BEA eLink Information Integrator

Installation Guide

BEA eLink Information Integrator Version 1.1
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BEA eLink Information Integrator Installation Guide

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Contents

About This Document

This document provides instructions for installing BEA eLink Information Integrator on Windows NT and Unix platforms and configuring the Information Integrator environment.

This document covers the following topics:

- Chapter 1, “Preparing the Database,” describes tasks you may need to do to prepare your database.
- Chapter 2, “Installing BEA eLink Information Integrator on Windows NT,” provides installation information for Windows NT.
- Chapter 3, “Installing BEA eLink Information Integrator on a Unix Platform,” provides installation information for Unix

What You Need to Know

This document is intended for system administrators and application programmers who will configure the Information Integrator and use it to execute information transfers.

e-docs Web Site

BEA product documentation is available on the BEA corporate Web site. From the BEA Home page, click on Product Documentation or go directly to the "e-docs" Product Documentation page at http://e-docs.bea.com.

How to Print the Document

You can print a copy of this document from a Web browser, one file at a time, by using the File—>Print option on your Web browser.

A PDF version of this document is available on the BEA eLink Information Integrator documentation Home page on the e-docs Web site (and also on the documentation CD). You can open the PDF in Adobe Acrobat Reader and print the entire document (or a portion of it) in book format. To access the PDFs, open the BEA eLink Information Integrator documentation Home page, click the PDF files button and select the document you want to print.

If you do not have the Adobe Acrobat Reader, you can get it for free from the Adobe Web site at http://www.adobe.com/.

Related Information

The following BEA publications are also available:

TUXEDO System 6 Reference Manual

TUXEDO System 6 Programmer's Guide, Volumes 1 and 2

Contact Us!

Your feedback on the BEA Information Integrator documentation is important to us. Send us e-mail at **docsupport@bea.com** if you have questions or comments. Your comments will be reviewed directly by the BEA professionals who create and update the BEA eLink Information Integrator documentation.

In your e-mail message, please indicate that you are using the documentation for the BEA eLink Information Integrator 1.1 release.

If you have any questions about this version of the Information Integrator, or if you have problems installing and running the Information Integrator, contact BEA Customer Support through BEA WebSupport at **www.bea.com**. You can also contact Customer Support by using the contact information provided on the Customer Support Card, which is included in the product package.

When contacting Customer Support, be prepared to provide the following information:

- Your name, e-mail address, phone number, and fax number
- Your company name and company address
- Your machine type and authorization codes
- The name and version of the product you are using
- A description of the problem and the content of pertinent error messages

Document Conventions

The following documentation conventions are used throughout this document:

Item	Examples
Variable names	Variable names represent information you must supply or output information that can change; they are intended to be replaced by actual names. Variable names are displayed in italics and can include hyphens or underscores. The following are examples of variable names in text: *error_file_name* The *when-return* value...

User input and screen output	For screen displays and other examples of input and output, user input appears as in the first of the following lines; system output appears as in the second through fourth lines:
	`dir c:\accounting\data`
	`Volume in drive C is WIN_NT_1`
	`Volume Serial Number is 1234-5678`
	`Directory of C:\BEADIR\DATA`

Syntax	Code samples can include the following elements: ■ Variable names can include hyphens or underscores (e.g., *error_file_name)* ■ Optional items are enclosed in square brackets: [ ]. If you include an optional item, do not code the square brackets. ■ A required element for which alternatives exist is enclosed in braces {}. The alternatives are separated by the pipe (vertical bar) character: |. You must include only one of the alternatives for that element. Do not code the braces or pipe character. ■ An ellipsis (...) indicates that the preceding element can be repeated as necessary.
Omitted code	An ellipsis (...) is used in examples to indicate that code that is not pertinent to the discussion is omitted. The ellipsis can be horizontal or vertical.
Environment variables	Environment variables are formatted in an uppercase font. ENVFILE=${APPDIR}
Key names	Key names are presented in boldface type. Press **Enter** to continue.

Item	Examples
Literals	Literals are formatted in a monospace font. `class extendSample`
Window items	Window items are presented in boldface type. Window items can be window titles, button labels, text edit box names or other parts of the window. Type your password in the **Logon window**. Select **Export** to make the service available to the client.

CHAPTER

1 Preparing the Database

Before installing BEA eLink Information Integrator, you will need to prepare your database for use with Information Integrator. This section discusses the following topics:

Defining Database Users

This section provides instructions for creating database user accounts in Information Integrator Rules.

Oracle

During installation, an II_USER role is created and granted the permissions required by Information Integrator. To access databases, users must be created and granted the II_USER role using the procedures described in the following sections.

Creating Users

After you install Information Integrator, you must create user names or assign user roles in your database. User names identify individual users to the database. Listing 1-1 shows the syntax for creating users.

Listing 1-1 Syntax for creating users

```
create user USERNAME identified by PASSWORD;
```

USERNAME and PASSWORD are required parameters.

Granting Roles to Users

Users must be given permissions to access the database data. You can either grant permissions to an individual user or create roles with certain permissions and associate users with specific roles. II_USER is a role created by the Information Integrator installation process. Listing 1-2 shows the syntax for granting user roles.

Listing 1-2 Syntax for granting user roles

```
grant II_USER to USERNAME;
```

The II_USER role is granted to the user identified by USERNAME.

Defining Synonyms for Users

After a user has been created and roles have been granted to the user, you must define the synonyms for the user. Connect to the database using the newly created `USERNAME` and `PASSWORD`; then, run the SQL_Plus executable `nn.synonyms.sql`, found in the `install.sql` directory. Listing 1-3 shows the syntax for defining synonyms.

Listing 1-3 Syntax for synonyms.sql

```
@nn_synonyms.sql
```

SQL Server

Users must have login accounts and a user name in each database they want to access. Adding login accounts, database users, and object permissions can be done by the system administrator, security officer, or database owner. A single person can occupy one or more of these roles. Check with your database administrator for information about your specific environment.

Creating Login Accounts

Login accounts give users access to the SQL Server. They are created by the system administrator or security officer using the `sp_addlogin` system procedure. Listing 1-4 shows the syntax for `sp_addlogin`.

Listing 1-4 Syntax for `sp_addlogin`

```
sp_addlogin loginName, password [, defdb [, deflang [,
full-name]]]
```

loginName
: The login name being added.

password
: The password associated with the login name being added.

defdb
: Specifies a default database for the user.

deflang
: Specifies the default language to use.

full-name
: The full name of the user who owns this account.

Login accounts only give access to the SQL Server. To access a database, a login must be assigned to a user name to the databases the user wants to access.

Assigning Users to a Database

To use a database, the server login must be associated with a user name in the database. Users can be added to a database by the database owner (DBO) using the `sp_adduser` system procedure. This procedure must be run from the database in which the user is to be added. Listing 1-5 shows the syntax for `sp_adduser`.

Listing 1-5 Syntax for `sp_adduser`

```
sp_adduser loginName [, nameInDB] [, group]
```

loginName
: The user's server login account.

nameInDB
: The name for the user in the database. Defaults to the loginName if not specified.

group
: Enables the DBO to add the user to an existing group in the database. If not specified, the user is placed in the default group, PUBLIC.

Defining User Groups

Each user added to the database must be granted permissions to access objects within that database, unless they are the database owner. During installation, the group `II_USER` is created for Information Integratorusers. To access Information Integrator databases, users must be linked to the `II_User` group.

Users can be added using either the `sp_adduser` or `sp_changegroup` system procedures. Listing 1-5 describes the syntax for `sp_adduser`.

Listing 1-6 Syntax for `sp_changegroup`

```
sp_changegroup groupName, userName
```

groupName
: Name of the group to which the user is added.

userName
: The database user name.

Calculating Database Space Requirements

This section describes the formulas for calculating space requirements for Formatter and Rules.

Formatter Space Requirements

To calculate the total database space required for Formatter, you must estimate the number of objects used by Formatter. This calculation is the same for Oracle and Microsoft SQL Server databases.

Estimate the number of:

- Fields (fields are in flat input, flat output and compound formats)
- Literals
- Input controls
- Name/Value input field validation parameter pairs
- Output format controls
- Flat input formats
- Flat output formats
- Compound formats

Use the key below to interpret the formulas in the following sections:

F = Number of fields

D = Number of delimiters

IPC = Number of input parse controls

NV = Name/value input field validation parameter pairs

OFC = Number of output format controls

FIF = Number of flat input formats

FOF = Number of flat output formats

CF = Number of compound formats

FSpace = Total space, in bytes, needed for Formatter

Oracle

Use the following formula to determine the space needed for Formatter:

```
(1819 + (164 x F)) +
(1819 + (52 x D)) +
(1819 + (164 x IPC)) +
(82 x NV) +
(1819 + (563 x OFC)) +
(1819 + (60 x FIF)) +
(1819 + 66 x FOF)) +
```

```
(1819 + (60 x CF)) =
Fspace
```

Microsoft SQL Server

Use the following formula to determine the space needed for Formatter:

```
(1821 + (168 x F)) +
(1821 + (56 x D)) +
(1821 + (200 x IPC)) +
(84 x NV) +
(1821 + (615 x OFC)) +
(1821 + (88 x FIF)) +
(1821 + (100 x FOF)) +
(1821 + (84 x CF)) =
FSpace
```

Rules Space Requirements

To calculate the total database space required for Rules, you must estimate the number of objects used by Rules. This calculation is the same for Oracle and Microsoft SQL Server databases.

Estimate the number of:

- Application Groups
- Message types within each application group
- Rule names within each message type
- Expressions within each rule name
- Subscriptions within each rule name
- Actions within each subscription

Use the key below to interpret the formulas in the following sections:

AG = Number of application groups

MT = Number of message types within an application group

R = Number of rule names within each message type

A = Number of expressions within each rule

S = Number of subscriptions within each rule

AO = Number of actions within each subscription

RSpace = Total space, in bytes, needed for Rules

Oracle

Use the following formula to determine the space needed for Rules:

```
(1318 + (43 x AG)) +
(1322 + (13 x MT)) +
(1322 + (535 x R)) +
(1322 + (216 x A)) +
(1322 + (240 x S)) +
(1322 +AO) =
RSpace
```

Microsoft SQL Server

Use the following formula to determine the space needed for Rules (the key to formula expressions follows the DB2 formula):

```
(1322 + (47 x AG)) +
(1330 + (17 x MT)) +
(1330 + (601 x R)) +
(1330 + (242 x A)) +
(1330 + (260 x S)) +
(127 + AO) =
RSpace
```

Preparing an Oracle Database

If you are using an Oracle database, you must create Information Integrator tablespaces and then you must install the database schema. The size of your tablespaces depends on the numbers of Rules and Formats used at your site. Refer toCalculating Database Space Requirements for specific sizing information.

Note: You do not have to create tablespaces with Microsoft SQL Server.

Creating Tablespaces

You may want to place the tablespaces on different physical disks to balance I/O and avoid disk-access bottlenecks. You should separate data tablespaces and index segments by placing them on different disks and/or controllers. This optimizes index and data access parallelism.

To create Oracle tablespaces:

1. Create a dedicated Oracle instance where the Information Integrator database resides.
2. Create the following tablespaces in the Oracle database:

Table	Minimum Size
TOOLS	1 MB
TEMP	10 MB
FORMATTER_DATA	20 MB
FORMATTER_INDEX	20 MB
RULES_DATA	20 MB
RULES_INDEX	20 MB

Note: For information on creating an Oracle database, refer to the Oracle installation documentation.

Installing the Oracle Database Schema

The `inst_db` script creates the necessary tables and stored procedures that comprise the database schema in the Information Integrator database. The script sends the commands from the files in the `install.sql` directory.

To install the database schema, perform the steps descibed in the following sections, depending on whether your operating system is Windows NT or Unix.

Note: Make sure your Oracle environment is set up properly before performing these steps. Refer to the *BEA eLink Information Integrator User Guide* for more information about setting up the environment.

Windows NT

To install the database schema for Windows NT, perform the following steps:

1. At the command line prompt, change to the **`install.sql`** directory.

   Example:

   ```
   cd \InfoInt\install.sql
   ```

2. To build the Information Integrator schema, type one of the following:

   Oracle

   ```
   set SQLPLUS=<plus name>
   inst_db.cmd SYS <SYS password> <Service Name>
   ```

   For Oracle 7, <*plus name*> is **`plus33`**. For Oracle 8, <*plus name*> is **`plus80`**.

   SQL Server

   ```
   inst_db.cmd <username> <password> <servername> <dbname>
   ```

   If you have not defined a password for your database username, use two single quotes to specify the password. For example:

   ```
   inst_db.cmd sa '' mycomputer
   ```

3. As the script runs, answer the prompts and look for errors.

4. When the script completes the instantiation, a verification message appears.

5. For installation details, look at the **`inst_db.log`** file located in the **c:\temp** directory.

   In the `inst_db.log` file, the error "table or view does not exist" does not indicate a problem with database instantiation. The database successfully instantiated if this is the only error you receive.

Unix

To install the database schema for Unix, perform the following steps:

1. Change to the `$TUXDIR/InfoInt/install.sql` directory.
2. To build the Information Integrator schema, execute the `inst_db.sh` script using the following syntax:

   ```
   inst_db.sh SYS <SYS password> <servicename>
   ```

3. As the script runs, look for errors.
4. When the script completes the instantiation, a verification message appears.
5. For installation details and to see if there are errors, refer to the `inst_db.log` file. You should always check the log, even if the verification message says the instantiation completed successfully.

   In the `inst_db.log` file, the error "table or view does not exist" does not indicate a problem with database instantiation. The database successfully instantiated if this is the only error you receive.

Changing the Database Sort Order for a Microsoft SQL Server

The default sort order for Microsoft SQL Server is dictionary case-insensitive. For the Information Integrator server to take full advantage of case-sensitive naming conventions and operations, the sort order on the SQL Server must be changed to a binary sort order. Changing the sort order to binary provides a performance advantage over dictionary sort order.

Changing the sort order requires preparation and an understanding of SQL Server. Changing the sort order on SQL Server is easiest on an initial server install. It is more difficult on a server that is established with applications other than Information Integrator running. In ALL cases, make full backups of all databases, especially the master database, before proceeding.

New Install of Microsoft SQL Server

The SQL Server setup program prompts for the sort order and the character set to use. Change the sort order to binary and proceed with the installation as usual.

Upgrade Microsoft SQL Server from Version 4.2 and Earlier

The default sort order is set correctly for Information Integrator in SQL Server versions 4.2 and earlier. If your installation of SQL Server 6.5 is an upgrade from 4.2, changing the sort order may not be necessary. To verify that the sort order is set to binary, log on to the server and execute the `sp_helpsort` system stored procedure. This returns the character set along with the sort order being used by the server. If the sort order is not set to binary, follow the instructions in the next section to change the sort order on an established server.

Established Microsoft SQL Server

Changing the sort order on an established server requires preparation and planning. If your server runs applications other than Information Integrator, verify that changing the sort order on the server will not affect the other applications also residing on that server.

Before performing this procedure, refer to the *Rebuilding the Master Data* section in the *Microsoft SQL Server Administrator's Companion.*

To change the sort order on the server:

1. Back up ***all*** databases on the server, especially the master database. This allows you to rebuild the server to its initial settings, if necessary.
2. BCP all of the data from all tables in all databases, since the database backup file contains the sort order used at the time of the backup. When the sort order is changed on the server, the backups are invalid.
3. To export the DDL from the databases, use the Enterprise Manager tool and do the following:

   Choose Objects→Generate SQL scripts.

   Check the All Objects box in the Scripting Objects section.

   Generate a fill for each database.
4. To generate a script for every login and user on the server, use the Enterprise Manager tool and do the following:

   Choose Objects→Generate SQL scripts.

   Check all the boxes in the Security section.

Generate the script.

5. Shutdown the SQL Server.
6. To change the sort order on the SQL Server:

   Choose the Setup icon for SQL Server. Two screens appear: a welcome screen, and then a screen indicating that SQL Server is already installed.

   Choose Continue on each of these screens. The next screen contains a set of radio buttons.

   Select Rebuild Master Database, then choose Continue. A warning screen appears indicating that rebuilding the master database will destroy all data.

   Choose Resume. A screen appears that lets you change the sort order.

   Select the sort order box, select the binary sort order option, and choose Continue. The setup program rebuilds the system databases using the specified sort order.

7. Restart the SQL Server.
8. Login to the server using the SA user ID.
9. Execute the `sp_helpsort` stored procedure to verify that the sort order was changed to binary.
10. Recreate the database devices and databases.
11. Run the script that was generated in Step 3 for each database.
12. Run the script that was generated in Step 4 for logins and users.
13. BCP the data back into the tables.

Editing the Database Connection File

Some executables connect to the database using the database connection file, `sqlsvses.cfg`. This file contains entries for DBMS sessions that detail the server name, user ID, password, and database name that a particular session uses. Executables search the `sqlsvses.cfg` file for a given session name and attempt to connect to the database (for example, `msgtest` searches for `new_format_demo`).

A sample `sqlsvses.cfg` file that is commented out is provided in the **bin** directory. Uncomment the section that applies to your DBMS type. You must edit the sample file with your site-specific information. This file enables certain Information Integrator executables to connect to the database. Refer to the *BEA eLink Information Integrator User Guide* for more information about the database session configuration file.

To edit the database connection file:

1. Change to the `bin` directory.
2. In the bin directory, locate the text file **`sqlsvses.cfg`**.
3. In the **`sqlsvses.cfg`** file, edit the following:

   Oracle

   <*sessionname*>:<*servicename*>:<*username*>:<*password*>:

   Example:

   ```
   new_format_demo:dodge:beauser:beapwd:
   rules:dodge:beauser:beapwd:
   nnfie:dodge:beauser:beapwd:
   nnrmie:dodge:beauser:beapwd:
   ```

   SQL Server

   <*sessionname*>:<*servername*>:<*username*>:<*password*>:<*dbname*>

   Example:

   ```
   new_format_demo:dodgebeauser:beapwd:TESTDATABASE
   rules:dodge:beauser:beapwd:TESTDATABASE
   ```

2 Installing BEA eLink Information Integrator on Windows NT

This chapter discusses the following topics:

Preparing for a New NT Installation

This section describes the steps you should take before you run the Information Integrator installation procedure on Windows NT.

Required Disk Space

The installation disk space requirements depend on which components you install and how much working space you need. Your working space depends on the number of queues, the number and size of the messages on the queues, whether the messages are persistent, and how many formats and rules you plan to build. Archiving capacity on disk, tape, or other media is also required.

Setting Up the Environment

The following items must be verified prior to installing BEA eLink Information Integrator. Otherwise, the installation will not complete successfully.

Oracle

Verify the following:

- You can connect to an appropriately resourced Oracle database that stores Information Integrator data, either directly or through an Oracle client.
- You know the Oracle SYS account information.
- There is sufficient disk space for your calculated needs.
- The Oracle utility program **plus33** (for Oracle 7) or **plus80** (for Oracle 8) is in the execution path for the user doing the install.
- Be sure the **PATH** environment variable includes the product bin directory and the database bin directory.

SQL Server

Verify the following:

- You can connect to an appropriately resourced SQL Server database that stores Information Integrator data, either directly or through a SQL Server client.
- You are a database owner (or have the account information for the owner of the database).

- That the target database is the default database.
- There is sufficient disk space for your calculated needs.
- The Microsoft SQL Server utility program **`isql`** is in the execution path for the user doing the install.
- Be sure the **`PATH`** environment variable includes the product bin directory and the database bin directory.

Collecting Information

Before beginning the installation, know the drive letter of the CD-ROM drive from which you will run the installation and the information for the appropriate operating system in the following sections:

Oracle

- SYS userid
- password for SYS userid
- TNS service name to be used in connecting to the database

MS SQL Server

- database name
- server name
- username
- password

Installing on Windows NT

There are two options for installing BEA eLink Information Integrator on a Windows NT machine:

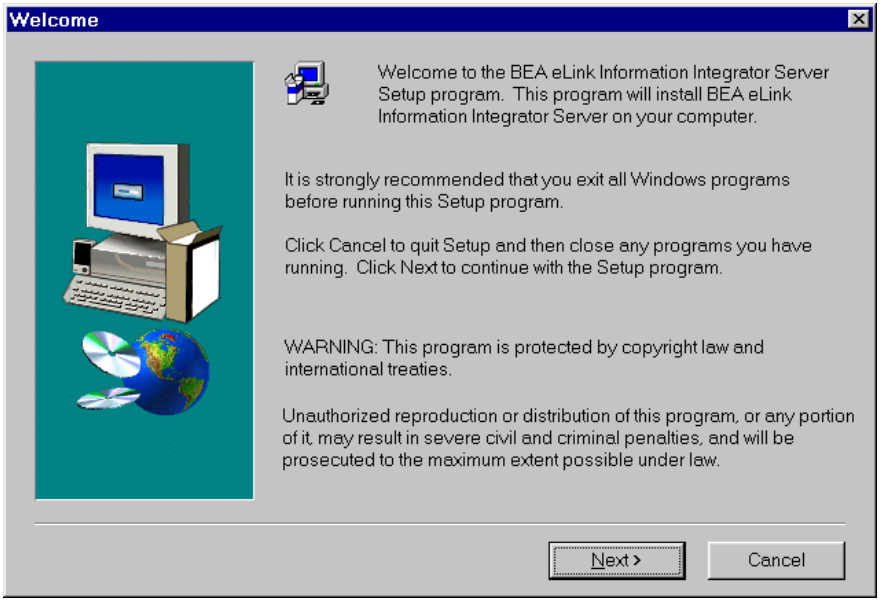
- Server Installation — Installs the runtime utilities available with Information Integrator. Use this installation to perform operations against the database information built with the Developer Installation.
- Developer Installation — Installs the graphical user interface for the utilities available with Information Integrator. Use this installation to enter information into and extract information from the Information Integrator database.

Server Installation

Perform the following steps to install the BEA eLink Information Integrator Server software on a Windows NT system:

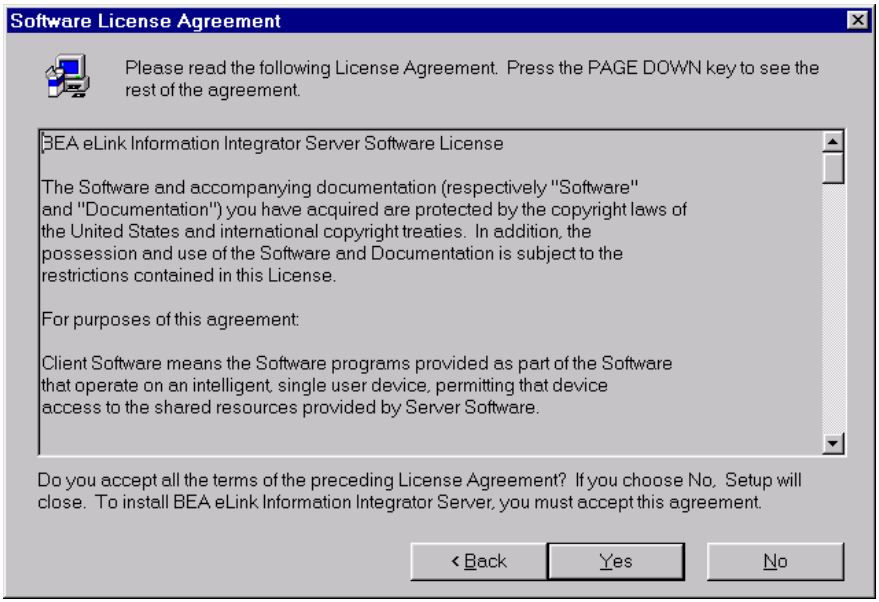
1. Insert the BEA eLink Information Integrator Server CD-ROM. Click **Run** from the **Start menu**. The **Run** window displays. Click on the **Browse** button to select the CD-ROM drive. Select the `winnt` directory and select the `Setup.exe` program. Click **OK** to run the executable and begin the installation. The following **Welcome** screen displays. Click **Next** to continue with the installation.

Figure 2-1 Welcome



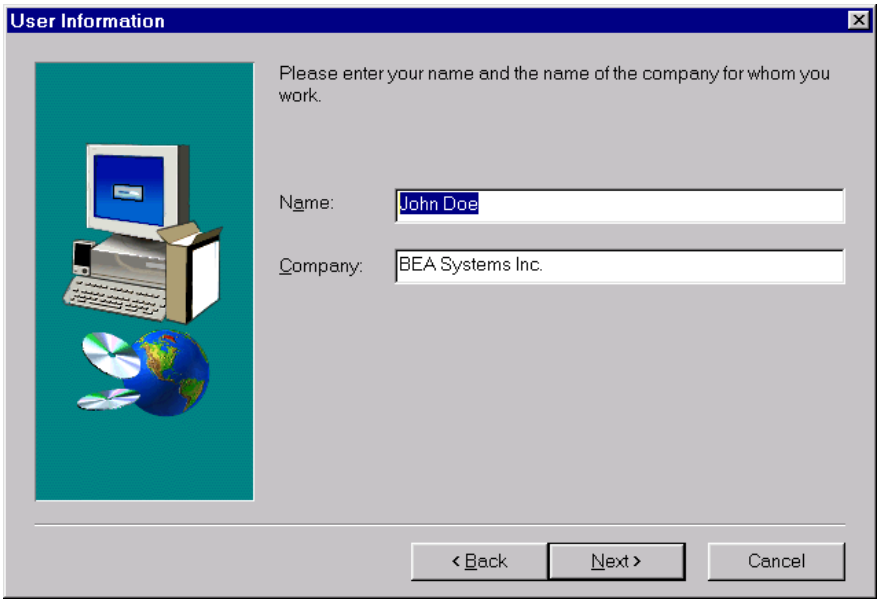
2. The **License Agreement** screen displays after the **Welcome** screen. Click **Yes** to accept the license agreement and continue with the installation.

Figure 2-2 License Agreement



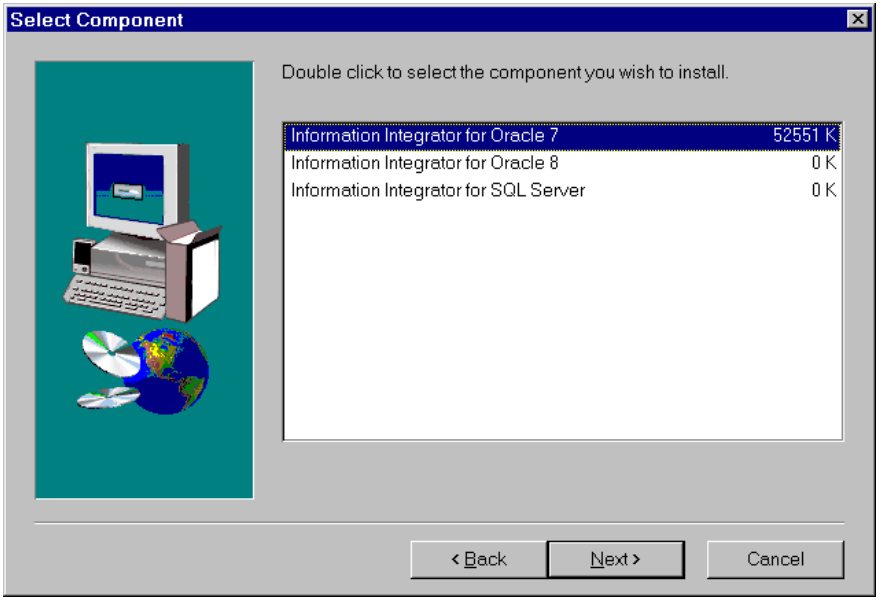
3. The **User Information** screen displays after the **License Agreement** screen. Enter your name in the **Name** field. Enter the name of your company in the **Company** field. Click **Next** to continue with the installation.

Figure 2-3 User Information



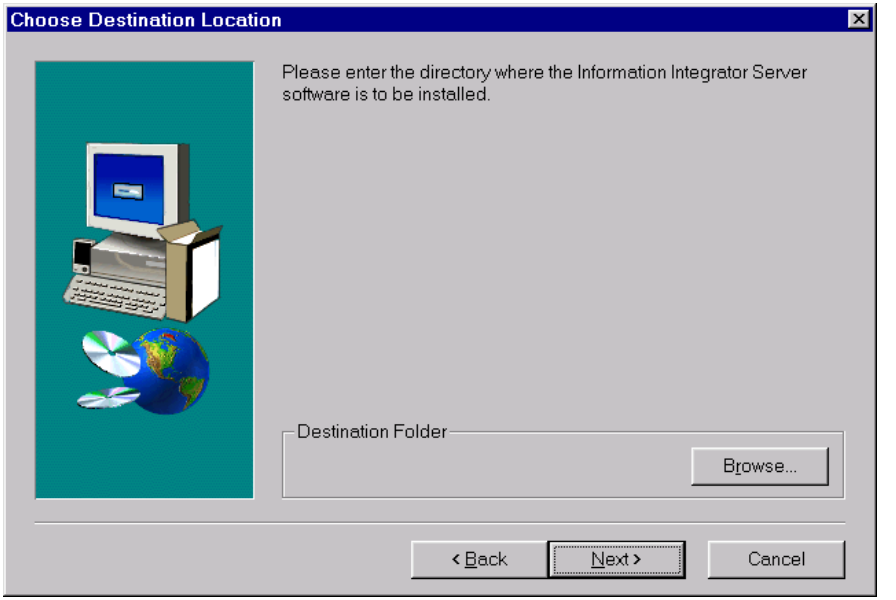
4. The **Select Components** screen displays next. Choose either **Information Integrator for Oracle** or **Information Integrator for SQL Server** and click **Next** to continue.

Figure 2-4 Select Components



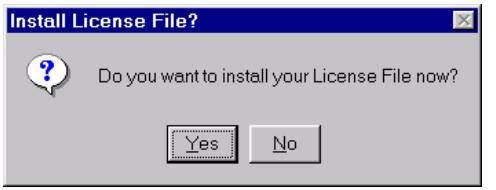
5. The **Choose Destination Location** screen displays next. Enter the directory path where you want to install Information Integrator, or click **Browse** to select the desired drive and directory.

Figure 2-5 Choose Destination Location



6. The **Install License File?** option screen displays next. You may select **Yes** to install your BEA Software License File, or you may select **No** to bypass this step and continue installing the Information Integrator software. If you select **Yes**, continue with Step 7. If you select **No**, continue with Step 9.

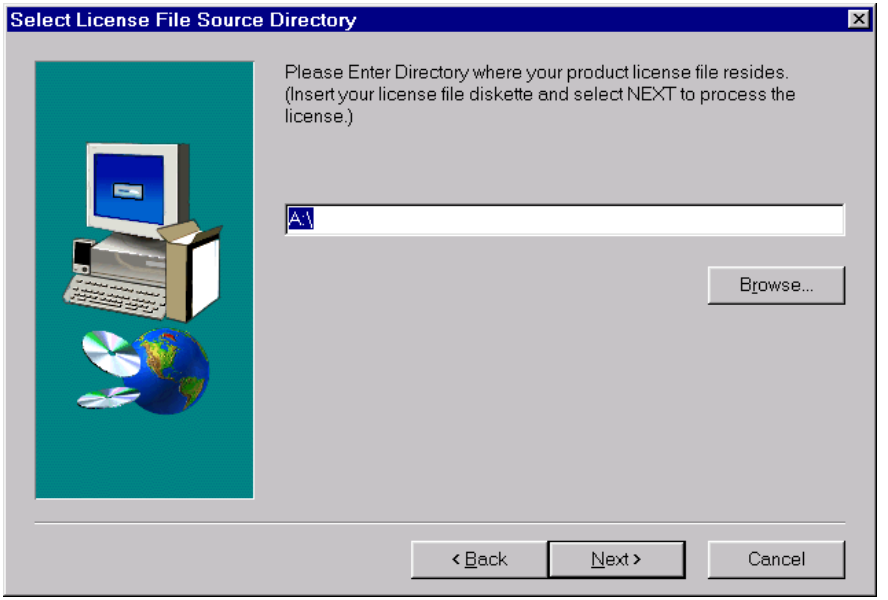
Figure 2-6 Install License File?



7. The **Select License File Source Directory** screen displays. Enter the directory path where your license file resides in the field. You can browse and click directories by clicking the **Browse** button. Typically, the license file is installed in the **`tuxedo/udataobj`** directory.

   If you entered a valid directory path, click **Next** to continue with the installation. Go to Step 9. If you entered an invalid directory path, go to Step 8.

Figure 2-7 Select License File Source Directory



8. If you do not enter a valid directory path for your license file, the installation software generates an error message dialog box. You can select **Yes** to enter a valid directory path, or you can select **No** to continue with the installation. If you select **No**, the installation software automatically searches for the TUXEDO software. If it finds TUXEDO installed, the installation software completes the process. If TUXEDO is not found, the installation software aborts the process.

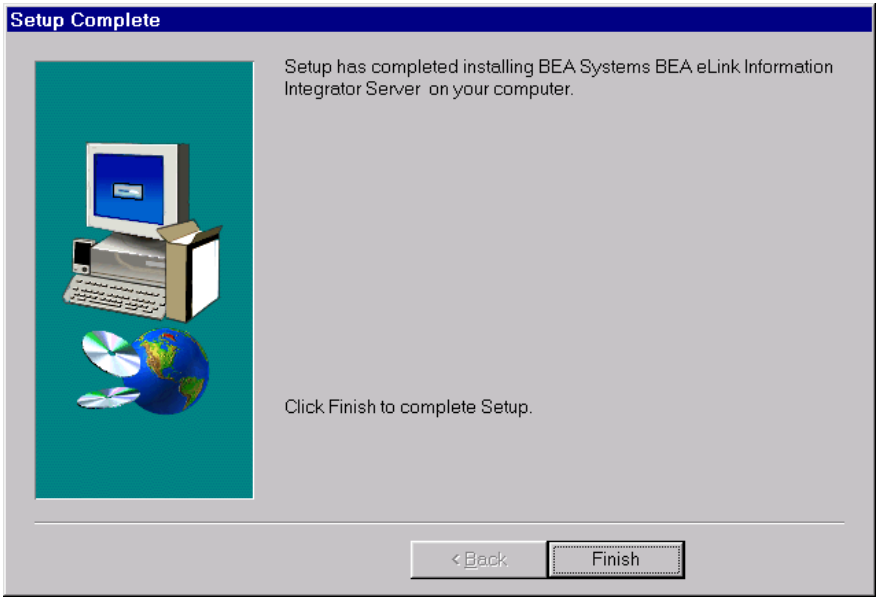
   Note: If you select **No**, the installation continues but an error is generated in the ulog.*mm/dd/yy* file indicating that the product is unlicensed. Please refer to the "Using the License Key" section of the *BEA eLink Information Integrator Release Notes* for instructions on using the license file.

Once you have entered a valid directory path, click **Next** to continue with the installation. Go to Step 9.

9. A progress bar displays showing the status of the installation.

10. The **Setup Complete** screen displays notifying you that the BEA eLink Information Integrator Server software is installed on your system. Click **Finish** to complete the Setup process.

Figure 2-8 Setup Complete

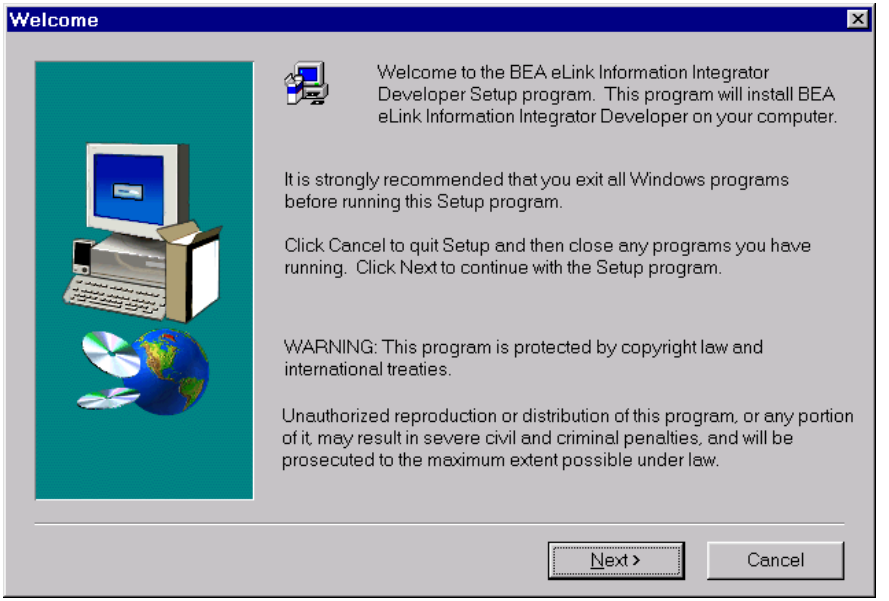


Developer Installation

Perform the following steps to install the BEA eLink Information Integrator Developer on a Windows NT system:

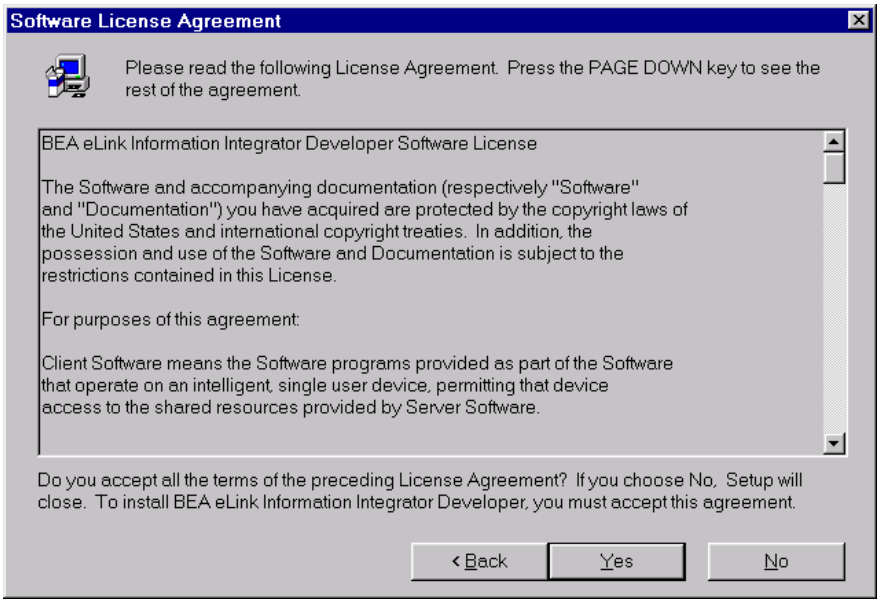
1. Insert the BEA eLink Information Integrator Developer CD-ROM and click on the **Run** option from the **Start menu**. The **Run** window displays. Click on the **Browse** button to select the CD-ROM drive. Select the `winnt` directory and select the `Setup.exe` program. Click **OK** to run the executable and begin the installation. The following **Welcome** screen displays. Click **Next** to continue with the installation.

Figure 2-9 Welcome



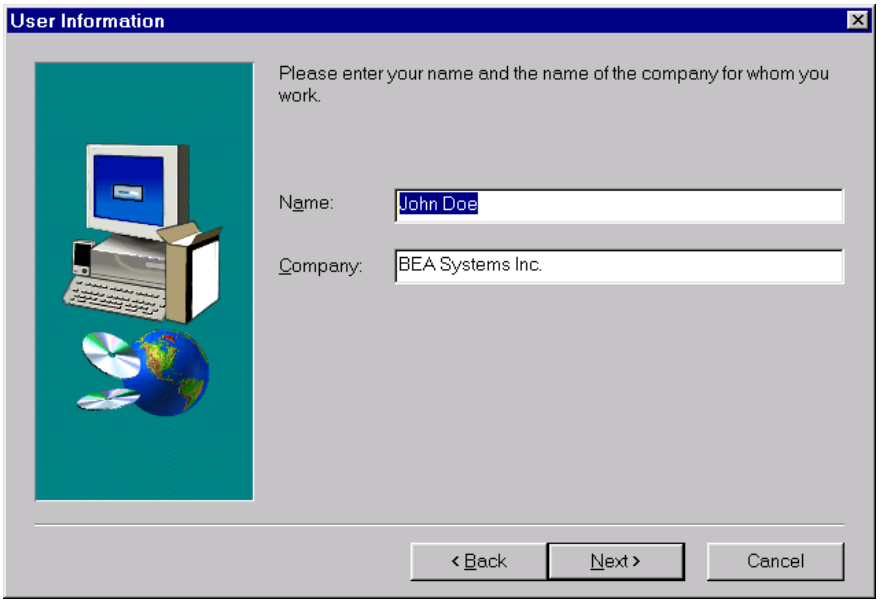
2. The **License Agreement** screen displays after the **Welcome** screen. Click **Yes** to accept the license agreement and continue with the installation.

Figure 2-10 License Agreement



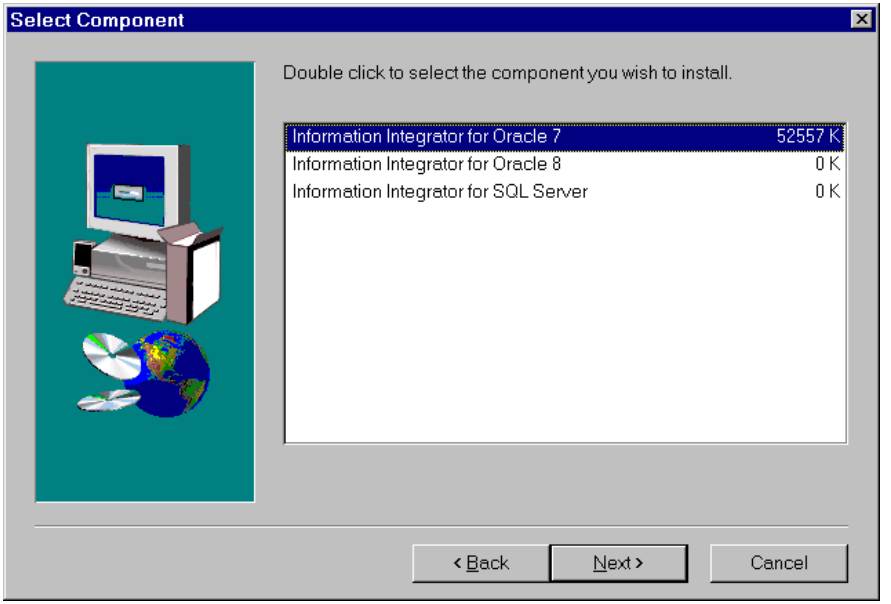
3. The **User Information** screen displays after the **License Agreement** screen. Enter your name in the **Name** field. Enter the name of your company in the **Company** field. Click **Next** to continue with the installation.

Figure 2-11 User Information



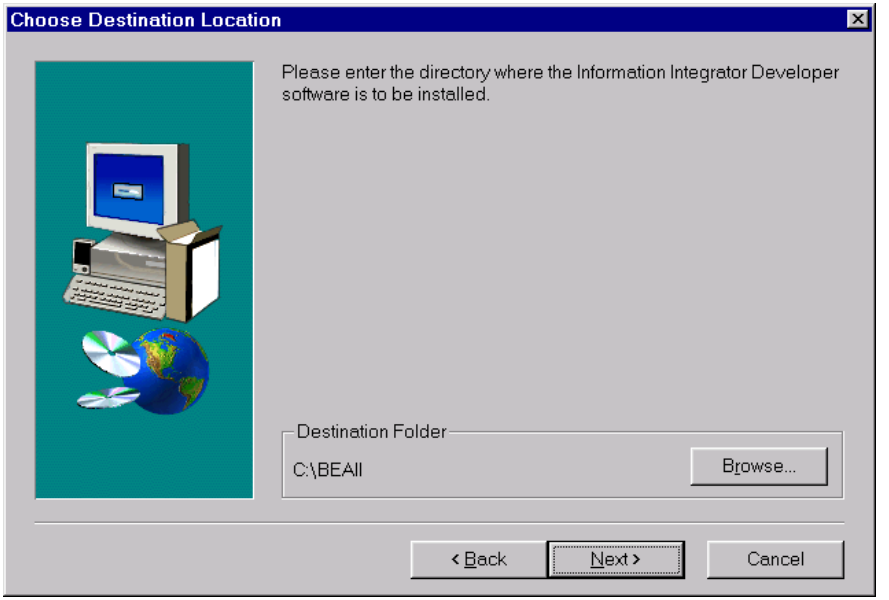
4. The **Select Components** screen displays next. Choose either **Information Integrator for Oracle** or **Information Integrator for SQL Server** and click **Next** to continue.

Figure 2-12 Select Components



5. The **Choose Destination Location** screen displays next. Enter the directory path where you want to install Information Integrator, or click **Browse** to select the desired drive and directory.

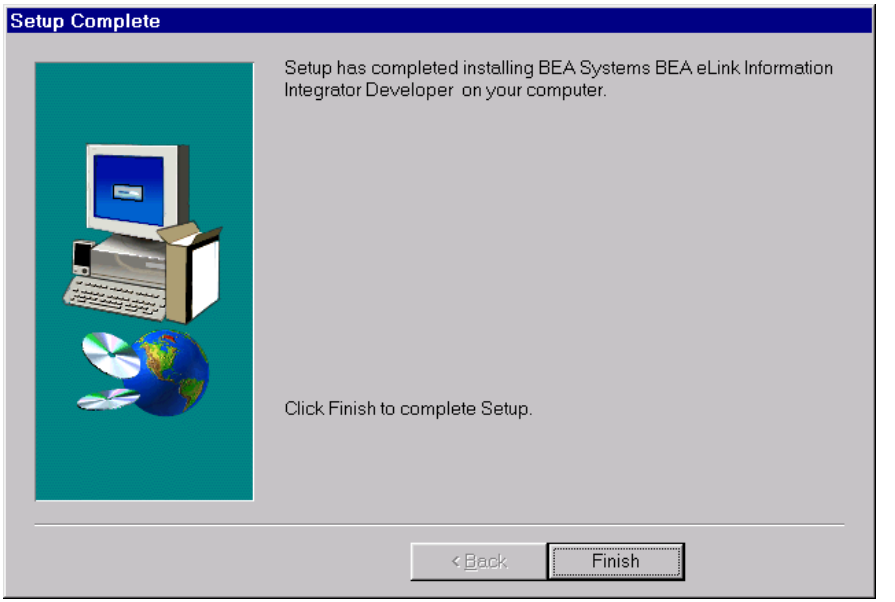
Figure 2-13 Choose Destination Location



6. A progress bar displays showing the status of the installation.

7. The **Setup Complete** screen displays notifying you that the BEA eLink Information Integrator Developer software is installed on your system. Click **Finish** to complete the Setup process.

Figure 2-14 Setup Complete



Uninstalling BEA eLink Information Integrator

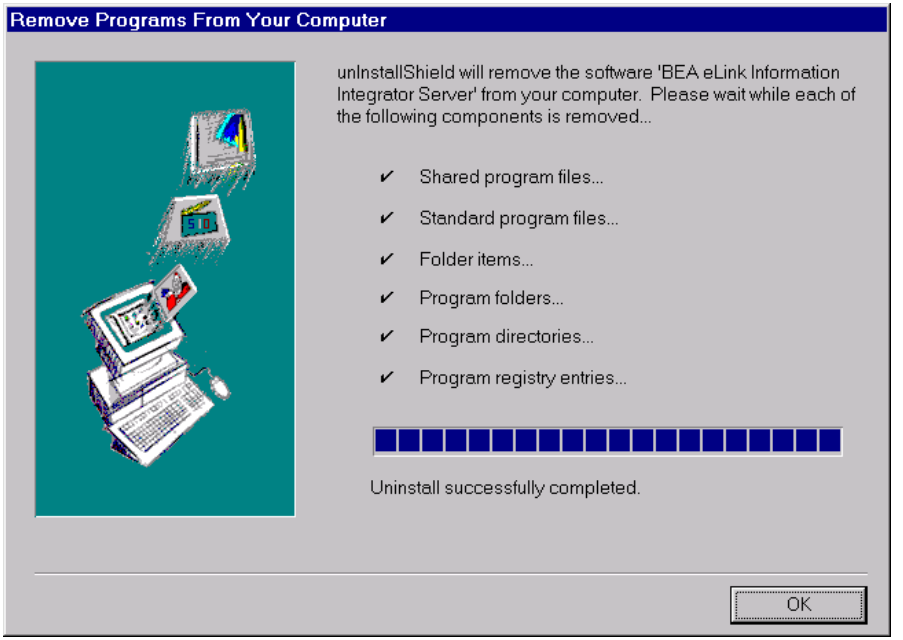
Perform the following steps to uninstall the Information Integrator software on a Windows NT system:

1. Access the **Control Panel** window from the **Start>Settings>Control Panel** menu option.
2. Double-click on the **Add/Remove Programs** option from the Control panel listings to access the **Add/Remove Programs Properties** window.

3. In the **Add/Remove Programs Properties** window, select **BEA eLink Information Integrator Server** or **BEA eLink Information Integrator Developer** from the program list and click the **Add/Remove** button.

4. The uninstall process for Information Integrator begins. The **Remove Programs From Your System** screen displays. Click **OK** to complete the uninstall process.

Figure 2-15 Remove Programs From Your Computer



3 Installing BEA eLink Information Integrator on a Unix Platform

This chapter describes the steps required to install BEA eLink Information Integrator on Unix machines. The following topics are discussed:

Preparing for a Unix Installation

This section describes the steps necessary before installing Information Integrator on a Unix machine.

Required Disk Space

The installation disk space requirements depend on which components you install and how much working space you need. Your working space depends on the number of queues, the number and size of the messages on the queues, whether the messages are persistent, and how many formats and rules you plan to build. Archiving capacity on disk, tape, or other media is also required.

Setting Up the Environment

On the Unix machine, verify the following:

- The Oracle utility program `sqlplus` (for AIX and Solaris installations), `plus33` (for HP-UX installations using Oracle 7), or `plus80` (for HP-UX installations using Oracle 8) is in the execution path for the user doing the install.
- You can connect to the database that stores Information Integrator data.
- An Oracle database exists with the appropriate resources and table spaces.
- The `ORACLE_HOME` environment variable is set to the location of the database home.
- The environment variable that defines where the library for the product and database reside (`LIBPATH` for AIX, `SHLIB_PATH` for HP-UX, and `LD_LIBRARY_PATH` for Solaris) points to the product lib directory and the database lib directory.
- Be sure the `PATH` environment variable includes the product bin directory and the database bin directory.
- You know the Oracle SYS account information.

Collecting Information

Before beginning the installation, know the drive letter or path to the mounted CD-ROM device from which you will run the installation, the root password for the Unix server, and the information for the appropriate operating system as listed in the following sections:

- SYS userid
- password for SYS userid
- service name

Installing on Unix Platforms

To install the BEA eLink Information Integrator software, you run the `install.sh` script. This script installs all the necessary software components.

Perform the following steps to install the Information Integrator software on a supported Unix platform:

1. Log on as root to install the Information Integrator software.

```
$ su -
Password:
```

2. Access the CD-ROM device.

```
# ls -1 /dev/cdrom

total 0

brw-rw-rw-     1 root     sys     22,   0 April 14 10:55 c1b0t010
```

3. Mount the CD-ROM. Mount commands vary depending on your system configuration. Refer to your System Administrator for the specific command for your system. Use a command similar to the following command to mount the CD-ROM on any Unix system, **except** HP-UX.

```
# mount -r -F cdfs /dev/cdrom/c1b0t0l0 /mnt
```

If you are installing on an HP-UX system, use a command similar to the following command:

```
# mount -r -F cdfs -o cdcase /dev/cdrom/c1b0t010 /mnt
```

4. Change the directory to your CD-ROM device. For example,

```
# cd /mnt
```

5. List the CD-ROM contents.

```
# ls

install.sh  hp sun5x aix43
```

6. Execute the installation script.

```
# sh ./install.sh
```

7. The installation script runs and prompts you for responses.

Listing 3-1 Install.sh Example

```
** You have chosen to install from hp/hpux11 **

BEA eLink Information Integrator Release 1.1

This directory contains the Information Integrator for
HP-UX 11.0 on 9000/800 series.

Is this correct? [y,n,q]: y

To terminate the installation at any time
press the interrupt key,
typically <del>, <break>, or <ctrl+c>.

The following packages are available:

  1    iior8         BEA eLink Information Integrator for Oracle 8
  2    iior7         BEA eLink Information Integrator for Oracle 7

Select the package(s) you wish to install (default: 1) [?,??,q]: 1

BEA eLink Information Integrator for Oracle 8
(9000) Release 1.1
Copyright (c) 2000, 1996-1999 BEA Systems, Inc., or its suppliers,
as applicable.
All Rights Reserved.
```

```
Distributed under license by BEA Systems, Inc.
BEA eLink is a trademark of BEA Systems, Inc.

Directory where Information Integrator files are to be installed
(Enter your Tuxedo directory path) [?,q]: /work/cmadm/tux65

Using /work/cmadm/tux65 as the Information Integrator base
directory

Determining if sufficient space is available ...
15692 blocks are required
11342966 blocks are available to /work/cmadm/tux65

Unloading /cmhome/dist/collie-7/hp/hpux11/iior8/IIOR8T65.Z ...
InfoInt/install.sql/NNF_GET_ALL_DSCR.sql
InfoInt/install.sql/NNF_GET_CASE.sql
InfoInt/install.sql/NNF_GET_CCNT.sql
InfoInt/install.sql/NNF_GET_CMPNT.sql
InfoInt/install.sql/NNF_GET_CNTL.sql
InfoInt/install.sql/NNF_GET_CNTL_NAM.sql
InfoInt/install.sql/NNF_GET_COL_ITEM.sql
InfoInt/install.sql/NNF_GET_CSTM_DT.sql
InfoInt/install.sql/NNF_GET_DEFAULT.sql
InfoInt/install.sql/NNF_GET_EXIT.sql
InfoInt/install.sql/NNF_GET_FIX.sql
InfoInt/install.sql/NNF_GET_FLAT_FMT.sql
InfoInt/install.sql/NNF_GET_ID.sql
InfoInt/install.sql/NNF_GET_INFIELDS.sql
InfoInt/install.sql/NNF_GET_JUSTIFY.sql
InfoInt/install.sql/NNF_GET_LAST.sql
InfoInt/install.sql/NNF_GET_LEN.sql
InfoInt/install.sql/NNF_GET_MATH_EXP.sql
InfoInt/install.sql/NNF_GET_NAME_VAL.sql
InfoInt/install.sql/NNF_GET_OUTFLD.sql
InfoInt/install.sql/NNF_GET_OUT_MSTR.sql
InfoInt/install.sql/NNF_GET_SUB.sql
InfoInt/install.sql/NNF_GET_SUBSTR.sql
InfoInt/install.sql/NNF_GET_TRIM.sql
InfoInt/install.sql/NNF_GET_USR_TYPE.sql
InfoInt/install.sql/NNR_GET_APP_MSG.sql
InfoInt/install.sql/NNR_GET_ARG.sql
InfoInt/install.sql/NNR_GET_BOOLEAN.sql
InfoInt/install.sql/NNR_GET_OPERNS.sql
InfoInt/install.sql/NNR_GET_RULES.sql
InfoInt/install.sql/NNR_GET_SUBACT.sql
InfoInt/install.sql/NNR_GET_SUBS.sql
InfoInt/install.sql/banner
InfoInt/install.sql/fmt_dlt_objs.sql
InfoInt/install.sql/fmt_grnt.sql
```

```
InfoInt/install.sql/fmt_meta.sql
InfoInt/install.sql/fmt_tbl_bld.sql
InfoInt/install.sql/inst_db.sh
InfoInt/install.sql/loadcomp.sh
InfoInt/install.sql/nn_post.sql
InfoInt/install.sql/nn_prdrop.sql
InfoInt/install.sql/nn_pre.sql
InfoInt/install.sql/nn_synonyms.sql
InfoInt/install.sql/rule_dlt_objs.sql
InfoInt/install.sql/rule_grnt.sql
InfoInt/install.sql/rule_meta.sql
InfoInt/install.sql/rule_prod.sql
InfoInt/install.sql/rule_tbl_bld.sql
InfoInt/install.sql/sqlload.sh
InfoInt/sample/address/Fieldtable.txt
InfoInt/sample/address/II_address_msg1.xml
InfoInt/sample/address/SETENV.BAT
InfoInt/sample/address/address.actions
InfoInt/sample/address/address.c
InfoInt/sample/address/address.data
InfoInt/sample/address/build_sample.cmd
InfoInt/sample/address/build_sample.sh
InfoInt/sample/address/ii.cfg
InfoInt/sample/address/sample.ubb
InfoInt/sample/address/setenv.sh
InfoInt/sample/address/sqlsvses.cfg
InfoInt/sample/address/ud32.in
InfoInt/sample/payroll/II_payroll.data
InfoInt/sample/payroll/II_payroll_msg1.xml
InfoInt/sample/payroll/II_payroll_msg2.xml
InfoInt/sample/payroll/SETENV.BAT
InfoInt/sample/payroll/fields.fml
InfoInt/sample/payroll/ii.cfg
InfoInt/sample/payroll/payroll.actions
InfoInt/sample/payroll/payroll.data
InfoInt/sample/payroll/payroll.ud32
InfoInt/sample/payroll/sample.ubb
InfoInt/sample/payroll/setenv.sh
InfoInt/sample/payroll/sqlsvses.cfg
bin/AddDTfmt
bin/IISERVER
bin/NNFie
bin/NNRDBARuleOwnership
bin/NNRTrace
bin/NNRie
bin/NNYORN
bin/NNcryptCfg
bin/apitest
bin/dumpq
```

```
bin/ii.cfg
bin/msgtest
bin/ruletest
bin/sendBuf
eLink/Catalogs/ii.cat
lib/libadk.sl.1.10
lib/libnnNetExits.sl
lib/libnncmpntmgr.sl
lib/libnnfmgr.sl
lib/libnnrmgr.sl
lib/libnnrulesfmt.sl
lib/libnnses.sl
lib/libnnsesdbold.sl
lib/libnnsql.sl
lib/libnntools.sl
lib/libnnuserexit.sl
15530 blocks
... finished

Changing file permissions...
... finished

If your license file is accessible, you may install it now.
Install license file? [y/n]: n

Please don't forget to use lic.sh located in your product bin
directory
to install the license file from the enclosed floppy.
Refer to your product Release Notes for details on how to do this.

Installation of BEA eLink Information Integrator for Oracle 8 was
successful

Please don't forget to fill out and send in your registration card
```

Distribution Libraries, Executables, and Sample Files

The BEA eLink Information Integrator CD-ROM contains the following libraries and executable programs. After installing the Information Integrator software, verify that these libraries and programs are installed on your system. Verify that the following files are installed by the Information Integrator software.

Oracle Environment

Table 3-1 Distribution Libraries and Executables for Oracle Environment

Directory	Files
bin	AddDTfmt.exe
bin	apitest.exe
bin	dumpq.exe
bin	ii.cat
bin	ii.cfg
bin	iiserver.exe
bin	libadk.dll
bin	msgtest.exe
bin	NNcryptCfg.exe
bin	NNFie.exe
bin	NNRDBARuleOwnership.exe
bin	NNRie.exe

Table 3-1 Distribution Libraries and Executables for Oracle Environment

Directory	Files
bin	NNRTrace.exe
bin	NNYORN.exe
bin	ruletest.exe
bin	sendBuf.exe
install.sql	banner
install.sql	fmt_dlt_objs.sql
install.sql	fmt_grnt.sql
install.sql	fmt_meta.sql
install.sql	fmt_tbl_bld.sql
install.sql	inst_db.cmd
install.sql	loadcomp.cmd
install.sql	NNF_GET_ALL_DSCR.sql
install.sql	NNF_GET_CASE.sql
install.sql	NNF_GET_CCNT.sql
install.sql	NNF_GET_CMPNT.sql
install.sql	NNF_GET_CNTL.sql
install.sql	NNF_GET_CNTL_NAM.sql
install.sql	NNF_GET_COL_ITEM.sql
install.sql	NNF_GET_CSTM_DT.sql
install.sql	NNF_GET_DEFAULT.sql
install.sql	NNF_GET_EXIT.sql
install.sql	NNF_GET_FIX.sql
install.sql	NNF_GET_FLAT_FMT.sql

Table 3-1 Distribution Libraries and Executables for Oracle Environment

Directory	Files
install.sql	NNF_GET_ID.sql
install.sql	NNF_GET_INFIELDS.sql
install.sql	NNF_GET_JUSTIFY.sql
install.sql	NNF_GET_LAST.sql
install.sql	NNF_GET_LEN.sql
install.sql	NNF_GET_MATH_EXP.sql
install.sql	NNF_GET_NAME_VAL.sql
install.sql	NNF_GET_OUTFLD.sql
install.sql	NNF_GET_OUT_MSTR.sql
install.sql	NNF_GET_SUB.sql
install.sql	NNF_GET_SUBSTR.sql
install.sql	NNF_GET_TRIM.sql
install.sql	NNF_GET_USR_TYPE.sql
install.sql	NNR_GET_APP_MSG.sql
install.sql	NNR_GET_ARG.sql
install.sql	NNR_GET_BOOLEAN.sql
install.sql	NNR_GET_OPERNS.sql
install.sql	NNR_GET_RULES.sql
install.sql	NNR_GET_SUBACT.sql
install.sql	NNR_GET_SUBS.sql
install.sql	nn_post.sql
install.sql	nn_prdrop.sql
install.sql	nn_pre.sql

Table 3-1 Distribution Libraries and Executables for Oracle Environment

Directory	Files
install.sql	nn_synonyms.sql
install.sql	rule_dlt_objs.sql
install.sql	rule_grnt.sql
install.sql	rule_meta.sql
install.sql	rule_prod.sql
install.sql	rule_tbl_bld.sql
install.sql	sqlload.cmd
lib	nncmpntmgr.dll
lib	nnfmgr.dll
lib	nnNetExits.dll
lib	nnrmgr.dll
lib	nnrulesfmt.dll
lib	nnses.dll
lib	nnsesdbold.dll
lib	nnsql.dll
lib	nntools.dll
lib	nnuserexit.dll
lib	fmgr_mssql.dll
lib	nnsesmssql.dll
lib	rmgr_mssql.dll
lib	ses_mssql.dll

SQL Server Environment

Table 3-2 Distribution Libraries and Executables for SQL Server Environment

Directory	Files
bin	AddDTfmt.exe
bin	apitest.exe
bin	dumpq.exe
bin	ii.cat
bin	ii.cfg
bin	iiserver.exe
bin	libadk.dll
bin	msgtest.exe
bin	NNcryptCfg.exe
bin	NNFie.exe
bin	NNRDBARuleOwnership.exe
bin	NNRie.exe
bin	NNRTrace.exe
bin	NNYORN.exe
bin	ruletest.exe
bin	sendBuf.exe
install.sql	banner
install.sql	fmt_dlt_objs.sql
install.sql	fmt_grnt.sql
install.sql	fmt_meta.sql

Table 3-2 Distribution Libraries and Executables for SQL Server Environment

Directory	Files
install.sql	fmt_tbl_bld.sql
install.sql	inst_db.cmd
install.sql	loadcomp.cmd
install.sql	NNF_GET_ALL_DSCR.sql
install.sql	NNF_GET_CASE.sql
install.sql	NNF_GET_CCNT.sql
install.sql	NNF_GET_CMPNT.sql
install.sql	NNF_GET_CNTL.sql
install.sql	NNF_GET_CNTL_NAM.sql
install.sql	NNF_GET_COL_ITEM.sql
install.sql	NNF_GET_CSTM_DT.sql
install.sql	NNF_GET_DEFAULT.sql
install.sql	NNF_GET_EXIT.sql
install.sql	NNF_GET_FIX.sql
install.sql	NNF_GET_FLAT_FMT.sql
install.sql	NNF_GET_ID.sql
install.sql	NNF_GET_INFIELDS.sql
install.sql	NNF_GET_JUSTIFY.sql
install.sql	NNF_GET_LAST.sql
install.sql	NNF_GET_LEN.sql
install.sql	NNF_GET_MATH_EXP.sql
install.sql	NNF_GET_NAME_VAL.sql
install.sql	NNF_GET_OUTFLD.sql

Table 3-2 Distribution Libraries and Executables for SQL Server Environment

Directory	Files
install.sql	NNF_GET_OUT_MSTR.sql
install.sql	NNF_GET_SUB.sql
install.sql	NNF_GET_SUBSTR.sql
install.sql	NNF_GET_TRIM.sql
install.sql	NNF_GET_USR_TYPE.sql
install.sql	NNR_GET_APP_MSG.sql
install.sql	NNR_GET_ARG.sql
install.sql	NNR_GET_BOOLEAN.sql
install.sql	NNR_GET_OPERNS.sql
install.sql	NNR_GET_RULES.sql
install.sql	NNR_GET_SUBACT.sql
install.sql	NNR_GET_SUBS.sql
install.sql	nn_post.sql
install.sql	nn_pre.sql
install.sql	rule_dlt_objs.sql
install.sql	rule_grnt.sql
install.sql	rule_meta.sql
install.sql	rule_prod.sql
install.sql	rule_tbl_bld.sql
install.sql	sqlload.cmd
lib	nncmpntmgr.dll
lib	nnfmgr.dll
lib	nnNetExits.dll

Table 3-2 Distribution Libraries and Executables for SQL Server Environment

Directory	Files
lib	nnrmgr.dll
lib	nnrulesfmt.dll
lib	nnses.dll
lib	nnsesdbold.dll
lib	nnsql.dll
lib	nntools.dll
lib	nnuserexit.dll
lib	fmgr_ora7.dll
lib	nnsesora7.dll
lib	rmgr_ora7.dll
lib	ses_ora7.dll

Sample Files

The following Sample Application files are inlcuded in the Sample directory.

Table 3-3 Sample Application Files

Sub-Directory	Files
address	address.actions
address	address.c
address	address.data
address	build_sample.cmd
address	build_sample.sh

Table 3-3 Sample Application Files

Sub-Directory	Files
address	Fieldtable.txt
address	ii.cfg
address	II_address_msg1.xml
address	sample.ubb
address	Setenv.bat
address	setenv.sh
address	sqlsvses.cfg
address	ud32.in
payroll	fields.fml
payroll	ii.cfg
payroll	II_payroll.data
payroll	II_payroll_msg1.xml
payroll	II_payroll_msg2.xml
payroll	payroll.actions
payroll	payroll.data
payroll	payroll.ud32
payroll	sample.ubb
payroll	setenv.bat
payroll	setenv.sh
payroll	sqlsvses.cfg