a new LEI Administrator. You can migrate your existing Activity Documents and Connection Documents from the old Administrator to the new Administrator after the successful LEI installation.

See the “Preparing to Install LEI” and “Installing LEI” sections in the platform-specific chapters of this guide for details and considerations.

**Note**  You can install the LEI server on a Notes client but the LEI Administrator must reside on a Domino server. However, LEI Advanced RealTime Activities are not supported in this configuration. For fully functional LEI, the Domino server, LEI server, and LEI Administrator must all reside on the same machine.

Files and Directories

When you install LEI, the following files are created or updated.

- LEI Administrator template and database (leiadm.ntf and decsadm.nsf)
- LEI Log template and database (leilog.ntf and leilog.nsf)
- LEI Script Vault template and database (leivlt.ntf and leivlt6.nsf) - optional
- User documentation (readme.txt, leidoc.nsf, leiig.nsf, leidoc.pdf, and leiig.pdf)
  
  **Note**  The other two documents that comprise the LEI user documentation set are installed with Domino, not LEI, and are lccon6.nsf, lsxlc6.nsf. Their PDF equivalents can be found at http://www.notes.net.

- Notes initialization file (notes.ini)
- Sample databases (leiemsamp.nsf and leipackagetrack.nsf)
- LEI integrated credentials database template (leicred.ntf)

When you install LEI, the following default directories are used.

- Domino directory as specified by the Domino directory in the registry or, on UNIX platforms, the LIBPATH or LD_LIBRARY_PATH variable values
• LEI directory as specified in the notes.ini file or the Domino directory in the registry
• User documentation directory as specified by the directory setting in the notes.ini file or user-specified
• The iSeries places files in /QIBM/ProdData/LOTUS/NOTES and the QNOTES system library.

As LEI is installed, the following files are copied onto your machine.

<table>
<thead>
<tr>
<th>File</th>
<th>File Type</th>
<th>Win32 Install Location</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>leiadm.ntf</td>
<td>Templates/Adm</td>
<td>Admin Server - Lotus\Domino\Data</td>
<td>Yes</td>
</tr>
<tr>
<td>decsadm.nsf</td>
<td>Database/Adm</td>
<td>Admin Server - Lotus\Domino\Data</td>
<td>Yes</td>
</tr>
<tr>
<td>leilog.ntf</td>
<td>Templates/Adm</td>
<td>Admin Server - Lotus\Domino\Data</td>
<td>Yes</td>
</tr>
<tr>
<td>leilog.nsf</td>
<td>Database/Adm</td>
<td>Admin Server - Lotus\Domino\Data</td>
<td>Yes</td>
</tr>
<tr>
<td>leivlt.ntf</td>
<td>Templates/Adm</td>
<td>Admin Server - Lotus\Domino\Data</td>
<td>Yes</td>
</tr>
<tr>
<td>leivlt6.nsf</td>
<td>Script vault database</td>
<td>Admin Server - Lotus\Domino\Data</td>
<td>Yes</td>
</tr>
<tr>
<td>leicred.ntf</td>
<td>Templates/Adm</td>
<td>Admin Server - Lotus\Domino\Data</td>
<td>Yes</td>
</tr>
<tr>
<td>readme.txt</td>
<td>Documentation</td>
<td>Lotus\Domino\leidir or Notes\leidir</td>
<td>Yes</td>
</tr>
<tr>
<td>leidoc.nsf</td>
<td>Documentation</td>
<td>Admin Server - Lotus\Domino\Data\Help</td>
<td>Yes</td>
</tr>
<tr>
<td>leiig.nsf</td>
<td>Documentation</td>
<td>Admin Server - Lotus\Domino\Data\Help</td>
<td>Yes</td>
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<tr>
<td>leidoc.pdf</td>
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<td>No</td>
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<tr>
<td>leiig.pdf</td>
<td>Documentation</td>
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<td>No</td>
</tr>
<tr>
<td>leiempsamp.nsf</td>
<td>Sample database</td>
<td>Admin Server - Lotus\Domino\Data\Help</td>
<td>No</td>
</tr>
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</table>

Chapter 1: Introduction to Installing and Configuring LEI
<table>
<thead>
<tr>
<th>File</th>
<th>File Type</th>
<th>Win32 Install Location</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>leipackagetrack.nsf</td>
<td>Sample database</td>
<td>Admin Server - Lotus\Domino\Data\Help</td>
<td>No</td>
</tr>
<tr>
<td>nzmttext.dcx</td>
<td>Connector</td>
<td>Lotus\Domino or Notes</td>
<td>Yes</td>
</tr>
<tr>
<td>uninstall.exe</td>
<td>Uninstall utility</td>
<td>Lotus\Domino\leidir\uninst or Notes\leidir_uninst</td>
<td>Yes</td>
</tr>
<tr>
<td>JRE and other files</td>
<td>JVM</td>
<td>Lotus\Domino\leidir_jvm or Notes\leidir_jvm</td>
<td>Yes</td>
</tr>
<tr>
<td>run_migration.exe</td>
<td>Migration utility</td>
<td>Lotus\Domino or Notes</td>
<td>Yes</td>
</tr>
<tr>
<td>LEI Executable</td>
<td>Shortcut</td>
<td>Program menu</td>
<td>Yes</td>
</tr>
<tr>
<td>readme.txt</td>
<td>Shortcut</td>
<td>Program menu</td>
<td>Yes</td>
</tr>
<tr>
<td>Product Registration Tool</td>
<td>Shortcut</td>
<td>Program menu</td>
<td>Yes</td>
</tr>
<tr>
<td>Migration Tool</td>
<td>Shortcut</td>
<td>Program menu</td>
<td>Yes</td>
</tr>
<tr>
<td>Uninstaller</td>
<td>Shortcut</td>
<td>Program menu</td>
<td>Yes</td>
</tr>
<tr>
<td>leiinst.log</td>
<td>LEI install log file</td>
<td>Lotus\Domino\leidir</td>
<td>Yes</td>
</tr>
<tr>
<td>migration.log</td>
<td>Migration log file</td>
<td>Lotus\Domino</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### General Installation Considerations

The following general considerations are useful when installing LEI.

- You can install the LEI server on a Notes client but the LEI Administrator must reside on a Domino server.
- In order to support browsing in an external system database, the external system software must reside on same Domino server on which the LEI Administrator resides.
- The Domino server must be running when you either install or uninstall LEI.
- If you shutdown the Domino server before you shut down the LEI server, you cannot restart Domino until you have closed LEI. The error message on the Domino console indicates that the partition is already in use. If you then shut down LEI manually, you can restart Domino. You can add the “EXTMGR_ADDINS=decsext” to your notes.ini file so that whenever the Domino server is shutdown, LEI will also be shutdown.
- If Advanced RealTime is enabled (“EXTMGR_ADDINS=decsext” is present in your notes.ini file), whenever the Domino server is shut down, the LEI server is also shut down, regardless of whether it is run as an addin task (“ServerTasks=LEI” is present in your notes.ini file) or not. This is not an issue with a Domino server that does not have Advanced RealTime enabled.
• DECS, if installed, must not be running during LEI installation.

• When installing an LEI server, if an LEI Administrator does not already exist, one will be created as part of the installation. After the first LEI server is installed and the LEI Administrator is created, subsequent server or client installations can share that LEI Administrator.

• If you want to start with an empty (fresh) LEI Administrator, but already have an existing DECS Administrator, prior to installing the latest version LEI you can rename or delete the existing DECS Administrator (decsadm.nsf) in the server data directory. The LEI Administrator file name is also decsadm.nsf.

• If your current version of LEI is the same version as the release you wish to install (for example, if you were a Beta customer or you have been using a trial version), uninstall the existing LEI installation before installing the latest version. See the chapter entitled “Uninstalling LEI” for more information.

• See the section entitled “Using Advanced RealTime Activities in a Clustered Domino Server Environment” for information about that capability.

• When a DB2 client is installed or upgraded, the environment variable LC_ALL with the value EN_US is set. If Sybase is also installed on the same machine, this entry breaks Sybase connectivity. When you run ‘ndctest’ using the Sybase Connector, ndctest returns the message that the system environment variable LC_ALL is set, but is not set in sybase.ini. To correct the problem and restore Sybase connectivity, either delete the NT system environment variable LC_ALL or add the following line to the [NT] section of your locales.dat file located in C:\sybase\LOCALES:

   'locale = EN_US, us_english, iso_1'

• All LEI servers added to the LEI Administrator should have unique names. Duplicate server names will create orphaned LEI servers in the LEI Administrator.

• For iSeries, LEI is always installed as an add-in task. You can optionally removed LEI from your ServerTasks entry if you wish to manually invoke LEI.

**Upgrading and Migrating from LEI Release 3.n or DECS**

Upgrade and migration considerations are stated below.

**Upgrading to the Current LEI Administrator**

• If you have installed DECS, and want to upgrade from DECS to this release of LEI, you must first upgrade your DECS Administrator from R5 to R6 before installing LEI. You can upgrade Domino and then
perform a “replace design” on the existing R5 DECS Administrator using the R6 DECS Administrator template. Once you have updated your DECS Administrator, you can perform the LEI installation process. The LEI installer, upon detecting your DECS Administrator, will automatically upgrade that Administrator to this release of LEI.

- If DECS is detected during LEI install, its activities are upgraded automatically. However, you can use the migration utility to consolidate various DECS Administrators from other servers into a single LEI Administrator.

  **Note**  After upgrading from DECS to LEI, if you are unable to get data when running Virtual Fields activities, open each Virtual Fields Activity Document and ensure that the Domino server name is correctly specified.

- In order to perform a remote upgrade, you must start Domino and stop DECS on the remote Domino server prior to upgrading. You must also edit the remote notes.ini file to remove DECS from the ServerTasks settings. You should then be able to perform the remote upgrade.

**Migrating to the Current LEI Release**

All existing LEI users must migrate their LEI Release 3.n Activity Documents and Connection Documents after LEI installation in order for those items to be recognized by this release of LEI. A migration utility exists that performs this process. The migration utility also enables you to migrate multiple DECS Administrator contents to a single LEI Administrator. In addition, it optionally enables you to migrate LEI LSX scripts to LC LSX format. The process of migrating from LEI Release 3.n or from DECS is described fully in the “Migrating from LEI or DECS” chapter of this document.

  **Note**  If a previous version of LEI exists on your machine, you can optionally uninstall it before you install this release of LEI. This is described in the Windows and UNIX chapters in the install instructions.

- When LEI installation is complete, you will be prompted to migrate from your LEI Release 3.n or DECS Administrator, LEI LSX scripts, Connection Documents, and Activity Documents. You can migrate at the conclusion of the installation procedure or at any time after installation.

  **Note**  As a best practices suggestion, complete the LEI Release 6 installation, experiment with it, and then migrate.

- In order to perform migration, the LEI Release 6 Administrator and the LEI Release 6 server must reside on the same machine as the migration utility.

- During migration, your target LEI Release 6 Administrator is backed up.
• Connection Documents and Activity Documents or DECS documents are optionally backed up and then converted to this release of LEI.

• The migration utility optionally updates any LEI LSX scripts in the LEI Script Vault that you request from LEI LSX to LC LSX format. The LEI LSX has been retired and superseded by the LC LSX.

See the section entitled “Considerations When Migrating” in the “Migrating from LEI or DECS” to chapter for complete details.

LEI Server Considerations

The LEI server must be installed on a machine where a Notes client or a Domino server is installed. Only one LEI server can be installed on any single machine, including partitioned machines. In addition, appropriate database communications software (Oracle SQL*NET, ODBC, etc.) must be available on that same machine to enable communications with the desired data sources, for example browsing in the external system database. See the Lotus Connectors and Connectivity Guide (lccon6.nsf) supplied with Domino or its PDF equivalent located at http://www.notes.net for specific database software requirements.

• LEI server operations require access to the notes.ini file located on that machine.

• LEI is supported on a single instance of a partitioned server.

• You can install the LEI server on a Notes client, but the LEI Administrator must reside on a Domino server.

You must establish proper access levels on the LEI server’s Domino Directory, (formerly referred to as the “Name and Address Book (NAB)“. This is described in the section entitled, “Creating Proper Access Controls” later in this chapter.

• Earlier releases of LEI used client-side browsing from the LEI Administrator, which required that LEI users install their external system connectivity software on both the Domino server (that hosted the LEI Administrator and the LEI server) and the Notes client. This is no longer true. LEI now uses server-side browsing only, browsing databases on the external system using client connectivity from the Domino server that hosts the LEI Administrator, not browsing from the Notes client.

• LEI users need only install their external system connectivity software on the Domino server that hosts the LEI Administrator. LEI users no longer need to install external system connectivity software on the Notes client.
Understanding LEI Clusters
The term “LEI cluster” is defined as the configuration in which one or more LEI servers share a single LEI Administrator database.

A single LEI Administrator can have many LEI servers, but an LEI server can only use, or be installed into, a single LEI Administrator.

A cluster also includes the LEI log and the optional script vault database, documentation databases, and sample databases.

The LEI installation utility can handle all aspects of cluster installation when creating the LEI Administrator and installing the LEI server. See the IBM Lotus Enterprise Integrator for Domino (LEI) Activities and User Guide for more information about the LEI server and LEI Administrator.

LEI Administrator Considerations
The LEI Administrator (decsadm.nsf) is a Notes application. It is generated from the template file leiadm.ntf. The LEI Administrator can be accessed by one or more LEI servers, as well as by authorized Notes users.

- You can install the LEI server on a Notes client but the LEI Administrator must reside on a Domino server.
- LEI installation requires that the LEI Administrator be installed onto a Domino server that is accessible to the local machine.
- The installation utility enables you to create a new LEI Administrator or use an existing LEI Release 6 Administrator when installing a new LEI server. This is termed a “cluster” in LEI.
- If you are creating a new LEI Administrator database, you must have the appropriate access to create databases on the target Domino server.
- If you are installing to an existing LEI Release 6 Administrator, you must have manager-level access privileges to that database.

LEI Administrator usage and security is described in the LEI Administrator chapter of the IBM Lotus Enterprise Integrator for Domino (LEI) Activities and User Guide.

Creating Proper Access Controls
This section describes various access control parameters that must be established for LEI usage.

Access Control List (ACL) Levels
The LEI Administrator is shipped with a predefined Access Control List (ACL). In this ACL, “Default” is set to Manager because when LEI is first
installed and the addin task is loaded for the first time, the LEI installer automatically builds the initial LEI Administrator from the template.

**Managers and administrators are urged to change the ACL to best fit their environment as soon as possible after installation so that only the appropriate people have the access they require.**

**Note** Either a “Default” or “Enterprise Connector Products/Lotus Notes® Companion Products” ACL entry must exist and must have at least Editor access or else browsing will fail. This is because the agent that is used for browsing is run on the server, therefore security is through the signer of the agent. The signature is “Enterprise Connector Products/Lotus Notes Companion Products.”

System administrators can further secure the system by specifying the template development ID of “Enterprise Connector Products/Lotus Notes Companion Products” in the Server entry in the Domino Directory, formerly referred to as the “Name and Address Book (NAB)”, in the “Run Unrestricted LotusScript/Java agents” list. This will allow only that ID to run LotusScript agents on that server. Note that this suggestion is very restrictive and may be too excessive for some installations. For related information, see the section entitled, “Setting Up Notes IDs to Run LEI.”

**Establishing Access Levels for the LEI Server Name and Address Book**

Ensure that all users who will be creating LEI Activities have entries in the Domino Directory (formerly referred to as the NAB) and that the server is listed as part of a group. For more information, see the pop-up help in the Server document in the Domino Directory.

Other Domino Directory setting requirements are described in the “Setting Up Notes IDs to Run LEI” in this chapter and in the “Preparing to Install LEI” sections of the platform-specific chapters.

**Setting Up Notes IDs to Run LEI**

Before the LEI Administrator and server can be used, you must configure proper Notes user IDs and ACLs.

The LEI Notes user ID must have access to all data that LEI will be accessing on Domino servers. For these reasons, any LEI server accessing sensitive Notes data should observe the same physical access restrictions as Domino servers.

LEI will initially be configured to use the server ID. If only the Notes client is installed, it will use the Notes user ID. If you do not want LEI to use the server ID, see the next section, “Running LEI and Domino on the Same Machine” later in this chapter. Because the LEI Administrator and log
databases are created on a Domino server, the Notes user on the machine where LEI is being installed must have Create Database and Delete Database authorization on the Domino server before installation is started.

The LEI installation utility automatically assigns Manager access to the installing ID (Notes ID or server ID) to the LEI Administrator database and LEI log databases ACLs. Other managers can optionally be added during install. After installation is complete, the default access to the LEI Administrator and log databases is set to Manager. You can then open the LEI Administrator and log database and configure the ACL to meet your security needs.

Users who create Connection Documents and Activity Documents should be given Author access to the LEI Administrator database. Editor access to an Activity Document is necessary for running Activities and using agents or actions on the document.

If the user that controls LEI has a password-protected ID, the LEI Administrator will need to supply that password each time the LEI server is started or performs a data transfer activity. You do not need to remove this protection if the Notes option “Don’t prompt for a password from other Notes-based systems” is enabled.

In the Programmability Restrictions area of the Server document, you must grant permission to “Enterprise Connector Products/Lotus Notes Companion Products” in the “Run unrestricted methods and operations:” field and the “Run restricted LotusScript/Java agents:” field.

Also “Default” must have Editor access to the LEI Administrator database with permission to delete documents.

---

**Using Separate IDs for LEI and Domino**

To run an LEI server and a Domino server on the same machine, while using different IDs for the LEI server and the Domino server, make the following changes in the notes.ini file.

1. Add the following line to the notes.ini file, where SERVER.ID is the name of the Domino server ID.
   
   ```ini
   ServerKeyFileName = SERVER.ID
   ```

2. Edit the existing line (which will probably be pointing to the server ID) as below, where USER.ID is the name of the ID you want to use for LEI and the Notes client.
   
   ```ini
   KeyFileName = USER.ID
   ```
This will cause the LEI server to prompt for the USER.ID each time you invoke LEI. The Domino server will use the SERVER.ID.

**Note** For more information about how the last ID used by the client is registered, search for the term “addin” in the platform-specific installation chapter.

**Initialization File Settings**

LEI and DECS set and use certain environment variable values in the Notes initialization file notes.ini. Some of these variables are set based on choices you make during Domino or LEI installation. You can use the notes.ini file to change certain settings for DECS and LEI, such as EIConnectionPool, EINativeText, and EICenturyBoundary. When installing to a Domino server, the Domino server’s notes.ini file is used. When installing to a Notes client, the Notes client’s notes.ini file is used.

**Note** Previous versions of LEI used a combination of the lei.ini file and the notes.ini file for environment variable settings. The lei.ini file has been retired and all LEI-related variables now exist in the notes.ini file. In addition, most LEI environment variable names have been changed and some have been retired.


When you install LEI, you must specify the path to the notes.ini file that you want to use. When you install this version of LEI, the following environment variables are added to your notes.ini file:

- EIName
- EIAdminServer
- EITranslation
The following Domino variables are also needed.

- **EXTMGR_ADDINS=decsext** — This will only be added to the notes.ini file if the Enable RealTime option was selected. This is required for LEI RealTime Activities to execute properly. This is a Domino variable.

- **ServerTasks** — If you have installed DECS, the “DECS” value is assigned to this variable. Prior to installing LEI, the “DECS” value must be removed from this variable. When you install LEI as an add-in task, the “LEI” value is assigned to this variable. If you install LEI without enabling it as an addin, no value is added to this variable. Note that for iSeries, LEI is always installed as an add-in task and therefore will automatically be added to the variable.

The notes.ini file settings that pertain to LEI are listed and described in the following table.

The entries are the following:

<table>
<thead>
<tr>
<th><strong>INI Variable</strong></th>
<th><strong>Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>EIName</td>
<td>Specifies the name of the LEI server. This value is maintained by DECS and LEI.</td>
</tr>
<tr>
<td>EIAdminServer</td>
<td>Specifies the name of the Domino server on which the LEI Administrator has been installed. If installing into a cluster, this specifies the name of the LEI server on which the LEI Administrator resides. This value is maintained by DECS and LEI.</td>
</tr>
<tr>
<td>EITranslation</td>
<td>Controls text translation, allowing you to increase performance in exchange for certain assumptions about the data being accessed. Note that none of these settings affects translation between Unicode and other character sets. There are three valid numeric settings:</td>
</tr>
<tr>
<td></td>
<td>- 0 = Disabled — Do not perform translation between character sets (except Unicode). This is valid when all data being accessed is compatible with the Notes LMBCS character set - primarily ASCII printable characters.</td>
</tr>
<tr>
<td></td>
<td>- 1 = LMBCS only — Do not perform translation between non-LMBCS (and non-Unicode) character sets. This is valid when all data being accessed, except for Notes LMBCS data, is in compatible character sets.</td>
</tr>
<tr>
<td></td>
<td>- 2 = Enabled — Always translate between any character sets. This is the default.</td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong> On iSeries, EITranslation is set to 2 in the notes.ini file by the LEI installer. Do not change this setting.</td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong> In previous versions of LEI and DECS, this was named Translation or DECSTranslation, respectively.</td>
</tr>
</tbody>
</table>

---

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Determines the translation from a two-digit year specification to a four-digit year value. Given a two-digit year of yy and an EICenturyBoundary value of EICB, the translation from a two-digit year to the full specification will occur as follows:

<table>
<thead>
<tr>
<th>EICB value yy</th>
<th>full-year</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 00-99</td>
<td>19yy</td>
</tr>
<tr>
<td>1-99</td>
<td>20yy</td>
</tr>
<tr>
<td>yy &lt; EICB</td>
<td>20yy</td>
</tr>
<tr>
<td>yy &gt;= EICB</td>
<td>19yy</td>
</tr>
<tr>
<td>100 00-99</td>
<td>20yy</td>
</tr>
<tr>
<td>101 00-99</td>
<td>cyy (where cc = current century)</td>
</tr>
</tbody>
</table>

For example, if you set the EICenturyBoundary value to 0 in the notes.ini file, then all two-digit dates specified in the LEI or LSX session are considered to be prefaced by 19. If you set the EICenturyBoundary value to 100 in the notes.ini file, then all two-digit dates specified in the LEI or LSX session are considered to be prefaced by 20.

**Note** The EICenturyBoundary entry is not created during LEI installation.

In previous versions of LEI and DECS, this was named CenturyBoundary or DECSCenturyBoundary, respectively.

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**ININativeText**

This allows the local machine’s native character set to be overridden. There are various situations when the native character set is used within the LSX and within RealTime, and some external systems always consider client data to be in the native character set. Setting this value to a valid text format string replaces the character set obtained from the operating system by the LSX or RealTime with the indicated character set. Appendix D of the Lotus Connector LotusScript Extensions Guide lists the supported character sets. Use the text that remains after removing the LCSTREAMFMT_ prefix.

Set to the suffix of an LC API text stream format. For example, LCSTREAMFMT_IBMCP932 indicates code page 932. Add the statement EINativeText=IBMCP932 to force LEI to use that character set as native.

In previous versions of LEI and DECS, this was named NativeText or DECSNativeText, respectively.

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**Chapter 1: Introduction to Installing and Configuring LEI**

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Enables support for more than 128 concurrent activities. To increase the maximum number of activities that can run concurrently, add EIMaxRTEntries= to the notes.ini file and assign it an integer value to indicate the new upper limit. If a line already exists, edit its value to the new setting. The lower limit is 128 active activities; a value less than 128 will not change the limit below 128. If the number of activities started exceeds the specified value in the notes.ini file, the server will display a warning message and subsequent activities will not be started. An example notes.ini file entry is EIRTMaxEntries=175.

In past versions of LEI and DECS, this was named RTMaxEntries or DECSRTMaxEntries, respectively.

---

**INI Variable** | **Description**
--- | ---
**EIMaxRT Entries** | Provides syntax for configuring the connection pools as a list of comma-delimited Lotus Connector names, the pool size, and an optional data source maximum. The default pool size for all connectors is 20. The optional data source maximum value indicates the limit of allowed connections to a single database. This value cannot be more than the total pool size for a given connector. For example, a DB2 pool size of 10 and a data source maximum of 5 indicates the pool will hold no more than 10 connections to DB2 and of the 10, no more than 5 will be to any one database. If you do not specify a data source maximum, it is the same as the pool size.

An example notes.ini file entry is shown below. This example has pooling information for three connectors - Oracle, DB2, and PeopleSoft 7.0. Respectively, they support connection pools of 10, 20, and 4 connections each. In addition, DB2 indicates that no more than 5 connections in the pool can be to a single database.

EIMaxRTEntries=oracle,10,db2,20,5,psoft7,4

For more information, see the Connection Pooling section in the Lotus Connector LotusScript Extensions Guide (lsxlc6.nsf andlsxlc6.pdf supplied with Domino and also at http://www.notes.net).

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Using Advanced RealTime Activities in a Clustered Domino Server Environment

Advanced RealTime Activities can be used to great advantage in a clustered Domino server environment. This brief overview of how replication works in a clustered Domino server environment will help you to understand how Advanced RealTime Activities take advantage of a clustered configuration. Refer to Domino documentation for information on how to set up clustered Domino servers.

When using the Virtual Fields Activity with clustered Domino servers, LEI must be installed on each server and identical RealTime connections and activities must exist in each LEI Administrator and be enabled. Advanced RealTime will then intercept events in the monitored Domino forms and perform the requested read, write, updates or deletes on the external database.

**Note**  LEI is not currently supported on more than one server of partitioned clustered Domino servers.

**Domino Replication**

Domino replication keeps copies of a database up to date with one another when they reside on different servers. Domino Replication is managed by a process on one designated server which synchronizes the databases on the others.

**Domino Replication in a Clustered Environment**

Clustered replication works by a process on each of the Domino servers in the cluster, monitoring databases on the server for changes, keeping a queue of these changes in memory, and calling the replication routines to push those changes to other clustered servers with replication copies of the database. If one or more of the target clustered servers is not active, the source server will retry at increasing intervals until it is successful. If the source server crashes, the queue in memory is lost.

Lotus Software, IBM Software Group recommends that clustered replication be supplemented by periodic scheduled replication, so that the scheduled replication will pick up changes that may be lost if a server crashes. Note that a cluster replication must be running on all servers to push changes in all directions. There is no “pull” in cluster replication. The processes involved are pushing, receiving, and indexing.
Virtual Fields Activities in a Clustered Environment

Virtual Fields Activities work by loading a management module for each process through the EXTMGR_ADDINS parameter in the notes.ini file. This intercepts database operations such that when the activity is started, real-time requests are addressed through operations on the external database. To operate correctly, Virtual Fields Activities must be started from the LEI Administrator on all servers to intercept real-time events in all replicas. When this is done, Virtual Fields Activities intercept both the Domino database read on the source server and the database write on the Domino target servers.

To prevent unwanted duplication of inserts, updates, or deletes to the external database when the Domino databases are replicated from clustered server to clustered server, Virtual Fields Activities add additional information to the records as they are replicated to indicate that the requested action has already been done. This information does not alter the documents.

**Note**  On clustered Domino servers, the Virtual Fields Activity and Connection Documents must be identical on all the servers. The least error-prone way to do this is to copy and paste from one to another. It is also recommended that after you paste the documents, you open for editing, press <F9>, and save each document to ensure that all computed fields are correct.

**Note**  If one of the parallel Advanced RealTime Activities is not running, this protection may fail and duplicate records may be added to the external database. For example, inserts may be attempted in violation of unique constraints, or deletes may fail because the record has already been deleted.
Chapter 2
Installing and Configuring LEI on Windows

This chapter provides information and instructions for installing LEI on Windows platforms.

System Requirements

Windows platform requirements are described below.

Hardware Requirements

- Processor: Intel systems Pentium or higher
- Memory: 128MB or more recommended
- Disk Space: 40MB disk space

Software Requirements

- Windows NT 4.0 with SP 6a or Windows 2000
- Notes R6 client to use the LEI Administrator
- Domino R6 server to manage the LEI Administrator
- Client libraries of the external systems to be accessed must be installed on the LEI server and the Domino server. When running activities, if the LEI server that you want the activity to run on and the Domino server where the LEI Administrator resides are on separate machines, the client libraries must be installed on both machines.

Note  You can install the LEI server on a Notes client, but the LEI Administrator must reside on a Domino server.

Note  Read all Domino documentation regarding the specific Windows patch level required by the Domino server. The patch level required by Domino is a prerequisite for a successful LEI installation. The patch requirements are updated periodically. See http://www.lotus.com/ei and the Domino documentation.
Preparing to Install LEI on Windows

Before you use the LEI installer, you must do the following:

1. Set the correct access controls in the names.nsf file (Domino Directory - formerly referred to as the Name and Address Book or NAB) on the Domino server.

2. Establish the correct access rights in your Notes ID file.

These tasks are described in the next two sections of this guide.

The following information is also useful when preparing to install LEI:

• Domino 6 must be installed and running in order for you to install LEI.
• After Domino 6 is installed, LEI Release 3.n will be unusable.
• LEI Release 3.n does not have to be uninstalled before Domino 6.0 is installed. LEI Release 3.n does not have to be uninstalled before LEI Release 6 is installed.
• The LEI Administrator, script vault, and data files should be backed up prior to uninstalling LEI Release 3.n or upgrading LEI Release 3.n to LEI Release 6.
• If you have a Beta or trial version of LEI Release 6, the installation utility will detect it and you will be prompted to upgrade. If you choose to proceed with an upgrade, the LEI program files will be upgraded to the new version. Alternatively, you may uninstall the existing server and then proceed with a standard installation as described in this chapter.
• For all existing LEI Release 3.n users, after installation, you must migrate your LEI Release 3.n Activity Documents, Connection Documents, and LEI script vault content if you wish to access them from LEI Release 6. You can migrate at any time after a successful LEI install. See the “Migrating from LEI or DECS” chapter for detailed instructions.
• If the Domino server on the system that you are installing LEI onto is running IBM® Lotus® Domino Enterprise Connection Services™ (DECS), shut down the DECS service. DECS cannot be running when you install LEI.
• If DECS is installed, its activities are automatically upgraded during LEI installation.
• Using the migration utility, activities and connections from multiple DECS Administrators can be consolidated into a single LEI Release 6 Administrator.
LEI installation copies all LEI program files and updates the notes.ini file. The LEI Administrator database and other cluster databases are created on the specified Domino server. If you are installing into an existing cluster, the LEI Administrator is opened and a LEI configuration document is created for the new server.

If you configure the LEI server to run as an add-in task, it will start when you restart the Domino server.

### Setting Access Controls in the Domino Directory

To enable browsing of Notes databases on a remote Domino server, you must edit the names.nsf file (Domino Directory - formerly referred to as the Name and Address Book or NAB) that resides on the remote Domino server. The fields that require editing are described in the procedure below. To simplify the installation process, this task is performed prior to LEI installation.

1. Open the names.nsf file on the Domino server that you wish to browse.
2. Display the list of Domino servers.
3. Double-click on the desired Domino server to open its server document.
4. Click the Security tab from the top bar of the server document and enter Edit mode.
5. In the Programmability Restrictions section, enter the phrase “Enterprise Connector Products/Lotus Notes Companion Products,” a comma, and the server name in the “Run unrestricted methods and operations” field.
6. In the Programmability Restrictions section, also enter the phrase “Enterprise Connector Products/Lotus Notes Companion Products,” a comma, and the server name in the “Run restricted LotusScript/Java agents” field.

<table>
<thead>
<tr>
<th>Programmability Restrictions</th>
<th>Who can -</th>
</tr>
</thead>
<tbody>
<tr>
<td>Run unrestricted methods and operations:</td>
<td>R Enterprise Connector Products/Lotus Notes Companion Products, misc/Edge Research</td>
</tr>
<tr>
<td>Sign agents to run on behalf of someone else:</td>
<td>R x</td>
</tr>
<tr>
<td>Sign agents to run on behalf of the invoker of the agent:</td>
<td>R x</td>
</tr>
<tr>
<td>Run restricted LotusScript/Java agents:</td>
<td>R Enterprise Connector Products/Lotus Notes Companion Products, misc/Edge Research</td>
</tr>
</tbody>
</table>
7. Scroll down to the Server Access section and add “Enterprise Connector Products/Lotus Notes Companion Products” to the settings that are currently selected. It is recommended that your Domino server name be specified in this field in addition to selecting “users listed in all trusted directories.” Keep in mind that as with other fields in the server document, adding items to these fields limits access to only those specified.

<table>
<thead>
<tr>
<th>Server Access</th>
<th>Who can -</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access server:</td>
<td>✔️ users listed in all trusted directories and</td>
</tr>
<tr>
<td></td>
<td>✔️ Enterprise Connector Products/Lotus Notes Companion Products, Misc/edge research, Joe Cross/CAM/Lotus, */Lotus, *</td>
</tr>
<tr>
<td>Not access server:</td>
<td></td>
</tr>
<tr>
<td>Create new databases:</td>
<td></td>
</tr>
<tr>
<td>Create replica databases:</td>
<td></td>
</tr>
<tr>
<td>Allowed to use monitors:</td>
<td></td>
</tr>
<tr>
<td>Not allowed to use monitors:</td>
<td></td>
</tr>
<tr>
<td>Trusted servers:</td>
<td></td>
</tr>
</tbody>
</table>

8. When browsing remotely for Notes databases, the network port must be properly defined. To enable browsing and prevent the “No databases found” error, click the Ports tab. In the Notes Network Ports form, enter the machine name, in this example XYZ.YourCompany.com or the IP address, for example 111.11.111.11.

9. Save and close the Domino server document.

Establishing Access Rights in Your Notes ID File

You must configure your server Notes ID file so that the Notes login ID file used by the LEI server is shared across all your Notes-based applications. This task must be performed manually using the steps below.

**Note** In case you do not perform this task prior to initiating LEI installation, a screen appears during LEI installation instructing you to perform these steps. To simplify the installation process, perform this task now.

1. Shut down Domino.
2. Locate the Notes login ID file used by the LEI server.
3. Copy that Notes login ID file to a location that you can access from a Notes client.
4. Choose File - Security - Switch ID from your Notes menu.
5. Change to the Notes ID file copied in step 2 by selecting it from the resultant list.
6. When prompted, enter the password for that specific Notes login ID. This action closes any applications that are presently open in Notes.
7. Click File - Security - User Security to open the User Security menu. Enter your password when prompted.
8. From the User Security menu, click the Security Basics option.
9. On the Security Basics screen, ensure that the setting “Don’t prompt for a password from other Notes programs” is enabled.
10. Click the What Others Do option.
11. On the Using Workstation screen, enter “Enterprise Connector Products/Lotus Notes Companion Products” in the “When code is signed by you” list and enable the required fields as shown in the following graphic.

![User Security Menu](image)

The required fields are File system, External code, Current database, Environment variables, Read other databases, and Modify other databases.
12. Save and close the User Security menu.
13. Copy the Notes login ID file back to its original location, replacing the existing file.
14. Restart Domino now.
Installing LEI on Windows

Once you have performed all the tasks described in the section entitled “Preparing to install LEI on Windows”, you can install LEI. To install LEI on your Windows platform, perform the following steps. Please read all the steps before you install LEI.

This section provides an example of installing the LEI server with a new LEI Administrator. This installation process creates a new LEI Administrator and its associated databases and also installs the LEI server into the new LEI Administrator.

1. Ensure that Domino R6 is running.
2. Ensure that Domino R6 is installed on the machines that will host the LEI server, Domino server, and LEI Administrator for this release of LEI.

Before you can install LEI Release 6, you must upgrade to Domino/Notes R6.

3. If DECS is loaded and enabled, shut down DECS. DECS must not be running when you install LEI.
5. Run the setup executable by double-clicking on setup.exe.
6. The LEI Welcome screen appears, displaying product and company details and Web address. Click Next to continue.

7. The LEI licensing screen appears. Respond as prompted and then continue with the install process.

8. LEI installation adds to or modifies several environment variables. It sets certain variables and removes DECS from the list of ServerTasks in the specified notes.ini file. Specify the path to the notes.ini file (on the Domino server) that you wish to use and then click Next to continue.
9. Configure your server Notes ID file so that the Notes ID login file used by the LEI server is shared across all your Notes-based applications. This task must be performed manually using the steps listed.

**Note** This process is described in the previous section entitled “Establishing Access Rights in Your Notes ID File”. In case you did not perform this task prior to LEI installation, a screen appears now instructing you to do so. If you have not already done so, perform this task now.

- Exit the LEI installer by clicking Cancel on the Installer screen.
- Shut down Domino.
- Locate the Notes login ID file used by the LEI server.
- Copy that Notes login ID file to a location that you can access from a Notes client.
- Choose File - Security - Switch ID from your Notes menu.
- Change to the Notes ID file copied in step b by selecting it from the resultant list.
- When prompted, enter the password for that specific Notes login ID. This action closes any applications that are presently open in Notes.
- On the Security Basics screen, ensure that the setting “Don’t prompt for a password from other Notes programs” is enabled. Once it is enabled, click Next on the installer screen to proceed.
i. Copy the Notes login ID file back to its original location, replacing the existing file.

j. Restart Domino now.

10. The installer detects local and remote servers to determine default values for the notes.ini settings. Specify the name of the LEI server and the Domino server (that will host the LEI Administrator) and then click Next to continue.

Note All LEI servers added to the LEI Administrator should have unique names. Duplicate server names will create orphaned LEI servers in the LEI Administrator.

When you click Next, the installer validates a connection to the Domino server on which the LEI Administrator will reside using the user ID and password. If a decsadmn.nsf exists (for example, from a previous DECS installation), the installer confirms manager access. Should confirmation fail, the installer displays an error message and does not advance in screen display.

Note Do not move or remove the LEI Administrator .nsf or .ntf file after installation.

11. If the installer detects a previous installation of LEI, the following screen appears. As requested, stop all LEI servers that use that LEI Administrator and then continue with the installation.

Note If the installer detects a DECS installation, you are given the option of assigning a backup file name to the DECS Administrator before it is upgraded to this release of LEI.
12. The Additional Managers screen below appears. The Notes ID that you use while installing LEI is entered in the ACL for all the LEI databases created during installation. The default access given is Manager. If there are any other users or groups you wish to grant Manager access to at this time, you may do so here by entering valid semicolon-delimited Notes IDs. You can also add additional users after installation is complete by manually editing the ACLs.
Enter the names of additional LEI database managers to create the correct access control level (ACL) for each person listed, that being manager-level access to the LEI Administrator (decsadm.nsf), user documentation files, and sample databases. Click Next to continue.

**Note** If the Notes ID you will use to access the databases after installation is not the same as the Notes ID you are using during installation, add that Notes ID to the Additional LEI Database Managers field now.

**Note** The LEI Administrator is now named decsadm.nsf. The DECS Administrator was also named decsadm.nsf. The LEI installer can differentiate between the two when determining whether to upgrade from a DECS Administrator or a previous version of LEI Release 6.

13. LEI provides Advanced RealTime functionality in three forms - Virtual Fields, Virtual Documents, and Virtual Agents activities. Specify whether to enable Advanced RealTime Activities now or not and click Next to continue.
Note LEI must be installed on all Domino servers where Advanced RealTime functionality is required. Specifically, RealTime functionality requires that the LEI server, Domino server, and LEI Administrator be located on the same machine.

Note RealTime functionality can be manually configured at a later time if desired.

Note If you enable Advanced RealTime, the installer adds the “EXTMGR_ADDINS=decsext” statement to the notes.ini file. It also sets the “Advanced RealTime Enabled option - Enabled on this Server” in the LEI server configuration document.

This screen appears if you are installing to a local Domino server. It does not appear if you are installing to a Notes client.

14. You can optionally configure LEI to run as a Domino server add-in task. Enabling LEI as an add-in task allows the LEI server to load and start automatically when the host Domino server is started. Specify whether to configure LEI as an add-in task now or not and click Next to continue.
If you enable LEI as a Domino server add-in task, the installer adds LEI to the list of ServerTasks in the notes.ini file.

15. Specify how non-native text is translated across multilingual data communications environments. Based on your selection, the installer sets the EITranslation value in the designated notes.ini file. Make a selection and click Next to continue.
The translation support choices are described below:

- **Disabled** — For maximum performance and when all text data is in compatible character sets, translation is disabled completely.
- **LMBCS only** — Notes text data only is translated. This is appropriate when all non-Notes text data is in compatible character sets.
- **Enabled** — LEI always translates between different character sets.

**Note** Regardless of the setting, Unicode text is always translated.

The text translation setting is available for each LEI server, allowing different servers to have different levels of support. The translation support level is set during the installation of an LEI server. It may also be viewed and edited in the notes.ini file.

16. Specify where program icons are to be located and click Next to continue.

17. Optionally request that the LEI documentation, sample databases, and/or script vault be installed. File names are correlated below. Make your selections and click Next to continue.

**Note** Selecting the Create Script Vault option creates the LEI Script Vault database with a file name of leivlt6.nsf. If you expect to migrate scripts from a Release 3.n LEI Script Vault (leivlt.nsf) to LEI Release 6, do not delete or change the file name of the leivlt6.nsf database.

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The LEI documentation titles and file names are listed below.

- **IBM Lotus Enterprise Integrator for Domino (LEI) Activities and User Guide** (leidoc.nsf and leidoc.pdf)
- **IBM Lotus Enterprise Integrator for Domino (LEI) Installation Guide** (leiig.nsf and leiig.pdf)

The LEI sample database titles and file names are listed below.

- Package Tracking (leipackagetrack.nsf)
- Notes Employee Sample (leiempsamp.nsf)

The following two documentation titles and file names are installed with Domino but are also part of the LEI documentation set.

- **Lotus Connector LotusScript Extensions Guide** (lsxlc6.nsf)
- **Lotus Connectors and Connectivity Guide** (lccon6.nsf)


The Script Vault title and file name is listed below.

- LEI Script Vault (leivlt6.nsf)

18. The installer indicates in which directories the documentation, executables, samples, and script vault will be placed. Click Next to continue.

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19. The installer modifies the designated notes.ini file and performs the installation, displaying a bar that indicates percentage of installation completion.

20. The product registration tool appears, prompting you to register this installation of LEI. Complete the form to register the product and then continue.
21. When installation is complete, the installer displays the following screen. Optionally request to display the readme and click Next to continue. What's New information is also available in the online documentation.
**Note** View the readme.txt file to learn what’s new in this release and various facts that may not be included in the documentation set.

22. Optionally request to launch the migration tool and click Next to continue. If you want to migrate your LEI Release 3.n Connection Documents, Activity Documents, and LEI LSX scripts, you can do that now or later. Migration is described in the chapter entitled “Migrating from LEI or DECS” later in this guide. Please follow the instructions in that chapter when you are ready to migrate.

23. Depending on your configuration, you may need to reboot your machine after install. You will be notified if it is necessary for you to reboot.
24. Read the statement that you must stop and restart Domino before attempting to run this release of LEI. After you have restarted Domino, click Next to continue.

25. Click Finish to exit the installer.

26. As you run the installer, it creates a log file (leiinst.log) that lists the files created and where they were installed. The file is located in the leidir directory. Optionally view the leiinst.log file.
27. To start the LEI server, click Programs - Lotus Applications - LEI from the Start menu. You can also start the LEI server from the Domino console using the load lei command.

**Note** If you configured LEI as a Domino add-in, the LEI server will start as soon as you start the Domino server. You can also start the LEI server from the Domino console using the load lei addin command.

28. To begin work in LEI, start Notes and open the LEI Administrator (decsadm.nsf) using the File - Database - Open menu sequence.

---

**Running LEI as a Windows Service**

This section provides information on configuring LEI to run under Windows 2000 and NT. Some of these configuration items are optional.

**Installing LEI as a Windows Service**

After installing and verifying that LEI runs, you may want to configure LEI to run as a Windows service. This is useful if you want LEI to start automatically whenever the machine is started, or if you want to configure LEI to run continuously even if you log out of Windows.

**Note** If the Domino server starts as a Windows service, to avoid sequencing problems LEI should be added as a Domino server add-in task. This will ensure that Domino will start before LEI.

LEI can be added and removed as a Windows service. As a Windows service, LEI will automatically start up when the Windows server is started. To do this after LEI has been installed, execute nlcservc.exe from a command window in the Domino data directory.

As a user with Windows Administrator privileges, enter one of the following commands and respond to prompts:

```bash
nlcservc install
nlcservc remove
```

**Note** The name of the Domino service includes a reference to the path to the data directory. If you chose the default installation location for Domino, the service name will be qualified with (LotusDominoData). In this case, you only need to specify install on the command line in order to make the LEI service dependent on the Domino service. However, if you have installed Domino in a different directory, the name of the Domino service will be different. To specify the qualifier, include it on the command line after the install keyword (see Note under step 3 below for details).
To configure LEI as a Windows service, complete the following steps:

1. Start a Command Prompt window.
2. At the command prompt, change to the directory in which the nlcervc.exe file resides (default path is C:\lotus\domino).
   
   ```
   cd C:\lotus\domino
   ```
3. Execute the command `nlcervc` with the `install` parameter:
   
   ```
   nlcervc install
   ```
   
   **Note** If you installed Domino to the default path, you do not need to specify a service name after the `install` parameter. However, if you installed Domino in a location other than the default (for example “c:\otherlocation\domino\data”) the Domino service name will match that path (for example “OtherlocationDominoData”). In this scenario, the command line would be as follows:

   ```
   nlcervc install otherlocationdominodata
   ```
4. You will be prompted as follows. To configure the service to start automatically, respond Yes to both prompts.
   
   Do you want to make LEI a service dependent on the Domino server (LotusDominoData) service?
   
   Do you want to make LEI start automatically at system boot?
   
   **Note** If you respond Yes to these prompts to configure the LEI service to start automatically, then the Domino server (LotusDominoData) service must also be configured to start automatically.

   LEI is now configured to automatically start when Windows and Domino start.

### Configuring LEI for Autostarting at Windows System Start

If you had chosen No to the second prompt above, the LEI service will be configured as a manual start. You can optionally respecify that the LEI service start automatically at system start by doing the following:

1. Select Start - Settings - Control Panel.
3. On Windows NT, select the LEI service and then click Startup. On Windows 2000, double-click the LEI icon.
4. On Windows NT, select Automatic as the startup type. Verify that “System Account” and “Allow Service to Interact with Desktop” are selected. On Windows 2000, select “System Account” and “Allow Services to Interact with Desktop” are in the LogOn tab.

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5. Click OK. 
   LEI is now configured to automatically start when Windows starts.

6. Click Start to start LEI or click Close to exit.
   Once LEI is configured to run as a service, you cannot run it from the
   command line. You must start it as a service from either the Control Panel -
   Services menu sequence or with the “net start” command (net start LEI).
   LEI will make entries in the Windows event log upon startup and
   shutdown.

**Removing LEI as a Windows Service**

You can remove the LEI service using the following procedure:

1. Open a Command Prompt window.
2. At the command prompt, change to the directory in which the
   nlcservc.exe file resides.
   
   ```
   cd c:\lotus\domino
   ```

3. Execute the command `nlcservc` with the `remove` parameter.
   
   ```
   nlcservc remove
   ```

   **Note** This procedure removes the LEI service from Windows. After
   removing it as a service, you must then start LEI from the command
   prompt in order to run it.

**Connectivity Tests with User or System Accounts**

When running the connectivity tests described in the *Lotus Connectors and
Connectivity Guide* (lccon6.nsf and lccon6.pdf supplied with Domino and
also at www.notes.net), be aware of the following considerations:

- If LEI is set to log on as a specific user account, log on to Windows with
  that account to perform your connectivity tests. If LEI is set to log on as
  a system account, all required DBMS client software must be accessible
  through the system path.

- Since the local system account does not have access to network drives,
  anything following the first network path in the system path will be
  ignored. The DBMS client directories must be listed in the system path
  before any network drives. In order to perform your connectivity tests
  through the system account, you can perform a start cmd.exe through
  an LEI Command Activity. Doing so creates a command prompt with
  the same path and environment as the LEI service.
Considerations When a Notes/Domino Server is Started as a Windows Service

The following considerations should be understood when running LEI as a Windows service.

- If LEI is installed on the same machine as the Domino server and the LEI Administrator (decsadm.nsf) is also on that Domino server, LEI should only be run as a Windows service if Domino is run as a Windows service. Also, the LEI service must designate the Domino service as a dependency. Otherwise, LEI will fail to initialize.

- When a Notes/Domino server is started as a Windows service, Notes/Domino users cannot access database or directory links that are at locations other than the local Windows server. Applications that are set up as a service begin execution before you are prompted to log in at the Windows server.

- If Notes/Domino is set up as a service, mapped drives that the Windows server may have set up are not reconnected when the Notes/Domino server is started. The Notes/Domino server only recognizes drives that are available when it is first started. Any drives that are mapped after the Notes/Domino server is started are not recognized. Directory/database links that point to mapped drives on other computers will not function properly if the Notes/Domino server is started as a service. The solution is to not install Notes/Domino as a service.

- When Notes/Domino is not installed as a service, but is launched from the Start menu or from a desktop shortcut, you must be physically logged on at the Windows server. Because you must log on to the server, all network drive mappings will have been established when the Notes/Domino server was launched. Directory and database links that are beyond the local server function correctly.

Restoring LEI on the Windows Platform

If the Domino or Notes upgrade or reinstallation is done in the original directory, LEI should function as before and no further action should be needed.

If the original Domino or Notes directory is deleted in this process, or if the Notes or Domino directory is changed, you must reinstall LEI. If you need to reinstall, you must first uninstall LEI and then perform a fresh installation. When uninstalling, be sure to keep the existing LEI cluster. Do not remove the cluster unless you really want to start with a new empty LEI Administrator.

When reinstalling your LEI server, choose to install it into the existing cluster (LEI Administrator database).
Chapter 3
Installing and Configuring LEI on UNIX

This chapter provides information about system requirements and describes how to install LEI on UNIX (AIX and Solaris) platforms.

AIX System Requirements
This section describes AIX (pSeries) system requirements.

**Hardware Requirements**
- Processor: PowerPC™
- Memory: 128MB or more recommended
- Disk Space: 80MB disk space

**Software Requirements**
- AIX 4.3.3 and 5.1
- Notes R6 client to use the LEI Administrator
- Domino R6 server to manage the LEI Administrator
- Client libraries of the external systems to be accessed must be installed on the LEI server and the Domino server. When running activities, if the LEI server that you want the activity to run on and the Domino server where the LEI Administrator resides are on separate machines, the client libraries must be installed on both machines.
- An X Window system server environment
- X Window system client libraries

**Note** If you are using a remote X Window system server, set the DISPLAY environment variable to designate where the LEI Installation and Migration GUI should be displayed.

**Note** You can install the LEI server on a Notes client but the LEI Administrator must reside on a Domino server.
Note  Read all Domino documentation regarding the specific AIX patch level required by the Domino server. The patch level required by Domino is a prerequisite for a successful LEI installation. The patch requirements are updated periodically. See http://www.lotus.com/ei and the Domino documentation.

Solaris Sparc System Requirements

This section describes Solaris system requirements.

Hardware Requirements

- Processor: SPARC or UltraSPARC
- Memory 128MB or more recommended
- Disk Space 80MB disk space

Software Requirements

- Solaris 2.8
- Notes R6 client to use the LEI Administrator database
- Domino R6 server to manage the LEI Administrator database
- Client libraries of the external systems to be accessed must be installed on the LEI server and the Domino server. When running activities, if the LEI server that you want the activity to run on and the Domino server where the LEI Administrator resides are on separate machines, the client libraries must be installed on both machines.
- An X Window system server environment
- X Window system client libraries

Note  If you are using a remote X Window system server, set the DISPLAY environment variable to designate where the LEI Installation and Migration GUI should be displayed.

Note  Read all Domino documentation regarding the specific Solaris patch level required by the Domino server. The patch level required by Domino is a prerequisite for a successful LEI installation. The patch requirements are updated periodically. See http://www.lotus.com/ei and the Domino documentation.
Preparing to Install LEI on UNIX

Before you use the LEI installer, you must do the following:

1. Set the correct access controls in the names.nsf file (Domino Directory — formerly referred to as the Name and Address Book or NAB) on the Domino server.

2. Establish the correct access rights in your Notes ID file.

3. Ensure that all needed environment variable are set and exported — see the section entitled “Setting and Exporting Environment Variables” for details.

4. Ensure that you have loaded and configured X Window system software — see the section entitled “Configuring Screen Display for LEI Installation” for details.

These tasks are described in the next four sections of this guide.

The following information is also useful when preparing to install LEI:

• Domino R6 must be installed and running in order for you to install LEI.

• After Domino 6 is installed, LEI Release 3.n will be unusable.

• LEI Release 3.n does not have to be uninstalled before Domino 6 is installed. LEI Release 3.n does not have to be uninstalled before LEI Release 6 is installed.

• The LEI Administrator, script vault, and data files should be backed up prior to uninstalling LEI Release 3.n or upgrading LEI Release 3.n to LEI Release 6.

• If you have a Beta or trial version of LEI Release 6, the installation program will detect it and you will be prompted to upgrade. If you choose to proceed with an upgrade, the LEI program files will be upgraded to the new version. Alternatively, you may uninstall the existing server and then proceed with a standard installation as described in this chapter.

• For all existing LEI Release 3.n users, after installation, you must migrate your previous version Activity Documents, Connection Documents, and LEI script vault contents if you wish to access them from LEI Release 6. You can migrate immediately after a successful installation using an option on the installer tool itself, OR you can migrate any time after a successful LEI installation using the run_migration executable. See the “Migrating from LEI or DECS” chapter for detailed instructions.
• If the Domino server on the system that you are installing LEI onto is running Domino Enterprise Connection Services (DECS), shut down the DECS service. From the Domino console, type “tell DECS quit”. DECS cannot be running when you install LEI.

• If DECS is installed, its activities are automatically upgraded during LEI installation.

• Using the migration utility, activities and connections from multiple DECS Administrators can be consolidated into a single LEI Release 6 Administrator.

• LEI installation copies all LEI program files and updates the notes.ini file. The LEI Administrator database (decsadm.nsf) is created on the specified Domino server. If you are installing into an existing cluster, the LEI Administrator is opened and a LEI configuration document is created for the new LEI server.

• If you configure the LEI server to run as an add-in task, it will start when you restart the Domino server.

**Setting Access Controls in the Domino Directory**

To enable browsing of Notes databases on a remote Domino server, you must edit the names.nsf file (Domino Directory - formerly referred to as the Name and Address Book or NAB) that resides on the remote Domino server. The fields that require editing are described in the procedure below. To simplify the installation process, this task is performed prior to LEI installation.

1. Open the names.nsf file on the Domino server that you wish to browse.
2. Display the list of Domino servers.
3. Double-click on the desired Domino server to open its server document.
4. Click the Security tab from the top bar of the server document and enter Edit mode.
5. In the Programmability Restrictions section, enter the phrase “Enterprise Connector Products/Lotus Notes Companion Products,” a comma, and the server name in the “Run unrestricted methods and operations” field.
6. In the Programmability Restrictions section, also enter the phrase “Enterprise Connector Products/Lotus Notes Companion Products,” a comma, and the server name in the “Run restricted LotusScript/Java agents” field.
7. Scroll down to the Server Access section and add “Enterprise Connector Products/Lotus Notes Companion Products” to the settings that are currently selected. It is recommended that your Domino server name be specified in this field in addition to selecting “users listed in all trusted directories.” Keep in mind that as with other fields in the server document, adding items to these fields limits access to only those specified.

8. When browsing remotely for Notes databases, the network port must be properly defined. To enable browsing and prevent the “No databases found” error, click the Ports tab. In the Notes Network Ports form, enter the machine name, in this example XYZ.YourCompany.com or the IP address, for example 111.11.111.11.

9. Save and close the Domino server document.
Establishing Access Rights in Your Notes ID File

You must configure your server Notes ID file so that the Notes ID login file used by the LEI server is shared across all your Notes-based applications. This task must be performed manually using the steps below.

**Note** In case you do not perform this task prior to initiating LEI installation, a screen appears during LEI installation instructing you to perform these steps. To simplify the installation process, perform this task now.

1. Shut down Domino.
2. Locate the Notes login ID file used by the LEI server.
3. Copy that Notes login ID file to a location that you can access from a Notes client.
4. Choose File - Security - Switch ID from your Notes menu.
5. Change to the Notes ID file copied in step 2 by selecting it from the resultant list.
6. When prompted, enter the password for that specific Notes login ID. This action closes any applications that are presently open in Notes.
7. Click File - Security - User Security to open the User Security menu. Enter your password when prompted.
8. From the User Security menu, click the Security Basics option.
9. On the Security Basics screen, ensure that the setting “Don’t prompt for a password from other Notes programs” is enabled. Once it is enabled, click Next on the installer screen to proceed.
10. Click the What Others Do option.
11. On the Using Workstation screen, enter “Enterprise Connector Products/Lotus Notes Companion Products” in the “When code is signed by you” list and enable the required fields as shown in the following graphic.

![User Security Screen](image)

The required fields are File system, External code, Current database, Environment variables, Read other databases, and Modify other databases.

12. Save and close the User Security menu.

13. Copy the Notes login ID file back to its original location, replacing the existing file.

14. Restart Domino now.

Setting and Exporting Environment Variables

Once you have created the UNIX user ID for LEI, all environment settings should be entered into the .profile (Korn shell) or .login (C shell) to ensure the same environment settings are used each time you work with LEI.

Before installing LEI, configure these environment variables for the appropriate platform you are working with.

To effectively run Domino on your UNIX machine, you may have already included in and exported from your .profile or .login file many of the environment variables described in this section. Please note that all environment variables must be exported.
AIX Environment Variables
Set and export the following environment variables in your appropriate configuration file (such as .login or .profile) so that they will be accessed each time you log on and invoke LEI.

1. Ensure that the LANG environment variable is correctly set to your proper locale and is exported. If this is not set, the default “C” is used.
   
   LANG=C
   
   Note For more information about locale and character set specification, see the IBM Lotus Enterprise Integrator for Domino (LEI) Activities and User Guide.

2. Ensure that the environment variable LOTUS is set to the canonical directory where all your Lotus software is installed and that the environment variable is exported.
   
   If you use the C shell, your .cshrc file should contain the line:
   
   setenv LOTUS /opt/lotus
   
   For sh or ksh, your initialization file should contain the following:
   
   LOTUS=/opt/lotus; export LOTUS

3. Ensure that the environment variable Notes_ExecDirectory is set to specify the Notes executable directory and that the environment variable is exported.
   
   Notes_ExecDirectory=/opt/lotus/notes/latest/ibmpow

4. Ensure that the environment variable PATH is set to include the following directories and that the environment variable is exported.
   
   • Notes Resource directory:
     
     $LOTUS/notes/latest/ibmpow/res/$LANG
   
   • Lotus executable directory: $Notes_ExecDirectory
   
   • Notes data directory (locates notes.ini file; for example /home/user/notes)
     
   For example:
   
   PATH=$PATH:/opt/lotus/notes/latest/ibmpow/res/$LANG:/opt/lotus/notes

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5. Ensure that the environment variable LIBPATH, which is used to locate shared libraries, is set to include the following directories and that the environment variable is exported.

- Notes executable directory: $Notes_ExecDirectory
- Any other product library directories you may require (such as $ORACLE/lib, $SYBASE/lib, $ODBC_HOME/dlls)

For example:

LIBPATH=/opt/lotus/notes/latest/ibmpow:$ORACLE/lib

Solaris Environment Variables

Set and export the following environment variables in your appropriate configuration file (such as .login or .profile) so that they will be accessed each time you log on and invoke LEI.

1. Ensure that the LANG environment variable is correctly set to your proper locale and is exported. If this is not set, the default “C” is used.

   LANG=C

   Note For more information about locale and character set specification, see the IBM Lotus Enterprise Integrator for Domino (LEI) Activities and User Guide.

2. Ensure that the environment variable LOTUS is set to the canonical directory where all your Lotus software is installed and that the environment variable is exported.

   If you use the C shell, your .cshrc file should contain the line:

   setenv LOTUS /opt/lotus

   For sh or ksh, your initialization file should contain the following:

   LOTUS=/opt/lotus; export LOTUS

3. Ensure that the environment variable Notes_ExecDirectory is set to specify the Notes executable directory and that the environment variable is exported.

   Notes_ExecDirectory=/opt/lotus/notes/latest/ibmpow

4. Ensure that the environment variable PATH is set to include the following directories and that the environment variable is exported.

   - Notes Resource directory: $LOTUS/notes/latest/sunspa/res/$LANG
   - Lotus executable directory: $Notes_ExecDirectory
   - Notes data directory (to locate notes.ini file, for example /home/user/notes)
5. Ensure that the environment variable **LD_LIBRARY_PATH**, which is used to locate shared libraries, is set to include the following directories and that the environment variable is exported.

   - Notes executable directory: $Notes_ExecDirectory
   - Any other product library directories you may require (such as, $ORACLE/lib, $SYBASE/lib, $ODBC_HOME/dlls)

   For example:
   ```
   LD_LIBRARY_PATH=/opt/lotus/notes/latest/sunspa:$ORACLE/lib
   ```

### Configuring Screen Display for LEI Installation

To install LEI on a UNIX system, you must first install the X Window system manager to enable physical display of the graphical user interface. The GUI-based installation utility requires X Window System manager for both installation and migration. There is no command line installation capability.

You will need the following:

- An X Window system server environment
- X Window system client libraries

If you are using a remote X Window system client, set the Window Manager to the X Window system Manager, not the native Window Manager, to ensure a fully functional GUI.

If you are using a remote X Window system server, set the DISPLAY environment variable to designate where the LEI Installation and Migration GUI should be displayed.

To execute the LEI installation utility to display on a remote machine, you must configure your environment as below.

#### Configure the PC X Window System Client

You only need to perform these steps once for each UNIX machine that you want to allow access.

1. Start your X Window system emulator on your PC, if it is not running already.
2. Follow the instructions that are specific to your Windows emulator product to enable your PC and your UNIX machine to communicate with one another.

3. To install LEI, proceed now to the section entitled “Installing LEI on UNIX.”

**Configure the UNIX X Window System Server**
You must perform these steps every time that you log in to the UNIX machine that runs the X Window system.

1. Log in to the UNIX machine.
2. Allow access to the X Window System server using either of the following two methods:
   - Enter the command `xhost +` to shut off security and allow any client to display on the UNIX machine’s X Window System server. This method is very quick but not very secure.
   - Enter the command `xhost + the .other.machine` to add only that machine to the access permission list. This method takes longer to set up but is very secure.
3. To install LEI, proceed now to the section entitled “Installing LEI on UNIX.”

---

**Installing LEI on UNIX**

Once you have performed all the tasks described in the section entitled “Preparing to install LEI on UNIX,” you can install LEI. To install LEI on your UNIX platform, perform the following steps. Please read all the steps before you install LEI. These instructions are applicable to both AIX and Solaris.

1. If you have not already done so, log in to the UNIX machine (for example, using telnet) that you want to install LEI onto. Ensure that the environment variables that are normally defined at runtime are defined. For example, the Notes_ExecDirectory environment variable must be defined for a Domino environment. For more information see the previous section entitled “Setting and Exporting Environment Variables.”

2. Export the DISPLAY environment variable to point to the machine that will display the LEI installer user interface. Sample syntax is shown below.

   ```bash
   export DISPLAY=255.255.255.255:0.0
   ```
3. Use the UNIX su command to gain root privilege. Example Korn shell syntax is shown below:

```
su
password: XXXXX
```

4. Ensure that Domino R6 is running.

5. Ensure that Domino R6 is installed on the machines that will host the LEI server, Domino server, and LEI Administrator for this release of LEI.

   Before you can install LEI Release 6, you must upgrade to Domino/Notes R6.

6. If DECS is loaded and enabled, shutdown DECS. DECS must not be running when you install LEI.


8. Extract the LEI files from the tar file `<PartNumber>.tar` (where `<PartNumber>` = setupAIX or setupSun) into a temporary directory.

   For example, create a temporary LEI directory in `/tmp/lei` and then extract the files to that temporary directory.

   a. `mkdir /tmp/lei`
   
   b. `cd /tmp/lei`
   
   c. `mv <PathToArchive>/<PartNumber>.taz <PartNumber>.tar.Z`
   
   d. `uncompress <PartNumber>.tar.Z`
   
   e. `tar -xvf <PartNumber>.tar`

9. Change into the directory in which the setup installation file resides.

10. Run the installer program.

    Syntax for AIX is shown below:

    `setupAIX`

    Syntax for Sun is shown below:

    `setupSun`

11. The LEI Welcome screen appears, displaying product and company details and the Lotus Enterprise Integration Web address. Click Next to continue.
12. The LEI licensing screen appears. Respond as prompted and then continue with the install process.

13. As prompted, enter the name of the existing UNIX account that you use to run Domino.
14. LEI installation adds to or modifies several environment variables. It sets certain variables and removes DECS from the list of ServerTasks in the specified notes.ini file. Specify the path to the notes.ini file (on the Domino server) that you wish to use and then click Next to continue.

15. Configure your server Notes ID file so that the Notes ID login file used by the LEI server is shared across all your Notes-based applications. This task must be performed manually using the steps listed.

**Note** This process is described in the previous section entitled “Establishing Access Rights in Your Notes ID File”. In case you did not perform this task prior to LEI installation, a screen appears now instructing you to do so. If you have not already done so, perform this task now.
a. Exit the LEI installer by clicking Cancel on the Installer screen.
b. Shut down Domino.
c. Locate the Notes login ID file used by the LEI server.
d. Copy that Notes login ID file to a location that you can access from a Notes client.
e. Choose File - Security - Switch ID from your Notes menu.
f. Change to the Notes ID file copied in step b by selecting it from the resultant list.
g. When prompted, enter the password for that specific Notes login ID. This action closes any applications that are presently open in Notes.
h. On the Security Basics screen, ensure that the setting “Don’t prompt for a password from other Notes programs” is enabled. Once it is enabled, click Next on the installer screen to proceed.
i. Copy the Notes login ID file back to its original location, replacing the existing file.
j. Restart Domino now.
16. The installer detects local and remote servers to determine default values for the notes.ini settings. Specify the name of the LEI server and the Domino server (that will host the LEI Administrator) and then click Next to continue.

**Note** All LEI servers added to the LEI Administrator should have unique names. Duplicate server names will create orphaned LEI servers in the LEI Administrator.

When you click Next, the installer validates a connection to the Domino server on which the LEI Administrator will reside using the user ID and password. If a decsadm.nsf exists (for example, from a previous DECS installation), the installer confirms manager access. Should confirmation fail, the installer displays an error message and does not advance in screen display.

![LEI Server Configuration](image)

**Note** Do not move or remove the LEI Administrator .nsf or .ntf file after installation.

17. If the installer detects a DECS installation, the following screen appears and you are given the option of assigning a backup file name to the DECS Administrator before it is upgraded to this release of LEI.
Note If the installer detects a previous installation of LEI, you are prompted to stop all LEI servers that use that LEI Administrator and then continue with the installation.

18. The Additional Managers screen below appears. The Notes ID that you use while installing LEI is entered in the ACL for all the LEI databases created during installation. The default access given is Manager. If there are any other users or groups you wish to grant Manager access to at this time, you may do so here by entering valid semicolon-delimited Notes IDs. You can also add additional users after installation is complete by manually editing the ACLs.

Enter the names of additional LEI database managers to create the correct access control level (ACL) for each person listed, that being manager-level access to the LEI Administrator (decsadm.nsf), user documentation files, and sample databases. Click Next to continue.
Note If the Notes ID you will use to access the databases after installation is not the same as the Notes ID you are using during installation, add that Notes ID to the Additional LEI Database Managers field now.

Note The LEI Administrator is now named decsadm.nsf. The DECS Administrator was also named decsadm.nsf. The LEI installer can differentiate between the two when determining whether to upgrade from a DECS Administrator or a previous version of LEI Release 6.

19. LEI provides Advanced RealTime functionality in three forms - Virtual Fields, Virtual Documents, and Virtual Agents. Specify whether to enable Advanced RealTime Activities now or not and click Next to continue.
LEI must be installed on all Domino servers where Advanced RealTime functionality is required. Specifically, RealTime functionality requires that the LEI server, Domino server, and LEI Administrator be located on the same machine.

RealTime functionality can be manually configured at a later time if desired.

If you enable Advanced RealTime, the installer adds the “EXTMGR_ADDINS=decsext” statement to the notes.ini file. It also sets the “Advanced RealTime Enabled option - Enabled on this Server” in the LEI server configuration document.

This screen appears if you are installing to a local Domino server. It does not appear if you are installing to a Notes client.

You can optionally configure LEI to run as a Domino server add-in task. Enabling LEI as an add-in task allows the LEI server to load and start automatically when the host Domino server is started. Specify whether to configure LEI as an add-in task now or not and click Next to continue.
21. Specify how non-native text is translated across multilingual data communications environments. Based on your selection, the installer sets the EITranslation value in the designated notes.ini file. Make a selection and click Next to continue.
The translation support choices are described below:

- **Disabled** — For maximum performance and when all text data is in compatible character sets, translation is disabled completely.
- **LMBCS only** — Notes text data only is translated. This is appropriate when all non-Notes text data is in compatible character sets.
- **Enabled** — LEI always translates between different character sets.

**Note** Regardless of the setting, Unicode text is always translated.

The text translation setting is available for each LEI server, allowing different servers to have different levels of support. The translation support level is set during the installation of an LEI server. It may also be viewed and edited in the notes.ini file.

22. Optionally request that the LEI documentation, sample databases, and/or script vault be installed. File names are correlated below. Make your selections and click Next to continue.

**Note** Selecting the Create Script Vault option creates the LEI Script Vault database with a file name of leivlt6.nsf. If you expect to migrate scripts from a Release 3.n LEI Script Vault (leivlt.nsf) to LEI Release 6, do not delete or change the file name of the leivlt6.nsf database.

The LEI documentation titles and file names are listed below.

- **IBM Lotus Enterprise Integrator for Domino (LEI) Activities and User Guide** (leidoc.nsf and leidoc.pdf)
- **IBM Lotus Enterprise Integrator for Domino (LEI) Installation Guide** (leiig.nsf and leiig.pdf)

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The LEI sample database titles and file names are listed below.

- Package Tracking (leipackagetrack.nsf)
- Notes Employee Sample (leiempsamp.nsf)

The following two documentation titles and file names are installed with Domino but are also part of the LEI documentation set.

- *Lotus Connectors and Connectivity Guide* (lccon6.nsf)


The Script Vault title and file name is listed below.

- LEI Script Vault (leivlt6.nsf)

23. The installer indicates in which directories the documentation, executables, samples, and script vault will be placed. Click Next to continue.

24. The installer modifies the designated notes.ini file and performs the installation, displaying a bar that indicates percentage of installation completion.

25. The product registration tool appears, prompting you to register this installation of LEI. Complete the form to register the product and then continue.
The LEI Product Registration Tool (PRT) requires Netscape to be available on the UNIX machine where the installer is running. In case the installer cannot launch Netscape, you can manually open the PRT by launching any Internet browser and providing the name of the HTML document containing the link to the IBM product registration site.

For an AIX installation, the PRT HTML document is installed in the 
/opt/lotus/notes/60000/ibmpow/leidir/prt directory.

For a Solaris installation, the PRT HTML document is installed in the 
/opt/lotus/notes/60000/sunspa/leidir/prt directory.

Change to the correct directory and launch Netscape using the following command:

```
netscape PRT_Welcome.html
```

26. When installation is complete, the installer displays the following screen. Optionally request to display the readme and click Next to continue.
Note View the readme.txt file to learn what’s new in this release and various facts that may not be included in the documentation set. What’s New information is also available in the online documentation.

27. Optionally request to launch the migration tool and click Next to continue. If you want to migrate your LEI Release 3.n Connection Documents, Activity Documents, and LEI LSX scripts, you can do that now or later. Migration is described in the chapter entitled “Migrating from LEI or DECS” later in this guide. Please follow the instructions in that chapter when you are ready to migrate.
28. Depending on your configuration, you may need to reboot your machine after install. You will be notified if it is necessary for you to reboot.

29. Read the statement that you must stop and restart Domino before attempting to run this release of LEI. After you have restarted Domino, click Next to continue.
30. Click Finish to exit the installer.

31. As you run the installer, it creates a log file (leiinst.log) that lists the files created and where they were installed. The file is located in the leidir directory. Optionally view the leiinst.log file.

32. To start the LEI server, open a UNIX shell and type one of the following commands:
   On the AIX platform:
   `lei`
   On the Solaris platform:
   `leis`
   **Note** Optionally view the leiinst.log file.

33. To begin work in LEI, start Notes and open the LEI Administrator (decsadm.nsf) using the File - Database - Open menu sequence.
Chapter 4
Installing and Configuring LEI on iSeries

This chapter provides instructions for installing LEI on the iSeries platform.

iSeries System Requirements
This section describes the iSeries system requirements.

Hardware Requirements
- iSeries RISC machines only
- Memory: 128MB or more recommended
- Disk Space: 80MB disk space on machine installing to 50MB on machine installing from

Software Requirements
- OS/400 V5R1
- Notes R6 client to use the LEI Administrator database
- Domino R6 server to manage the LEI Administrator database
- Client libraries of the external systems to be accessed must be installed on the LEI server and the Domino server. When running activities, if the LEI server that you want the activity to run on and the Domino server where the LEI Administrator resides are on separate machines, the client libraries must be installed on both machines.
- The Remote AWT and release-specific JVM supplied for LEI installation on the iSeries

Note Read all Domino documentation regarding the specific patch-level Domino requires for its server. The patch level required by Domino is a prerequisite for a successful LEI installation. The patch requirements are updated periodically. See http://www.lotus.com/ei and the Domino documentation.

- 5733LD6 - Domino for iSeries
- 5733LD6 - HiTest C API
- 5722JV1 - Java for iSeries
- 5722JC1 - Java for iSeries
- *BASE is minimally required to run LEI.

To check, use DSPSFWRSC. Other options may also be installed.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Option</th>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5733LD6</td>
<td>*BASE</td>
<td>5050.00</td>
<td>Lotus Domino for iSeries</td>
</tr>
<tr>
<td>5733LD6</td>
<td>*BASE</td>
<td>2924.00</td>
<td>Lotus Domino for iSeries</td>
</tr>
<tr>
<td>5733LD6</td>
<td>1.00</td>
<td>5050.00</td>
<td>iSeries Integration</td>
</tr>
<tr>
<td>5733LD6</td>
<td>1.00</td>
<td>2924.00</td>
<td>iSeries Integration</td>
</tr>
<tr>
<td>5733LD6</td>
<td>3.00</td>
<td>5050.00</td>
<td>C API</td>
</tr>
<tr>
<td>5733LD6</td>
<td>4.00</td>
<td>5050.00</td>
<td>C++ API</td>
</tr>
<tr>
<td>5733LD6</td>
<td>5.00</td>
<td>5050.00</td>
<td>LotusScript Extension ToolKit</td>
</tr>
<tr>
<td>5733LD6</td>
<td>7.00</td>
<td>5050.00</td>
<td>Advanced Services</td>
</tr>
</tbody>
</table>

Any identified iSeries software fixes (PTFs) required by 5733LD6 and 5733LEI and specified in the release notes for the two products must be applied. You can find the PTFs, as well as other information regarding Lotus Domino products on the iSeries platform, at the following IBM Web site:

http://www.as400.ibm.com/domino/support/qmu.htm

http://www.as400.ibm.com/developer/

**Note** LEI running native on the iSeries does not require any additional DB2 connection software beyond what is already provided with the integrated DB2/400. You can do Distributed Relational Database Connectivity to other DB2 platforms in your network with what is native on your iSeries. Ensure that all DB2 database targets are registered in the Relational Database Directory (see WRKRDBDIRE) in order to connect to them, including the local DB2/400.

For more information about DB2 and the iSeries platform, see the chapter entitled, “Introduction to Installing and Configuring LEI.”

**Note** iSeries currently supports the DB2, File, Notes, Text, Collapse/Expand, Meter, and Order base connectors and the SAP and JDE premium connectors.

For additional information, please see the Redbook, *Lotus Domino for AS/400: Integration with Enterprise Applications*, SG24-5345-00, available at the following Web site:

http://www.redbooks.ibm.com/abstracts/sg245345.html

The Redbook contains a chapter regarding LEI usage on the iSeries.

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Preparing to Install LEI on iSeries

Before you use the LEI installer, you must also do the following:

1. Set the correct access controls in the names.nsf file (Domino Directory - formerly referred to as the Name and Address Book or NAB) on the Domino server.

2. Establish the correct access rights in your Notes ID file.

These tasks are described in the next sections of this guide.

The following information is also useful when preparing to install LEI:

- Domino 6 must be installed and running in order for you to install LEI.
- After Domino 6 is installed, LEI Release 3.n will be unusable.
- LEI Release 3.n does not have to be uninstalled before Domino 6 is installed. LEI Release 3.n does not have to be uninstalled before LEI Release 6 is installed.
- The LEI Administrator, script vault, and data files should be backed up prior to uninstalling LEI Release 3.n or upgrading LEI Release 3.n to Release LEI 6.
- If you have a Beta or trial version of LEI Release 6, the installation program will detect it and you will be prompted to upgrade. If you choose to proceed with an upgrade, the LEI program files will be upgraded to the new version. Alternatively, you may uninstall the existing server and then proceed with a standard installation as described in this chapter.
- DECS cannot be running when you install LEI.
- For all existing LEI Release 3.n users, after installation, you must migrate your previous version Activity Documents, Connection Documents, and LEI script vault content if you wish to access them from this LEI Release 6. You can migrate immediately after a successful installation using an option on the installer tool itself, OR you can migrate any time after a successful LEI installation using the iSetupMigration.exe or iSetupMigration executable. See the “Migrating from LEI or DECS” chapter for detailed instructions.
- If DECS is installed, its activities are automatically upgraded during LEI installation.
- Using the migration utility, activities and connections from multiple DECS Administrators can be consolidated into a single LEI Release 6 Administrator.
- LEI installation copies all LEI program files and updates the notes.ini file. The LEI Administrator database (decsadm.nsf) is created on the specified Domino server. If you are installing into an existing cluster, the LEI Administrator is opened and a LEI configuration document is created for the new LEI server.

- LEI on the iSeries platform is always installed to run as an add-in task. The LEI process starts whenever the Domino server starts. It restarts whenever you Domino server restarts. You can optionally removed it from your ServerTasks entry if you wish to manually invoke LEI.

**Setting Access Controls in the Domino Directory**

To enable browsing of Notes databases on a remote Domino server, you must edit the names.nsf file (Domino Directory - formerly referred to as the Name and Address Book or NAB) that resides on the remote Domino server. The fields that require editing are described in the procedure below. To simplify the installation process, this task is performed prior to LEI installation.

1. Open the names.nsf file on the Domino server that you wish to browse.
2. Display the list of Domino servers.
3. Double-click on the desired Domino server to open its server document.
4. Click the Security tab from the top bar of the server document and enter Edit mode.
5. In the Programmability Restrictions section, enter the phrase “Enterprise Connector Products/Lotus Notes Companion Products,” a comma, and the server name in the “Run unrestricted methods and operations” field.
6. In the Programmability Restrictions section, also enter the phrase “Enterprise Connector Products/Lotus Notes Companion Products,” a comma, and the server name in the “Run restricted LotusScript/Java agents” field.

<table>
<thead>
<tr>
<th>Programmability Restrictions</th>
<th>Who can -</th>
</tr>
</thead>
<tbody>
<tr>
<td>Run unrestricted methods and operations:</td>
<td>Enterprise Connector Products</td>
</tr>
<tr>
<td>Sign agents to run on behalf of someone else:</td>
<td>Lotus Notes Companion Products,</td>
</tr>
<tr>
<td></td>
<td>mst/Edge Research</td>
</tr>
<tr>
<td>Run restricted LotusScript/Java agents:</td>
<td>Enterprise Connector Products</td>
</tr>
<tr>
<td></td>
<td>Lotus Notes Companion Products,</td>
</tr>
<tr>
<td></td>
<td>mst/Edge Research</td>
</tr>
</tbody>
</table>
7. Scroll down to the Server Access section and add “Enterprise Connector Products/Lotus Notes Companion Products” to the settings that are currently selected. It is recommended that your Domino server name be specified in this field in addition to selecting “users listed in all trusted directories.” Keep in mind that as with other fields in the server document, adding items to these fields limits access to only those specified.

<table>
<thead>
<tr>
<th>Server Access</th>
<th>Who can -</th>
</tr>
</thead>
</table>
| Access server | ✅ users listed in all trusted directories and
               | "Enterprise Connector Products/Lotus Notes Companion
               | Products, MIS/edge research, Joe Cross/CAM/Lotus,
               | /Lotus, |
| Not access server | ✅ |
| Create new databases | ✅ |
| Create replica databases | ✅ |
| Allowed to use monitors | ✅ |
| Not allowed to use monitors | ✅ |
| Trusted servers | ✅ |

8. When browsing remotely for Notes databases, the network port must be properly defined. To enable browsing and prevent the “No databases found” error, click the Ports tab. In the Notes Network Ports form, enter the machine name, in this example XYZ.YourCompany.com or the IP address, for example 111.11.111.11.

9. Save and close the Domino server document.

Establishing Access Rights in Your Notes ID File

You must configure your server Notes ID file so that the Notes ID login file used by the LEI server is shared across all your Notes-based applications. This task must be performed manually using the steps below.

**Note** In case you do not perform this task prior to initiating LEI installation, a screen appears during LEI installation instructing you to perform these steps. To simplify the installation process, perform this task now.

1. Locate the Notes login ID file used by the LEI server.
2. Copy that Notes login ID file to a location that you can access from a Notes client.
3. Choose File - Security - Switch ID from your Notes menu.
4. Change to the Notes ID file copied in step 2 by selecting it from the resultant list.
5. When prompted, enter the password for that specific Notes login ID. This action closes any applications that are presently open in Notes.
7. From the User Security menu, click the Security Basics option.
8. On the Security Basics screen, ensure that the setting “Don’t prompt for a password from other Notes programs” is enabled. Once it is enabled, click Next on the installer screen to proceed.
9. Click the What Others Do option.
10. On the Using Workstation screen, enter “Enterprise Connector Products/Lotus Notes Companion Products” in the “When code is signed by you” list and enable the required fields as shown in the following graphic.

![User Security Menu]

The required fields are File system, External code, Current database, Environment variables, Read other databases, and Modify other databases.
11. Save and close the User Security menu.
12. Copy the Notes login ID file back to its original location, replacing the existing file.
13. Restart Domino now.
Notes.ini KeyFileName
The LEI server on the iSeries runs as an add-in task to the Domino server. It runs under the ServerKeyFileName=server.id. All activities launched by the LEI server also run under server.id.

If you launch activities outside of the LEI server, for example, through a call to LEIACT or LEICGI, you may need to set KeyFileName to a valid user ID other than that of the server. If the CGI invocation of a LEI activity is made (LEICGI), the KeyFileName user ID should not be password protected. If a password is required and the requesting process is not interactive, a password prompt will occur on the Domino console.

You may need to change KeyFileName from server.id to a valid user ID in order to issue the ADDLEISVR command. This is only necessary if you see connection errors in the ADDLEISVR error table.

Overview of Installation Process on iSeries
To facilitate installing from a Windows or UNIX machine to your iSeries machine, LEI supplies three executables that prepare your machine for LEI install, migration, and uninstall. These contain both a bundled JVM version and a script to copy the Remote AWT from your iSeries machine to the workstation from which the install, migration, or uninstall is being performed. The Remote AWT daemon allows the iSeries to display the GUI panels on your workstation. The supplied JVM is used only during installation to ensure that the JVM version used on the Windows machine and that used on the iSeries match. After LEI is installed, migrated or uninstalled, this JVM is removed and your workstation reverts to using its own native JVM.

The JVM and Remote AWT daemon are used automatically as a function of the iSeries-specific LEI install, migration, and uninstall processes. You do not need to manually configure, add, start, or delete them.

The three executables listed below copy the current remote AWT from your iSeries machine and start it on the workstation where the LEI install, migration, and/or uninstall process will be performed.

<table>
<thead>
<tr>
<th>File Name</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>iSetupInstall.exe 0r</td>
<td>iSeries install wrapper used to launch the LEI installer utility</td>
</tr>
<tr>
<td>iSetupInstall</td>
<td></td>
</tr>
<tr>
<td>iSetupMigration.exe or</td>
<td>iSeries migration wrapper used to launch the LEI migration utility</td>
</tr>
<tr>
<td>iSetupMigration</td>
<td></td>
</tr>
<tr>
<td>iSetupUninstall.exe or</td>
<td>iSeries uninstall wrapper used to launch the LEI uninstaller utility</td>
</tr>
<tr>
<td>iSetupUninstall</td>
<td></td>
</tr>
</tbody>
</table>

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The iSeries-related LEI Release 6 install, migration, and uninstall process consists of three main event types, as described below.

**Stage 1**
Upon invoking the iSeries install, migration, or uninstall executable, InstallShield starts an process whose purpose is to set up the Remote AWT environment (complete with a bundled JVM and remote AWT daemon that is compatible with the OS/400 Java environment). Once the environment is established, you are asked information about which iSeries to install onto. The install, migration, or uninstall image (a second InstallShield jar file embedded in the executable) is then copied onto the iSeries system and the install, migration, or uninstall task is started.

**Stage 2**
The install, migration, or uninstall started on the iSeries displays a second InstallShield session onto your workstation. This session performs the actual LEI install, migration, or uninstall.

**Stage 3**
After the LEI install, migration, or uninstall is complete, Stage 1 processing completes and cleans up any processes it had started.

---

**Installing LEI on iSeries**

Once you have performed the all the tasks described in the section entitled “Preparing to install LEI on iSeries”, you can install LEI. To install LEI on your iSeries platform, perform the following steps. Please read all the steps before you install LEI.

Steps 1-4 below pertain to your iSeries machine. From Step 5 on, the steps pertain to the workstation from which you are running the LEI install.

**Note** On Win32, an empty DOS window may appear during install. If it does, you can minimize it, but do not delete it.

1. If you have not already done so, log in to the iSeries machine that you want to install LEI onto.
2. Ensure that Domino R6 is running.
3. Ensure that Domino R6 is installed on the machines that will host the LEI server, Domino server, and LEI Administrator for this release of LEI.
   Before you can install LEI Release 6, you must upgrade to Domino/Notes R6.
4. If DECS is loaded and enabled, shutdown DECS. DECS must not be running when you install LEI.

5. Obtain the LEI Release 6 distribution media from your workstation. You can either insert the LEI Release 6 product CD-ROM into the machine from which you will install LEI or obtain LEI Release 6 from the Lotus Software Web site http://www.lotus.com.

6. Change into the directory in which the iSeries setup installation file (iSetupInstall.exe if using a Win32 machine to install LEI on iSeries or iSetupInstall if using an AIX machine to install LEI on iSeries) resides.

7. Run the installer program, again iSetupInstall.exe if using a Win32 machine to install LEI onto iSeries or iSetupInstall if using an AIX machine to install LEI on iSeries.

8. A screen appears indicating that the utility is preparing the JVM.

9. The iSeries installer Welcome screen appears. Click Next to continue.
10. A screen appears that specifies the IP address of the iSeries machine that wish to install LEI onto. Ensure that the IP address is correct or specify another. Click Next to continue.

11. A Signon to Server screen appears. Enter the System, User ID, and Password for the iSeries machine that you wish to install onto. Click OK to continue.
12. A screen appears indicating that the install environment for iSeries is being installed.

13. Once the install environment installation is complete, a Remote AWT for Java 2 screen appears. You can minimize the Remote AWT window but do not delete it.
14. The Welcome screen appears, displaying product and company details and the Enterprise Integration Web address. Click Next to continue.

15. The LEI licensing screen appears. Respond as prompted and then continue with the install process.

16. LEI installation adds to or modifies several environment variables. It sets certain variables and removes DECS from the list of ServerTasks in the specified notes.ini file. Specify the path to the notes.ini file (on the Domino server) that you wish to use and then click Next to continue.
17. Configure your server Notes ID file so that the Notes ID login file used by the LEI server is shared across all your Notes-based applications. This task must be performed manually using the steps listed.

Note This process is described in the previous section entitled “Establishing Access Rights in Your Notes ID File.” In case you did not perform this task prior to LEI installation, a screen appears now instructing you to do so. If you have not already done so, perform this task now.

a. Exit the LEI installer by clicking Cancel on the Installer screen.
b. Shut down Domino.
c. Locate the Notes login ID file used by the LEI server.
d. Copy that Notes login ID file to a location that you can access from a Notes client.
e. Choose File - Security - Switch ID from your Notes menu.
f. Change to the Notes ID file copied in step b by selecting it from the resultant list.
g. When prompted, enter the password for that specific Notes login ID. This action closes any applications that are presently open in Notes.
h. On the Security Basics screen, ensure that the setting “Don’t prompt for a password from other Notes programs” is enabled. Once it is enabled, click Next on the installer screen to proceed.
i. Copy the Notes login ID file back to its original location, replacing the existing file.

j. Restart Domino now.

18. The installer detects local and remote servers to determine default values for the notes.ini settings. Specify the name of the LEI server and the Domino server (that will host the LEI Administrator) and then click Next to continue.

**Note** All LEI servers added to the LEI Administrator should have unique names. Duplicate server names will create orphaned LEI servers in the LEI Administrator.

When you click Next, the installer validates a connection to the Domino server on which the LEI Administrator will reside using the user ID and password. If a decsadm.nsf exists (for example, from a previous DECS installation), the installer confirms manager access. Should confirmation fail, the installer displays an error message and does not advance in screen display.

19. If the installer detects a DECS installation, you are given the option of assigning a backup file name to the DECS Administrator before it is upgraded to this release of LEI. If the installer detects a previous installation of LEI, you are prompted to stop all LEI servers that use that LEI Administrator and then continue with the installation.
20. The Additional Managers screen below appears. The Notes ID that you use while installing LEI is entered in the ACL for all the LEI databases created during installation. The default access given is Manager. If there are any other users or groups you wish to grant Manager access to at this time, you may do so here by entering valid semicolon-delimited Notes IDs. You can also add additional users after installation is complete by manually editing the ACLs.

Enter the names of additional LEI database managers to create the correct access control level (ACL) for each person listed, that being manager-level access to the LEI Administrator (decsadm.nsf), user documentation files, and sample databases. Click Next to continue.

![Additional LEI Database Managers](image)

**Note** If the Notes ID you will use to access the databases after installation is *not* the same as the Notes ID you are using during installation, add that Notes ID to the Additional LEI Database Managers field now.

**Note** The LEI Administrator is now named decsadm.nsf. The DECS Administrator was also named decsadm.nsf. The LEI installer can differentiate between the two when determining whether to upgrade from a DECS Administrator or a previous version of LEI Release 6.
21. LEI provides Advanced RealTime functionality in three forms: Virtual Fields, Virtual Documents, and Virtual Agents. Specify whether to enable Advanced RealTime Activities now or not and click Next to continue.

Note LEI must be installed on all Domino servers where Advanced RealTime functionality is required. Specifically, RealTime functionality requires that the LEI server, Domino server, and LEI Administrator be located on the same machine.

Note RealTime functionality can be manually configured later.

Note If you enable Advanced RealTime, the installer adds the "EXTMGR_ADDINS=decsext" statement to the notes.ini file. It also sets the "Advanced RealTime Enabled option - Enabled on this Server" in the LEI server configuration document.

This screen appears if you are installing to a local Domino server. It does not appear if you are installing to a Notes client.

22. Optionally request that the LEI documentation, sample databases, and/or script vault be installed. File names are correlated below. Make your selections and click Next to continue.

Note Selecting the Create Script Vault option creates the LEI Script Vault database with a file name of leivlt6.nsf. If you expect to migrate scripts from a Release 3.n LEI Script Vault (leivlt.nsf) to LEI Release 6, do not delete or change the file name of the leivlt6.nsf database.
The LEI documentation titles and file names are listed below.

- **IBM Lotus Enterprise Integrator for Domino (LEI) Activities and User Guide** (leidoc.nsf and leidoc.pdf)
- **IBM Lotus Enterprise Integrator for Domino (LEI) Installation Guide** (leiig.nsf and leiig.pdf)

The LEI sample database titles and file names are listed below.

- Package Tracking (leipackagetrack.nsf)
- Notes Employee Sample (leiempsamp.nsf)

The following two documentation titles and file names are installed with Domino but are also part of the LEI documentation set.

- **Lotus Connector LotusScript Extensions Guide** (lsxlc6.nsf)
- **Lotus Connectors and Connectivity Guide** (lccon6.nsf)


The Script Vault title and file name is listed below.

- **LEI Script Vault** (leivlt6.nsf)

23. The installer indicates in which directories the documentation, executables, samples, and script vault will be placed. Click Next to continue.
24. The installer modifies the designated notes.ini file and performs the installation, displaying a bar that indicates percentage of installation completion.

25. Optionally request to launch the migration tool and click Next to continue. If you want to migrate your LEI Release 3.n Connection Documents, Activity Documents, and LEI LSX scripts, you can do that now or later. Migration is described in the chapter entitled “Migrating from LEI or DECS” later in this guide. Please follow the instructions in that chapter when you are ready to migrate.
26. Read the statement that you must stop and restart Domino before attempting to run this release of LEI. After you have restarted Domino, click Next to continue.

27. A screen appears indicating that LEI has been successfully installed. Alternatively, if errors were encountered a screen appears stating the error and directing you to the log.txt. Click Finish to continue.
28. If, at any time a Remote AWT screen appears indicating that the connection to the iSeries machine has ended, you can simply click Exit.

29. The product registration tool appears, prompting you to register this installation of LEI. Complete the form to register the product and then continue.
30. Optionally request to display the readme.txt file and click Next to continue.

Note View the readme.txt file to learn what’s new in this release and various facts that may not be included in the documentation set. What’s New information is also available in the online documentation.

31. Click Next to exit the installer. However, if you launched the migration utility from within the installer, wait until that processes completes and then click Next to exit the installer.
32. When prompted, click Finish to exit this utility.
33. You may now close the remote AWT daemon.
34. Since LEI on iSeries is automatically configured as a Domino add-in task, it will automatically start when you restart the Domino server.
35. Optionally view the leiinst.log file.
36. To begin work in LEI, start Notes and open the LEI Administrator (decsadm.nsf) using the File - Database - Open menu sequence.
Chapter 5
Migrating from LEI or DECS

This chapter describes the process of migrating from LEI release 3.n or DECS to this release of LEI.

Understanding Migration

Once you have installed LEI, you can migrate your existing LEI Release 3.n Administrator’s Connection Documents and Activity Documents to this release of LEI. You can also migrate the scripts in your Release 3.n LEI Script Vault (leivlt.nsf) from LEI LSX format scripts to LC LSX format. The target for script migration is always the Release 6 LEI Script Vault (leivlt6.nsf).

You can migrate immediately following successful LEI installation (as prompted by the install utility) or at any time after installation. If you choose to migrate as part of the install utility, screen prompts (and this chapter) assist you in the process. For Win32 and UNIX users, if you choose to migrate later, you can initiate migration using the run_migration.exe utility. For iSeries users, you can initiate migration using the iSetupMigration.exe if using a Win32 machine to migrate LEI onto iSeries or iSetupMigration if using an AIX machine to migrate LEI onto iSeries.

The LEI migration utility transfers LEI 3.n activities and connections to the LEI Release 6 Administrator. No manual updating or editing is required. It does not migrate server documents or configuration documents. You can optionally migrate from multiple Release 3.n LEI Administrators into a single Release 6 Administrator in order to consolidate activities and connections into a single LEI Administrator.

If DECS is detected during LEI install, its activities are upgraded automatically. However, you can use the migration utility to consolidate various DECS activities from other DECS Administrators into a single LEI Administrator.

Scripts that are called by Scripted Activity Documents but that do not reside in the Release 3.n LEI Script Vault (leivlt.nsf) must be copied or moved to the LEI Script Vault prior to initiating migration, as described later in this chapter.
The Release 6 LEI Administrator is backed up prior to migration. The Release 6 LEI Script Vault is also backed up prior to migration.

**Note** When Lotus Connectors are retired, such as the EDA/SQL Connector, their existing Connection Documents have no logical migration destination. Such Connection Documents are not migrated.

### Resolving Duplicate Activity or Connection Names

You may choose to install this version of LEI and work with it, creating new Connection Documents and Activities prior to migrating from LEI 3.n. In this scenario, you may encounter name conflicts when you do migrate.

During the migration process, a pre-check is performed to determine and list name duplicates. The utility will not migrate LEI Release 3.n or DECS Connection Documents or Activity Documents that have a duplicate name in the Release 6 LEI Administrator.

For example, if you installed this version of LEI and began creating connections and activities prior to migrating from LEI Release 3.n, there is a possibility that duplicate connection names and/or activity names will exist between the two versions of LEI. To determine name conflicts prior to migration, the utility scans the documents in the LEI or DECS Administrator that you wish to migrate from. When duplicate names are encountered, the utility writes their names to a table and then displays the table on your screen. You can then manually address the name conflicts prior to actual migration. Alternatively, by responding to screen prompts, you can globally request that all name duplicates be appended with a particular character string in the target Release 6 LEI Administrator.

**Note** The migration utility maintains the integrity of all Connection Documents and Activity Documents. For example, when you allow the utility to rename a connection because of a name conflict, it also changes that connection name in all migrating Activity Documents that reference it. Renamed connections are updated in all Activity Documents that use those connections.

When the migration utility does encounter a name conflict, it displays a screen stating the connection name that is in conflict (and its connection type) and provides you with the following choices:

- **Rename** — renames the source connection in the target LEI Administrator by appending the user-specified global suffix
- **Overwrite** — deletes the target connection before migrating the source connection to the target .nsf
- **Skip** — does not migrate the source connection to the target .nsf
Migrating ACLs

When migrating, you can optionally request the ACL from the source Administrator be migrated to the target Administrator. Items that exist in the source, but not the target, are added to the target. Items that exist in both the source and target are not changed in the target. For example, if ServerA has manager level access in the source Administrator but has editor level access in the target Administrator, the target Administrator is not changed. The source Administrator is never changed. The Default ACL entry is not changed in the target Administrator. Results of the ACL migration are logged to migration.log.

LotusScript Migration

The LEI LSX script format used in LEI Release 3.1, 3.1a, and 3.2 was retired and replaced by the standard LC LSX format. For this reason, existing LEI LSX scripts must be converted to standard LC LSX scripts. The migration utility can do this for you, or you can manually alter your LEI LSX scripts to adhere to LC LSX conventions and format. The migration utility makes the change shown below for each applicable script.

Change from:

```livesx "*lsxlei"
```

Change to:

```livesx "*lsxlc"
```

The migration utility converts some or all of the LEI LSX format scripts that exist in the Release 3.n LEI Script Vault (leivlt.nsf) to LC LSX format and places them in the LEI Release 6 Script Vault (leivlt6.nsf).

Migrating Scripts From the LEI Script Vault

During LEI Release 6 installation, the installer creates a new LEI Script Vault (leivlt6.nsf) on your Domino R6 server. The migration utility makes a backup copy of this script vault on your Domino R6 server. Next, it copies all or selected scripts from the Release 3.n LEI Script Vault (leivlt.nsf) to the Release 6 LEI Script Vault (leivlt6.nsf) and converts all copied scripts to standard LC LSX format.

You will be prompted at the end of the first part of the utility (after migrating Connection Documents and Activity Documents) to migrate LEI LSX scripts in the Release 3.n LEI Script Vault (leivlt.nsf) to LC LSX format. For each script found in the LEI 3.n Script Vault, you will be prompted whether or not to migrate. You can also choose to migrate all scripts. This gives you the opportunity to migrate selected scripts or all scripts in the Release 3.n LEI Script Vault to the Release 6 LEI Script Vault.
Migrating Scripts From a Database Other Than LEI Script Vault

To migrate scripts that do not reside in the Release 3.n LEI Script Vault, you must move them from the source database (for example, anyname.nsf) to the Release 3.n LEI Script Vault (leivlt.nsf) prior to initiating the migration utility. The migration utility will only update the format of scripts residing in the Release 3.n LEI Script Vault (leivlt.nsf). Scripts in any other database will not be migrated.

Once your scripts are migrated, examine the Agent Database Name specified in the Scripted Activity Documents that you have migrated to LEI Release 6. If the migrated scripts will remain in the LEI Script Vault (leivlt6.nsf) be sure this database is referenced in its corresponding Activity Document in the Agent Database Name field.

If you prefer to have a script reside in a database other than the leivlt6.nsf you must create this database on your R6 server. For example, you may want to recreate your anyname.nsf database on the R6 server and move the migrated scripts from the script vault to this new database. Provided that the new database name remains the same as the original one, the Agent Database Name specified in the corresponding Scripted Activity Documents does not need to be changed.

Considerations When Migrating

The migration utility has been designed to perform the complex task of clean migration to this version of LEI. Your understanding of the following points is helpful when deciding when and how to migrate.

- You can migrate the existing Release 3.n LEI or DECS Administrator Activity Documents and Connection Documents either at the end of the LEI Release 6 installation procedure or at any time after installation. For example, you may want to experiment with this version of LEI before migrating your production jobs.
- You must install this release of LEI before you can use the migration utility.
- You must stop all activities in the LEI Release 3.n Administrator before running the migration utility.
- To simplify migration, delete all obsolete connections and activities prior to migration.
- To move LEI Release 3.n documents to this release of LEI, you must use the migration utility. Simply attempting to use old version Connection Documents or Activity Documents from the LEI Release 6 Administrator is not a supported methodology.
• You must run the LEI migration utility on the same machine that the LEI server resides on.

• When migrating, the source LEI Administrator is not altered. You are given the option to back up the target LEI Release 6 Administrator prior to performing the migration.

• In an LEI cluster configuration, migrating your existing LEI Release 3.n Administrator enables all the LEI servers in the cluster to access the migrated Administrator.

• The LEI Release 6 Administrator is named decsadm.nsf. This is a completely different Administrator than the file of the same name used by DECS. The LEI Administrator named leiadm.nsf, used in past versions of LEI, is no longer used. LEI Release 6 uses the leiadm.ntf template file as the source for the LEI Release 6 Administrator (decsadm.nsf).

• The LEI LSX has been retired. LEI LSX format scripts can be migrated to LC LSX format. Only LEI LSX scripts that reside in the Release 3.n LEI Script Vault (leivlt.nsf) are migrated.

• Scripted agents that are called by LEI Release 3.n Scripted Activity Documents but that do not reside in the LEI Release 3.n Script Vault must be copied or moved to the LEI Script Vault prior to initiating migration.

• For Win32 and UNIX users, to run the migration utility outside of the installer use the run_migration.exe utility. For iSeries users, use the iSetupMigration.exe if using a Win32 machine to migrate LEI onto iSeries or iSetupMigration if using an AIX machine to migrate LEI onto iSeries. For iSeries users, see the section entitled “Additional Considerations when Migrating on iSeries” for instructions about using the additional screens that appear when migrating on iSeries.

• The migration utility outputs the migration.log file.

• Although performing multiple iterations of migration from an LEI Release 3.n or DECS Administrator is possible, you must be careful when renaming duplicate connections and activities. For example, if you run the migration tool once, run it again using the rename duplicate option and the default prefix, and then run it a third time using the rename duplicate option and the default prefix, there will be two copies of the activity/connection with the same (default) prefix. In other words, for a single given connection or activity, there will be three connections (or activities) and two of them will have the same name. Additionally, performing multiple migrations from the source LEI Script Vault yields duplicate LC LSX scripts in the target LEI Script Vault; no check is performed prior to migration for existing scripts with the same name.
Migrating Metaconnection Documents requires an additional manual step. LEI now requires that metadata be selected in the underlying connections in order for the metaconnection to operate properly in an activity. This was not a requirement in past versions of LEI and thus the metaconnection documents being migrated will not be properly configured to run in migrated activities. After migrating, you must open all Connection Documents that are called by your Metaconnection Documents and select the metadata that you wish to use.

Remote LEI Migration

A migration is considered to be remote when the user has chosen to install their LEI Release 6 Administrator on a different machine than where their LEI Release 6 server is installed. In order for the migration utility to migrate activities or connections from a previous version of DECS or LEI in this scenario, you must do the following:

1. Manually copy the LEI Administrator, either at the Notes or operating system level, to the machine where the LEI Release 6 server was installed. This is also the machine where the migration utility was installed.

2. Invoke the migration utility tool as described in the section entitled “Migrating to LEI Release 6” later in this chapter.

3. Manually copy the LEI Release 6 Administrator, either at the Notes or operating system level, to the machine where the LEI Release 6 Administrator was originally installed to.

4. Run the supplied RefreshAllDocuments agent in the LEI Release 6 Administrator. You can find it on the Actions menu pulldown in the LEI Administrator top bar.

Migration Log

When migration is complete, the migration.log file is created. The migration log lists the following information:

- Connections and activities that were migrated
- Connections and activities that were renamed, including their original name and new name
- Connections that were not migrated, either based on user choice or because the connection type is no longer supported, such as the EDA/SQL Connector
- Activities that were not migrated
• Activities that use a retired Lotus Connector, such as the EDA/SQL Connector
• LEI LSX scripts that were migrated from the Release 3.n LEI Script Vault (levilt.nsf) to LC LSX format in the Release 6 LEI Script Vault (levilt6.nsf)
• Migrated ACL information

Migrating to LEI Release 6

In this example, the LEI server is installed on a Domino server. The LEI Release 6 Administrator is also installed on the same machine. These instructions describe how to migrate from LEI Release 3.n where DECS does not exist and LEI Release 3.n does. They also assume that LEI Release 6 has already been installed. In this scenario, the LEI Release 6 Administrator (decsadm.nsf) was created from the LEI leiadm.ntf template.

Your specific migration procedure depends on what you are migrating (LEI or DECS) and where your installed LEI server, Domino server, and LEI Release 6 Administrator reside on your network.

The destination LEI Administrator is assumed to be on the machine that is running the migration utility.

Note  All activities in the LEI Release 3.n Administrator should be stopped prior to running the migration utility.
1. If you have just installed LEI and are being prompted by the installation program to proceed with migration or exit the install, and you have chosen to proceed with migration, the following screen should appear. If this is the case, proceed to step 2.

- For Win32 and UNIX users, if you have already installed LEI and exited the installation process without migrating, you can initiate the migration utility now using the run_migration.exe executable, which is typically located in the Lotus\Domino directory.

- For iSeries users, if you have already installed LEI and exited the installation process without migrating, you can initiate the migration utility now using the iSetupMigration.exe executable, which can be found on the LEI Release 6 distribution media. Because iSeries requires the Remote AWT and JVM wrapper for install, migration, and uninstall, the first few screens that appear are additional requirements of that setup. Once the AWT and JVM wrapper are installed, the migration screens match those of the other platforms. For iSeries users, see the section entitled “Additional Considerations when Migrating on iSeries” for instructions about using the additional screens that appear when migrating on iSeries.
2. When prompted for the following information, enter the correct values and click Migrate to continue.

- **Source Server** — Specify the Domino server where the LEI Release 3.n Administrator or DECS Administrator resides.
- **Source Administrator** — Specify the LEI Release 3.n Administrator or DECS Administrator you wish to migrate from (path and file name is specified relative to the Domino data directory).
- **Domino Server to run RealTime Activities** — Specify the Domino server where the installed LEI Administrator that will be used for Advanced RealTime Activities resides.
- **Backup LEI Release 6 Admin** — Optionally create a copy of the LEI Release 6 Administrator prior to migrating the contents of the LEI Release 3.n or DECS Administrator into it.
- **Migrate ACL** — Optionally migrate ACLs from the source Administrator to the LEI Release 6 Administrator. See the previous topic entitled “Understanding Migration” for details.

**Note** The migration utility automatically detects the LEI Release 6 Administrator (decsadm.nsf) as the target.
3. If connection name duplicates are encountered, a Conflicts Detected screen appears. Specify how to handle connection name conflicts and click Continue Migration to continue.

- Rename — Appends a conflict suffix value (see below) to all connections migrating into the LEI Release 6 Administrator that have a same-name match in the LEI Release 6 Administrator
- Overwrite — Overwrites connections in the LEI Release 6 Administrator with their same-name counterparts from the source LEI Release 3.n or DECS Administrator
- Skip — Does not migrate connections from the source LEI Release 3.n or DECS Administrator if they have a same-name counterpart in the LEI Release 6 Administrator
- Choose Conflict Suffix — Appends a global suffix to every incoming connection whose name matches a connection that already exists in the LEI Release 6 Administrator

Choose Conflict Resolution Option:  
- Rename  
- Overwrite  
- Skip

Choose Conflict Suffix:  
- Append a global suffix to every incoming connection whose name matches a connection that already exists in the LEI Release 6 Administrator

Choose Conflict Suffix:
- Append a global suffix to every incoming connection whose name matches a connection that already exists in the LEI Release 6 Administrator

Continue Migration  
Cancel
4. If activity name duplicates are encountered, a Conflicts Detected screen appears. Specify how to handle activity name conflicts and click Continue Migration to continue.

- **Rename** — Appends a conflict suffix value (see below) to all activities migrating into the LEI Release 6 Administrator that have a same-name match in the LEI Release 6 Administrator.
- **Overwrite** — Overwrites activities in the LEI Release 6 Administrator with their same-name counterparts from the source LEI Release 3.n or DECS Administrator.
- **Skip** — Does not migrate activities from the source LEI Release 3.n or DECS Administrator if they have a same-name counterpart in the LEI Release 6 Administrator.
- **Choose Conflict Suffix** — Appends a global suffix to every incoming activity whose name matches an activity that already exists in the LEI Release 6 Administrator.

5. You are given the option to migrate the LEI LSX format scripts from the LEI 3.n script vault. You can either migrate all LEI LSX scripts or choose individually which scripts to migrate.
**Note**  This action changes the script format from LEI LSX format (now obsolete) to LC LSX format, enabling the scripts to be used in LEI Release 6.

**Note**  If you have scripts called from LEI Release 3.n scripted activities and you want to migrate these scripts, you must move or copy them to the LEI Release 3.n script vault prior to migration.

6. The contents of your LEI Release 3.n or specified DECS Administrator are migrated to the LEI Release 6 Administrator. Optionally the contents of your Release 3.n LEI Script Vault are migrated to the Release 6 LEI Script Vault. Migrated activities and connections are updated to reflect the new form and function of LEI Release 6. For example, an LEI Release 3.n version Replication Activity Document will now display the master connection on the left of the form. When the migration process is complete, a result screen appears. Click Finish to exit the utility.
7. Run the supplied RefreshAllDocuments agent in the LEI Release 6 Administrator when you exit the migration utility. You can find it on the Actions menu pulldown in the LEI Administrator top bar.

8. Optionally open and view the migration.log file located in the Lotus\Domino directory.

   **Note** The migration log contains a list of all migrated activities and connections, a list of activities or connections that did not migrate because of duplicate naming, and a list of activities that did not migrate because they use Lotus Connectors that are no longer valid, such as the EDA/SQL Connector. It also contains the names of LEI LSX scripts that were migrated from the Release 3.n LEI Script Vault (leivlt.nsf).

**Additional Considerations when Migrating on iSeries**

As mentioned previously, you must use the iSetupMigration.exe if using a Win32 machine to migrate LEI onto iSeries or iSetupMigration if using an AIX machine to migrate LEI onto iSeries. When you run these utilities, additional iSeries-specific screens appear at the beginning and end of the migration process. These additional screens pertain to the Remote AWT and supplied JVM needed to perform the task for the iSeries platform. Once the environment is installed, the migration screens essentially match those of the other platforms.
1. Obtain the LEI Release 6 distribution media from your workstation. You can either insert the LEI Release 6 product CD-ROM into the machine from which you will install LEI or obtain LEI Release 6 from the Lotus Software Web site http://www.lotus.com.

2. Change into the directory in which the iSeries setup installation file (iSetupMigration.exe if using a Win32 machine to migrate LEI on iSeries or iSetupMigration if using an AIX machine to migrate LEI on iSeries) resides.

3. Run the migration program, again iSetupMigration.exe if using a Win32 machine or iSetupMigration if using an AIX machine.

4. The iSeries migration Welcome screen appears. Click Next to continue.
5. A screen appears that specifies the IP address of the iSeries machine to migrate LEI onto. Ensure that the IP address is correct or specify another. Click Next to continue.

6. Specify the path for the LEI server to be migrated and click Next to continue.
7. A screen appears indicating that the migration utility environment is being prepared. A screen also appears indicating that the Remote AWT daemon has been started.

8. A Signon to Server screen appears. Enter the System, User ID, and Password for the iSeries machine that you wish to migrate onto. Click OK to continue.

9. Follow the platform-independent LEI migration instructions located in the section entitled “Migrating to LEI Release 6” beginning with step 2.
10. When your iSeries-based LEI migration is complete, click Finish on the following screen.
Chapter 6
Uninstalling LEI

This chapter provides instructions for uninstalling LEI.

Overview

You can uninstall your current LEI release for the purposes of installing a later release or if you have upgraded your Domino or Notes application. You should reinstall LEI after upgrading Domino.

When you work in an LEI cluster environment, be careful when uninstalling LEI. If you uninstall the LEI cluster, both the LEI server and the LEI Administrator are removed. All information in the LEI Administrator is lost, including configuration, connection, activity, and log information. As well, all LEI servers and clients using the LEI Administrator are disabled. If you want to upgrade an existing LEI Administrator to a new version LEI Administrator, do not remove the old-version LEI Administrator but rather let the LEI installer upgrade it to the new release.

Note  If you plan on migrating your existing LEI contents, such as Activity Documents, Connection Documents and/or LEI LSX scripts in the Release 3.n LEI Script Vault, you must keep your existing LEI Administrator (leiadm.nsf). Do not uninstall or delete it.

If an LEI server is removed from an LEI Administrator, but the cluster is not removed, the LEI Administrator will still exist and new LEI servers may be installed into it.

The uninstall procedure varies between LEI Release 3.n and the current LEI Release. To optionally uninstall LEI Release 3.n, see the appropriate documentation for specific instructions. This chapter describes the process for uninstalling this release of LEI only.

Note  Prior to uninstalling, you must stop LEI. LEI should not be running when you uninstall it. If you are removing an LEI Administrator, be sure that no other servers are using that LEI Administrator when you uninstall it.
Uninstalling LEI on Windows

To uninstall this release of LEI, perform the following steps.

1. Select the Programs - Lotus Applications - LEI - Uninstaller menu sequence from the Start menu.
2. The Welcome screen appears. Click Next to continue.
3. Select the items that you wish to uninstall from the screen shown below. Click Next to continue.

![Uninstaller Screen]

**Note** If the LEI server is part of a cluster used by other servers, this screen will not appear. This step is designed to prevent accidental deletion of the LEI Administrator and user documentation files. Only the last server in a cluster is authorized to delete the LEI Administrator.

**Note** The three items shown at the bottom of the screen only appear if you chose the Delete option.
4. The following confirmation screen appears. If you are satisfied with your selections, click Next to continue.

5. The utility initiates uninstall. When it has completed, a screen appears indicating success. Alternatively, if errors were encountered a screen appears stating the error and directing you to the log.txt located at Lotus\Domino\leidir. Click Finish to exit.
Uninstalling LEI on AIX or Solaris

To uninstall this release of LEI, perform the following steps.

1. cd to the leidir directory. Example syntax for both Solaris and AIX is shown below:
   ```
cd /opt/lotus/notes/6000/sunspa/leidir
   cd /opt/lotus/notes/latest/ibmpow/leidir
   ```
2. cd to the _uninst subdirectory.
   ```
cd _uninst
   ```
3. Run the uninstaller program.
   ```
   run ./uninstall
   ```
   **Note** As with LEI install, to perform this task you must be logged in as the root user and have your DISPLAY variable set to the terminal from which you are uninstalling LEI. An example is provided below:
   ```
   export DISPLAY=x.xx.xx.xxx:0.0
   ```
4. The Welcome screen appears. Click Next to continue.
5. Select the items that you wish to uninstall from the screen shown below. Click Next to continue.

![Uninstaller screen](image)

Please choose from the options below to customize the uninstall process. Note that the Administrator database is on the Domino server running Edge Research.

- Leave the LEI Administrator databases intact.
- Delete the LEI Administrator and LEI Log databases.

Warning: Deleting the Administrator will cause its Activity and Connection documents to be deleted.

- Restore DEOS database from backup
- Enable DEOS as an Addin Task
- Delete the Sample and Documentation databases.

**Note** If the LEI server is part of a cluster used by other servers, this screen will not appear. This step is designed to prevent accidental deletion of the LEI Administrator and user documentation files. Only the last server in a cluster is authorized to delete the LEI Administrator.

**Note** The three items shown at the bottom of the screen only appear if you chose the Delete option.
6. The following confirmation screen appears. If you are satisfied with your selections, click Next to continue.

```
LEI will be uninstalled from the following location:
/opt/lotus/nodes/60000/bmwindow/leidir/

with the following features:
  Sample Databases
  Documentation in NSF format
  LEI Log Database
  Documentation in PDF format

** Important notice **

Please stop the LEI Server before continuing with this uninstall process, else the uninstall will fail.
```

7. The utility initiates uninstall. When it has completed, a screen appears indicating success. Alternatively, if errors were encountered a screen appears stating the error and directing you to the log.txt located at /Lotus/Domino/leidir. Click Finish to exit.

```
The InstallShield Wizard has successfully uninstalled LEI. Click Finish to exit the wizard.
```

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Uninstalling LEI on iSeries

To uninstall this release of LEI, perform the following steps.

**Note** An empty DOS window may appear on your Win32 machine during this process. If it does, you can minimize it, but do not delete it.

1. Obtain the LEI Release 6 distribution media from your workstation. You can either insert the LEI Release 6 product CD-ROM into the machine from which you will install LEI or obtain LEI Release 6 from the Lotus Software Web site http://www.lotus.com.

2. Change into the directory in which the iSeries uninstall setup file (iSetupUninstall.exe if using a Win32 machine to uninstall LEI from iSeries or iSetupUninstall if using an AIX machine to uninstall LEI from iSeries) resides.

3. Run the uninstall program, again iSetupUninstall.exe if using a Win32 machine or iSetupUninstall if using an AIX machine.

4. A screen appears indicating that the utility is preparing the JVM.

```
[Image of InstallShield Wizard]
```

```
InstallShield® is preparing the InstallShield Wizard, which will guide you through the rest of the process.
Please wait...

Preparing Java(tm) Virtual Machine...
```

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5. The iSeries uninstaller Welcome screen appears. Click Next to continue.

6. A screen appears that specifies the IP address of the iSeries machine that wish to uninstall LEI from. Ensure that the IP address is correct or specify another. Click Next to continue.
7. A screen appears indicating that the uninstall environment for iSeries is being installed.

8. In addition, a Signon to Server screen and Remote AWT daemon screen also appear. Enter the System, User ID, and Password for the iSeries machine that you wish to uninstall from. Click OK to continue. You can minimize the Remote AWT window but do not delete it.
9. The Welcome screen appears. Click Next to continue.

![Welcome screen](image1)

![Uninstaller screen](image2)

10. Select the items that you wish to uninstall from the screen shown below. Click Next to continue.

   ![Note](image3)

   **Note** If the LEI server is part of a cluster used by other servers, this screen will not appear. This step is designed to prevent accidental deletion of the LEI Administrator and user documentation files. Only the last server in a cluster is authorized to delete the LEI Administrator.
**Note**  The three items shown at the bottom of the screen only appear if you chose the Delete option.

11. The following confirmation screen appears. If you are satisfied with your selections, click Next to continue.

![Uninstaller screen](image1)

LEI will be uninstalled from the following location:
IBM\Programs\Lotus\Lotus Notes/LEI

with the following features:
- Sample Databases
- Documentation in NSF format
- LEI Log Database
- Script Vault Database
- Documentation in PDF format

**Important notice**
Please stop the LEI Server before continuing with this uninstall process, else the uninstall will fail.

12. The utility initiates LEI uninstall. When it has completed, a screen appears indicating that LEI has been successfully uninstalled. Alternatively, if errors were encountered a screen appears stating the error and directing you to the log.txt. Click Finish to continue.

![Uninstaller screen](image2)

The Uninstall Wizard has successfully uninstalled LEI. Click Finish to exit the wizard.

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13. If, at any time a Remote AWT screen appears indicating that the connection to the iSeries machine has ended, you can simply click Exit.