

*e*Index Global Identifier Product Suite*

e*Index™ Global Identifier Upgrade Guide

Version 4.5.3



SEEBEYOND

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Version 453.200208

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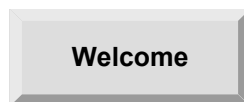
Introduction

About this Chapter

Overview

This introduction provides an overview of the steps you need to follow to upgrade the e*Index GUI, the e*Index database, and the e*Index Schema files from e*Index 4.1.2 or later to version 4.5.3.

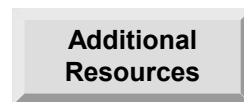
The following diagram illustrates the contents of each major topic in this chapter. For the page numbers on which specific topics appear, see "What's Inside" on the following page.



Learn where to start in this guide if you are a new or experienced user



Learn background information about the steps required to upgrade e*Index



Learn about other e*Index publications you may wish to review

What's Inside

This chapter provides background information and instructions related to the topics listed below.

Introduction.....	1-3
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Introduction

Welcome

Welcome to e*Index, SeeBeyond's enterprise-wide master person index. This document explains how to upgrade to e*Index 4.5.3 components on both the client and server machines, including the e*Index Schema files, e*Index database and reports, and e*Index GUI. This guide only describes how to upgrade from an e*Index 4.1.2 or higher e*Index environment.

This chapter of the document provides background information you should know before installing e*Index. Whether you are a new or established user, you should read through this guide before you begin the upgrade. Please pay particular attention to the overview sections provided at the beginning of each chapter and at the beginning of each section within a chapter. The overview sections are designed to provide background and explanatory information you may need to understand. After reading the overview information, you will be ready to perform specific tasks using the step-by-step instructions provided in each chapter.

What is the Scope of this Guide?

This guide provides step-by-step instructions for upgrading all of the components of e*Index to the latest version, including the e*Index Schema files, database, GUI, and Java APIs for e*Index Active Integration. It includes navigational information, functional instructions, and background information where required. This guide also provides an illustration of the files that are installed into the e*Gate environment when you upgrade the e*Index components, as well as a description of the database tables up to version 4.5.3.

This guide does not include information or instructions on using any of the e*Index applications. These topics are covered in the appropriate user guide (for more information, see "Additional Resources" on page 1-12).

Who Should Use this Guide?

Any user who upgrades any component of e*Index should read this guide. A thorough knowledge of e*Index is not needed to understand this guide. It is presumed that the reader of this guide is familiar with the e*Gate environment, e*Gate Schemas, Oracle database administration, and the UNIX environment (if applicable).

How Should this Guide be Used?

For best results, skim through the guide to familiarize yourself with the locations of essential procedures you need to perform. Each chapter begins with a simple graphic that identifies the information contained in the chapter. The second page of each chapter contains a list of topics and instructions included in the chapter and the associated page numbers.

How is this Guide Organized?

This guide is divided into seven chapters that cover the topics shown below.




Chapter	Topics
Chapter 1, Introduction	<ul style="list-style-type: none"> ■ Introduction ■ About the Upgrade Procedure ■ Additional Resources
Chapter 2, Upgrading the e*Index Schema Files	<ul style="list-style-type: none"> ■ Learning About the Upgrade Process ■ Performing the Upgrade
Chapter 3, Upgrading an Oracle Database	<ul style="list-style-type: none"> ■ Learning About Upgrade Tasks ■ Performing the Upgrade ■ e*Index 4.5.3 Oracle Database Model
Chapter 4, Upgrading a Sybase Database	<ul style="list-style-type: none"> ■ Learning About Upgrade Tasks ■ Performing the Upgrade ■ e*Index 4.5.3 Sybase Database Model
Chapter 5, Upgrading a Microsoft SQL Server Database	<ul style="list-style-type: none"> ■ Learning About Upgrade Tasks ■ Performing the Upgrade ■ e*Index 4.5.3 SQL Server Database Model
Chapter 6, Upgrading the GUI and Publications	<ul style="list-style-type: none"> ■ Learning About Upgrade Tasks ■ Performing the Upgrade
Chapter 7, Upgrading the Java APIs for e*Index Active Integration	<ul style="list-style-type: none"> ■ Learning About Java APIs for Active Integration ■ Upgrading Java APIs for e*Index Active Integration ■ e*Index Active Integration Database Tables

What Conventions are Used in this Guide?

Before you start using this guide, it is important to understand the icon, special notation, and mouse conventions used.

Icon and Special Notation Conventions

The following conventions are used in this and other e*Index publications to identify special types of information.

Icon or Notation	Type of information
Note	Supplemental information that is helpful to know, but not essential to completing a particular task.
Tip	Information that helps you to apply techniques and procedures described in the text to your specific needs. May also suggest alternative methods.
Important!	Information that is essential to the completion of a task.
Caution!	Advises you to take specific action to avoid loss of data.
	Indicates the beginning of a step-by-step instruction.
	Specifies a task to perform before you begin a step-by-step instruction.
	Indicates a cross-reference to other sections of the guide or to other publications.

Mouse Conventions

You can use either a single-button mouse or a multiple-button mouse with e*Index. If you use a multiple-button mouse, the left mouse button is the primary button, unless the mouse is configured differently.

The instructions in this guide may require you to use the mouse in a variety of ways:

- **Point** means to position the mouse pointer until the tip of the pointer rests on whatever you want to point to on the screen.
- **Click** means to press and then immediately release the left mouse button without moving the mouse.
- **Double-click** means to click the left mouse button twice, in rapid succession.
- **Right-click** means to click the right mouse button once.

- **Drag** means to point and then hold down the mouse button as you move the mouse. **Drop** means to let go of the mouse button to place the dragged information where you want it to be moved.
- **Move** means to point to an object on the screen, such as an e*Index Security user group, and drag the mouse to move the object to a screen location of your choice.
- **Highlight** means to select an area of text by dragging the mouse over the desired portion of text that appears on a window.
- **Select** means to point to a list of information on an e*Index window, and then click once to choose the data you want. The information becomes highlighted when selected.
- **Expand** means to double-click a row of information on an expandable list to display more details. The details appear on another row, below the row you double-click.
- **Collapse** means to double-click a row of information on an expandable list to hide the details that appear on the following row.

About the Upgrade Procedure

Overview

This section of the chapter outlines the requirements for e*Index, and summarizes the steps you need to follow to upgrade e*Index 4.5.3, starting with the e*Gate environment and ending with the Java APIs for e*Index Active Integration. The Java APIs are an optional component of the e*Index system.

Requirements

The requirements for previous versions of e*Index and e*Index 4.5.3 are slightly different. You may need to upgrade third-party software in order to complete the upgrade. You must perform the upgrade on a computer running Windows 95, Windows 98, Windows NT 4.0 SP6, or Windows 2000 SP2. Prior to beginning the upgrade, verify that you have the appropriate software installed.

e*Gate™ Integrator Requirements

If you are not currently running the following versions of e*Gate and the Database e*Way™, you need to upgrade them before performing the e*Index upgrade.

- e*Gate Integrator version 4.5.0 or later
- The Database e*Way (version 4.5.0 or later) appropriate to the database platform you are using:
 - For an Oracle database, install the Oracle e*Way
 - For a Sybase database, install the Sybase e*Way
 - For a SQL Server database, install the ODBC e*Way
- HL7 Templates version 4.5.0 or later (only if you are transmitting HL7 messages)
- e-Mail e*Way 4.5.0 or later (if you plan to use the Event Notification capability of e*Index Security)

Database Platform Requirements

The e*Index database is supported on three different database platforms with the following requirements. If you are implementing the Java APIs for e*Index Active Integration, be sure to install an Oracle database.

- **Oracle Database**
An Oracle database requires Oracle 8.1.7 Server on the database server

machine, and Oracle 8.1.7 Client on the client workstations and the e*Gate server machines on which you install the e*Index Schemas.

- **Sybase Database**

A Sybase database requires Sybase 12.0 Server on the database server machine, and Sybase 12.0 Client on the client workstations and the e*Gate server machines on which you install the e*Index Schemas.

- **Microsoft SQL Server Database**

A Microsoft SQL Server database requires SQL Server Enterprise Edition 7.0 on the database machine, the client workstations, and the e*Gate server machines on which you install the e*Index Schemas.

Schema Platforms

The e*Index Schema files can be installed on any of the following platforms:

- Windows NT 4.0 SP6, Windows 2000 SP2
- Solaris 7 or 8
- HP-UX 11 or 11i
- AIX 4.3.3 or 5.1

***Important!** If you are using Oracle for the database platform and AIX 5.1 for the operating system on the e*Gate server where the e*Index Schema is installed, you need to use the 32-bit version of AIX 5.1.*

- Compaq Tru64 v4.0f or v5.1a

Java APIs for Active Integration Requirements

If you are installing the Java APIs for e*Index Active Integration, you'll need to have the following software installed on the machine on which the APIs will be located. Active Integration only supports an Oracle e*Index database, and cannot be used with Microsoft SQL Server or Sybase.

- Oracle client 8.1.7 (this installation must include either the Oracle JDBC thin driver or the Oracle JDBC/OCI driver)
- Any of the following operating systems: Windows NT 4.0 SP6, Windows 2000, HP Unix 11.0 or 11i, AIX 4.3 or 5.1, Compaq Tru64 v4.0f or v5.1a, or Solaris 7 or 8
- Java™ SDK, Standard Edition 1.1.8 or higher (see page 7-3 for specific operating system requirements)
- A web browser compatible with Javadocs

Upgrade Overview

Most of the setup for e*Index is performed using a standard InstallShield® Wizard with specific customizations for each component. Each step outlined

below describes how to upgrade one component, and is described in detail in its own chapter in this guide. Once you have installed the files for a specific step, some modifications may be required. All required modifications are described in the appropriate chapter.

For clarity, this document describes upgrading one component at a time. To save time, you can install the upgrade files for all components at one time on a client machine, but this will require some extra steps. Figure 1-1 on page 1-11 illustrates the steps you need to follow to install all components at one time.

- Step 1: Upgrade the e*Index Schema Files (described in Chapter 2)
- Step 2: Upgrade the Database and Reports (described in Chapters 3, 4, and 5)
- Step 3: Upgrade the GUI and Publications (described in Chapter 6)
- Step 4: Upgrade the Java APIs for e*Index Active Integration (described in Chapter 7)

Step 1: Upgrade the e*Index Schema Files

Chapter 2, "Upgrading the e*Index Schema Files", outlines the steps required to install the new e*Index Schema files into the e*Gate environment. This chapter discusses file structure and the modifications that may be required to the e*Way configuration file, backend libraries, and Monk files.

Step 2: Install the Database

Chapters 3, 4, and 5 of this guide provide the instructions you need to upgrade the e*Index database and standard reports. Chapter 3 describes upgrading an Oracle database; Chapter 4 describes upgrading a Sybase database; and Chapter 5 describes installing a SQL Server database. Chapter 3 also describes how to upgrade the e*Index reports, which are currently provided only for an Oracle installation. The database structure for each platform is illustrated in the appropriate chapter so you can verify your new database. The data models provided are based on the e*Index 4.5.3 structure. Subsequent maintenance releases may show slight variations.

You can upgrade Oracle databases from version 4.1.2 and higher; and you can upgrade Sybase and SQL Server databases from version 4.5. For earlier versions of e*Index, please contact your SeeBeyond representative.

Step 3: Upgrade the GUI and Publications

Chapter 6, "Upgrading the GUI and Publications," describes the steps you need to follow to upgrade the e*Index GUI. This chapter includes hardware and software requirements for the upgrade. You can also update the e*Index

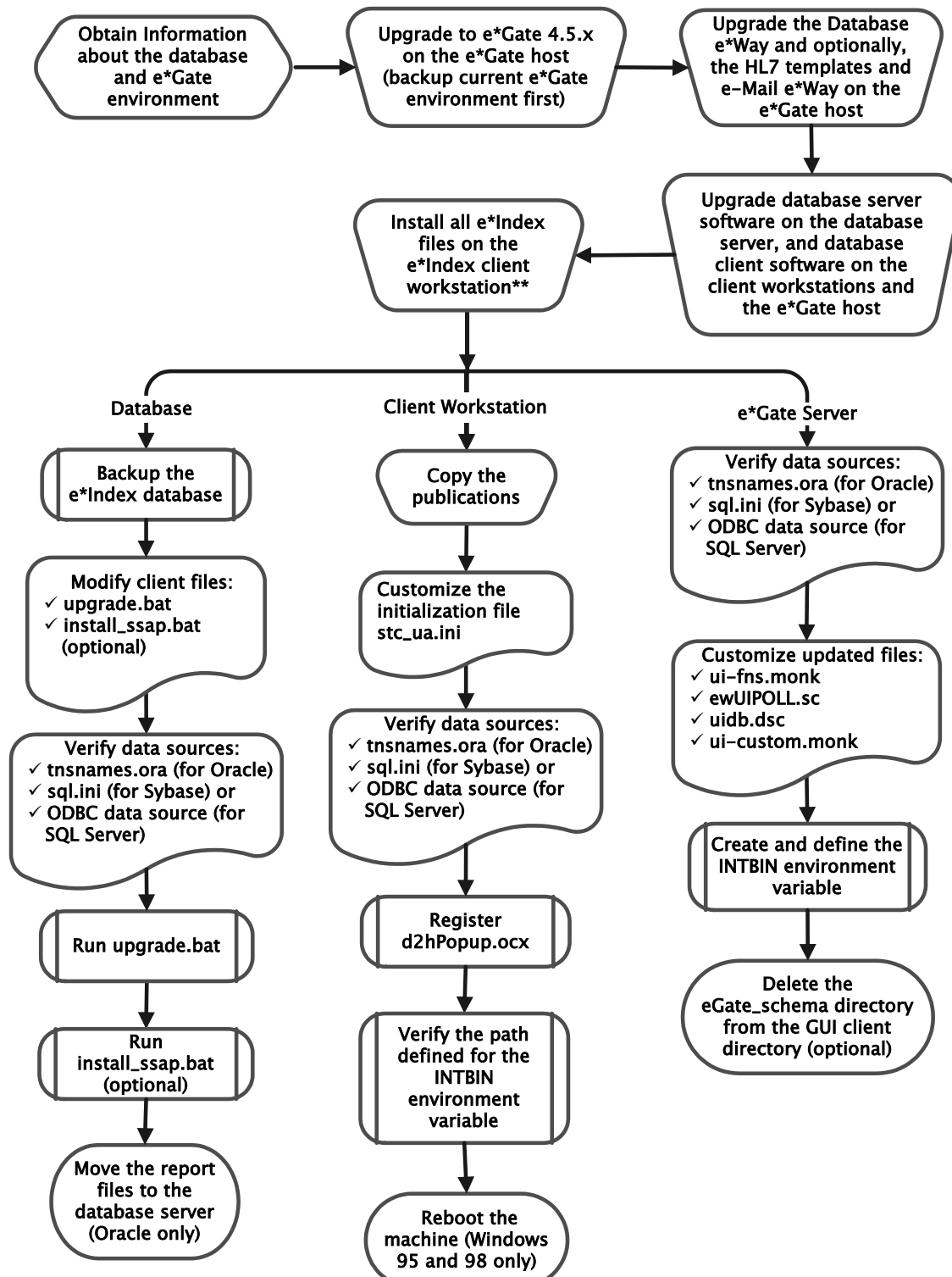
Electronic Library. This library includes the suite of e*Index documentation and a Welcome document to help you navigate through the files.

Step 4: Upgrade the Java APIs for e*Index Active Integration

Chapter 7, "Upgrading the Java APIs for e*Index Active Integration", contains the instructions for installing the Java APIs that allow you to develop your own web-based applications to interact with the e*Index database. This chapter includes hardware and software requirements for the installation and provides information about changes you need to make to your environment variables.

Figure 1-1: Upgrade Overview

Upgrading all components at one time. This diagram does not include installing the Java APIs.



** If you customized the file named `ui-fns.monk` in the e*Index schema, make backup copies of the customized file before installing the upgrade files. You also may want to back up the GUI initialization file `stc_ua.ini`.

Additional Resources

SeeBeyond has developed a suite of e*Index user's guides and related publications that are distributed in an electronic library.

- *e*Index Global Identifier User's Guide*
Helps e*Index Quality Workstation users to perform database maintenance tasks, such as merging and unmerging records, finding and resolving potential duplicates, adding and updating records, and viewing the audit trail.
- *e*Index Administrator User's Guide*
Helps system administrators configure system parameters, customize e*Index, work with Vality rule set files, and processing codes. This guide also describes how to maintain the information in the database that is used to populate the drop-down lists in the e*Index.
- *e*Index Security User's Guide*
Helps system administrators add users and user groups to e*Index, to grant security permissions to users and user groups, to maintain user and user group information, and to configure certain system parameters.
- *e*Index Global Identifier Technical Reference*
Describes message processing for e*Index, as well as database tables and e*Index Monk APIs. This guide also provides a complete listing of e*Index Monk APIs and functions, along with a description, parameters, syntax, return values, and examples for each.
- *e*Index Initial Load User's Guide*
Provides the background information and instructions that system and database administrators need in order to load legacy data into the e*Index database, including a description of the expected data format and the Schema files included with the load program.
- *Working with Reports for e*Index Global Identifier*
Provides background information about the GUI and standard reports provided with e*Index, and explains how to modify and run the standard reports (for an Oracle installation only).
- *e*Index Global Identifier Installation Guide*
Helps system and database administrators install a new e*Index environment for the current release, including e*Index Schema files, the e*Index GUI, and database installation.
- *Java Programmer's Guide for e*Index Active Integration*
Provides background and implementation information about the Java APIs for e*Index Active Integration. This guide also provides a complete listing of e*Index Java functions, along with a description, parameters, syntax, return values, and examples for each.

Upgrading the e*Index Schema Files

About this Chapter

Overview

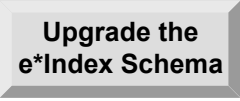
This chapter presents the background information and the step-by-step instructions you need to upgrade the e*Index schema files for e*Gate to from e*Index 4.1.2 or later to e*Index 4.5.3.

The following diagram illustrates the contents of each major topic in this chapter. For the page numbers on which specific topics appear, see the next page of this chapter.



**About the
e*Index Schema**

Learn about the upgrade process, the requirements, and the files that were updated



**Upgrade the
e*Index Schema**

Learn how to upgrade the e*Index schema files in your e*Gate environment

What's Inside

This chapter provides background information and instructions related to the topics listed below.

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▶ Step 2: Verify the Database Client Software	2-5
▶ Step 3: Verify the e*Gate and Oracle e*Way Versions.....	2-6
▶ Step 4: Install or Upgrade the e-Mail e*Way (optional)	2-6
▶ Step 5: Install the e*Index Schema Files.....	2-6
▶ Step 6: Set up the Environment.....	2-15
▶ Step 7: Update the Existing Schemas	2-15

Learning About the e*Index Schema

Overview

This section of the chapter provides background information about upgrading the e*Index schema files for e*Gate.

What Do I Need to Get Started?

Upgrading to e*Index version 4.5.3 may require some modifications to your e*Gate and Database e*Way environments. We highly recommend that a separate e*Gate and Database e*Way environment be created and tested before any modifications are made to your current working environment. Before you start you, need to have the following software from SeeBeyond for the platform with which you are working.

SeeBeyond Software

- e*Gate 4.5.0 or later
- The appropriate Database e*Way for version 4.5.0 or later
 - For an Oracle database, you need the Oracle e*Way
 - For a Sybase database, you need the Sybase e*Way
 - For a Microsoft SQL Server database, you need the ODBC e*Way
- HL7 Templates 4.5.0 or later (only if you process HL7 messages)
- e-Mail e*Way 4.5.0 or later (only if you will use the Event Notification function of e*Index Security)
- e*Index 4.5.3

Database Software

One of the following database clients must be installed on the e*Gate server. For upgrading, you should use the same database vendor as in previous versions.

- Oracle Client version 8.1.7 (8.1.7.2.1 is recommended)
- Sybase Client version 12.0
- Microsoft SQL Server Enterprise Edition 7.0 (only client files are required)

Operating System Software

The e*Gate Schema can be run on any of the following operating systems:

- Windows NT 4.0 SP6, Windows 2000 SP2

- Solaris 7 or 8
- HPUX 11 or 11i
- AIX 4.3.3 or 5.1

***Important!** If you are using Oracle for the database platform and AIX 5.1 for the operating system on the e*Gate server where the e*Index Schema is installed, you need to use the 32-bit version of AIX 5.1.*

- Compaq Tru64 v4.0f or v5.1a

Is the Upgrade Process Standard Across Platforms?

The upgrade procedures for Windows NT and UNIX differ slightly, but both procedures begin on a PC running Windows 95, Windows 98, Windows NT 4.0 SP6, or Windows 2000 SP2. The extensions for many of the dynamic link library files that are installed during this process may vary depending on the platform you are running. For Windows NT the extension is .dll. Usually, for HP UNIX, the extension is .sl, for Solaris and Tru64 the extension is .so, and for AIX the extension is .a. However, most e*Gate and e*Index UNIX shared libraries have the extension .dll. This will not affect runtime behavior. The variable <eGate> is used to specify your e*Gate environment on any platform.

Does the Upgrade Replace Existing e*Index Schemas?

Instead of replacing your existing e*Index schemas when you perform the upgrade, you only need to upgrade the binary files that have changed for this release, along with some processing files. The files are installed into the /<eGate>/server/registry/repository/default directory in the e*Gate home environment instead of into any schema directories you have created. This ensures that your customizations are not overwritten and that you are getting the most current schema files for e*Index. One exception is the file named **ui-fns.monk**. If you have previously customized this file, you may need to recustomize it after the upgrade.

Performing the Upgrade

Overview

To upgrade the schema for e*Index, you must complete the following steps:

- Step 1: Back up the e*Gate Environment
- Step 2: Verify the Database Client Software
- Step 3: Verify your e*Gate and Oracle e*Way Versions
- Step 4: Install or Upgrade the e-Mail e*Way (optional)
- Step 5: Install the e*Index Schema Files
- Step 6: Set up the Environment
- Step 7: Update the Existing Schemas

Step 1: Back up the e*Gate Environment

If you are already running e*Gate, it is important to make a FULL backup of the environment for safekeeping before making any changes to your e*Gate environment. In the e*Index schema components (this includes the files installed in the **default** schema), the **ui-fns.monk** file will be replaced during the upgrade. If you have customized your existing **ui-fns.monk** file, back up the file so you can easily re-customize the file.

Step 2: Verify the Database Software

You may already have the correct version of database software installed on the e*Gate host where the e*Index schema is located. The supported versions are listed below.

- For an Oracle database, make sure Oracle Client 8.1.7 is installed. Verify that **tnsnames.ora** includes a stanza for the e*Index database (for more information, see "Step 6: For Oracle Only, Verify **tnsnames.ora**" in Chapter 6 of this guide).
- For a Sybase database, make sure Sybase Client 12.0 is installed. Verify that **sql.ini** has a stanza for the e*Index database server (for more information, see "Step 7: For Sybase Only, Verify **sql.ini**" in Chapter 6 of this guide).
- For a Microsoft SQL Server database, install Microsoft SQL Server Enterprise Edition 7.0 (only the client files are required). Verify that an ODBC data source is defined for the database (see "Step 8: For SQL Server Only, Verify the ODBC Data Source" in chapter 6 of this guide for more information).

For information about installing the database software, refer to the appropriate Oracle, Sybase, or Microsoft SQL Server documentation.

Step 3: Verify the e*Gate and Oracle e*Way Versions

Before you perform the upgrade, you should verify that you are already the correct versions of e*Gate and the Oracle, Sybase, or ODBC Database e*Way. If you need to upgrade e*Gate, see the *e*Gate Integrator Installation Guide*. If you are not currently using e*Gate 4.5.0 or later, install it on a separate environment for testing, away from your production environment. If you are processing HL7 messages, make sure you install the HL7 template libraries for e*Gate. If you need to upgrade the Database e*Way, refer to refer to chapter 2 of the *e*Way Intelligent Adapter for Oracle User's Guide*, *e*Way Intelligent Adapter for Sybase User's Guide*, or the *e*Way Intelligent Adapter for ODBC User's Guide*.

Step 4: Install or Upgrade the e-Mail e*Way

You need to install or upgrade the e-Mail e*Way only if you will be using the Event Notification function in e*Index Security (for more information, see chapter 3 of the *e*Index Security User's Guide*). For information on installing and implementing the e-Mail e*Way, refer to the *e-Mail e*Way Intelligent Adapter User's Guide*. If you are currently running an earlier version of the e-Mail e*Way than 4.5, you must upgrade to 4.5.0 or later.

Step 5: Install the e*Index Schema Files

To begin the installation process, insert the e*Index 4.5.3 installation CD-ROM into the CD-ROM drive on your computer, and make sure no other Windows applications are running.

Important! *If you choose to upgrade all standard components of e*Index (e*Index schema files, database, reports, GUI, and documentation) at this time:*

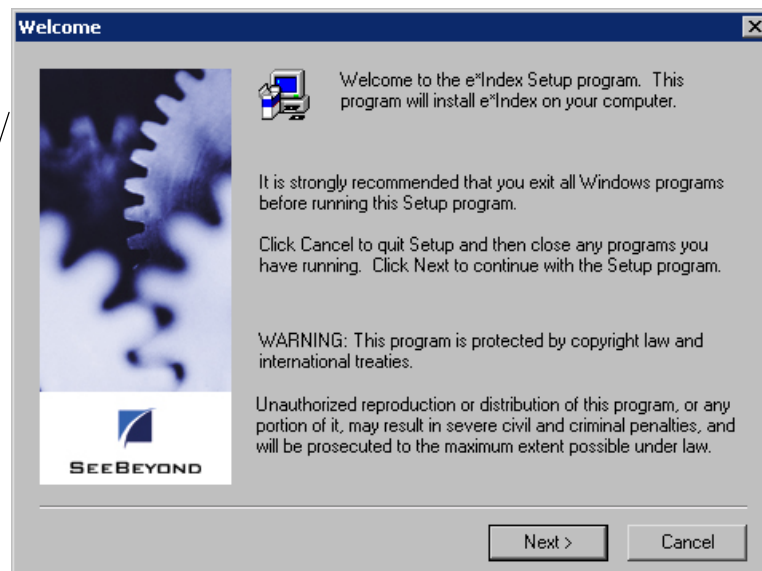
- *Install the files on your Quality Workstation in the directory where you want your GUI files to reside.*
 - *Review the overview information and instructions for upgrading an e*Index database in Chapter 3, 4, or 5 of this guide before proceeding.*
 - *Make sure you upgrade the database client and server software prior to installing the e*Index upgrade files.*
 - *Review the diagram on page 1-11 in Chapter 1 of this guide.*
-

► To install the e*Index schema files

Before you begin:

- ✓ Complete "Step 1: Backup your e*Gate Environment" through "Step 4: Install or Upgrade the e-Mail e*Way"
 - ✓ Make sure that all Windows applications are closed
- 1 Insert the e*Index installation CD-ROM into the CD-ROM drive of your computer
 - 2 If Autorun is enabled, the setup program automatically starts. Otherwise:
 - On the Windows desktop, double-click the **My Computer** icon and then open the CD-ROM directory.
 - Double-click the file name **Setup.exe** to initiate the process that installs the e*Index schema files. The Welcome window appears, reminding you to close all Windows programs.

e*Index is installed using a standard InstallShield Wizard



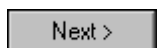
- 3 Do one of the following:

*To close any open Windows programs, click **Cancel**, close the programs, and then repeat step 2.*

*To continue with the upgrade process without closing any external programs, click **Next**. The Software License Agreement window appears.*

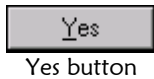
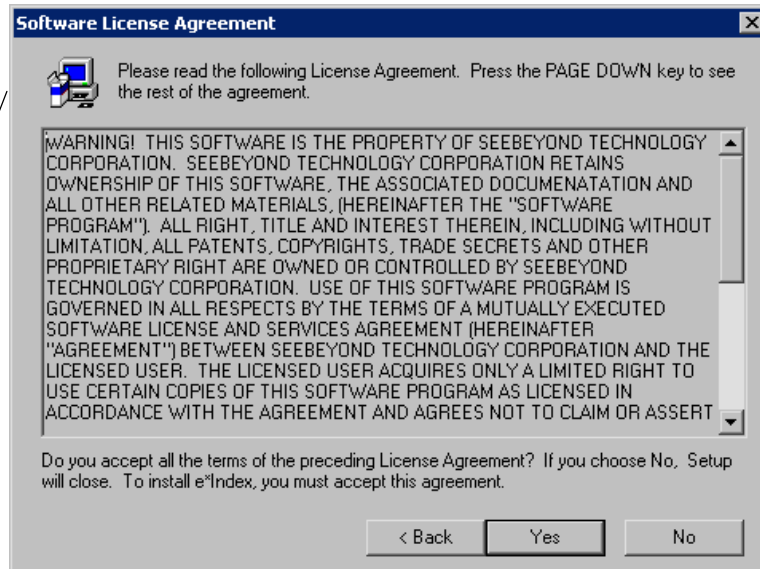


Cancel button



Next button

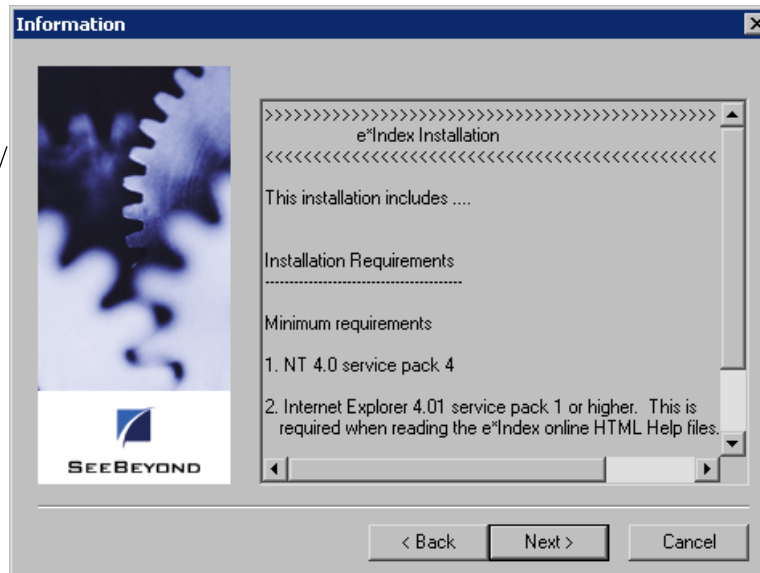
You must agree to the terms of the license agreement in order to proceed



Yes button

- 4 If you agree to the license agreement, click **Yes**. The Information window appears with a list of requirements to remind you of the applications you need before upgrading e*Index.

The Information window reminds you to have Windows NT, Internet Explorer, and database software installed



Next button

- 5 Click **Next**. The User Information window appears.

Enter your name and your company name on the User Information window



User Information

Please enter your name and the name of the company for whom you work.

Name:

Company:

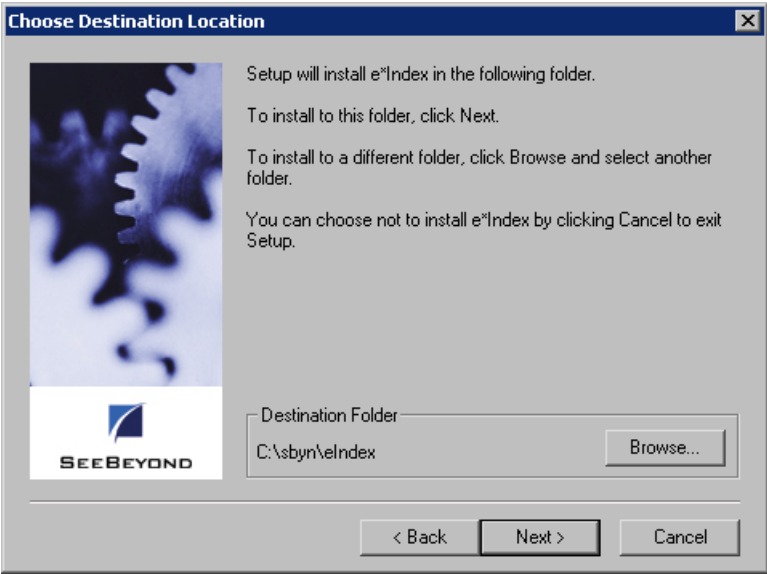
SEE BEYOND

< Back Next > Cancel

Next button

- 6 In the **Name** and **Company** fields, enter your name and your company's name, and then click **Next**. The Choose Destination Location window appears.

On the Choose Destination Location window, specify your e*Gate client path



Choose Destination Location

Setup will install e*Index in the following folder.

To install to this folder, click Next.

To install to a different folder, click Browse and select another folder.

You can choose not to install e*Index by clicking Cancel to exit Setup.

Destination Folder
C:\sbyn\Index

SEE BEYOND

< Back Next > Cancel

Next button

Browse button

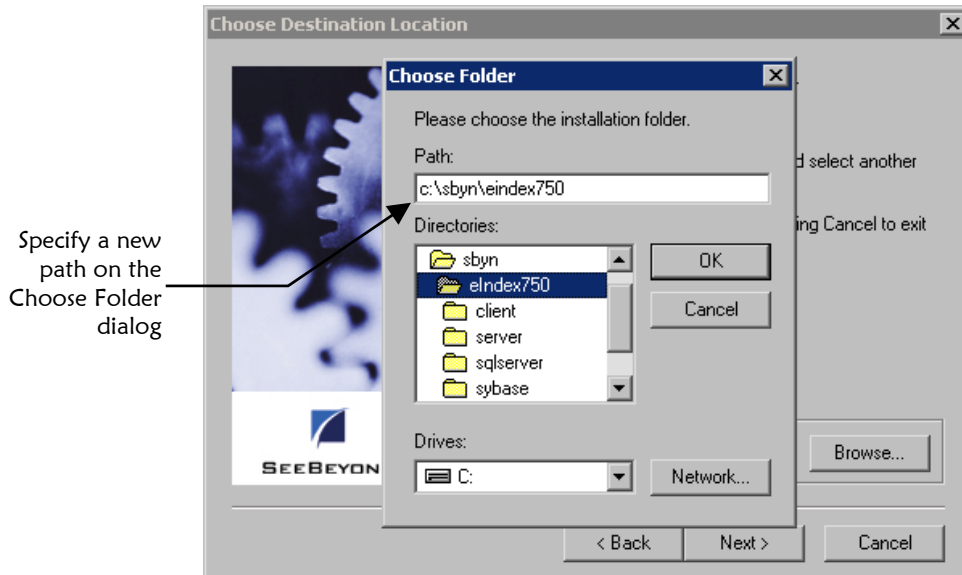
- 7 Do one of the following:

*To accept the default folder that appears in the Destination Folder path, click **Next**.*

To change the location in which the files will be installed:

- Click **Browse**.
- On the Choose Folder dialog, type or select the path where you want to install the files.

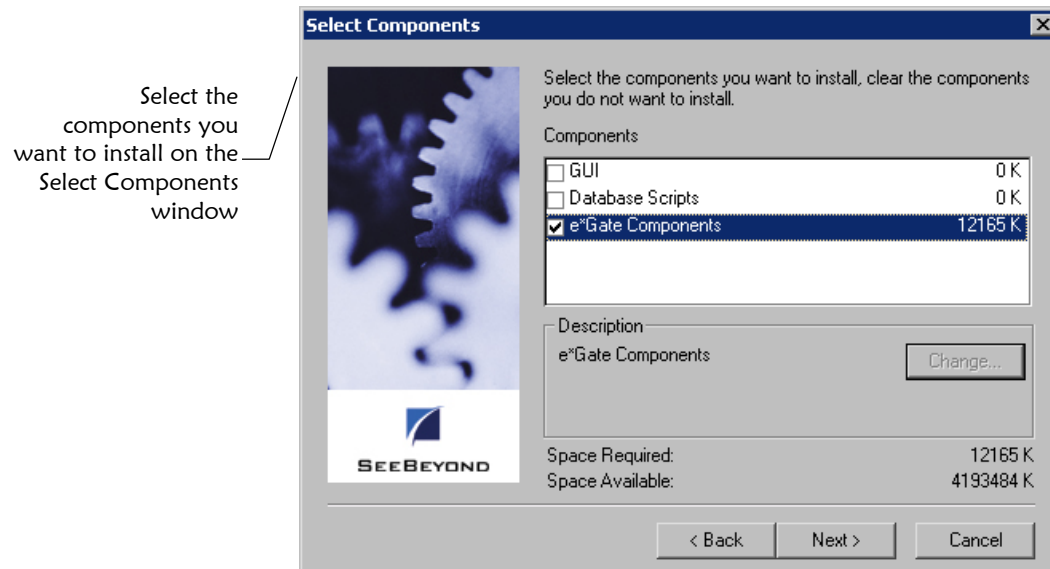
- Click **OK**. The new path you specified appears in the Destination Folder path.



Note: If the path you specified does not exist, a dialog appears asking if you want to have the folder created. If you select **Yes**, Setup creates the specified path for you.



- 8 After you specify the installation path, click **Next**. The Select Components window appears.



- 9 In the Components box, select **e*Gate Components**, and make sure that no other components are selected.

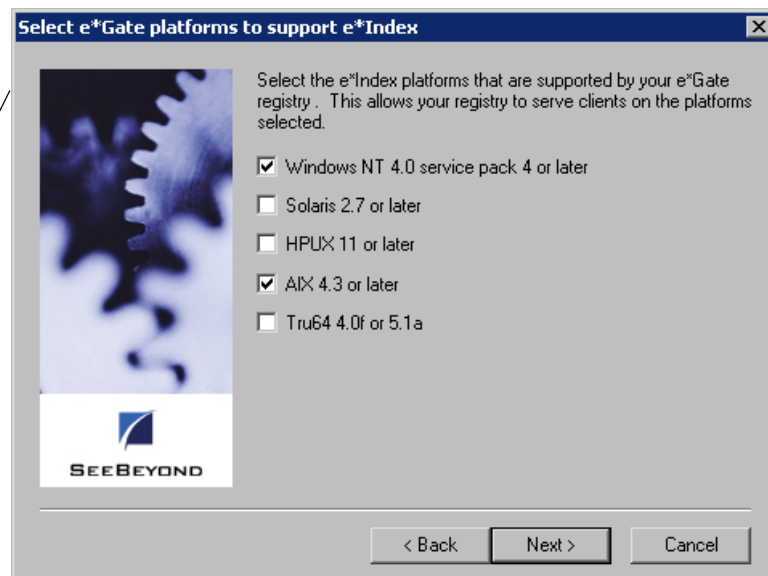
Notes:

- *At the bottom of the window, the required space and the available space appears so you can see how much space each component requires compared to the space you have available on your machine.*
- *This step only describes how to install the e*Index schema upgrade files. To save time, you can install all of the upgrade components of e*Index at one time by selecting every component on the Select Components window. Then, refer to the appropriate chapter to modify the files you installed. For more information, refer to the notes at the beginning of this procedure.*



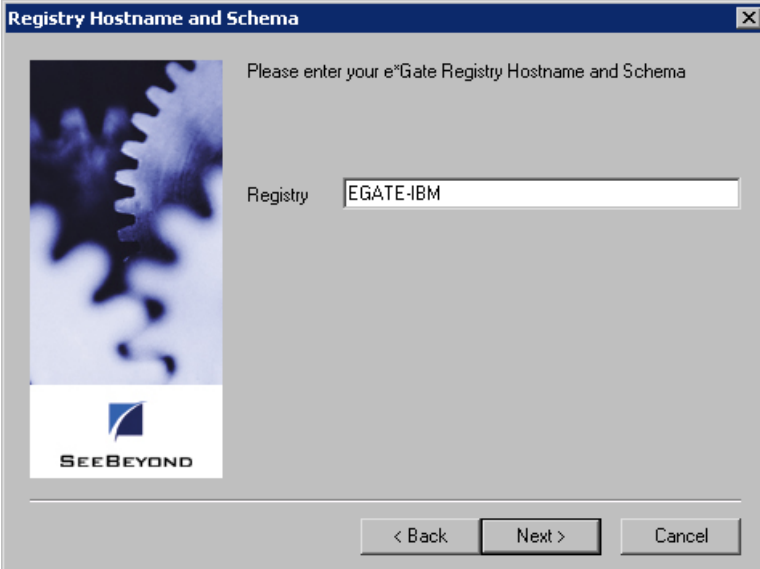
- 10** On the Select Components window, click **Next**. The Select e*Gate Platforms window appears.

You can specify the platforms on which your e*Gate host servers are running



- 11** Select the platforms on which you will be running the e*Index schemas, and then click **Next**. The Registry Hostname and Schema window appears.

On the Registry Hostname and Schema window, specify information about your e*Gate environment

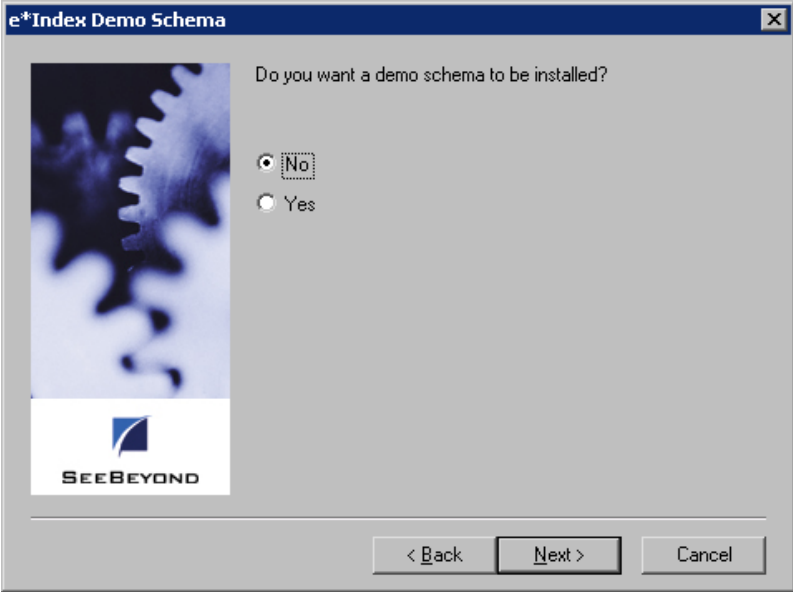


The dialog box titled "Registry Hostname and Schema" contains a "Please enter your e*Gate Registry Hostname and Schema" instruction. A text field labeled "Registry" contains the text "EGATE-IBM". The SeeBeyond logo is visible in the bottom left corner. At the bottom right, there are three buttons: "< Back", "Next >", and "Cancel".

Next >
Next button

12 In the **Registry** field, enter the name of your e*Gate registry host, and then click **Next**. The e*Index Demo Schema window appears

On the e*Index Demo Schema, specify whether you want to install a demo schema

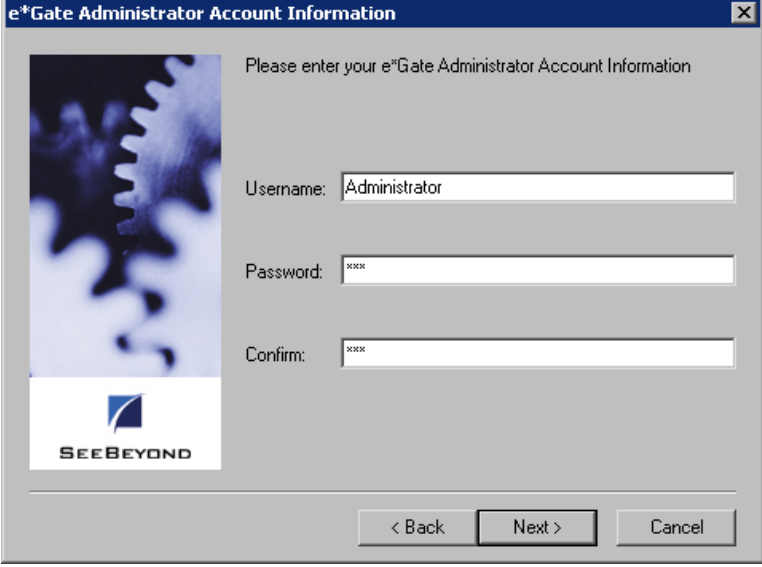


The dialog box titled "e*Index Demo Schema" asks "Do you want a demo schema to be installed?". There are two radio button options: "No" (which is selected) and "Yes". The SeeBeyond logo is visible in the bottom left corner. At the bottom right, there are three buttons: "< Back", "Next >", and "Cancel".

Next >
Next button

13 Select **No** and then click **Next**. The e*Index Administrator Account Information window appears.

Specify information about your e*Gate administrator account on the e*Gate Administrator Account Information window



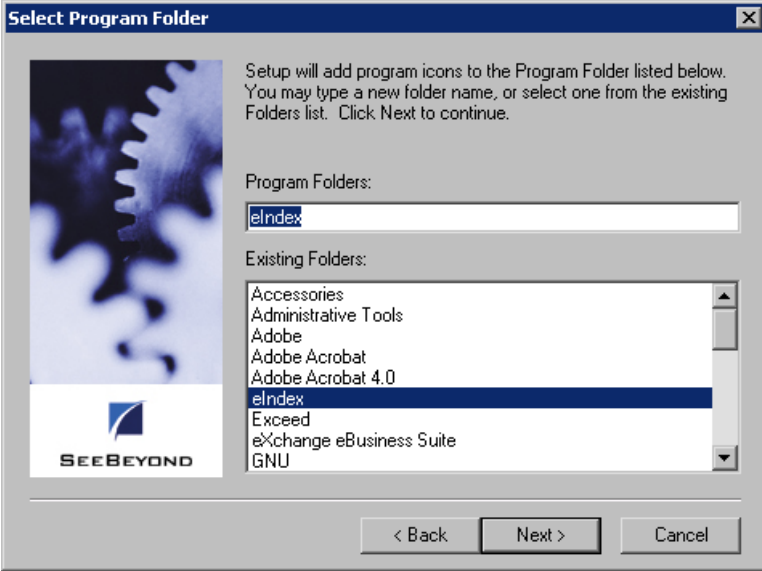
The dialog box is titled "e*Gate Administrator Account Information". It contains a "Please enter your e*Gate Administrator Account Information" instruction. There are three input fields: "Username:" with the text "Administrator", "Password:" with "xxxx", and "Confirm:" with "xxxx". At the bottom, there are three buttons: "< Back", "Next >", and "Cancel". A "SEEBEYOND" logo is visible in the bottom left corner of the dialog.

14 In the **Username** and **Password** fields, enter the administrator user ID and password for your e*Gate system. Re-enter the password as confirmation.

Next >
Next button

15 Click **Next**. The Select Program Folder window appears.

Select the program folder to which you want to add the e*Index icons

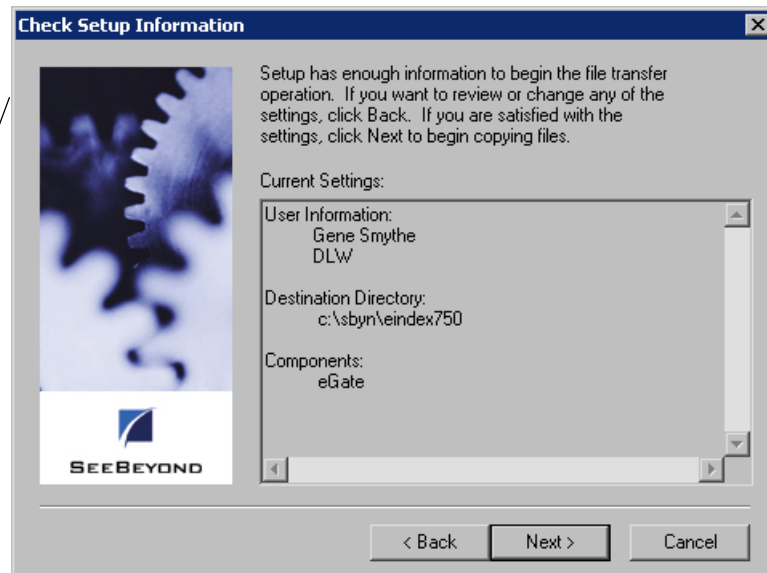


The dialog box is titled "Select Program Folder". It contains the instruction: "Setup will add program icons to the Program Folder listed below. You may type a new folder name, or select one from the existing Folders list. Click Next to continue." There are two main sections: "Program Folders:" with a text input field containing "eIndex", and "Existing Folders:" with a list box containing: Accessories, Administrative Tools, Adobe, Adobe Acrobat, Adobe Acrobat 4.0, eIndex (highlighted), Exceed, eXchange eBusiness Suite, and GNU. At the bottom, there are three buttons: "< Back", "Next >", and "Cancel". A "SEEBEYOND" logo is visible in the bottom left corner of the dialog.

Next >
Next button

16 Enter the name of the program folder to which you want to add the e*Index icons or accept the default name, and then click **Next**. The Check Setup Information window appears.

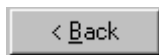
Verify the components you are installing on the Check Setup Information window



17 Verify the information you specified, and do one of the following:

*To change any of the options you selected, click **Back**, and make the necessary changes.*

*To install the files in the specified directory, click **Next**. The Setup Complete window appears after the files are installed and committed to the e*Gate registry.*



Back button



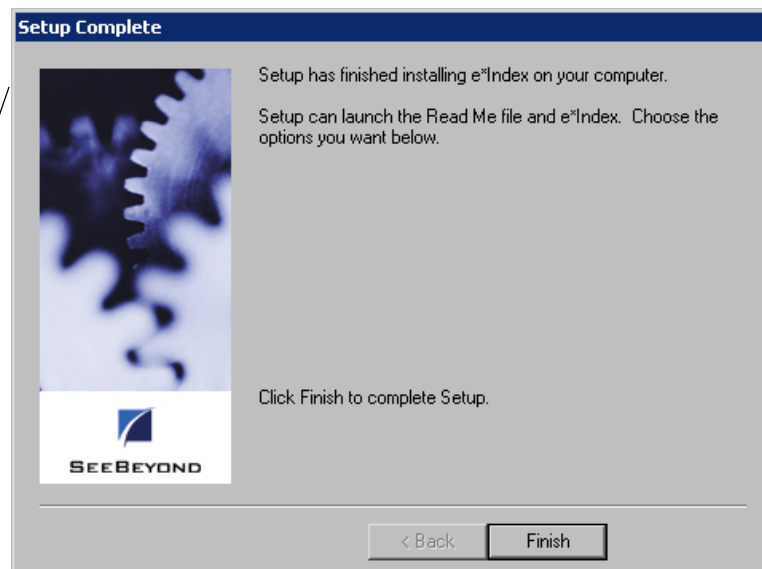
Next button



Finish button

18 The Setup Complete window indicates that all necessary files are installed. Click **Finish** to conclude the setup process.

The Setup Complete window indicates that the files have been installed



19 Continue to "Step 6: Set up the Environment".

Step 6: Set up the Environment

e*Index 4.5.3 includes additional codeset mappings. Before you use your e*Index e*Ways, create an environment variable, INTBIN, that points to the location of the codeset files used by the Vality matching algorithm. By default, the \codeset directory is located in \<eGate>\client\bin and in \<eGate>\Server\registry\repository\default\bin. You only need to specify the \<eGate>\client\bin path for the INTBIN variable. If you plan to move the codeset files, be sure to modify INTBIN accordingly.

Step 7: Update the Existing Schemas

If you are upgrading from e*Index 4.5.2, no further changes are required. If you are upgrading from e*Index 4.5.1, you may want to modify the **ui-process-person.monk** file in your existing e*Index Schema. For this release, the default file was modified by adding a "begin" clause around the first call to **ui-search-insert-duplicate**.

If you are upgrading from a version of e*Index earlier than version 4.5.1, review the release notes for the previous versions to determine whether you need to update any additional files in your production Schema.

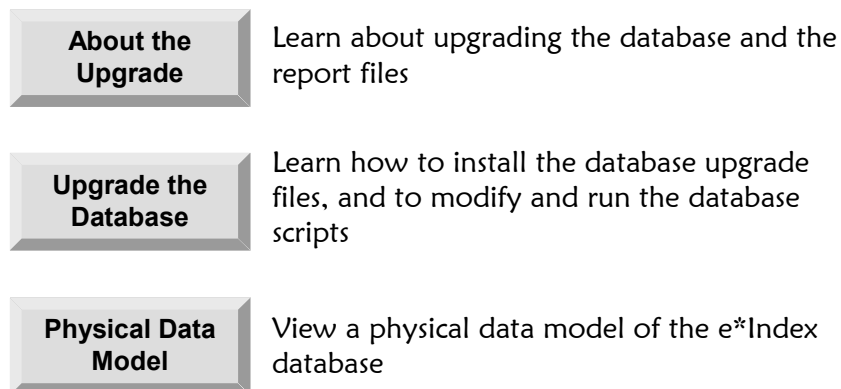
Upgrading an Oracle Database

About this Chapter

Overview

This chapter presents the background information and the step-by-step instructions you need to upgrade an e*Index 4.1.2 or higher database to version 4.5.3 for Oracle.

The following diagram illustrates the major topics in this chapter. For the page numbers on which specific topics appear, see the next page of this chapter.



What's Inside

This chapter provides background information and instructions related to the topics listed below.

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▶ Step 2: Back up the Current Database.....	3-5
▶ Step 3: Upgrade Oracle Server	3-6
▶ Step 4: Install the Upgrade Files.....	3-6
▶ Step 5: Verify tnsnames.ora	3-11
▶ Step 6: Modify the Upgrade File	3-11
▶ Step 7: Modify install_ssap.bat (optional).....	3-12
▶ Step 8: Upgrade the Database	3-13
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e*Index 4.5.3 Physical Data Model	3-16

Learning About Upgrade Tasks

Overview

This section of the chapter provides background information about the files you install, modify, and execute to upgrade to version 4.5.3 from an existing e*Index 4.1.2 or higher Oracle database.

What do I Need to Know Before I Start?

Make sure you are familiar with your Oracle environment before beginning the upgrade procedure. Know the server name and pathname in which the e*Index database resides, and the Oracle SID name and password of the database you are upgrading. It is helpful to be familiar with your Oracle environment, Oracle networking, and Oracle database administration. Also, determine whether you have region-specific security installed, and, if not, whether you want to install it (for more information, see chapter 3 of the *e*Index Administrator User's Guide* and the *e*Index Security User's Guide*).

e*Index 4.5.3 is only compatible with Oracle 8.1.7. If you are using a previous version of Oracle, you need to migrate your database to Oracle 8.1.7. Version 8.1.7.2.1 is recommended.

How is the Database Upgraded?

Installing the database files creates several SQL scripts used to upgrade the existing database; however, you only need to execute one batch file, **upgrade.bat**, to perform the upgrade. The upgrade batch file calls the SQL scripts to make the necessary changes to the database. This file requires some modification prior to execution. It must be run from a machine running a Windows operating system (95, 98, NT 4.0, or 2000) with Oracle Client installed. You can run the upgrade file from an existing e*Index client workstation. If you do not have region-specific security currently installed, but plan to use it in the future, you need to modify and run a second file, **install_ssap.bat**. Note that this process can only upgrade a database that is already at version 4.1.2 or higher. If you are upgrading from an earlier version, see your SeeBeyond representative.

Important Upgrade Information

If you are upgrading from a version of e*Index earlier than 4.5.1, the upgrade includes running a script that populates two new database tables (*ui_person_x_name* and *ui_alias_x_name*) with existing member information. Depending on the size of your database, this may be quite time-intensive (requiring up to several hours, depending on the number of records stored in the database). You should schedule the upgrade accordingly. Alternatively, you can opt to upgrade the database now, but populate the new tables at a more convenient time (for more information, see the introductory information under "Step 8: Upgrade the Database"). It is crucial that the new tables be populated before the upgraded database is available for general use.

Performing the Upgrade

Overview

To upgrade an e*Index 4.5.3 database for Oracle, you must complete the following steps:

- Step 1: Obtain Database Information
- Step 2: Back up the Current Database
- Step 3: Upgrade Oracle Server
- Step 4: Install the Upgrade Files
- Step 5: Verify **tnsnames.ora**
- Step 6: Modify the Upgrade File
- Step 7: Modify **install_ssap.bat** (optional)
- Step 8: Upgrade the Database
- Step 9: Install Region-specific Security Views
- Step 10: Move the Report Files

Note: If you chose to install all components of e*Index when you upgraded the e*Gate schema files, you should have already completed steps 1 through 4. You can begin with “Step 5: Verify **tnsnames.ora**”.

Step 1: Obtain Database Information

Before beginning, gather information about your database, such as the database path, the database name, and the system login and password for your database. You should also know the path to your Oracle home directory. If you customized the rule set files for the Vality matching algorithm, you should know the location of the most current rule set files. If you currently do not have region-specific security installed, determine whether you want to install it now. Region-specific security is described in Chapter 3 of the *e*Index Security User’s Guide* and the *e*Index Administrator User’s Guide*. Because of the complex nature of modifying a database, we recommend that a database administrator perform the following steps.

Step 2: Back up the Current Database

Prior to making any changes to your e*Index database, you should make a complete backup of your current database. For more information on performing Oracle database backups, see the appropriate Oracle documentation.

Step 3: Upgrade Oracle Server

Before you install the e*Index database files, Oracle 8.1.7 Server must be installed on the database server. If you are currently running a previous version of Oracle, you need to perform the upgrade before continuing. If your Oracle home directory changes during the upgrade, make a note of the new path. You will need to specify this information later in the database installation files. If your database is installed in a Unix environment, you also need to have Oracle client installed on a client workstation in order to run the upgrade script. For more information, see "Step 2: Upgrade the Database Software" in chapter 6 of this guide. For information about upgrading Oracle Server, refer to the appropriate upgrade documentation for Oracle.

***Important!** It is crucial that the Oracle 8.1.7 Server and Client installation is operational prior to performing the following steps.*

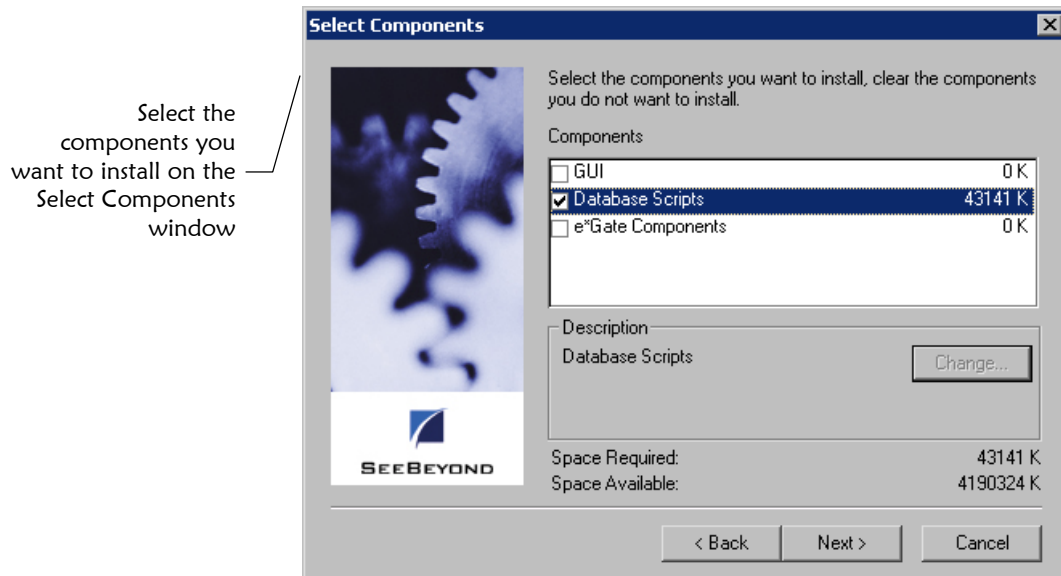
Step 4: Install the Upgrade Files

Installing the database and report files is very similar to the process you followed to install the e*Gate schema files. Install the database upgrade files on a client workstation that has Oracle 8.1.7 Client installed and that is running on a Windows 95, 98, NT, or 2000 operating system.

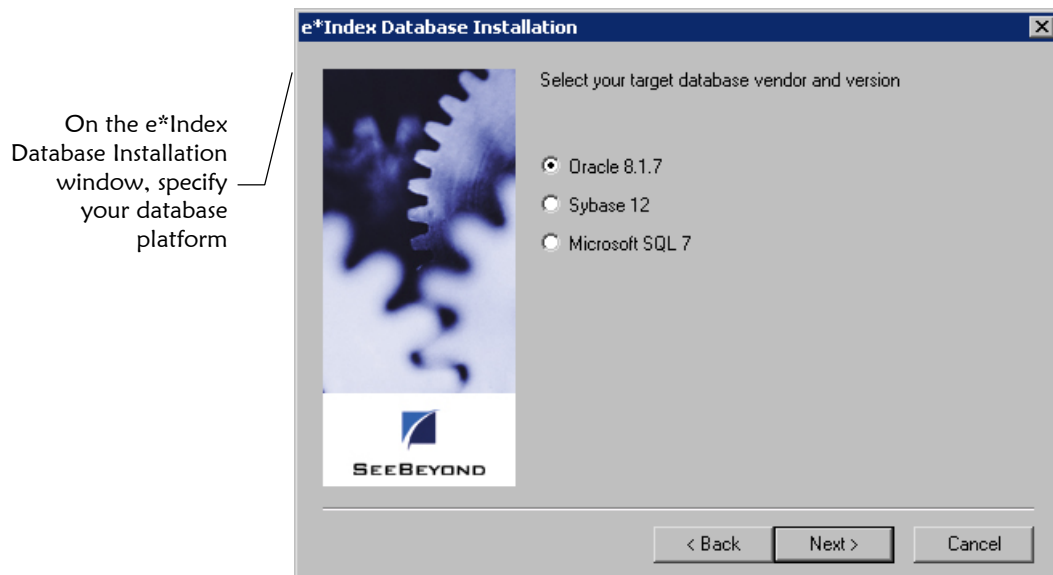
► To install the upgrade files

Before you begin:

- ✓ Complete "Step 3: Upgrade Oracle Server"
 - ✓ Make sure the e*Index installation CD-ROM is inserted into the CD-ROM drive of a client workstation with Oracle Client 8.1.7 installed
- 1 Follow steps 1 through 7 under "Step 5: Install the e*Index Schema Files" in Chapter 2, "Installing the e*Index Schema Files". The Select Components window should now be visible.
 - 2 On the Select Components window, select the check box next to **Database Scripts**.



- 3 Click **Next**. The e*Index Database Installation window appears.

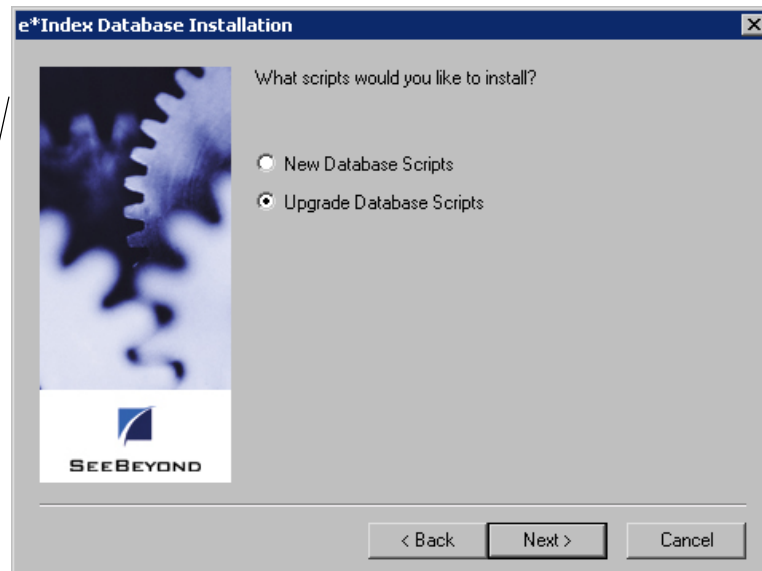


- 4 Select the name of the database platform you are using (Oracle 8.1.7).



- 5 Click **Next**. The second e*Index Database Installation window appears.

On the next e*Index Database Installation window, specify that this is a new installation of e*Index

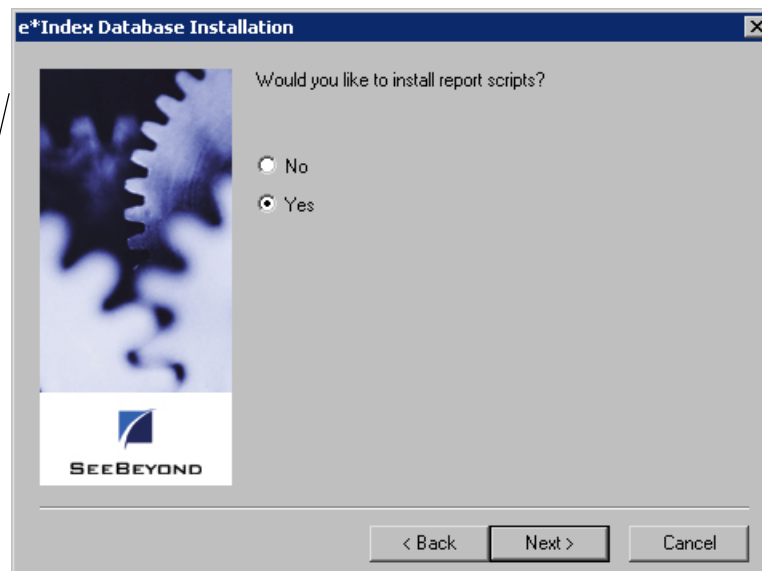


- 6 Select **Upgrade Database Scripts** to specify that you are upgrading an existing database.



- 7 Click **Next**. The final e*Index Database Installation window appears.

On the next e*Index Database Installation window, specify whether you want to install reports

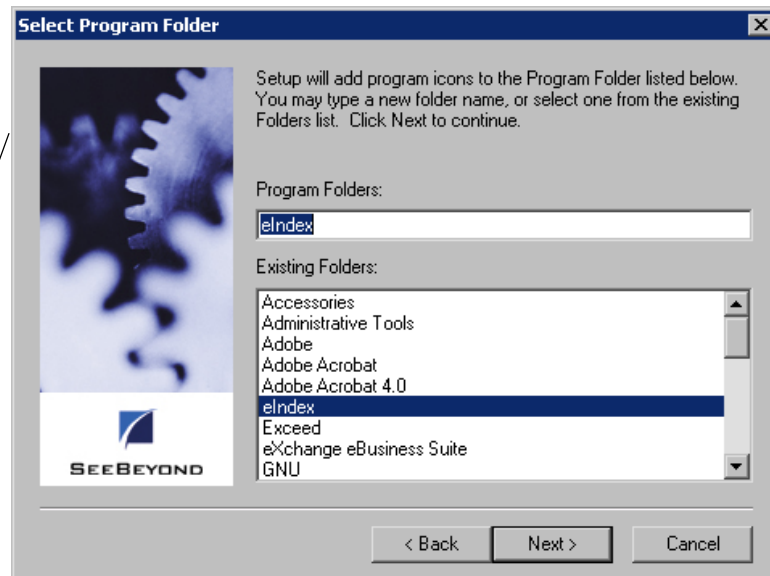


- 8 Select **Yes** to install the report files, or select **No** if you do not want to install the report files.



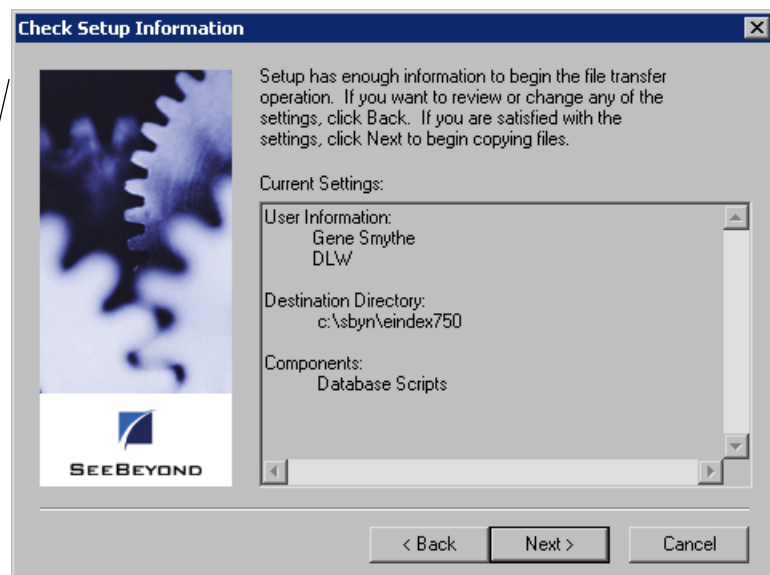
- 9 Click **Next**. The Select Program Folder window appears.

Specify the folder in which to install the program icons on the Select Program Folder window



- 10** Enter the name of the folder into which you want to install the program icons or accept the default name, and then click **Next**. The Check Setup Information window appears.

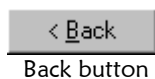
Verify the information you specified on the Check Setup Information window



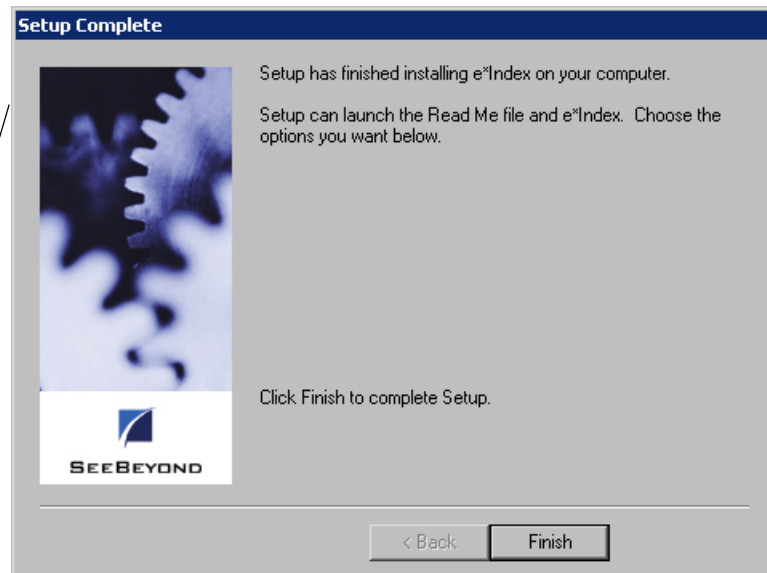
- 11** Verify the information you specified, and do one of the following:

*To change any of the options you selected, click **Back**, and make the necessary changes.*

*To continue with the installation, click **Next**. When all files are installed, the Setup Complete window appears.*



The Setup Complete window indicates that the database files are installed



Finish button

12 Click **Finish** to complete the setup process.

13 To view the database files that were installed:

- Open Windows Explorer and navigate to the path you specified for the installation files.
- Open the `\server\DBcommon\Client` subdirectory. The Client directory contains the database scripts **upgrade.bat**, **install_ssap.bat**, and **remove_ssap.bat**. The **upgrades** directory contains the SQL files that are called by the upgrade batch file.

14 To view the report files that were installed:

- Open Windows Explorer and navigate to the path you specified for the installation files.
- Open the `\server\UIreports` subdirectory. This directory contains a subdirectory named **Production**, which contains all the report files.

15 Continue to "Step 5: Verify **tnsnames.ora**".

Step 5: Verify tnsnames.ora

Verify that the **tnsnames.ora** file on the computer you are using for the upgrade contains a stanza pointing to the database being upgraded. You should have a stanza for the e*Index database similar to the following example.

```
ei01.world =
  (DESCRIPTION =
    (ADDRESS_LIST =
      (ADDRESS =
        (PROTOCOL = TCP)
        (Host = 100.0.0.00)
        (Port = 1000)
      )
    )
  (CONNECT_DATA = (SID = EI01)
  )
)
```

*If you do not know how to modify the Oracle **tnsnames.ora** file, refer to the appropriate Oracle documentation. Your file may differ from the sample above*

Step 6: Modify the Upgrade File

The file **upgrade.bat** is a batch file that modifies the database to bring it up to version 4.5.3. You need to modify certain variables in this file that tell the script how to locate the database instance and installation scripts.

► To modify the upgrade file

Before you begin:

- ✓ Complete "Step 5: Verify **tnsnames.ora**"
- 1 Navigate to the path where the database files are located, and then navigate to the **server\DBcommon\Client** directory.
- 2 Make a backup copy of the file **upgrade.bat**.
- 3 Right-click the **upgrade.bat** file and then select **Edit** from the list that appears. Do not double-click this file to open it.
- 4 Make the following modifications:
 - Enter the Oracle TNS service name of the database in the variable **TNS_NAME** (the TNS service name is defined in **tnsnames.ora**).
 - In the variable **ORACLE_SID**, enter the SID name of the database.

- In the variable **INSTALLDRIVE**, enter the drive on which the database installation files are located.
- In the variable **INSTALL_HOME**, enter the path in which the database files are located. Do not include the drive designation in this path. This is the path to the **server** directory (do not include **/server/DBcommon/Server** in the pathname).

A sample of the above variables is illustrated below.

```
SET TNS_NAME=EI01
SET ORACLE_SID=EI01
SET INSTALLDRIVE=C:
SET INSTALL_HOME=/TEMP/INSTALL
```

- 5 If you have modified the system password and the e*Index "UI" user password, modify the values accordingly in the variables **SYSTEMPW** and **UIPW**.

```
SET SYSTEMPW=ORACLE
SET UIPW=eINDEX
```

- 6 Save the changes to **upgrade.bat** and close the file.
- 7 Do one of the following:

*If you want to install region-specific security capabilities, continue to "Step 7: Modify **install_ssap.bat**".*

If you are not installing region-specific security capabilities, skip to "Step 8: Upgrade the Database"

Step 7: Modify **install_ssap.bat** (optional)

Running **install_ssap.bat** installs the views you need in order to use the region-specific security capabilities of e*Index. You do not need to modify or run this file if you do not want to use this capability or if you already have region-specific security installed.



For more information about region-specific security, see "What is Region-Specific Security?" in Chapter 3 of the *e*Index Security User's Guide* and "About Region-Specific Security" in Chapter 3 of the *e*Index Administrator User's Guide*.

▶ To modify **install_ssap.bat**

Before you begin:

- ✓ Complete "Step 6: Modify the Upgrade File"

- 1 Navigate to the path where the database files are located, and then navigate to the `server\DBcommon\Client` directory.
- 2 Make a backup copy of the file `install_ssap.bat`.
- 3 Right-click the `install_ssap.bat` file and then select **Edit** from the list that appears. Do not double-click this file to open it.
- 4 Enter the Oracle TNS service name of the database in the variable `TNS_NAME` (the TNS service name is defined in `tnsnames.ora`). A sample of the `TNS_NAME` variable is illustrated below.

```
SET TNS_NAME=EI01
```

- 5 If you have modified the system password and the e*Index "UI" user password, modify the values accordingly in the variables `SYSTEMPW` and `UIPW`.

```
SET SYSTEMPW=ORACLE
SET UIPW=eINDEX
```

- 6 Save the changes to `install_ssap.bat` and close the file.
- 7 Continue to "Step 8: Upgrade the Database".

Step 8: Upgrade the Database

After you have made the necessary modifications to the upgrade files, you can run `upgrade.bat` to create the tables, views, indexes, and so on for your e*Index database.

Important! *If you are upgrading the database from version 4.5.0 or earlier, this step populates information from `ui_person` and `ui_alias` into `ui_person_x_name` and `ui_alias_x_name`. This may be a time-intensive process requiring several hours, depending on the number of records stored in the database. You can choose not to populate those tables at this time, and do it at a later time if necessary. To prevent the tables from being populated at this time, comment out the line `"@populate_x_names"` in the file `UI751.sql` (located in the installation path in `lserver\upgrades`) before performing the upgrade.*

► To upgrade the database

Before you begin:

- ✓ Complete "Step 6: Modify the Upgrade Files" and optionally "Step 7: Modify `install_ssap.bat`"

- ✓ If you want to populate the new database tables *ui_person_x_name* and *ui_alias_x_name* at a later time, comment out the appropriate line in **UI751.sql** (as described in the important note above)
- 1 Navigate to the path where the database files are located, and then navigate to the **server\DBcommon\Client** directory.
- 2 Double-click **upgrade.bat** to run the batch file.
- 3 You can view installation log files in the path installation path in **server\upgrades\Spool**. Review the log file to ensure that there were no errors during the running of the script.
- 4 Do one of the following:

*If you want to install region-specific security, continue to "Step 9: Run **install_ssap.bat**".*

If you are not installing region-specific security, skip to "Step 10: Move the Report Files".

Note: *If you are upgrading from version 4.5.0 or earlier and did not populate the new database tables at this time, make sure you run the file **populate_x_name.sql** (located in the installation path in *server\upgrades*) before making the database available for use.*

Step 9: Run **install_ssap.bat** (optional)

After you have run **upgrade.bat** to modify the e*Index database, you can install system-specific security by running **install_ssap.bat**. If you are already using region-specific security, you can skip this step.

Important! *Do not execute this file if you do not want to use region-specific security. Creating these views requires that you also define the regions associated with each system and assign them to user profiles before e*Index information can be accessed. If you install region-specific security but do not want to use the functionality, you can remove it by running **remove_ssap.bat**. You need to modify this file in the same way you modified **install_ssap.bat** in "Step 7: Modify **install_ssap.bat**" earlier in this chapter.*

► To run **install_ssap.bat**

Before you begin:

- ✓ Complete "Step 8: Upgrade the Database"
- ✓ Make sure you completed "Step 8: Modify **install_ssap.bat**"

- 1 Navigate to the path where the database files are located, and then navigate to the `server\DBcommon\Client` directory.
- 2 Double-click `install_ssap.bat` to run the batch file.
- 3 Continue to "Step 10: Move the Report Files".

Step 10: Move the Report Files

If you are upgrading from version 4.5.2, you can skip this step since no changes were made to the report files. If you are upgrading from a previous version, refer to the release notes to determine whether you should upgrade your reports.

If you installed the report files, move the report files out of the installation path and into the database path. If you have customized your existing report files, do not overwrite them with the new files. Instead, refer to your customized files to modify the new report files.

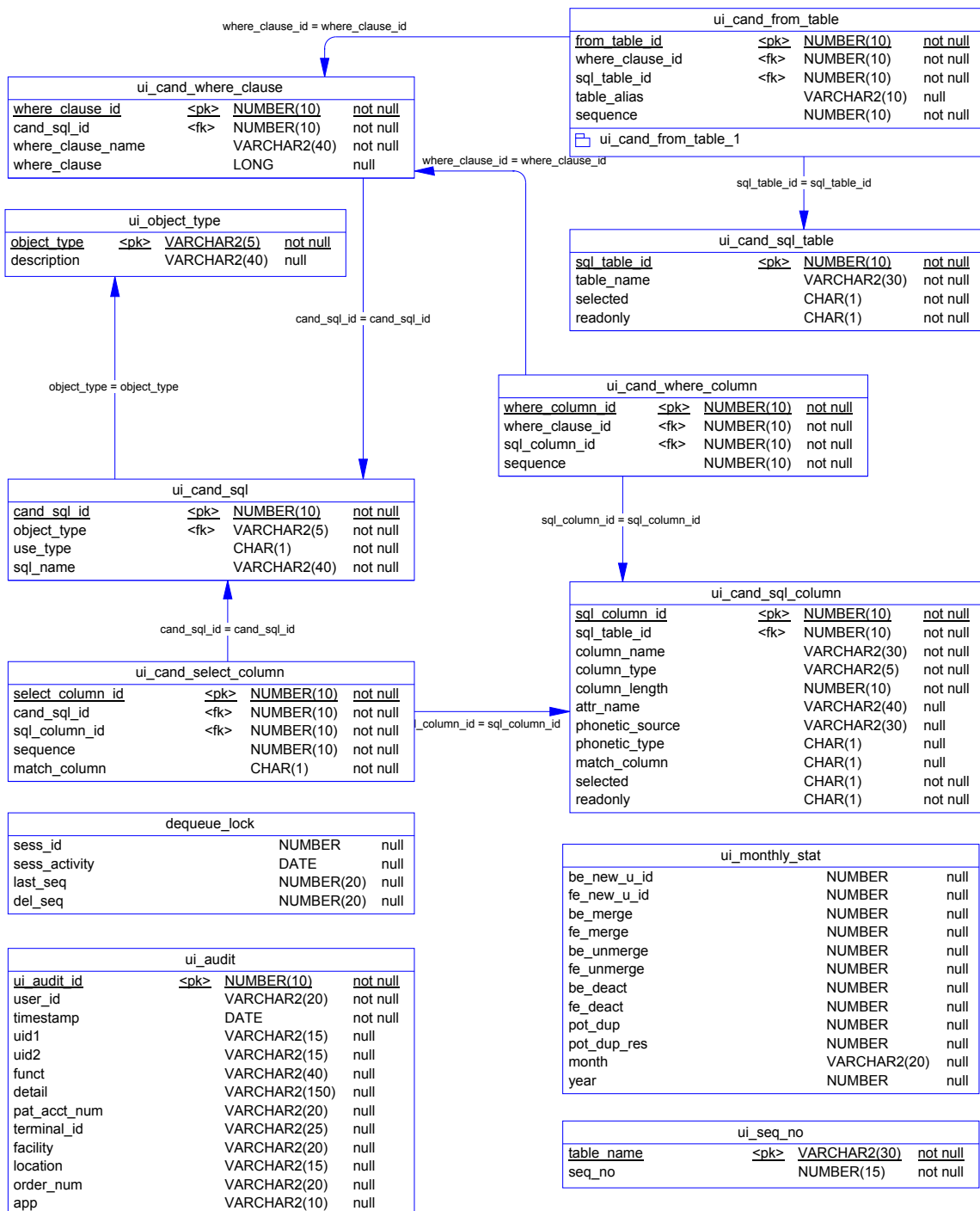
► To move the report files

Before you begin:

- ✓ Know where the e*Index database home directory is located on the database server
- 1 Navigate to the path where the database files are located.
 - 2 Open the subdirectory `\server`.
 - 3 Move the folder **UIreports** into the database path on the database server.

e*Index 4.5.3 Oracle Database Model

The diagrams on the following pages illustrate the table structure for e*Index version 4.5.3 for Oracle. Your actual database may vary slightly from this model depending upon the release you have installed. The *ui_person* and *ui_transaction* tables are displayed on two different pages to better illustrate the connections to these two tables.



ui_config			
<u>interface</u>	<pk>	VARCHAR2(255)	not null
<u>code</u>	<pk>	VARCHAR2(255)	not null
value		NUMBER	not null
📁 pk_idx_ui_config			

ui_control			
<u>ctrl_key</u>	<pk>	VARCHAR2(10)	not null
description		VARCHAR2(50)	null
ctrl_value		VARCHAR2(30)	null
create_date		DATE	null
📁 pk_idx_control			

ui_dept			
<u>dept_code</u>	<pk>	VARCHAR2(5)	not null
description		VARCHAR2(20)	null
date_time		DATE	null
📁 pk_idx_dept			

ui_canned_msg			
<u>code</u>	<pk>	VARCHAR2(5)	not null
description		VARCHAR2(80)	not null
create_date		DATE	null
📁 pk_idx_canned			

ui_message			
<u>code</u>	<pk>	VARCHAR2(5)	not null
description		LONG	not null
message_box_header		VARCHAR2(50)	not null
icon		VARCHAR2(15)	null
button		VARCHAR2(20)	null
default_button		NUMBER(1)	null
message_type		VARCHAR2(8)	null
application		VARCHAR2(10)	null
date_time		DATE	null
📁 pk_idx_ui_message			

ui_zip			
<u>zip_code</u>	<pk>	VARCHAR2(8)	not null
zip4		VARCHAR2(4)	null
<u>city</u>	<pk>	VARCHAR2(30)	not null
<u>state</u>	<pk>	VARCHAR2(10)	not null
county		VARCHAR2(3)	null
residence_code		VARCHAR2(4)	null
create_date		DATE	null
📁 pk_idx_zip			

ui_comment			
<u>ui_comment_id</u>	<pk>	NUMBER(10)	not null
u_id		VARCHAR2(15)	not null
type		VARCHAR2(8)	not null
timestamp		DATE	not null
comment_text		LONG	null
ui_org		VARCHAR2(15)	null
📁 ui_id_comment			

ui_msg_header			
<u>ui_msg_header_id</u>	<pk>	NUMBER(20)	not null
queue_id		CHAR(1)	not null
errors		NUMBER(10)	not null
create_date		DATE	not null
create_userid		VARCHAR2(20)	not null
📁 ui_msg_header_1			

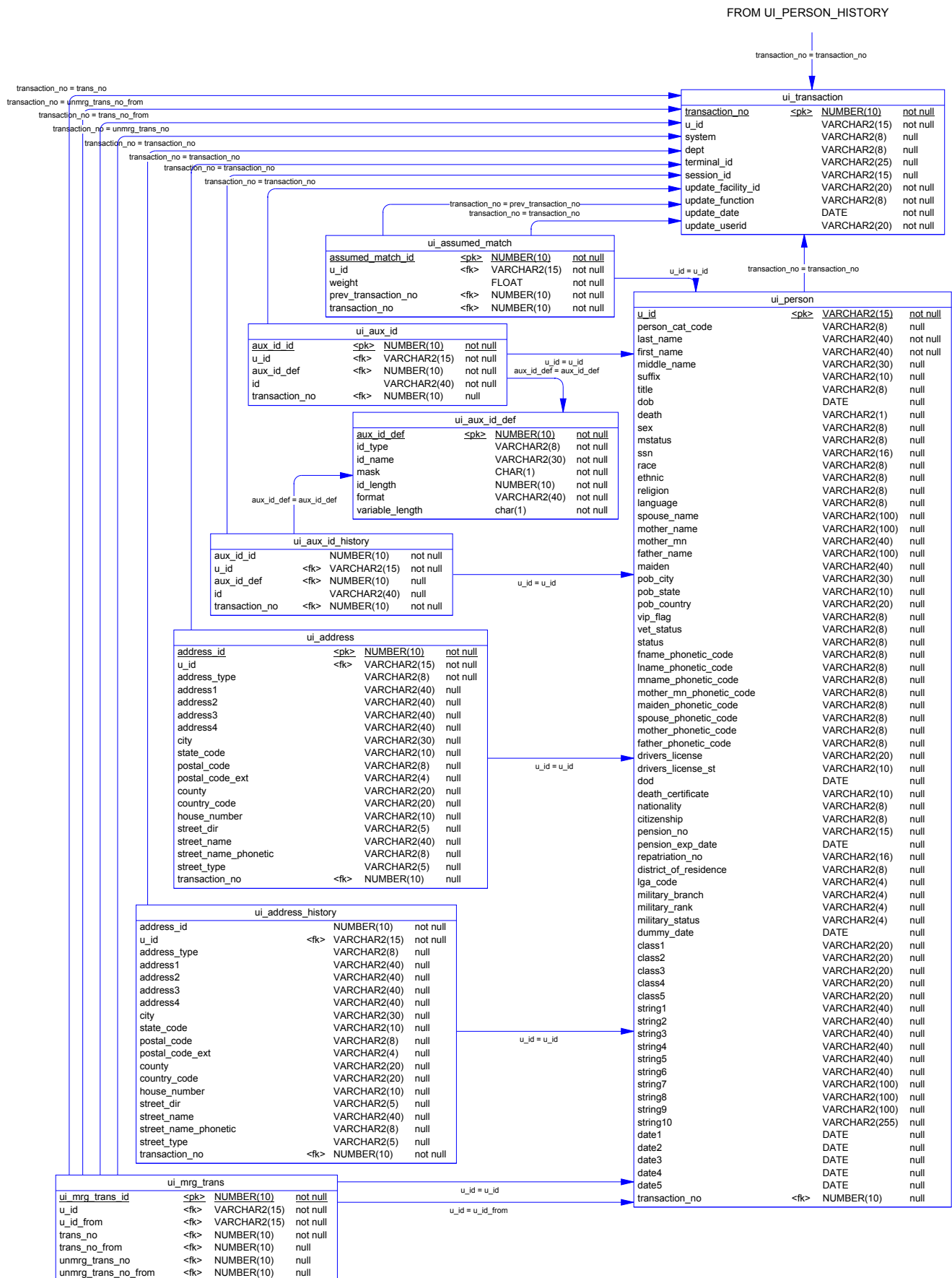
ui_msg_header_id = ui_msg_header_id

ui_msg_detail			
<u>ui_msg_detail_id</u>	<pk>	NUMBER(20)	not null
ui_msg_header_id	<fk>	NUMBER(20)	null
msg		VARCHAR2(512)	not null
📁 fk_ui_msg_detail			

ui_person_history			
<u>ui_person_history_id</u>	<pk>	NUMBER(10)	not null
u_id		VARCHAR2(15)	not null
person_cat_code		VARCHAR2(8)	null
last_name		VARCHAR2(40)	null
first_name		VARCHAR2(40)	null
middle_name		VARCHAR2(30)	null
suffix		VARCHAR2(10)	null
title		VARCHAR2(8)	null
dob		DATE	null
death		VARCHAR2(1)	null
sex		VARCHAR2(8)	null
mstatus		VARCHAR2(8)	null
ssn		VARCHAR2(16)	null
race		VARCHAR2(8)	null
ethnic		VARCHAR2(8)	null
religion		VARCHAR2(8)	null
language		VARCHAR2(8)	null
spouse_name		VARCHAR2(100)	null
mother_name		VARCHAR2(100)	null
mother_mn		VARCHAR2(40)	null
father_name		VARCHAR2(100)	null
maiden		VARCHAR2(40)	null
pob_city		VARCHAR2(30)	null
pob_state		VARCHAR2(10)	null
pob_country		VARCHAR2(20)	null
vip_flag		VARCHAR2(8)	null
vet_status		VARCHAR2(8)	null
status		VARCHAR2(8)	null
fname_phonetic_code		VARCHAR2(8)	null
lname_phonetic_code		VARCHAR2(8)	null
mname_phonetic_code		VARCHAR2(8)	null
mother_mn_phonetic_code		VARCHAR2(8)	null
maiden_phonetic_code		VARCHAR2(8)	null
spouse_phonetic_code		VARCHAR2(8)	null
mother_phonetic_code		VARCHAR2(8)	null
father_phonetic_code		VARCHAR2(8)	null
drivers_license		VARCHAR2(20)	null
drivers_license_st		VARCHAR2(10)	null
dod		DATE	null
death_certificate		VARCHAR2(10)	null
nationality		VARCHAR2(8)	null
citizenship		VARCHAR2(8)	null
pension_no		VARCHAR2(15)	null
pension_exp_date		DATE	null
repatriation_no		VARCHAR2(16)	null
district_of_residence		VARCHAR2(8)	null
lga_code		VARCHAR2(4)	null
military_branch		VARCHAR2(4)	null
military_rank		VARCHAR2(4)	null
military_status		VARCHAR2(4)	null
dummy_date		DATE	null
class1		VARCHAR2(20)	null
class2		VARCHAR2(20)	null
class3		VARCHAR2(20)	null
class4		VARCHAR2(20)	null
class5		VARCHAR2(20)	null
string1		VARCHAR2(40)	null
string2		VARCHAR2(40)	null
string3		VARCHAR2(40)	null
string4		VARCHAR2(40)	null
string5		VARCHAR2(40)	null
string6		VARCHAR2(40)	null
string7		VARCHAR2(100)	null
string8		VARCHAR2(100)	null
string9		VARCHAR2(100)	null
string10		VARCHAR2(255)	null
date1		DATE	null
date2		DATE	null
date3		DATE	null
date4		DATE	null
date5		DATE	null
transaction_no	<fk>	NUMBER(10)	not null

transaction_no = transaction_no

TO UI_TRANSACTION



ui_ctrl_rule			
<u>ui_ctrl_rule_id</u>	<pk>	NUMBER(10)	not null
rule_name		VARCHAR2(16)	not null
root_file		VARCHAR2(16)	not null
read_only		CHAR(1)	not null
in_use		CHAR(1)	not null
create_date		DATE	not null
create_userid		VARCHAR2(20)	not null
update_date		DATE	null
update_userid		VARCHAR2(20)	null

ui_nickname			
<u>ui_nickname_id</u>	<pk>	NUMBER(10)	not null
formal_name		VARCHAR2(40)	not null
nick_name		VARCHAR2(40)	not null
create_date		DATE	not null
create_userid		VARCHAR2(20)	not null
update_date		DATE	null
update_userid		VARCHAR2(20)	null

ui_ctrl_file			
<u>ui_ctrl_file_id</u>	<pk>	NUMBER(10)	not null
ui_ctrl_rule_id	<fk>	NUMBER(10)	not null
file_type		VARCHAR2(3)	not null
file_name		VARCHAR2(18)	not null
file_ext		VARCHAR2(3)	not null
file_content		LONG	null
content_date		DATE	not null
last_synch_date		DATE	null
create_date		DATE	not null
create_userid		VARCHAR2(20)	not null
update_date		DATE	null
update_userid		VARCHAR2(20)	null

ui_ctrl_file_hist			
<u>ui_ctrl_file_hist_id</u>	<pk>	NUMBER(10)	not null
ui_ctrl_file_id	<fk>	NUMBER(10)	not null
file_type		VARCHAR2(3)	not null
file_name		VARCHAR2(18)	not null
file_ext		VARCHAR2(3)	not null
file_content		LONG	null
content_date		DATE	not null
save_date		DATE	not null
create_date		DATE	not null
create_userid		VARCHAR2(20)	not null
update_date		DATE	null
update_userid		VARCHAR2(20)	null

ui_ctrl_table			
<u>ui_ctrl_table_id</u>	<pk>	NUMBER(10)	not null
table_name		VARCHAR2(30)	not null
description		VARCHAR2(48)	null
read_only		CHAR(1)	not null
create_date		DATE	not null
create_userid		VARCHAR2(20)	not null
update_date		DATE	null
update_userid		VARCHAR2(20)	null

ui_ctrl_field			
<u>ui_ctrl_field_id</u>	<pk>	NUMBER(10)	not null
field_name		VARCHAR2(2)	not null
field_type		VARCHAR2(2)	not null
field_length		NUMBER(10)	not null
field_missing		VARCHAR2(2)	not null
description		VARCHAR2(48)	null
ui_ctrl_column_id		NUMBER(10)	null
create_date		DATE	not null
create_userid		VARCHAR2(20)	not null
update_date		DATE	null
update_userid		VARCHAR2(20)	null

ui_ctrl_column			
<u>ui_ctrl_column_id</u>	<pk>	NUMBER(10)	not null
ui_ctrl_table_id	<fk>	NUMBER(10)	not null
column_name		VARCHAR2(30)	not null
description		VARCHAR2(48)	null
read_only		CHAR(1)	not null
create_date		DATE	not null
create_userid		VARCHAR2(20)	not null
update_date		DATE	null
update_userid		VARCHAR2(20)	null

ui_table			
<u>ui_table_id</u>	<pk>	NUMBER(10)	not null
ui_table_name		VARCHAR2(30)	not null

ui_misc_opt_control			
<u>control_type</u>	<pk>	varchar2(8)	not null
description		varchar2(40)	not null

ui_table_column			
<u>table_column_id</u>	<pk>	NUMBER(10)	not null
ui_table_id	<fk>	NUMBER(10)	not null
column_name		VARCHAR2(30)	not null
default_label		VARCHAR2(40)	not null
label		VARCHAR2(40)	not null
visible		CHAR(1)	not null
required		CHAR(1)	not null
read_only		CHAR(1)	not null

ui_misc_option			
<u>misc_option_id</u>	<pk>	number(10)	not null
country_code	<fk>	varchar2(8)	not null
control_type	<fk>	varchar2(8)	not null
option_name		varchar2(40)	not null
value		varchar2(40)	not null

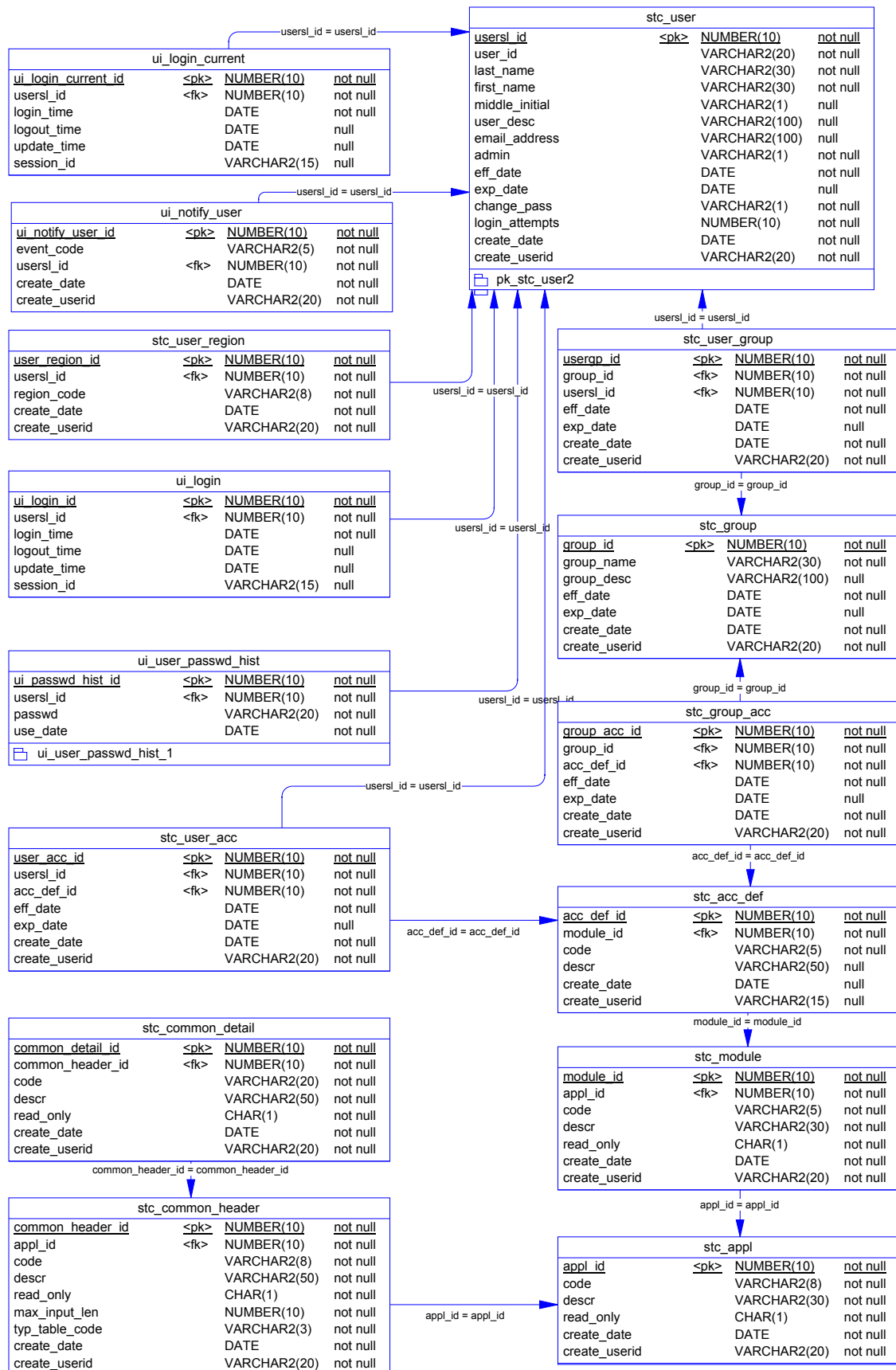
control_sec			
<u>ctrl_key</u>	<pk>	VARCHAR2(10)	not null
description		VARCHAR2(50)	null
ctrl_value		VARCHAR2(10)	null
create_date		DATE	null

ui_misc_opt_country			
<u>country_code</u>	<pk>	varchar2(8)	not null
country_name		varchar2(40)	null

ui_no_passwd			
<u>no_passwd</u>	<pk>	VARCHAR2(20)	not null
pk_idx_ui_no_passwd			

ui_person_x_name			
<u>u_id</u>	<pk>	varchar2(15)	not null
x_last_name		varchar2(40)	not null
x_first_name		varchar2(40)	not null
x_mother_mn		varchar2(40)	null
x_maiden		varchar2(40)	null
x_middle_name		varchar2(30)	null

ui_alias_x_name			
<u>ui_alias_id</u>	<pk>	number(10)	not null
u_id		varchar2(15)	not null
x_last_name		varchar2(40)	not null
x_first_name		varchar2(40)	not null
x_middle_name		varchar2(30)	null



Upgrading a Sybase Database

About this Chapter

Overview

This chapter presents the background information and the step-by-step instructions you need to upgrade an e*Index database for Sybase from version 4.5 or higher to 4.5.3. The following diagram illustrates the major topics in this chapter. For the page numbers on which specific topics appear, see the next page of this chapter.

About the Upgrade

Learn about installing and modifying the database upgrade files

Upgrade the Database

Learn how to install the database upgrade files, and to modify and run the database scripts

Physical Data Model

View a physical data model of the e*Index database

What's Inside

This chapter provides background information and instructions related to the topics listed below.

Learning About the Database Upgrade	4-3
Performing the Upgrade	4-5
▶ Step 1: Obtain Database Information	4-5
▶ Step 2: Back up the Current Database	4-6
▶ Step 3: Upgrade Sybase Server	4-6
▶ Step 4: Install the Database and Report Files	4-6
▶ Step 5: Verify sql.ini	4-10
▶ Step 6: Modify the Upgrade File	4-10
▶ Step 7: Modify install_ssap.bat (optional).....	4-11
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e*Index 4.5.3 Sybase Database Model	4-15

Learning About the Database Upgrade

Overview

This section of the chapter provides background information about the files you install, modify, and execute to upgrade an e*Index Sybase database from version 4.5 or higher to 4.5.3.

What do I Need to Know Before I Start?

Make sure you are familiar with your Sybase environment before beginning the upgrade procedure. Know the server name and pathname in which the e*Index database resides, and the Adaptive Server name and password of the database you are upgrading. It is helpful to be familiar with your Sybase environment, Sybase networking, and Sybase database administration. Also, determine whether you have region-specific security installed, and, if not, whether you want to install it (for more information see chapter 3 of the *e*Index Administrator User's Guide* and the *e*Index Security User's Guide*).

e*Index 4.5.3 is only compatible with Sybase 12.0. If you are using a previous version of Sybase, you need to migrate your database to Sybase 12.0.

How is the Database Upgraded?

Installing the database files creates several SQL scripts used to upgrade the existing database; however, you only need to execute one batch file, **upgrade.bat**, to perform the upgrade. The upgrade batch file calls the SQL scripts to make the necessary changes to the database. This file requires some modification prior to execution. It must be run from a machine running a Windows operating system (95, 98, or NT 4.0) with Sybase Client installed. You can run the upgrade file from an existing e*Index client workstation. If you plan to install region-specific security, you need to modify and run a second file, **install_ssap.bat**. Note that this process can only upgrade a database that is already at version 4.5 or higher.

Important Upgrade Information

If you are upgrading from an earlier version than e*Index 4.5.1, the upgrade includes running a script that populates two new database tables (*ui_person_x_name* and *ui_alias_x_name*) with existing member information. Depending on the size of your database, this may be quite time-intensive (requiring up to several hours, depending on the number of records stored in the database). You should schedule the upgrade accordingly. Alternatively, you can opt to upgrade the database now, but populate the new tables at a more convenient time (for more information, see the introductory information under "Step 8: Upgrade the Database"). It is crucial that the new tables be populated before the upgraded database is available for general use.

Performing the Upgrade

Overview

To upgrade an e*Index database for Sybase to 4.5.3, you must complete the following steps:

- Step 1: Obtain Database Information
- Step 2: Back up the Current Database
- Step 3: Upgrade Sybase Server
- Step 4: Install the Database and Report Files
- Step 5: Verify **sql.ini**
- Step 6: Modify the Upgrade File
- Step 7: Modify **install_ssap.bat** (optional)
- Step 8: Upgrade the Database
- Step 9: Run **install_ssap.bat** (optional)

Note: If you chose to install all components of e*Index when you installed the e*Index schema files, you should have already completed steps 1 through 4. You can begin with "Step 5: Verify **sql.ini**".

Step 1: Obtain Database Information

Before beginning, gather information about your database, such as the database path, the database name, and the system login and password for your database. You should also know the path to your Sybase home directory. If you customized the rule set files for the Vality matching algorithm, know the location of the most current rule set files. If you currently do not have region-specific security installed, determine whether you want to install it now. Region-specific security is described in Chapter 3 of the *e*Index Security User's Guide* and the *e*Index Administrator User's Guide*.

Because of the complex nature of modifying a database, we recommend that a database administrator perform the following steps.

Step 2: Back up the Current Database

Prior to making any changes to your e*Index database, you should make a complete backup of your current database. For more information on performing Sybase database backups, see the appropriate Sybase documentation.

Step 3: Upgrade Sybase Server

Before you install the e*Index database files, Sybase 12.0 Server must be installed on the database server. If you are currently running a previous version of Sybase, you need to perform the upgrade before continuing. If your Sybase home directory changes during the upgrade, make a note of the new path. In order to complete the upgrade, you must also have Sybase 12.0 Client installed on a client workstation (for more information, see "Step 2: Upgrade the Database Software" in chapter 6 of this guide). For information about upgrading Sybase Server, refer to the appropriate upgrade documentation for Sybase.

Important! *It is crucial that the Sybase 12.0 Server and Client installation is operational prior to performing the following steps.*

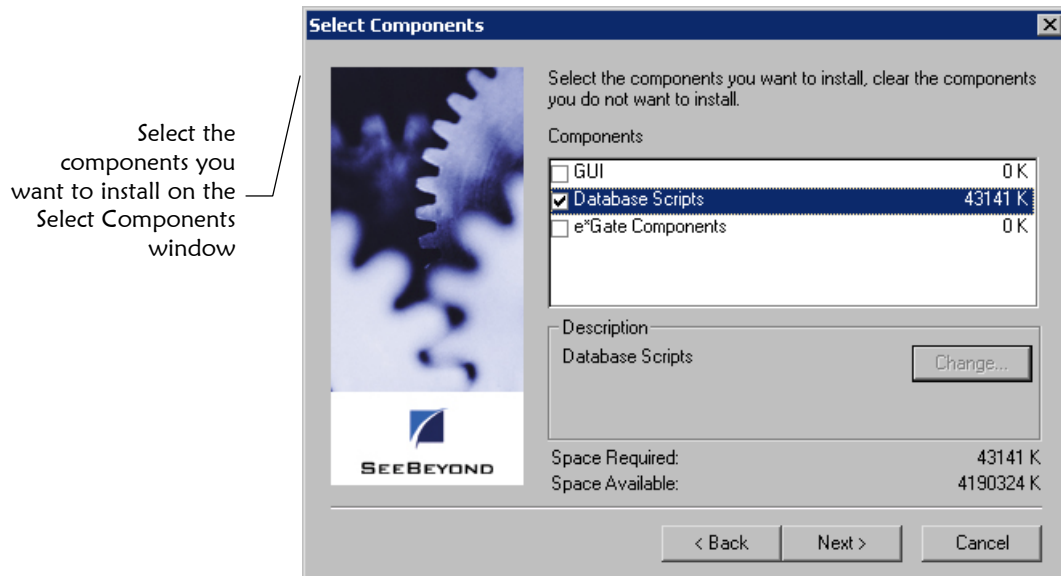
Step 4: Install the Database and Report Files

Installing the database and report files is very similar to the process you followed to install the e*Index schema files.

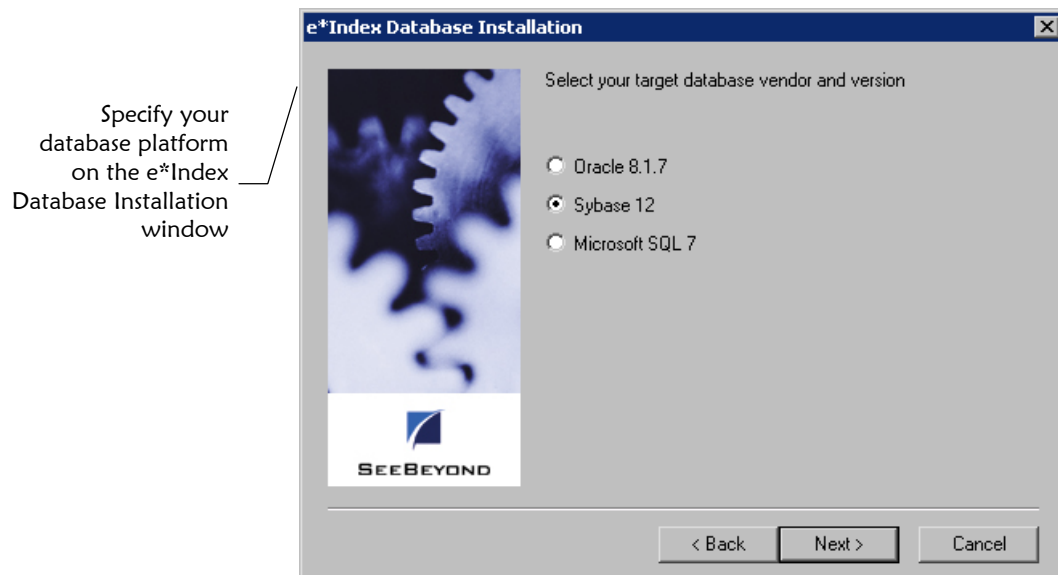
► To install the database and report files

Before you begin:

- ✓ Complete "Step 2: Install Sybase"
 - ✓ Make sure the e*Index installation CD-ROM is inserted into the CD-ROM drive of a client workstation with Sybase Client 12.0 installed
- 1 Follow steps 1 through 7 under "Step 5: Install the e*Index Schema Files" in Chapter 2, "Installing the e*Gate Schema Files". The Select Components window should now be visible.
 - 2 On the Select Components window, select the check box next to **Database Scripts**.

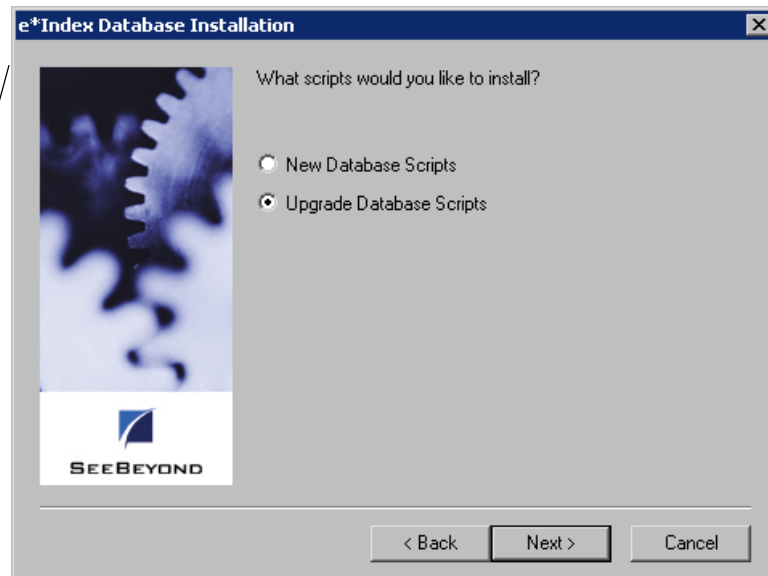


3 Click **Next**. The e*Index Database Installation window appears.



4 Select **Sybase 12**, and then click **Next**. A second e*Index Database Installation window appears.

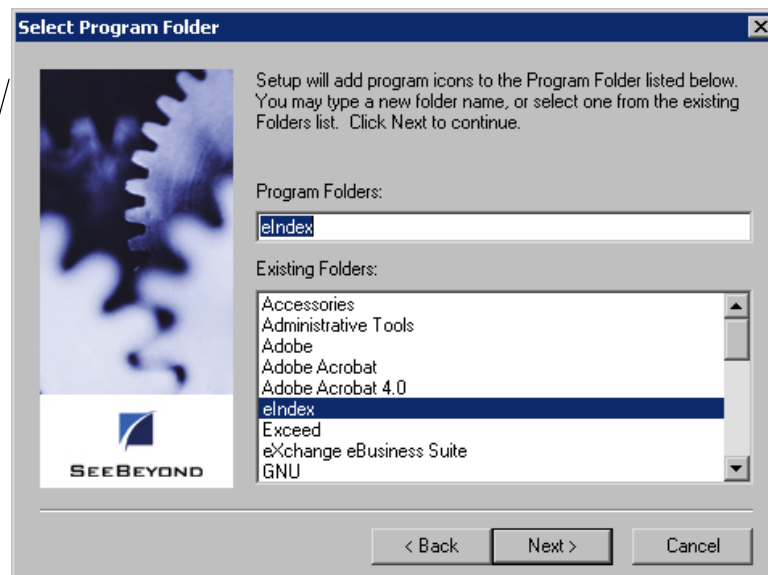
Specify whether to install the scripts to install a new database or the scripts to upgrade an existing database



Next button

- 5 Select **New Database Scripts**, and then click **Next**. The Select Program Folder window appears.

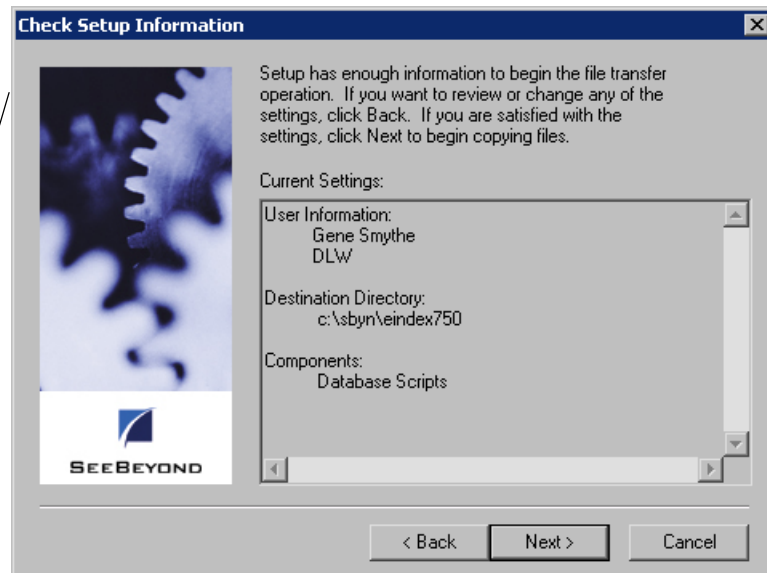
Specify the folder in which to install the program icons on the Select Program Folder window



Next button

- 6 Enter the name of the folder into which you want to install the program icons or accept the default name, and then click **Next**. The Check Setup Information window appears.

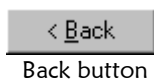
On the Check Setup Information window, verify the information you specified



7 Verify the information you specified, and do one of the following:

*To change any of the options you selected, click **Back**, and make the necessary changes.*

*To continue with the installation, click **Next**. When all files are installed, the Setup Complete window appears.*

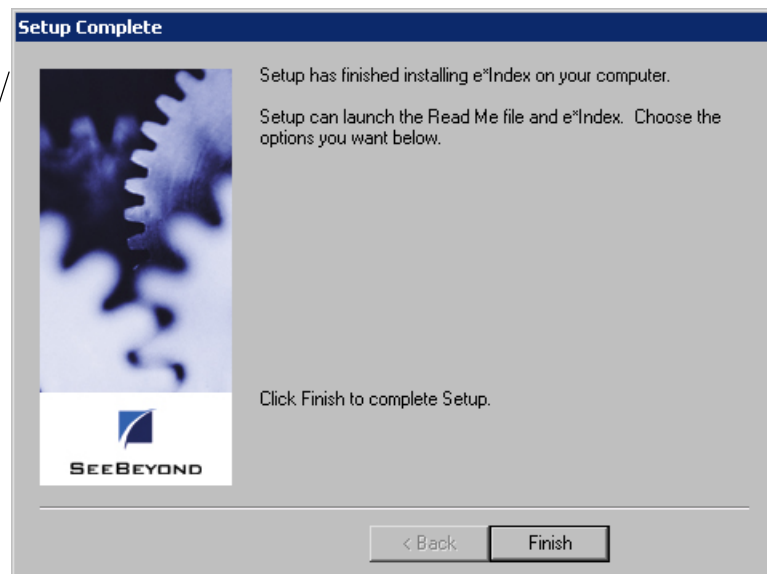


Back button



Next button

The Setup Complete window indicates that the database files have been installed



Finish button

8 Click **Finish** to complete the setup process.

- 9 To view the database files that were installed:
 - Open Windows Explorer and navigate to the path you specified for the installation files.
 - Open the `\server\DBcommon` subdirectory. You will find one subdirectory named **Client**, and two files, **defs.sql** and **sybenv.bat**. The Client directory contains the database scripts, **upgrade.bat**, **install_ssap.bat**, and **remove_ssap.bat**.
- 10 Continue to "Step 5: Verify **sql.ini**".

Step 5: Verify **sql.ini**

Verify that the **sql.ini** file on the computer you are using for the upgrade contains a stanza pointing to the database being upgraded. You should have a stanza for the e*Index database similar to the following example. This sample illustrates how the stanza may appear for an Adaptive Server named "challenger" using a TCP/IP connection. For more information about configuring this file, refer to your Sybase user documentation.

```
[challenger]
master=TCP,challenger,4100
query=TCP,challenger,4100
```

Step 6: Modify the Upgrade File

The file **upgrade.bat** is a batch file that you run to upgrade the database tables, triggers, indexes, and so on. You need to modify certain variables in this file that tell the script how to locate the database instance and installation scripts.

► To modify the upgrade file

Before you begin:

- ✓ Complete "Step 5: Verify **sql.ini**"
- 1 On the machine from which you will run **upgrade.bat**, navigate to the path where the database files are located, and then navigate to the `\server\DBcommon\Client` directory.
 - 2 Make a backup copy of the file **upgrade.bat**.
 - 3 Right-click the **upgrade.bat** file and then select **Edit** from the list that appears. Do not double-click the file to open it.

- 4 Make the following modifications:
- In the variable **SERVER**, enter the name of the Sybase Adaptive Server for the database.
 - In the variable **DATABASE**, enter the name of the database.
 - In the variable **INSTALLDRIVE**, enter the drive on which the database installation files are located.
 - In the variable **INSTALL_HOME**, enter the path in which the database installation files are located on the machine from which you will run **upgrade.bat**. Do not include the drive designation in this path. This is the path to the **server** directory (do not include **\server\Dbcommon\Server** in the pathname).
 - In the variable **SYSTEMPW**, enter the password for the administrator user ID for Sybase.
 - The default value for the variable **UIPW** only needs to be changed if you modified the password for the e*Index **UI** user.

The sample below illustrates the **upgrade.bat** variables.

```
SET SERVER=SYBASE1
SET DATABASE=ei01
SET INSTALLDRIVE=C:
SET INSTALL_HOME=\TEMP\INSTALL
...
SET SYSTEMPW=sybase
SET UIPW=eindex
```

- 5 Save the changes to **upgrade.bat** and close the file.

- 6 Do one of the following:

*If you want to install region-specific security in the database, continue to "Step 7: Modify **install_ssap.bat** (optional)". If you already have region-specific security installed, you do not need to run this file.*

If you do not want to install region-specific security in the database, skip to "Step 8: Upgrade the Database".

Step 7: Modify **install_ssap.bat** (optional)

Running **install_ssap.bat** installs the views you need in order to use the region-specific security capabilities of e*Index. You do not need to modify or run this file if you do not want to use this capability or if you already have region-specific security installed.



For more information about region-specific security, see "What is Region-Specific Security?" in Chapter 3 of the *e*Index Security User's Guide* and "About Region-Specific Security" in Chapter 3 of the *e*Index Administrator User's Guide*.

► To modify `install_ssap.bat`

Before you begin:

- ✓ Complete "Step 6: Modify the Upgrade File"
- 1 On the machine from which you will run `install_ssap.bat`, navigate to the path where the database files are located, and then navigate to the `\server\DBcommon\Client` directory.
- 2 Make a backup copy of the file `install_ssap.bat`.
- 3 Right-click the `install_ssap.bat` file and then select **Edit** from the list that appears. Do not double-click this file to open it.
- 4 Make the following modifications:
 - In the variable `SERVER`, enter the name of the Sybase Adaptive Server for the database.
 - In the variable `DATABASE`, enter the name of the database.
 - The default value for the variable `UIPW` only needs to be changed if you modified the password for the e*Index UI user.

The sample below illustrates the `install_ssap.bat` variables.

```
SET SERVER=SYBASE1
SET DATABASE=ei01
...
SET UIPW=eindex
```

- 5 Save the changes to `install_ssap.bat` and close the file.
- 6 Continue to "Step 8: Upgrade the Database".

Step 8: Upgrade the Database

Once you modify `upgrade.bat`, you can run the file to update the tables, views, indexes, and so on for your e*Index database.

Important! If you are upgrading from a version prior to e*Index 4.5.1, performing this step populates information from `ui_person` and `ui_alias` into `ui_person_x_name` and `ui_alias_x_name`. This may be a time-intensive process requiring several hours, depending on the number of records stored in the database. You can choose not to populate those tables at this time, and do it at a later time if necessary. To prevent the tables from being populated at this time, comment out the following line in the file `UI751.bat` (located in the installation path in `/server/upgrades`) before performing the upgrade.

```
isql -n -S%SERVER% -UUI -P%UIPW% -D%DATABASE%
-ipopulate_x_names.sql >> spool\UI751.log
```

► To upgrade the database

Before you begin:

- ✓ Complete "Step 6: Modify the Upgrade File" and, optionally, "Step 7: Modify **install_ssap.bat**"
- 1 On the machine from which you will run **upgrade.bat**, navigate to the path where the database files are located, and then navigate to the **\server\DBcommon\Client** directory.
- 2 Double-click **upgrade.bat** to run the batch file.
- 3 At the prompt, press any key on the keyboard to complete the installation.
- 4 Review the log files, located in the path you specified for your installation files in **\server\upgrades\Spool**, to ensure that there were no errors during the running of the script.
- 5 If you want to install region-specific security, continue to "Step 9: Run **install_ssap.bat** (optional)". Otherwise, your upgrade is complete.

*Note: If you did not populate the new database tables at this time, make sure you run the file **populate_x_name.sql** (located in the installation path in **lserverlupgrades**) before making the database available for use.*

Step 9: Run **install_ssap.bat** (optional)

After you have run **upgrade.bat** to update the e*Index database, you can install system-specific security by running **install_ssap.bat**. If you already have region-specific security installed, you do not need to run this script.

***Important!** Do not execute this file if you do not want to use region-specific security. Creating these views requires that you also define the regions associated with each system and assign them to user profiles before you can access e*Index information. If you install region-specific security but do not want to use it, run **remove_ssap.bat** to remove the tables. Modify this file in the same way you modified **install_ssap.bat** in "Step 7: Modify **install_ssap.bat**".*

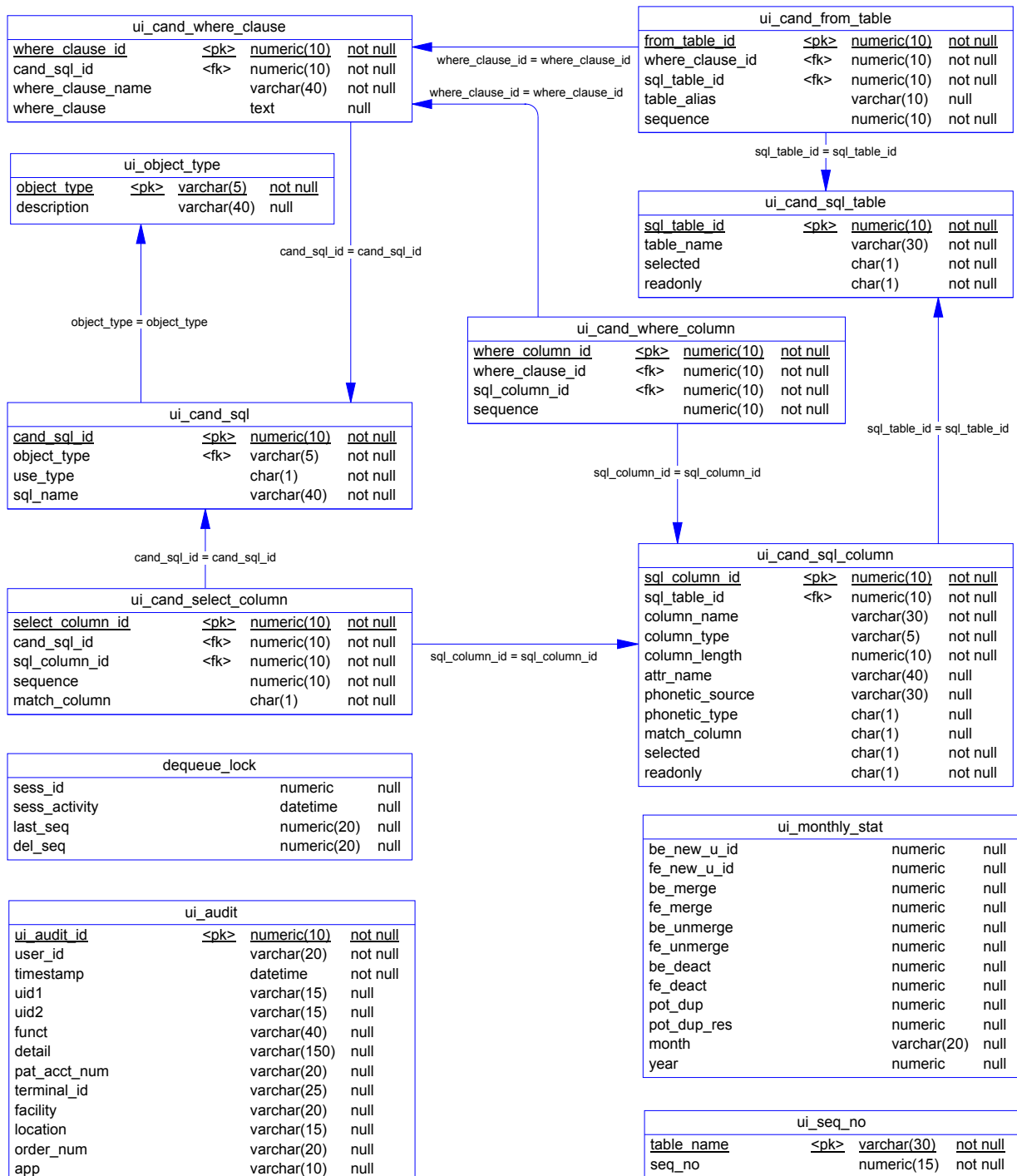
► To run **install_ssap.bat**

Before you begin:

- ✓ Complete "Step 8: Upgrade the Database"
- 1 On the machine from which you will run **install_ssap.bat**, navigate to the path where the database files are located, and then navigate to the **\server\DBcommon\Client** directory.
- 2 Double-click **install_ssap.bat** to run the batch file.
- 3 At the prompt, press any key on the keyboard to complete the installation.

e*Index 4.5.3 Sybase Database Model

The diagrams on the following pages illustrate the table structure for e*Index version 4.5.3 for Sybase. Your actual database may vary slightly from this model depending upon the release you have installed. The *ui_person* and *ui_transaction* tables are displayed on two different pages to better illustrate the connections to these two tables.



ui_config			
<u>interface</u>	<pk>	varchar(255)	not null
<u>code</u>	<pk>	varchar(255)	not null
value		numeric	not null

ui_control			
<u>ctrl_key</u>	<pk>	varchar(10)	not null
description		varchar(50)	null
ctrl_value		varchar(30)	null
create_date		datetime	null

ui_dept			
<u>dept_code</u>	<pk>	varchar(5)	not null
description		varchar(20)	null
date_time		datetime	null

ui_canned_msg			
<u>code</u>	<pk>	varchar(5)	not null
description		varchar(80)	not null
create_date		datetime	null

ui_message			
<u>code</u>	<pk>	varchar(5)	not null
description		varchar(255)	not null
message_box_header		varchar(50)	not null
icon		varchar(15)	null
button		varchar(20)	null
default_button		numeric(1)	null
message_type		varchar(8)	null
application		varchar(10)	null
date_time		datetime	null

ui_zip			
<u>zip_code</u>	<pk>	varchar(8)	not null
zip4		varchar(4)	null
<u>city</u>	<pk>	varchar(30)	not null
<u>state</u>	<pk>	varchar(10)	not null
county		varchar(3)	null
residence_code		varchar(4)	null
create_date		datetime	null

ui_comment			
<u>ui_comment_id</u>	<pk>	numeric(10)	not null
u_id		varchar(15)	not null
type		varchar(8)	not null
timestamp		datetime	not null
comment_text		text	null
ui_org		varchar(15)	null

ui_msg_header			
<u>ui_msg_header_id</u>	<pk>	numeric(20)	not null
queue_id		char(1)	not null
errors		numeric(10)	not null
create_date		datetime	not null
create_userid		varchar(20)	not null

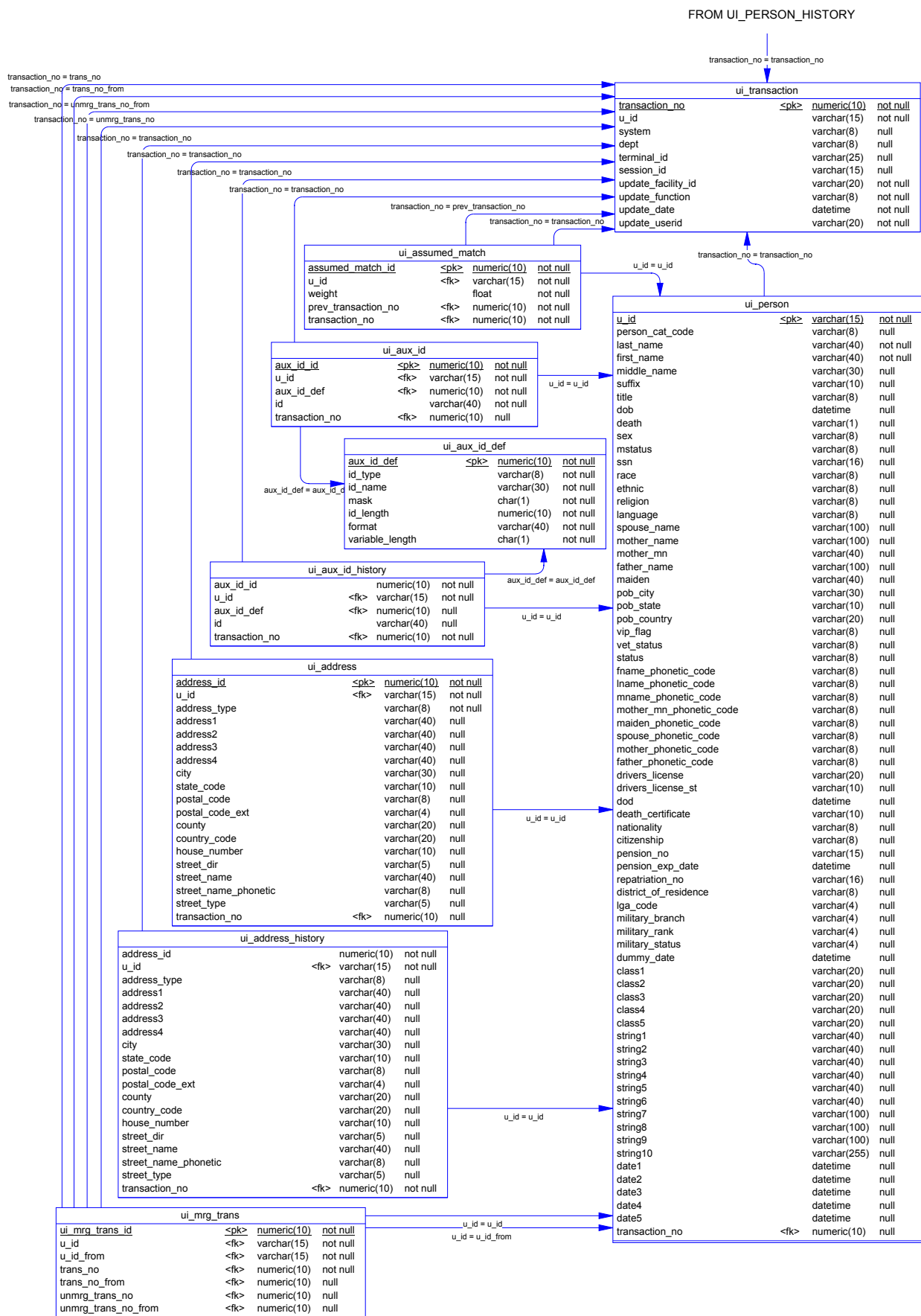
ui_msg_header_id = ui_msg_header_id

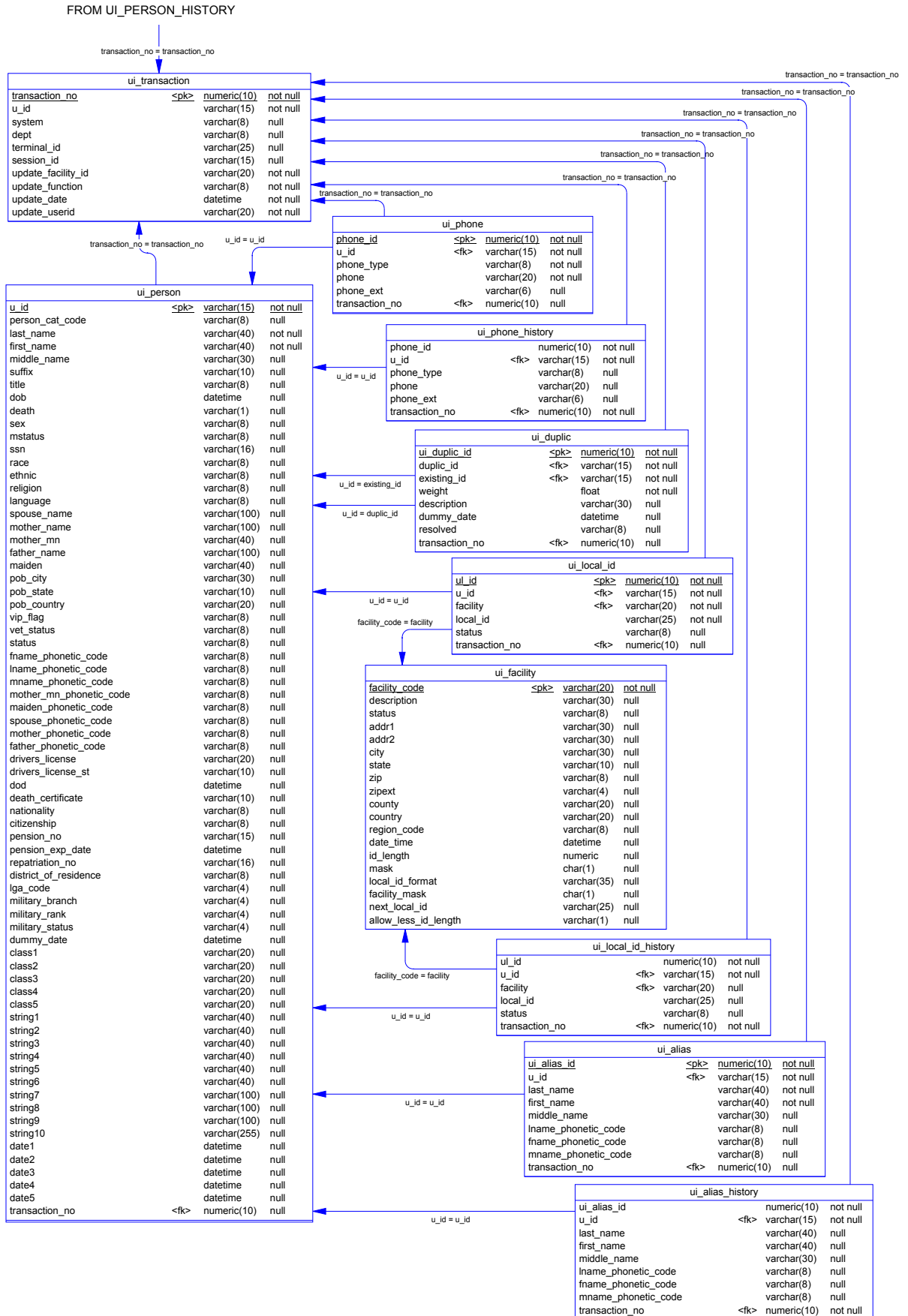
ui_msg_detail			
<u>ui_msg_detail_id</u>	<pk>	numeric(20)	not null
ui_msg_header_id	<fk>	numeric(20)	null
msg		varchar(255)	not null

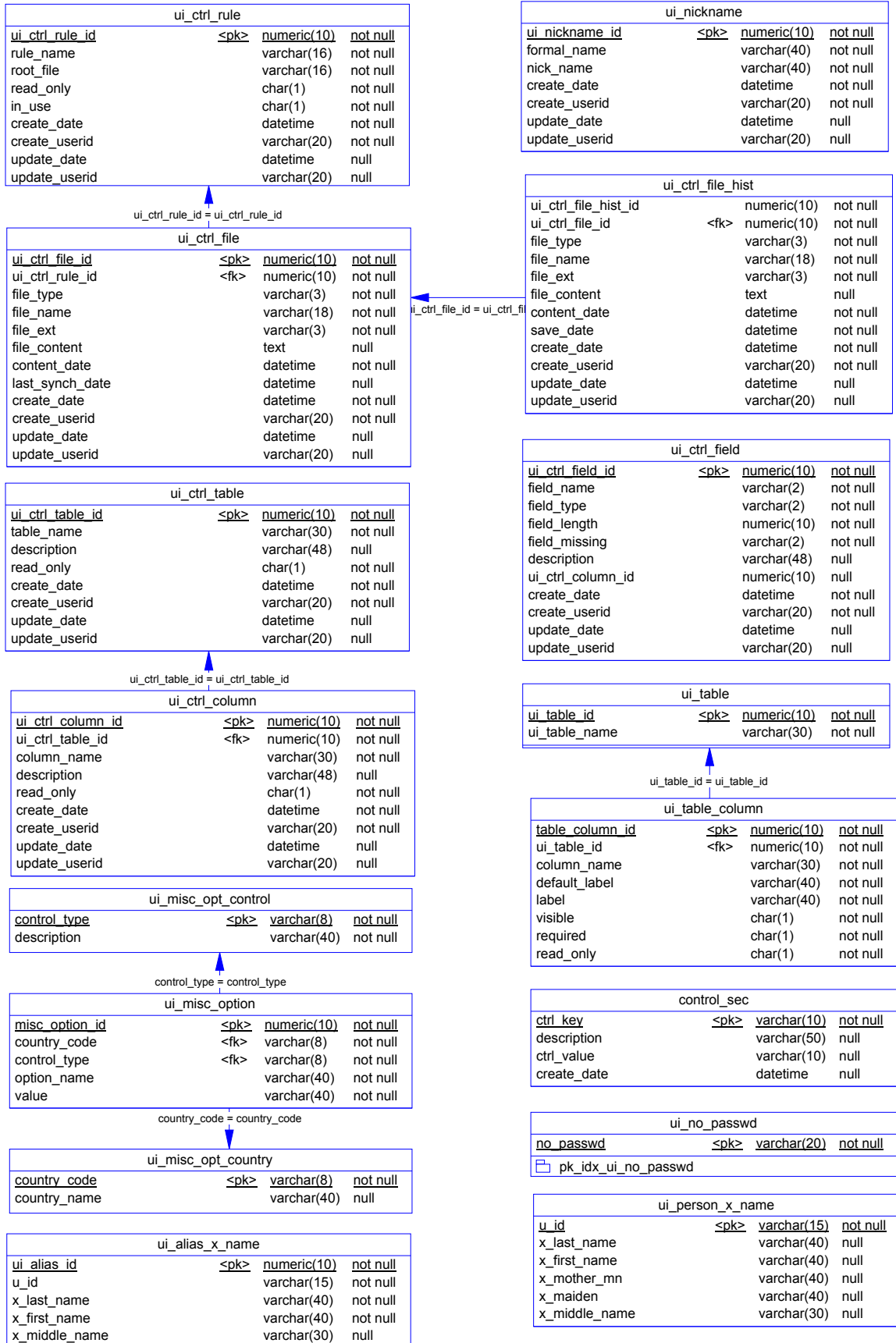
ui_person_history			
<u>ui_person_history_id</u>	<pk>	numeric(10)	not null
u_id		varchar(15)	not null
person_cat_code		varchar(8)	null
last_name		varchar(40)	null
first_name		varchar(40)	null
middle_name		varchar(30)	null
suffix		varchar(10)	null
title		varchar(8)	null
dob		datetime	null
death		varchar(1)	null
sex		varchar(8)	null
mstatus		varchar(8)	null
ssn		varchar(16)	null
race		varchar(8)	null
ethnic		varchar(8)	null
religion		varchar(8)	null
language		varchar(8)	null
spouse_name		varchar(100)	null
mother_name		varchar(100)	null
mother_mn		varchar(40)	null
father_name		varchar(100)	null
maiden		varchar(40)	null
pob_city		varchar(30)	null
pob_state		varchar(10)	null
pob_country		varchar(20)	null
vip_flag		varchar(8)	null
vet_status		varchar(8)	null
status		varchar(8)	null
fname_phonetic_code		varchar(8)	null
lname_phonetic_code		varchar(8)	null
mname_phonetic_code		varchar(8)	null
mother_mn_phonetic_code		varchar(8)	null
maiden_phonetic_code		varchar(8)	null
spouse_phonetic_code		varchar(8)	null
mother_phonetic_code		varchar(8)	null
father_phonetic_code		varchar(8)	null
drivers_license		varchar(20)	null
drivers_license_st		varchar(10)	null
dod		datetime	null
death_certificate		varchar(10)	null
nationality		varchar(8)	null
citizenship		varchar(8)	null
pension_no		varchar(15)	null
pension_exp_date		datetime	null
repatriation_no		varchar(16)	null
district_of_residence		varchar(8)	null
lga_code		varchar(4)	null
military_branch		varchar(4)	null
military_rank		varchar(4)	null
military_status		varchar(4)	null
dummy_date		datetime	null
class1		varchar(20)	null
class2		varchar(20)	null
class3		varchar(20)	null
class4		varchar(20)	null
class5		varchar(20)	null
string1		varchar(40)	null
string2		varchar(40)	null
string3		varchar(40)	null
string4		varchar(40)	null
string5		varchar(40)	null
string6		varchar(40)	null
string7		varchar(100)	null
string8		varchar(100)	null
string9		varchar(100)	null
string10		varchar(255)	null
date1		datetime	null
date2		datetime	null
date3		datetime	null
date4		datetime	null
date5		datetime	null
transaction_no	<fk>	numeric(10)	not null

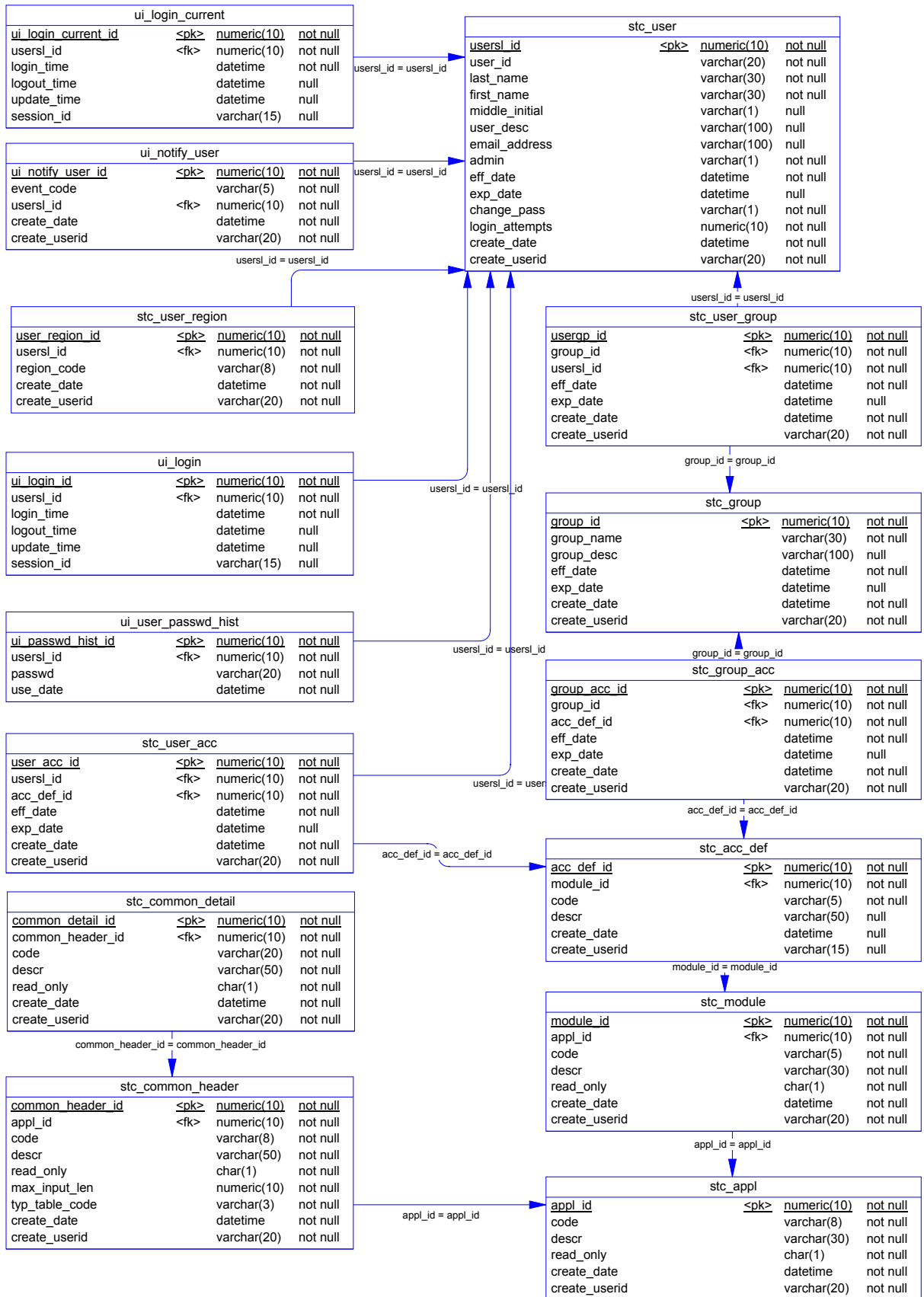
transaction_no = transaction_no

TO UI_TRANSACTION









Upgrading a SQL Server Database

About this Chapter

Overview

This chapter presents the background information and the step-by-step instructions you need to upgrade an e*Index database for Microsoft SQL Server from version 4.5 or higher to version 4.5.3. The following diagram illustrates the major topics in this chapter. For the page numbers on which specific topics appear, see the next page of this chapter.

About the Upgrade

Learn about installing and modifying the database upgrade files

Upgrade the Database

Learn how to install the database upgrade files, and to modify and run the database scripts

Physical Data Model

View a physical data model of the e*Index database

What's Inside

This chapter provides background information and instructions related to the topics listed below.

Learning About the Database Upgrade.....	3-3
Performing the Upgrade	3-5
▶ Step 1: Obtain Database Information	4-5
▶ Step 2: Back up the Current Database.....	4-5
▶ Step 3: Upgrade Microsoft SQL Server	4-6
▶ Step 4: Install the Database and Report Files	4-6
▶ Step 5: Verify the ODBC Data Source.....	4-10
▶ Step 6: Modify the Upgrade File	4-10
▶ Step 7: Modify install_ssap.bat (optional).....	3-11
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e*Index 4.5.3 SQL Server Database Model	3-15

Learning About the Database Upgrade

Overview

This section of the chapter provides background information about the files you install, modify, and execute to upgrade an e*Index database for Microsoft SQL Server from version 4.5 or higher to version 4.5.3.

What do I Need to Know Before I Start?

Make sure you are familiar with your Microsoft SQL Server environment before beginning the upgrade procedure. Know the server name and pathname in which the e*Index database resides, and the name, login ID, and password of the database you are upgrading. It is helpful to be familiar with your SQL Server environment, SQL Server networking, and SQL Server database administration. Also, determine whether you have region-specific security installed, and, if not, whether you want to install it (for more information see chapter 3 of the *e*Index Administrator User's Guide* and the *e*Index Security User's Guide*).

e*Index 4.5.3 is only compatible with SQL Server 7.0. If you are using a previous version of SQL Server, you need to migrate your database to SQL Server 7.0.

How is the Database Upgraded?

Installing the database files creates several SQL scripts used to upgrade the existing database; however, you only need to execute one batch file, **upgrade.bat**, to perform the upgrade. The upgrade batch file calls the SQL scripts to make the necessary changes to the database. This file requires some modification prior to execution. It must be run from a machine running a Windows operating system (95, 98, NT 4.0, or 2000) with Microsoft SQL Server client files installed. You can run the upgrade file from an existing e*Index client workstation or from the database server. If you plan to install region-specific security, you need to modify and run a second file, **install_ssap.bat**. Note that this process can only upgrade a database that is already at version 4.5 or higher.

Important Upgrade Information

If you are upgrading from version 4.5, the upgrade includes running a script that populates two new database tables (*ui_person_x_name* and *ui_alias_x_name*) with existing member information. Depending on the size of your database, this may be quite time-intensive (requiring up to several hours, depending on the number of records stored in the database). You should schedule the upgrade accordingly. Alternatively, you can opt to upgrade the database now, but populate the new tables at a more convenient time (for more information, see the introductory information under "Step 8: Upgrade the Database"). It is crucial that the new tables be populated before the upgraded database is available for general use.

Performing the Upgrade

Overview

To upgrade an e*Index 4.5.3 database on Microsoft SQL Server, you must complete the following steps:

- Step 1: Obtain Database Information
- Step 2: Back up the Current Database
- Step 3: Upgrade SQL Server
- Step 4: Install the Database and Report Files
- Step 5: Verify the ODBC Data Source
- Step 6: Modify the Upgrade File
- Step 7: Modify **install_ssap.bat** (optional)
- Step 8: Upgrade the Database
- Step 9: Run **install_ssap.bat** (optional)

***Note:** If you chose to install all components of e*Index when you installed the e*Index schema files, you should have already completed steps 1 through 4. You can begin with "Step 5: Verify the ODBC Data Source".*

Step 1: Obtain Database Information

Before beginning, gather information about your database, such as the database path, the database name, and the system login and password for your database. You should also know the path to your SQL Server home directory. If you customized the rule set files for the Vality matching algorithm, know the location of the most current rule set files. If you currently do not have region-specific security installed, determine whether to install it now. Region-specific security is described in Chapter 3 of the *e*Index Security User's Guide* and the *e*Index Administrator User's Guide*.

Because of the complex nature of modifying a database, we recommend that a database administrator perform the following steps.

Step 2: Back up the Current Database

Prior to making any changes to your e*Index database, make a complete backup of your current database. For more information on performing SQL Server database backups, see the appropriate Microsoft SQL Server documentation.

Step 3: Upgrade Microsoft SQL Server

Before you install the e*Index database files, Microsoft SQL Server 7.0 must be installed on the database server. If you are currently running a previous version of SQL Server, you need to perform the upgrade before continuing. If your SQL Server home directory changes during the upgrade, make a note of the new path. For information about upgrading SQL Server, refer to the appropriate upgrade documentation for SQL Server.

***Important!** It is crucial that the Microsoft SQL Server installation is operational prior to performing the following steps.*

Step 4: Install the Database and Report Files

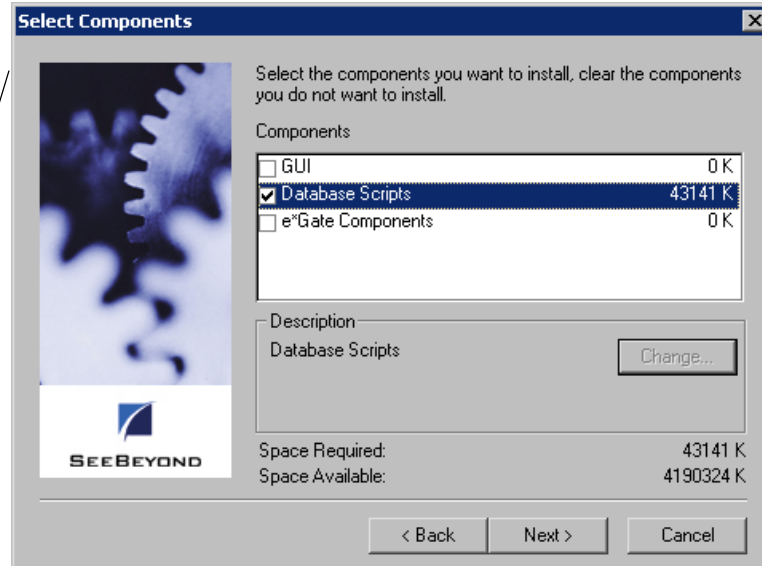
Installing the database and report files is very similar to the process you followed to install the e*Index schema files.

▶ To install the database and report files

Before you begin:

- ✓ Complete "Step 3: Upgrade Microsoft SQL Server"
 - ✓ Make sure the e*Index installation CD-ROM is inserted into the CD-ROM drive of your database server
- 1 Follow steps 1 through 7 under "Step 5: Install the e*Index Schema Files" in Chapter 2, "Installing the e*Index Schema Files". The Select Components window should now be visible.
 - 2 On the Select Components window, select the check box next to **Database Scripts**.

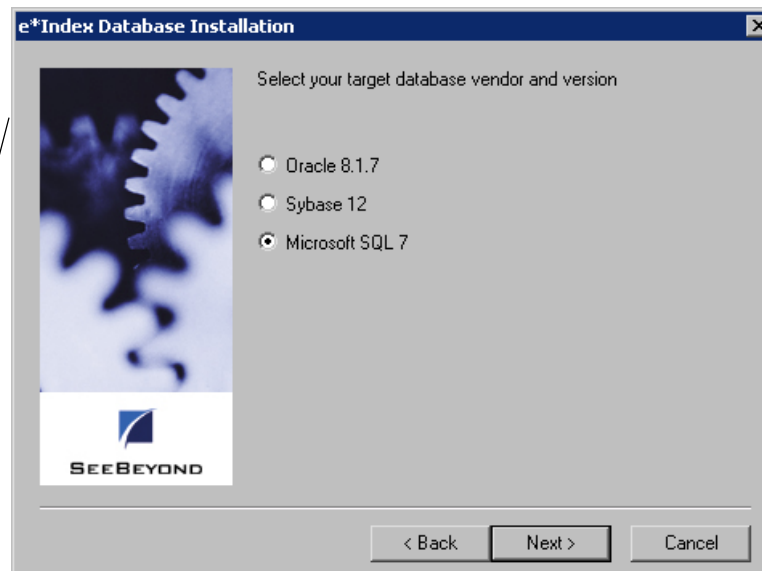
Select the components you want to install on the Select Components window



Next >
Next button

3 Click **Next**. The e*Index Database Installation window appears.

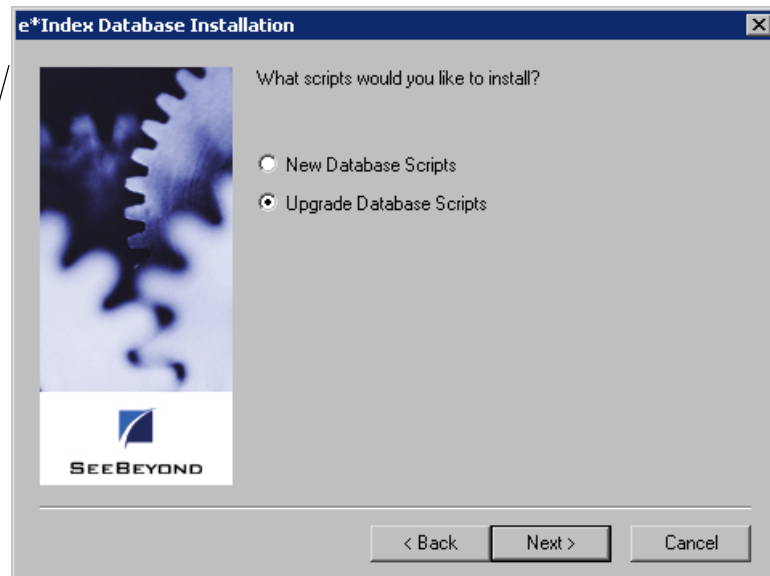
On the e*Index Database Installation window, specify Microsoft SQL Server for the database platform



Next >
Next button

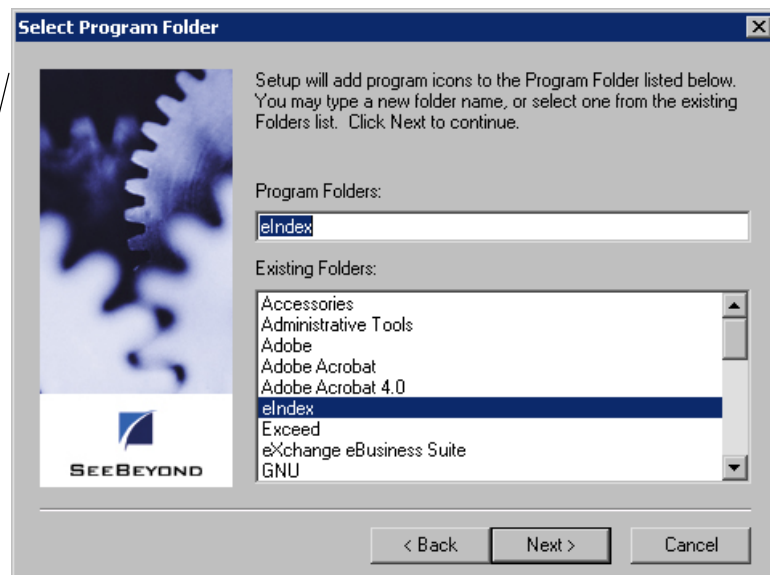
4 Select **Microsoft SQL 7**, and then click **Next**. A second e*Index Database Installation window appears.

Specify whether to install the scripts to install a new database or the scripts to upgrade an existing database

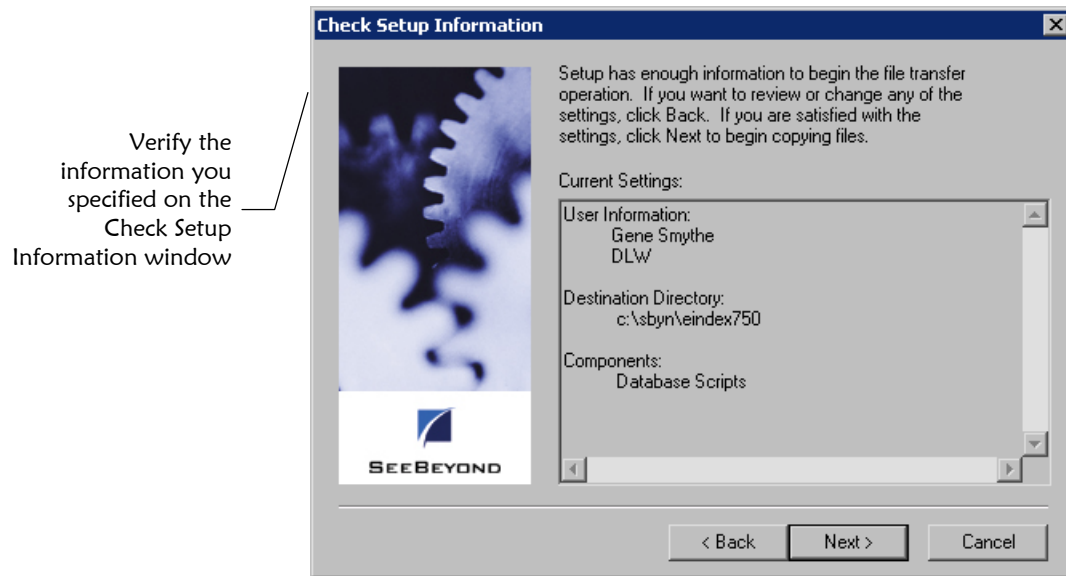


- 5 Select **New Database Scripts**, and then click **Next**. The Select Program Folder window appears.

Specify the folder in which to install the program icons on the Select Program Folder window



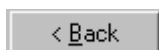
- 6 Enter the name of the folder into which you want to install the program icons or accept the default name, and then click **Next**. The Check Setup Information window appears.



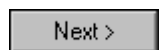
7 Verify the information you specified, and do one of the following:

*To change any of the options you selected, click **Back**, and make the necessary changes.*

*To continue with the installation, click **Next**. When all files are installed, the Setup Complete window appears.*

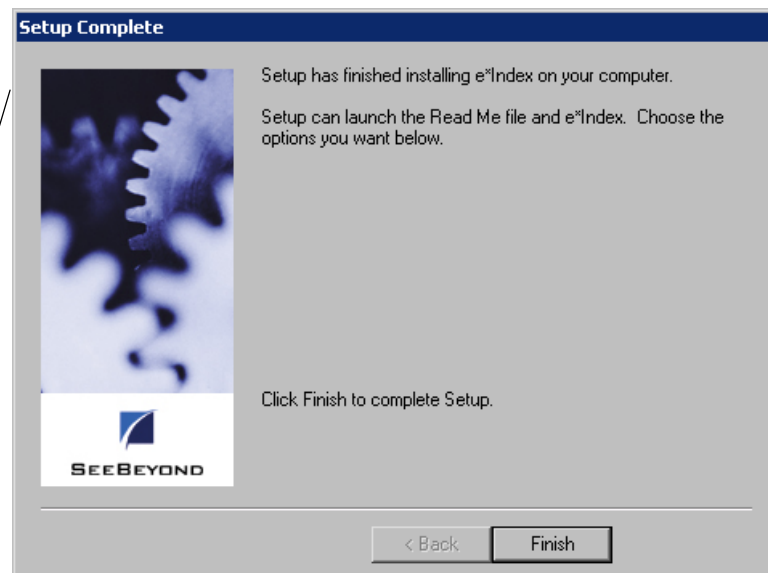


Back button



Next button

The Setup Complete window indicates that the database files have been installed



Finish button

8 Click **Finish** to complete the setup process.

- 9 To view the database files that were installed:
 - Open Windows Explorer and navigate to the path you specified for the installation files.
 - Open the `\server\DBcommon` subdirectory. You will find two subdirectories, **Server** and **Client**, and one file, `defs.sql`. The **Client** directory contains the batch files, `upgrade.bat`, `install_ssap.bat`, and `remove_ssap.bat`. The **Server** directory contains the files you need to create the database instance on your server.
- 10 Continue to "Step 5: Verify the ODBC Data Source".

Step 5: Verify the ODBC Data Source

Verify that an ODBC data source for the e*Index database has been defined on the computer you are using for the upgrade. The data source specifies the driver used to connect to the database and additional information about the database. ODBC data source definitions are accessed through the **Data Sources (ODBC)** option in the Control Panel.

Step 6: Modify the Upgrade File

The file `upgrade.bat` is a batch file that updates the database tables, triggers, indexes, and so on. You need to modify certain variables in this file that tell the script how to locate the database instance and installation scripts.

► To modify the upgrade file

Before you begin:

- ✓ Complete "Step 5: Verify the ODBC Data Source"
- 1 Navigate to the path where the database files are located on the database server, and then navigate to the `server\DBcommon\Client` directory.
 - 2 Make a backup copy of the file `upgrade.bat`.
 - 3 Right-click the `upgrade.bat` file and then select **Edit** from the list that appears. Do not double-click this file to open it.
 - 4 Make the following modifications:
 - In the variable **SERVER**, enter the name of the machine on which the database will reside.
 - In the variable **DATABASE**, enter the name of the database.

- In the variable **ODBC_DSN**, enter the name of the ODBC data source you defined in the ODBC Data Source Administrator.
- In the variable **INSTALLDRIVE**, enter the drive on which the database installation files are located.
- In the variable **INSTALL_HOME**, enter the path in which the database files are located. Do not include the drive designation in this path, and do not include the subdirectories **\server\DBcommon\Client**.
- In the variable **SYSTEMPW**, enter the system administrator password for SQL Server.
- Only modify the default value for **UIPW** if you have changed the password for the **UI e*Index** user.

The sample below illustrates the above variables.

```
SET SERVER=SQLSVR
SET DATABASE=ei01
SET ODBC_DSN=EI01
SET INSTALLDRIVE=C:
SET INSTALL_HOME=\TEMP\INSTALL

...
SET SYSTEMPW=eindex
SET UIPW=UI
```

5 Save the changes to **upgrade.bat** and close the file.

6 Do one of the following:

*If you want to install region-specific security in the database, Continue to "Step 7: Modify **install_ssap.bat**". If you already have region-specific security installed, you do not need to run this file.*

If you do not want to install region-specific security in the database, skip to "Step 8: Upgrade the Database".

Step 7: Modify **install_ssap.bat** (optional)

Running **install_ssap.bat** installs the views you need in order to use the region-specific security capabilities of **e*Index**. You do not need to modify or run this file if you do not want to use this capability, or if it was installed when the database was created.



For more information about region-specific security, see "What is Region-Specific Security?" in Chapter 3 of the *e*Index Security User's Guide* and "About Region-Specific Security" in Chapter 3 of the *e*Index Administrator User's Guide*.

► To modify `install_ssap.bat`

Before you begin:

- ✓ Complete "Step 6: Modify the Upgrade File"
- 1 Navigate to the path where the database files are located on the database server, and then navigate to the `\server\DBcommon\Client` directory.
- 2 Make a backup copy of the file `install_ssap.bat`.
- 3 Right-click the `install_ssap.bat` file and then select **Edit** from the list that appears.
- 4 Make the following modifications:
 - In the variable **SERVER**, enter the name of the machine on which the database will reside.
 - In the variable **DATABASE**, enter the name of the database.
 - You should not need to modify the default value for the variable **UIPW** unless you changed it after the database was created.

The sample below illustrates the variables you need to modify.

```
SET SERVER=SQLSVR
SET DATABASE=ei01
...
SET UIPW=UI
```

- 5 Save the changes to `install_ssap.bat` and close the file.
- 6 Continue to "Step 8: Upgrade the Database".

Step 8: Upgrade the Database

Once you have modified all the necessary files, you can run `upgrade.bat` to update the tables, views, indexes, and so on for your e*Index database.

Important! *If you are upgrading from version 4.5, performing this step populates information from `ui_person` and `ui_alias` into `ui_person_x_name` and `ui_alias_x_name`. This may be a time-intensive process requiring several hours, depending on the number of records stored in the database. You can choose not to populate those tables at this time, and do it at a later time if necessary. To prevent the tables from being populated at this time, comment out the following line in the file `UI751.bat` (located in the installation path in `!server!upgrades`) before performing the upgrade.*

```
@osql -n -S%SERVER% -UUI -P%UIPW% -d%DATABASE%
-ipopulate_x_names.sql >> spool/UI751.log
```

► To upgrade the database

Before you begin:

- ✓ Complete "Step 6: Modify the Upgrade File" and, optionally, "Step 7: Modify **install_ssap.bat**"
- 1 Navigate to the path where the database files are located on the database server, and then navigate to the **server\DBcommon\Client** directory.
- 2 Double-click **upgrade.bat** to run the batch file.
- 3 Log files are created in the path you specified for your installation files in **\server\upgrades\Spool**. Review each log file to ensure that there were no errors during the running of the script.
- 4 At the prompt, press any key on the keyboard to complete the installation.
- 5 If you want to install region-specific security in the database, continue to "Step 9: Run **install_ssap.bat** (optional)". Otherwise, your database installation is complete.

Note: If you did not populate the new database tables at this time, make sure you run the file **populate_x_name.sql** (located in the installation path in **/server/upgrades**) before making the database available for use.

Step 9: Run **install_ssap.bat** (optional)

After you have run **upgrade.bat** to update the e*Index database, you can install system-specific security by running **install_ssap.bat**. You do not need to run this file you are not using region-specific security or if it was installed when the database was created.

Important! Do not execute this file if you do not want to use region-specific security. Creating these views requires that you also define the regions associated with each system and assign them to user profiles before you can access e*Index information. If you install region-specific security but do not want to use the functionality, you can remove it by running **remove_ssap.bat**. You need to modify this file in the same way you modified **install_ssap.bat** in "Step 7: Modify **install_ssap.bat**" earlier in this chapter.

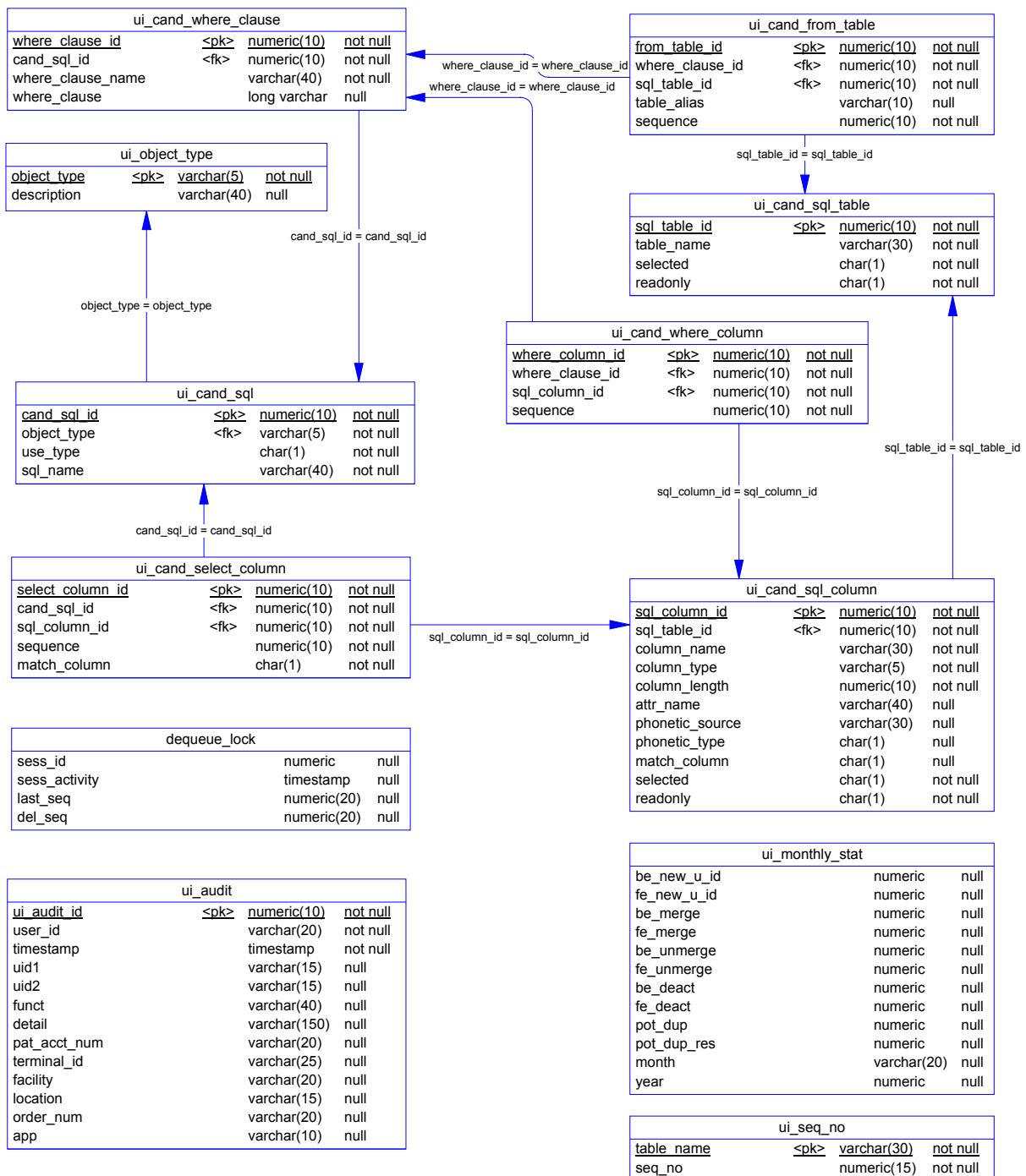
▶ **To run install_ssap.bat**

Before you begin:

- ✓ Complete "Step 8: Upgrade the Database"
- 1 Navigate to the path where the database files are located on the database server, and then navigate to the **server\DBcommon\Client** directory.
 - 2 Double-click **install_ssap.bat** to run the batch file.
 - 3 At the prompt, press any key on the keyboard to complete the installation.

e*Index 4.5.3 SQL Server Database Model

The diagrams on the following pages illustrate the table structure for e*Index version 4.5.3 for SQL Server. Your actual database may vary slightly from this model depending on the release you have installed. The *ui_person* and *ui_transaction* tables are displayed on two different pages to better illustrate the connections to these two tables.



ui_config			
<u>interface</u>	<pk>	varchar(255)	not null
<u>code</u>	<pk>	varchar(255)	not null
value		numeric	not null

ui_control			
<u>ctrl_key</u>	<pk>	varchar(10)	not null
description		varchar(50)	null
ctrl_value		varchar(30)	null
create_date		timestamp	null

ui_dept			
<u>dept_code</u>	<pk>	varchar(5)	not null
description		varchar(20)	null
date_time		timestamp	null

ui_canned_msg			
<u>code</u>	<pk>	varchar(5)	not null
description		varchar(80)	not null
create_date		timestamp	null

ui_message			
<u>code</u>	<pk>	varchar(5)	not null
description		varchar(255)	not null
message_box_header		varchar(50)	not null
icon		varchar(15)	null
button		varchar(20)	null
default_button		numeric(1)	null
message_type		varchar(8)	null
application		varchar(10)	null
date_time		timestamp	null

ui_zip			
<u>zip_code</u>	<pk>	varchar(8)	not null
zip4		varchar(4)	null
<u>city</u>	<pk>	varchar(30)	not null
<u>state</u>	<pk>	varchar(10)	not null
county		varchar(3)	null
residence_code		varchar(4)	null
create_date		timestamp	null

ui_comment			
<u>ui_comment_id</u>	<pk>	numeric(10)	not null
u_id		varchar(15)	not null
type		varchar(8)	not null
timestamp		timestamp	not null
comment_text		long varchar	null
ui_org		varchar(15)	null

ui_msg_header			
<u>ui_msg_header_id</u>	<pk>	numeric(20)	not null
queue_id		char(1)	not null
errors		numeric(10)	not null
create_date		timestamp	not null
create_userid		varchar(20)	not null

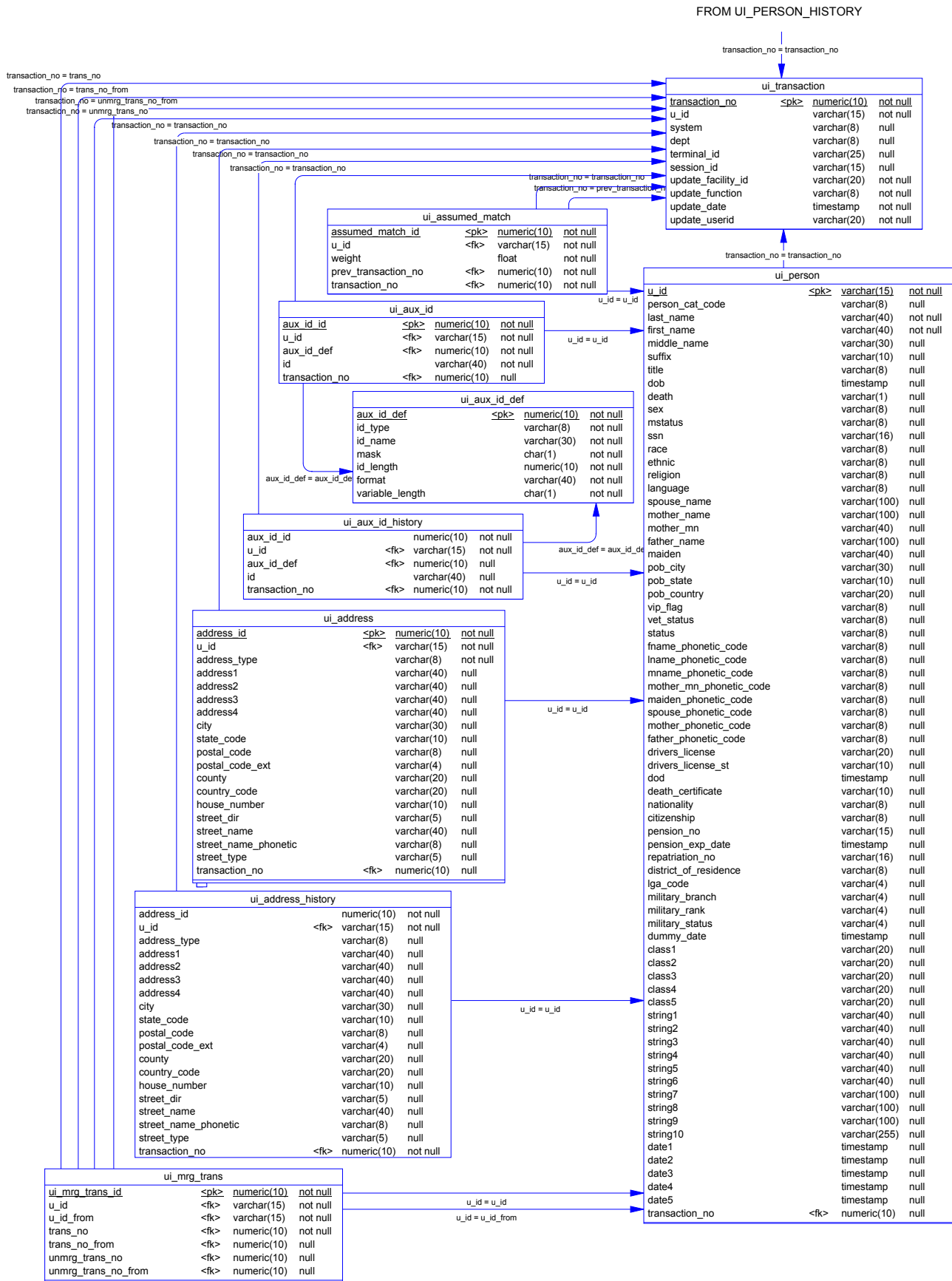
ui_msg_header_id = ui_msg_header_id

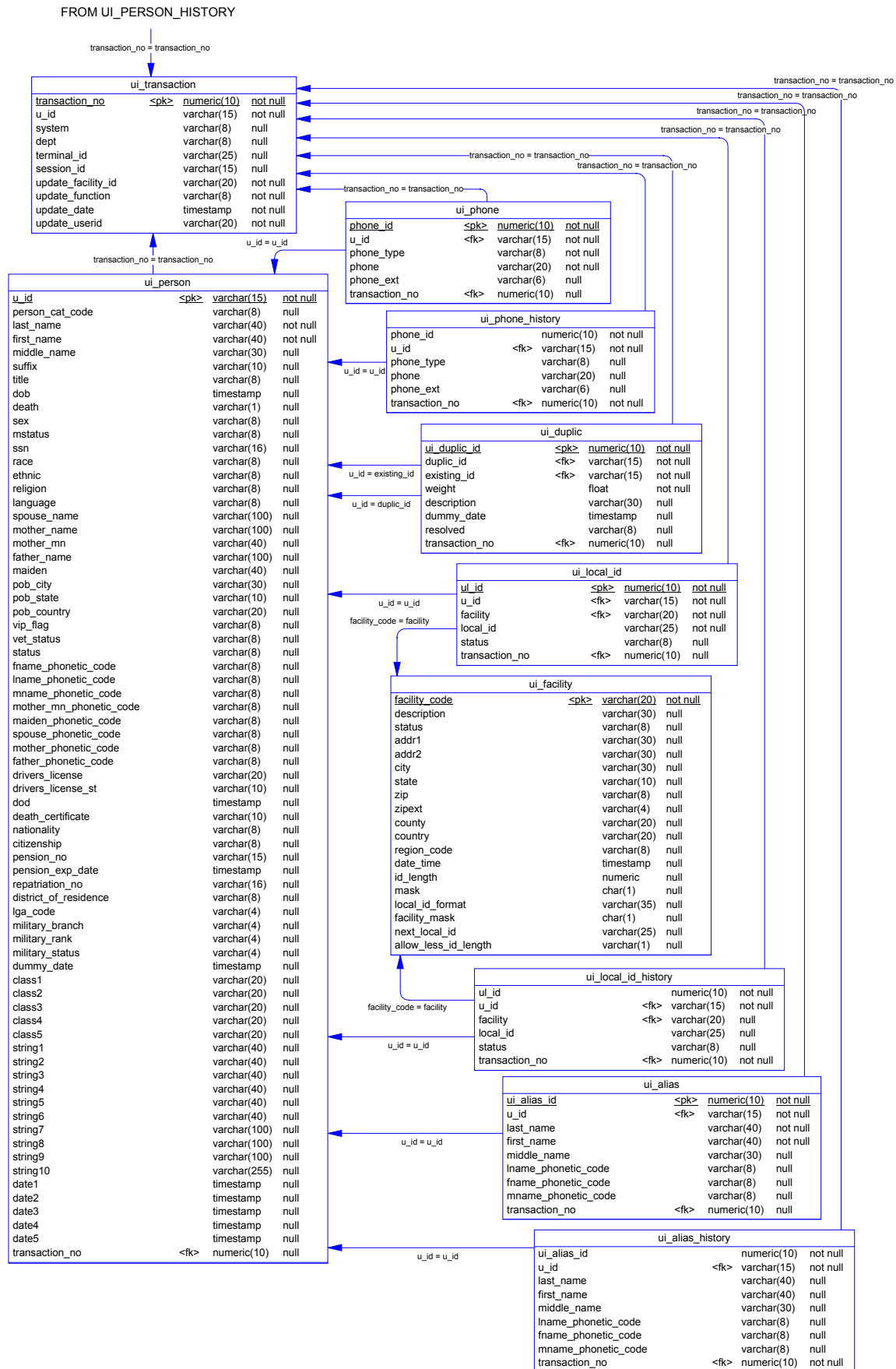
ui_msg_detail			
<u>ui_msg_detail_id</u>	<pk>	numeric(20)	not null
ui_msg_header_id	<fk>	numeric(20)	null
msg		varchar(255)	not null

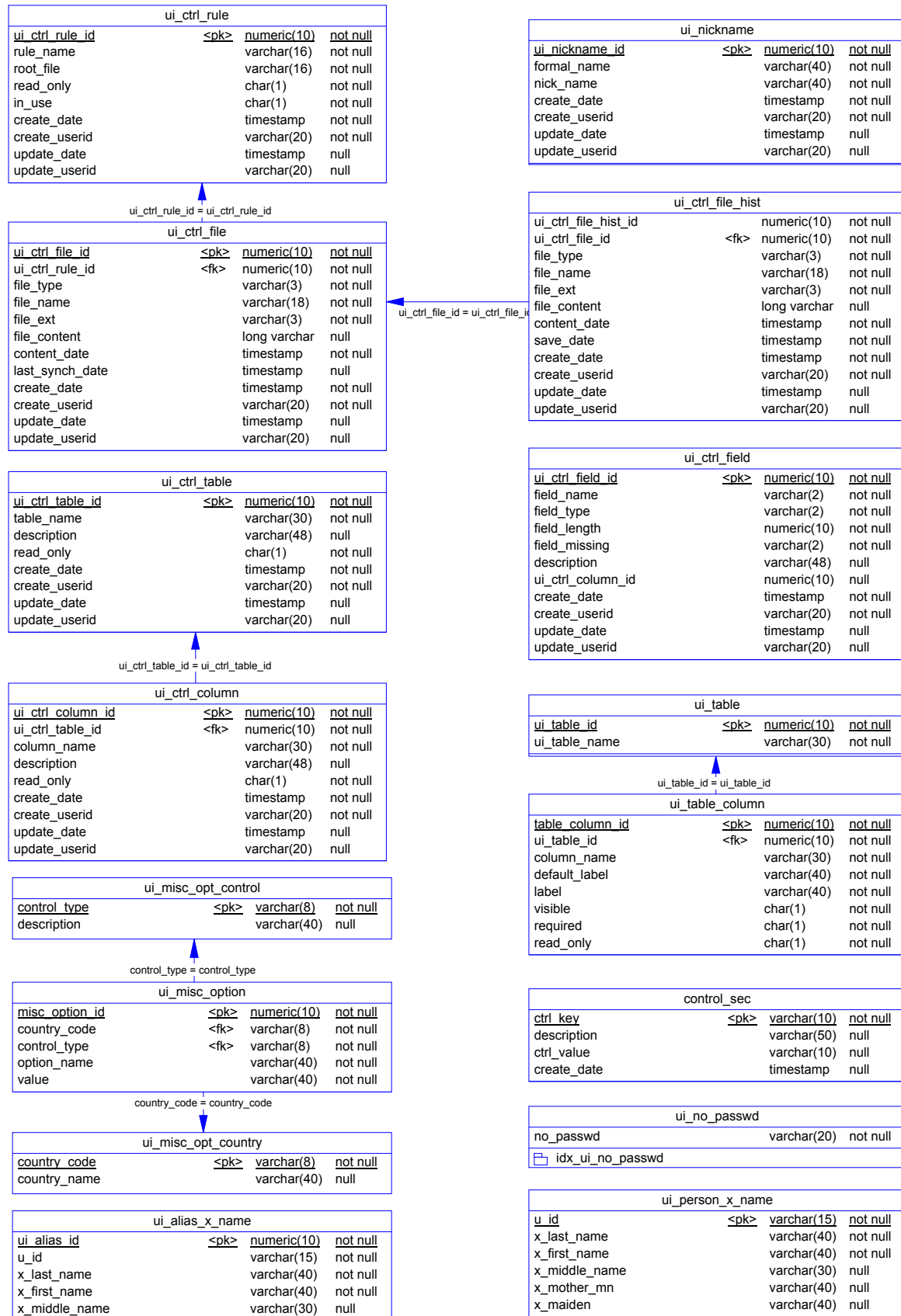
ui_person_history			
<u>ui_person_history_id</u>	<pk>	numeric(10)	not null
u_id		varchar(15)	not null
person_cat_code		varchar(8)	null
last_name		varchar(40)	null
first_name		varchar(40)	null
middle_name		varchar(30)	null
suffix		varchar(10)	null
title		varchar(8)	null
dob		timestamp	null
death		varchar(1)	null
sex		varchar(8)	null
mstatus		varchar(8)	null
ssn		varchar(16)	null
race		varchar(8)	null
ethnic		varchar(8)	null
religion		varchar(8)	null
language		varchar(8)	null
spouse_name		varchar(100)	null
mother_name		varchar(100)	null
mother_mn		varchar(40)	null
father_name		varchar(100)	null
maiden		varchar(40)	null
pob_city		varchar(30)	null
pob_state		varchar(10)	null
pob_country		varchar(20)	null
vip_flag		varchar(8)	null
vet_status		varchar(8)	null
status		varchar(8)	null
fname_phonetic_code		varchar(8)	null
lname_phonetic_code		varchar(8)	null
mname_phonetic_code		varchar(8)	null
mother_mn_phonetic_code		varchar(8)	null
maiden_phonetic_code		varchar(8)	null
spouse_phonetic_code		varchar(8)	null
mother_phonetic_code		varchar(8)	null
father_phonetic_code		varchar(8)	null
drivers_license		varchar(20)	null
drivers_license_st		varchar(10)	null
dod		timestamp	null
death_certificate		varchar(10)	null
nationality		varchar(8)	null
citizenship		varchar(8)	null
pension_no		varchar(15)	null
pension_exp_date		timestamp	null
repatriation_no		varchar(16)	null
district_of_residence		varchar(8)	null
lga_code		varchar(4)	null
military_branch		varchar(4)	null
military_rank		varchar(4)	null
military_status		varchar(4)	null
dummy_date		timestamp	null
class1		varchar(20)	null
class2		varchar(20)	null
class3		varchar(20)	null
class4		varchar(20)	null
class5		varchar(20)	null
string1		varchar(40)	null
string2		varchar(40)	null
string3		varchar(40)	null
string4		varchar(40)	null
string5		varchar(40)	null
string6		varchar(40)	null
string7		varchar(100)	null
string8		varchar(100)	null
string9		varchar(100)	null
string10		varchar(255)	null
date1		timestamp	null
date2		timestamp	null
date3		timestamp	null
date4		timestamp	null
date5		timestamp	null
transaction_no	<fk>	numeric(10)	not null

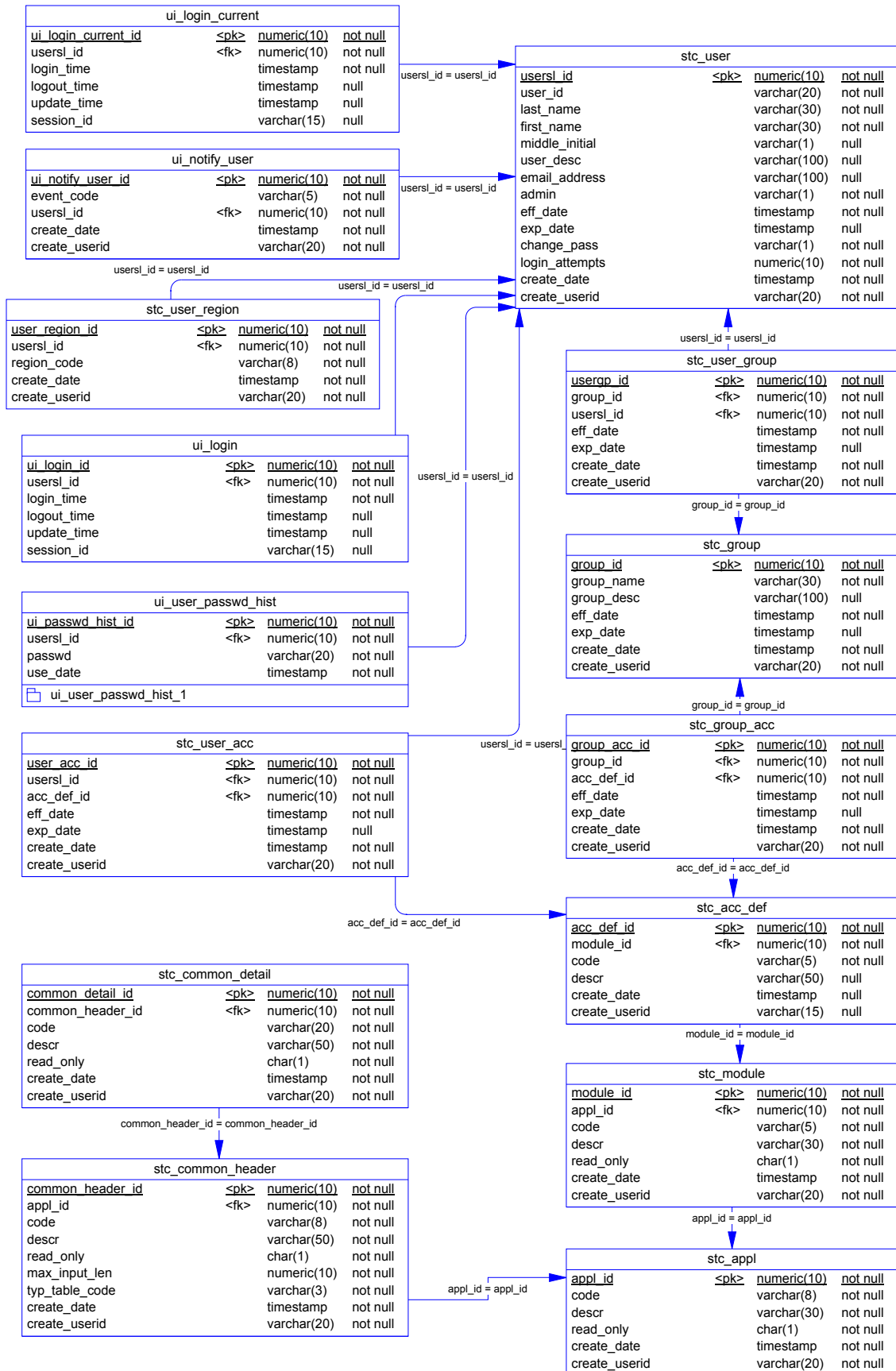
transaction_no = transaction_no

TO UI_TRANSACTION









Upgrading the GUI and Publications

About this Chapter

Overview

This chapter presents background information and step-by-step instructions for upgrading the e*Index GUI to version 4.5.3. It also includes information about using the electronic documentation for e*Index.

The following diagram illustrates the contents of each major topic in this chapter. For the page numbers on which specific topics appear, see the next page of this chapter.

About the GUI and Publications	Learn about the GUI files and the e*Index Electronic Library
Upgrade the GUI and Publications	Learn how to upgrade the GUI and publications, and to make any required modifications to the GUI files

What's Inside

This chapter provides background information and instructions related to the topics listed below.

Learning About Upgrade Tasks.....	6-3
Performing the Upgrade	6-5
▶ Step 1: Back up stc_ua.ini	6-5
▶ Step 2: Upgrade the Database Software.....	6-5
▶ Step 3: Uninstall the Current e*Index GUI.....	6-5
▶ Step 4: Install the New GUI	6-6
▶ Step 5: Copy the Publications.....	6-9
▶ Step 6: For Oracle Only, Verify tnsnames.ora	6-10
▶ Step 7: For Sybase Only, Verify sql.ini	6-11
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▶ Step 9: Restore stc_ua.ini	6-11
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▶ Step 11: Reboot the Computer (Windows 95 and 98 only).....	6-12

Learning About Upgrade Tasks

Overview

This section of the chapter provides background information about upgrading the e*Index GUI and the online publications.

What are the System Requirements?

In order to successfully install and use the e*Index GUI, the hardware and software items listed below are required. If you are currently running the e*Index GUI, your computer should already meet these requirements.

■ Client Hardware

- ☞ Windows 95, Windows 98, or Windows NT 4.0 SP6, Windows 2000 SP2
- ☞ Pentium 90 or higher
- ☞ 32MB Memory
- ☞ 30MB Disk Space
- ☞ VGA or higher
- ☞ NIC Cards
- ☞ Valid TCP/IP Addresses
- ☞ Network Connections
- ☞ CD-ROM Drive

■ Client Software

- ☞ Database Client Software
 - Oracle 8.1.7 Client for an Oracle database
 - Sybase 12.0 Client for a Sybase database
 - Microsoft SQL Server 7.0 for a SQL Server database
- ☞ Internet Explorer 4.01 or higher (for online help)
- ☞ e*Index 4.5.3

What is the Quality Workstation?

The e*Index Quality Workstation is the client machine on which you install the e*Index GUIs. From this workstation, you can add, delete, modify, and monitor the data in your e*Index database. On the Quality Workstation, you can merge and unmerge member records, search for potential duplicates in the database, compare records, update local ID and alias information, create comments, and so on. You can also print reports and print the current active window for future reference.

What Environment Variables are Created?

When you upgrade the e*Index GUI, a new environment variable, INTBIN, is created. This variable tells the GUI where the \codeset directory is located. This folder contains the codeset mapping files used by the Vality matching algorithm. By default, INTBIN is to the current working directory ("."). If you modify your file structure, you may need to modify these two variables.

How Do I View the Publications?

Once you copy the e*Index electronic library to your workstation, you can view the documents online using Adobe® Acrobat® Reader. You can also print the files to any postscript printer. If you do not have Acrobat Reader installed on your Workstation, you can install it from the Internet at <http://www.adobe.com>. For more information on the e*Index electronic library, read the **Readme.wri** file included with your publications.

The electronic library includes links between documents, a navigational document named **Welcome.pdf**, an index that allows you to search among all publications, and a feedback form for you to provide us with your comments. The library requires an additional 40MB of disk space.

Performing the Upgrade

Overview

To upgrade the e*Index GUI to version 4.5.3, complete the following steps:

- Step 1: Back up **stc_ua.ini**
- Step 2: Upgrade Oracle
- Step 3: Uninstall the Current e*Index GUI
- Step 4: Install the new GUI
- Step 5: Copy the Publications
- Step 6: For Oracle Only, Verify **tnsnames.ora**
- Step 7: For Sybase Only, Verify **sql.ini**
- Step 8: For SQL Server Only, Verify the ODBC Data Source
- Step 9: Restore **stc_ua.ini**
- Step 10: Register Online Help Support Files
- Step 11: Reboot the Computer

Step 1: Back up stc_ua.ini

Before installing the upgrade files, make a backup copy of the initialization file, **stc_ua.ini**, to ensure that the new installation does not remove your customizations. This file is located in the e*Index GUI home directory, and should be copied to a temporary directory. After you install the new GUI, you can copy the database stanzas that you have currently defined into the new **stc_ua.ini** file.

Step 2: Upgrade the Database Software

You may already have the correct version of database software installed on the client workstations for e*Index. The required version of Oracle Client for e*Index 4.5.3 is version 8.1.7; Sybase Client is version 12.0; and SQL Server is version 7.0. Refer to the appropriate Oracle, Sybase, or SQL Server documentation for more information about upgrading the software.

Step 3: Uninstall the Current e*Index GUI

Once you back up **stc_ua.ini**, remove the existing e*Index GUI. To uninstall the e*Index GUI, you can simply delete all files in the e*Index GUI home directory, or, if no other e*Index components are installed on the client

machine, you can use the Add/Remove Programs function of the Control Panel to remove e*Index.

Step 4: Install the GUI

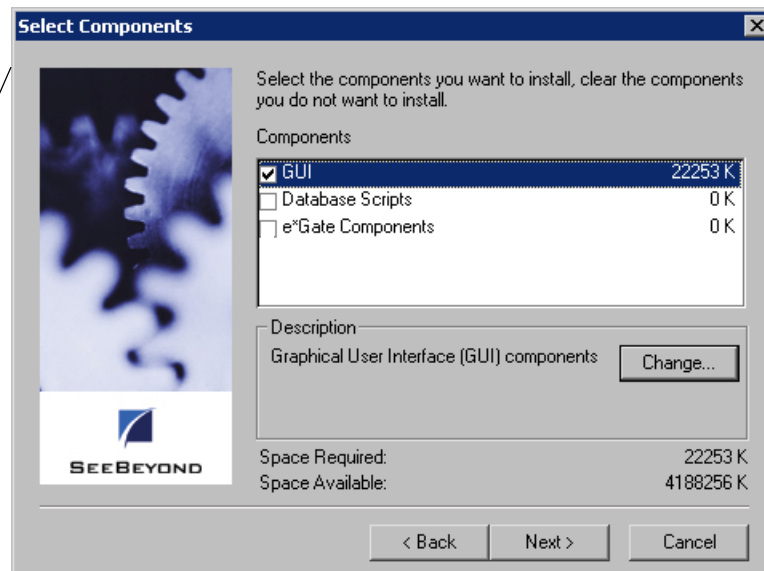
Installing the GUI is very similar to the process you followed to install the e*Gate schema files and the database upgrade files. If you installed all of the upgrade files at the time you installed the e*Index schema files, you can skip to "Step 5: Copy the Publications".

► To install the GUI files

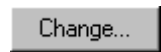
Before you begin:

- ✓ Make sure that your workstation meets the requirements listed on page 6-3 of this chapter
 - ✓ Complete "Step 1: Back up stc_ua.ini" through "Step 3: Uninstall the Current e*Index GUI"
- 1 Follow steps 1 through 7 under "Step 5: Install the e*Index Schema Files" in Chapter 2, "Upgrading the e*Index Schema Files." The Select Components window should now be visible.

Use the Select Components window to specify the components you want to install

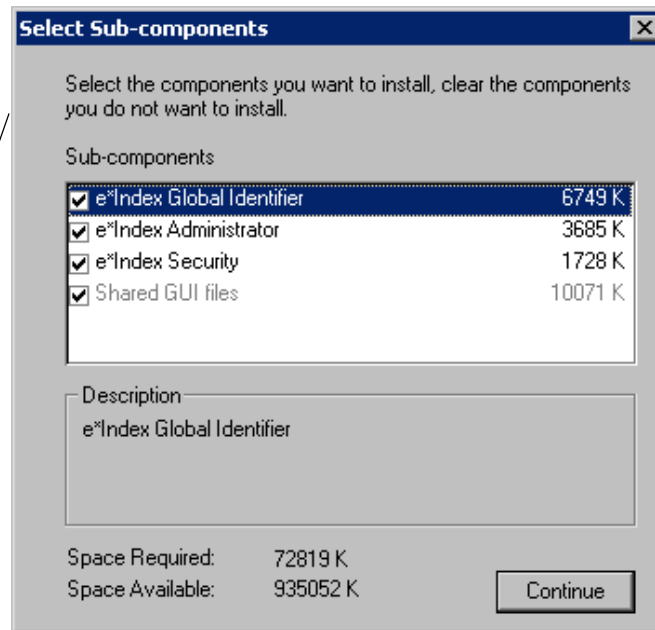



- 2 On the Select Components window, select **GUI**.


Change button

- 3 To verify which GUI components are being installed, highlight **GUI**, and then click **Change**. The Select Sub-components window appears.


You can select which GUI files to install from the Select Sub-components window




Continue button

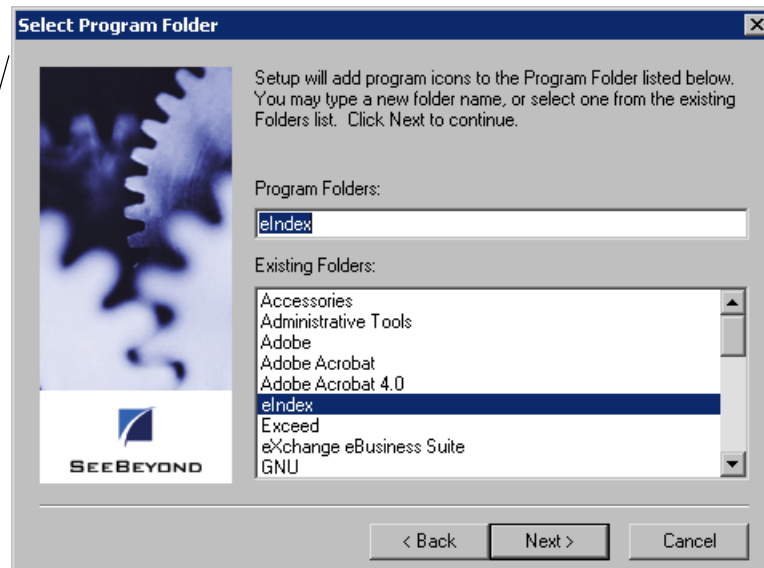
- 4 Select only the applications you want to install, and then click **Continue**.

*Note: If you are installing e*Index on a non-administrator workstation, you should only select e*Index Global Identifier.*


Next button

- 5 On the Select Components window, click **Next**. The Select Program Folder window appears.

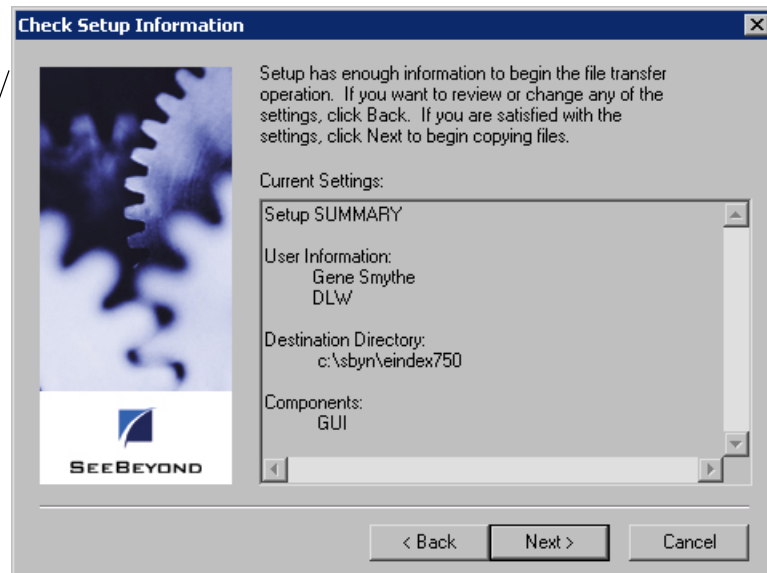
Select a folder for the program icons on the Select Program Folder window




Next button

- 6 Specify the folder into which you want to install the program icons or accept the default name, and then click **Next**. The Check Setup Information window appears.

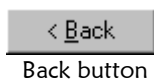
Verify the installation information on the Check Setup Information window



7 Verify the information you specified, and do one of the following:

*To change any of the options you selected, click **Back**, and make the necessary changes.*

*To continue with the installation, click **Next**. When the GUI files are installed, the Setup Complete window appears.*

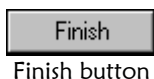
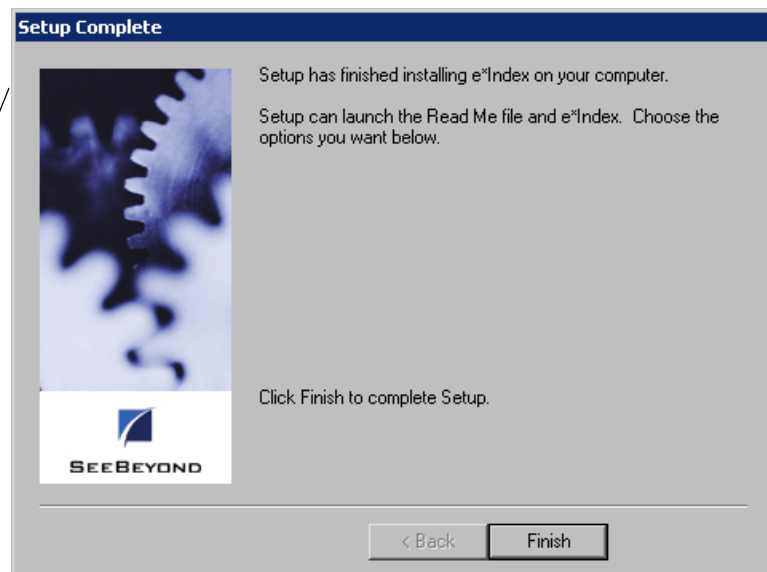


Back button



Next button

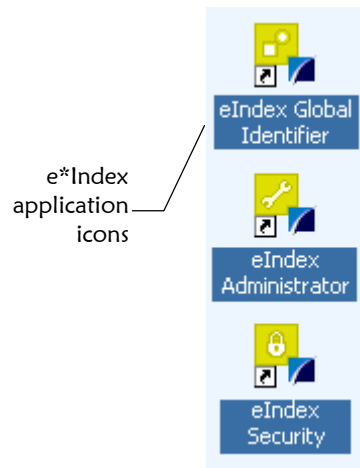
When the Setup Complete window appears, your installation is finished



Finish button

8 Click **Finish** to conclude the installation process and return to the Windows desktop.

- 9 You can view the e*Index application icons on the Windows desktop.



- 10 Continue to "Step 5: Copy the Publications."

Step 5: Copy the Publications

The electronic documentation files for e*Index are located on the installation CD-ROM in the folder `\docs`. You can delete the files from your current e*Index publications directory, and copy the new files into the directory. The following is a list of documents included in the electronic library:

- **eI_installation.pdf**
The *e*Index Global Identifier Installation Guide* explains how to install all components of e*Index, including the GUI, database, and e*Gate schema.
- **eI_java_ref.pdf**
The *e*Index Global Identifier Installation Guide* explains how to install all components of e*Index, including the GUI, database, and e*Gate schema.
- **eI_rel_notes.pdf**
This document provides information about the differences between e*Index 4.5.2 and 4.5.3.
- **eI_reports.pdf**
*Working with Reports for e*Index Global Identifier* explains how to modify and run standard reports against the e*Index database.
- **eI_techref.pdf**
The *e*Index Global Identifier Technical Reference* is designed to assist e*Gate programmers in writing Monk scripts for the e*Ways for e*Index.
- **eI_upgrade.pdf**
The *e*Index Global Identifier Upgrade Guide* explains how to upgrade all components of e*Index from 4.1.2 or later to version 4.5.3.

- **eI_userguide.pdf**
The *e*Index Global Identifier User's Guide* explains how to use the e*Index GUI.
- **eIA_userguide.pdf**
The *e*Index Administrator User's Guide* explains how to use the e*Index Administrator GUI.
- **eIS_userguide.pdf**
The *e*Index Security User's Guide* explains how to set up and maintain security for the e*Index applications.
- **feedback_form.pdf**
Use this form to provide any comments or suggestions for improving the documentation provided for e*Index.
- **init_load.pdf**
The *e*Index Initial Load User's Guide* describes how to install, modify, and run the schemas you use to load legacy data into the e*Index database.
- **Readme.wri**
This document provides information about the electronic library, such as using the cross-referencing index, search capabilities, and so on.
- **Welcome.pdf**
The Welcome Document lists all publications available in PDF format, and provides links to each document file. Each file also links back to the Welcome Document.
- **UI_index.pdx**
This is the index file that cross-references all PDF files in the electronic library, allowing you to search for information across documents.
- **UI_index (folder)**
This folder provides the information required for the cross-referencing index to function.

Step 6: For Oracle Only, Verify tnsnames.ora

If your e*Index database runs on an Oracle platform, verify that the **tnsnames.ora** file contains a stanza pointing to the databases you use. If you do not know how to modify the Oracle **tnsnames.ora** file, refer to the appropriate Oracle documentation. Your file may differ from the sample above depending on how your Oracle networking is configured.

You should have a stanza for the e*Index database similar to the following example.

```
ei01.world =
  (DESCRIPTION =
    (ADDRESS_LIST =
      (ADDRESS =
        (PROTOCOL = TCP)
        (Host = 100.0.0.00)
        (Port = 1000)
      )
    )
    (CONNECT_DATA = (SID = EI01)
  )
)
```

Step 7: For Sybase Only, Verify sql.ini

If your e*Index database runs on a Sybase platform, verify that the **sql.ini** file on the computer you are using for the upgrade contains a stanza pointing to the database being upgraded. You should have a stanza for the e*Index database similar to the following example. This sample provides an example of how the stanza may appear for an Adaptive Server named "challenger" using a TCP/IP connection. For more information about configuring this file, refer to your Sybase user documentation.

```
[challenger]
master=TCP,challenger,4100
query=TCP,challenger,4100
```

Step 8: For SQL Server Only, Verify the ODBC Data Source

If your e*Index database runs on a SQL Server platform, verify that an ODBC data source for the e*Index database has been defined on the computer you are using for the upgrade. The data source specifies the driver used to connect to the database and additional information about the database. ODBC data source definitions are accessed through the **Data Sources (ODBC)** option in the Control Panel.

Step 9: Restore stc_ua.ini

Once you install the new GUI files, you can copy your customized database stanzas from your original initialization file, **stc_ua.ini**, into the new file (located in the e*Index home directory). After you copy the customized stanzas, you can delete the old initialization file. You may also want to modify the **FACILITYID** field in the new **stc_ua.ini**.

Step 10: Register the Online Help Support File

If you haven't done so with previous versions, you should register the supporting help file before you use the online help system provided with the e*Index GUIs.

▶ To register d2hPopup.ocx

Before you begin:

- ✓ Open MS-DOS from the Start menu
- 1 At the command prompt, navigate to your e*Index home directory, and then to the **client** subdirectory.
- 2 At the prompt, type **regsvr32 d2hPopup.ocx**.

*Note: If you do not register this file, you will be prompted to download the file from a website the first time you open an e*Index online help file. If you choose to download from the website, this file will be registered for you automatically. Once this file is registered, you will not receive the prompt when you open the help files.*

Step 11: Reboot the Computer

When you upgrade the e*Index GUI, the VTICFG environment variable is reset to the current working directory ("."). If you had previously modified the path for this variable, you need to make the changes again. Another environment variable, INTBIN, is created and is also set to "." by default. In Windows 95 and 98, the installation adds this information as the last line in **autoexec.bat**, and creates a backup copy of the original **autoexec.bat** (named **autoexec.bak**) in case you need to revert to the previous version. In order for the changes to take effect on a Windows 95 or 98 computer, you need to reboot the machine.

Upgrading Java APIs for Active Integration

About this Chapter

Overview

This chapter presents the background information and the step-by-step instructions you need to upgrade the Java APIs for e*Index Active Integration.

The following diagram illustrates the contents of each major topic in this chapter. For the page numbers on which specific topics appear, see the next page of this chapter.



Learn about the Java APIs for e*Index Active Integration



Learn how to install the active integration package and to make any required changes to your computing environment



Learn about the new database tables that support active integration

What's Inside

This chapter provides background information and instructions related to the topics listed below.

Learning about Java APIs for e*Index Active Integration.....	7-3
Installing Java APIs for e*Index Active Integration.....	7-8
▶ Step 1: Verify the Java Environment	7-8
▶ Step 2: Verify the Oracle Client	7-8
▶ Step 3: Install the Active Integration Files	7-9
▶ Step 4: Create the Active Integration Home Directory	7-13
▶ Step 5: Move the Active Integration Files	7-14
▶ Step 6: Modify Environment Variables	7-15
▶ Step 7: Create the Active Integration Database Tables	7-16
▶ Step 8: Populate the Local ID Generator Table.....	7-17
▶ Step 9: Populate the Auxiliary Tables.....	7-18
e*Index Active Integration Database Tables	7-19

Learning About Java APIs for Active Integration

Overview

This section of the chapter provides background information about installing the Java APIs for e*Index Active Integration.

What Do I Need to Get Started?

Upgrading the Java APIs for e*Index 4.5.3 Active Integration may require changes to the computing environment on the machine that will host the APIs. While the e*Index 4.5.3 GUI and Schema are compatible with Oracle, Sybase, and Microsoft SQL Server database platforms, the Java APIs for e*Index Active Integration can currently only be used with an Oracle database.

The following software must be installed on the computer on which the APIs will reside.

- **Supported operating systems:**
Windows NT 4.0 SP6, Windows 2000, HP Unix 11.0 or 11i, IBM AIX 4.3.3 or 5.1, Compaq Tru64 v4.0f or v5.1a, or Solaris 7 or 8
- **Required database software:**
Oracle Client version 8.1.7
- **Required Java software:**
Java™ 2 SDK, Standard Edition 1.1.8 or higher (for HP Unix 11.0, you must install version 1.2 or higher; for all other platforms, version 1.3.1 is recommended)
- **Required browser software:**
A web browser compatible with Javadocs (to view the Javadocs for the Java APIs for e*Index Active Integration)

What Files are Installed?

When you install the Java APIs for e*Index Active Integration, library, database, Javadocs, sample, configuration, and Vality rule set files are installed. Sample code is installed so you can see how the Java methods can work together to process data into the e*Index database. The Vality rule set files are a default version that you will need to replace with your customized files. To view an illustration of the directory and file structure of the default installation, see Figure 6-1 on page 6-5. For an illustration of the home directory structure, see Figure 6-2 on page 6-6.

About the Sample Code

SeeBeyond provides sample code for the Active Integration APIs to help you see how the different components of the API work together and to help you design your own Java programs for e*Index. The sample code for e*Index 4.5.3 differs from the samples for version 4.1.1 to illustrate usage of the new functions.

About the Javadocs

In addition to documentation in PDF format, documentation is provided in Javadoc format. The Javadoc files are located in the installation path in `/docs`, and the supporting files are located in `/docs/com.stc.eIndex.active.person` and `/docs/com.stc.eIndex.active.exception` (for more information about these files, see "Using the Javadocs" in chapter 3 of the *Java Programmer's Reference for e*Index Active Integration*).

About the Rule Set Files

The Java APIs for e*Index Active Integration include a set of default Validity rule set files that you can customize for your e*Index processing environment. The rule set files require that an environment variable, `VTICFG`, be defined as the path to the rule set files. Use caution if you install the Java API on the same machine as the e*Index GUI, as they both use this environment variable but store the files in different locations.

Active Integration Database Tables

If you have the Java API for 4.1.1 installed, you should already have a database table named `ui_local_id_generator`. If you have not updated your current Java API environment with ESR 42531, there are several new tables you can create to add custom capabilities to the API, such as specifying required fields and default values. A batch file is provided for you to easily create these tables. For detailed descriptions of the new database tables, see "About Active Integration Database Tables" in chapter 3 of the *Java Programmer's Guide for e*Index Active Integration*.

Directory and File Structure

After you install the Java APIs for e*Index Active Integration, the directory and file structure should resemble the illustration in Figure 6-1 on the following page. The variable `<install_dir>` represents the path you specify in the InstallShield. If you install the APIs on the server on which you will be using them, `<install_dir>` is also the Active Integration home directory (`<home_dir>`). After installation, you will move some of the files in the `/bin` directory. Figure 6-2 on page 6-6 illustrates the structure of the home directory after you have moved the required files as described later in this chapter in "Step 5: Move the Active Integration Files".

Figure 6-1: Active Integration Installation Directory and File Structure

*Note: This diagram does not illustrate the files located in /docs/com, /docs/com/stcleIndex/active/person, or /docs/com/stcleIndex/active/exception. For more information about these files, see "Using the Javadocs" in chapter 3 of the Java Programmer's Reference for e*Index Active Integration.*

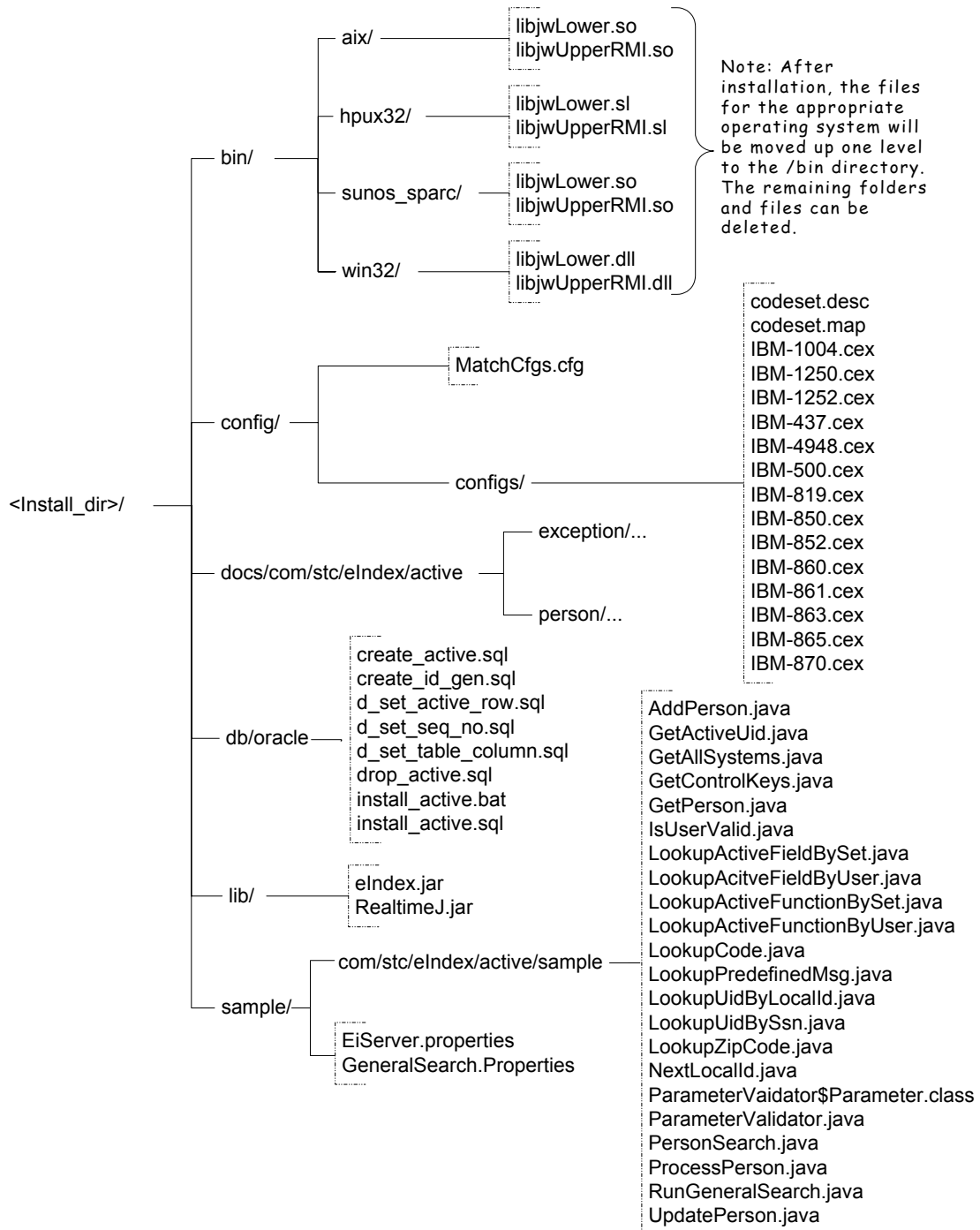
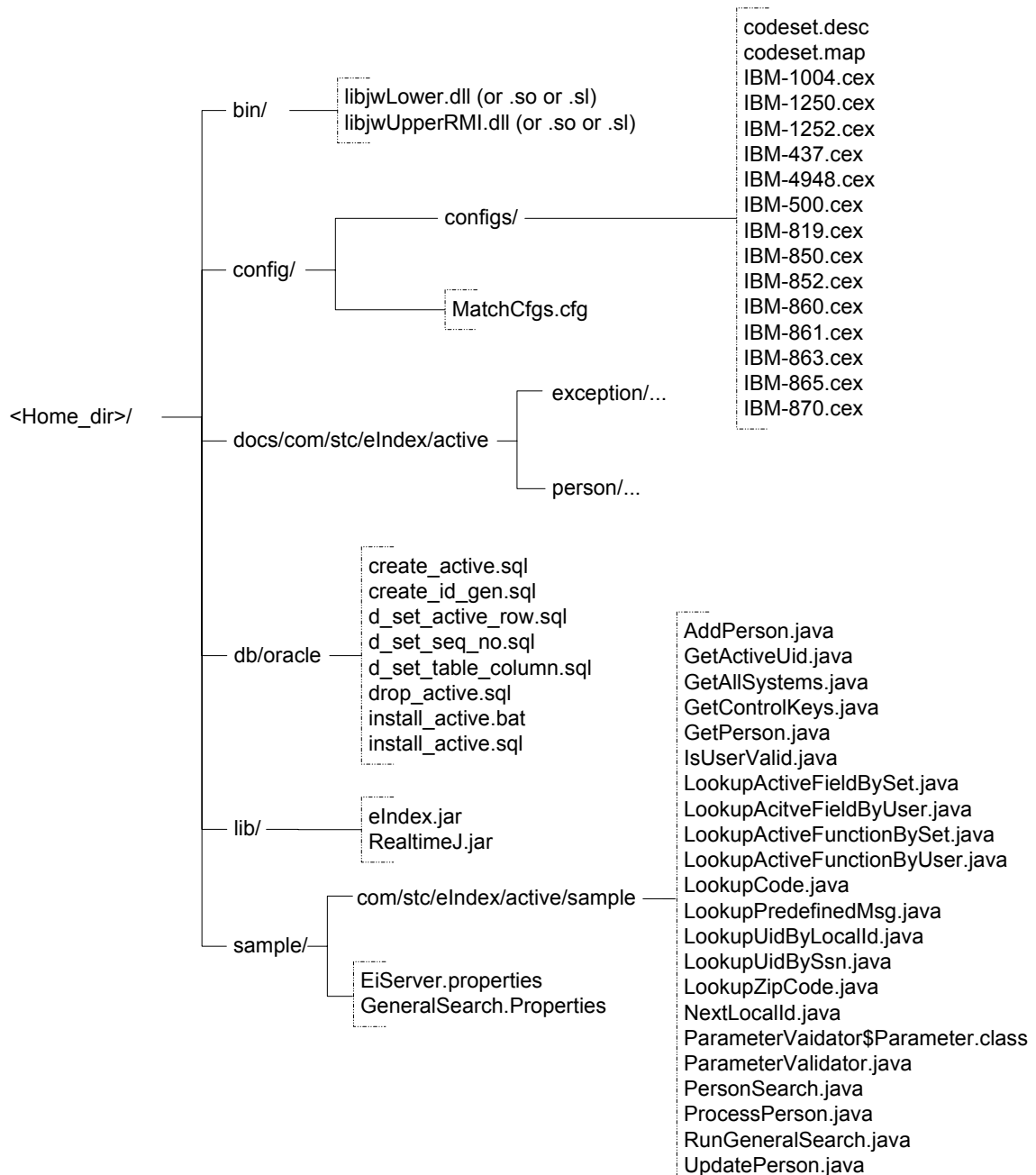


Figure 6-2: Active Integration Home Directory and File Structure

*Note: This diagram does not illustrate the files located in /docs/com, /docs/com/stc/eIndex/active/person, or /docs/com/stc/eIndex/active/exception. For more information about these files, see "Using the Javadocs" in chapter 3 of the Java Programmer's Reference for e*Index Active Integration.*



Upgrading Java APIs for e*Index Active Integration

Overview

This section provides instructions for upgrading an existing instance of the Java APIs. If you are installing the APIs into a new environment, refer to chapter 7 of the *e*Index Global Identifier Installation Guide*. To upgrade the Java APIs for e*Index Active Integration, you must complete the following steps:

- Step 1: Verify the Java Environment
- Step 2: Verify the Oracle Client
- Step 3: Install the Active Integration Files
- Step 4: Create the Active Integration Home Directory
- Step 5: Move the Active Integration Files
- Step 6: Modify Environment Variables
- Step 7: Create the Active Integration Database Tables
- Step 8: Populate the Local ID Generator Table
- Step 9: Populate the Auxiliary Tables

Step 1: Verify the Java Environment

If you are already working with the Java APIs for e*Index Active Integration, your Java environment should already be set up correctly. Before you can work with the Java APIs for e*Index Active Integration, verify that Java™ 2 SDK, Standard Edition is installed on the machine that will host the APIs. For more information about installing or working with Java™ 2 SDK, refer to the appropriate Java user documentation.

Step 2: Verify the Oracle Client

The Java APIs for e*Index Active Integration require Oracle Client files in order to connect with the e*Index database. Verify that Oracle 8.1.7 client is installed on the machine that will host the APIs. One of the Oracle Java Database Connectivity (JDBC) drivers must also be installed in order to connect to the e*Index database. You can use either the Oracle JDBC thin driver or Oracle JDBC/OCI driver.

Step 3: Install the Active Integration Files

To begin the installation process, insert the e*Index 4.5.3 Active Integration installation CD-ROM into the CD-ROM drive on your computer, and make sure no other Windows applications are running.

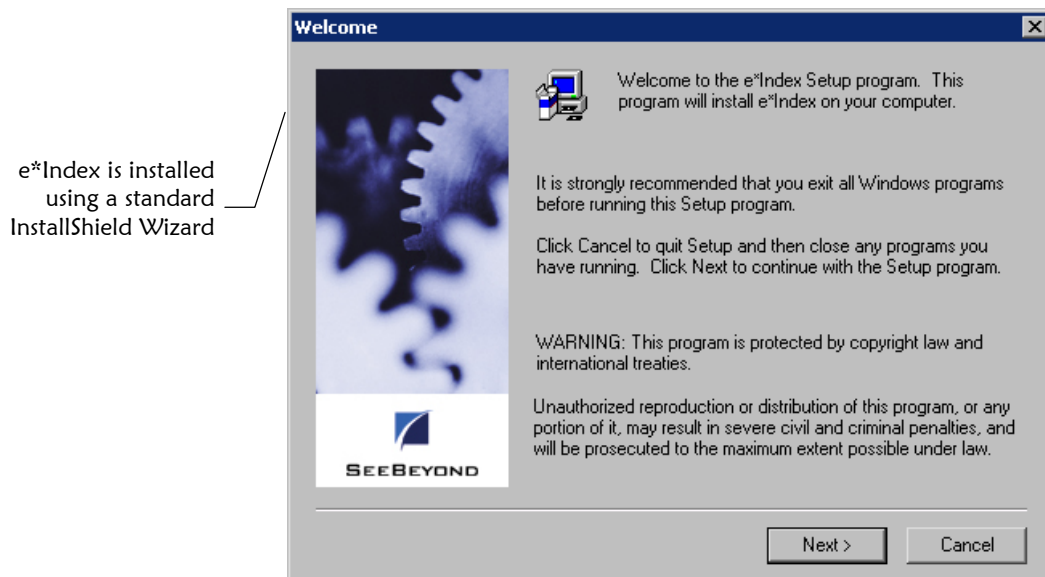
► To install the Active Integration files

Before you begin:

- ✓ Complete "Step 1: Install Java™ 2 SDK" and "Step 2: Install the Oracle Client"
- ✓ If you want to view the Javadocs provided in this installation, make sure you have a web browser installed
- ✓ Close all Windows applications

Note: For Unix installations, you can either install the files to a Windows computer and copy the files to the Unix server, or map a network drive to the Unix server and specify the mapped drive as your installation path during the installation.

- 1 Insert the e*Index installation CD-ROM into the CD-ROM drive of your computer.
- 2 In the CD-ROM directory, open the **active** subdirectory.
- 3 Double-click the file name **Setup.exe**. The Welcome window appears, reminding you to close all Windows programs.



- 4 On the Welcome window, do one of the following:

To close any open Windows programs, click **Cancel**, close the programs, and then repeat step 1.

To continue with the installation process without closing any external programs, click **Next**. The Software License Agreement window appears.

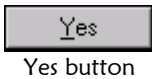
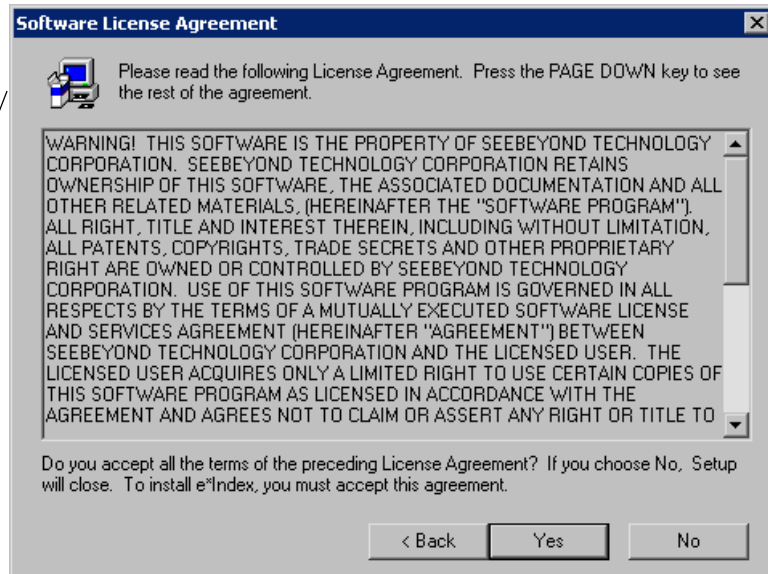
Cancel

Cancel button

Next >

Next button

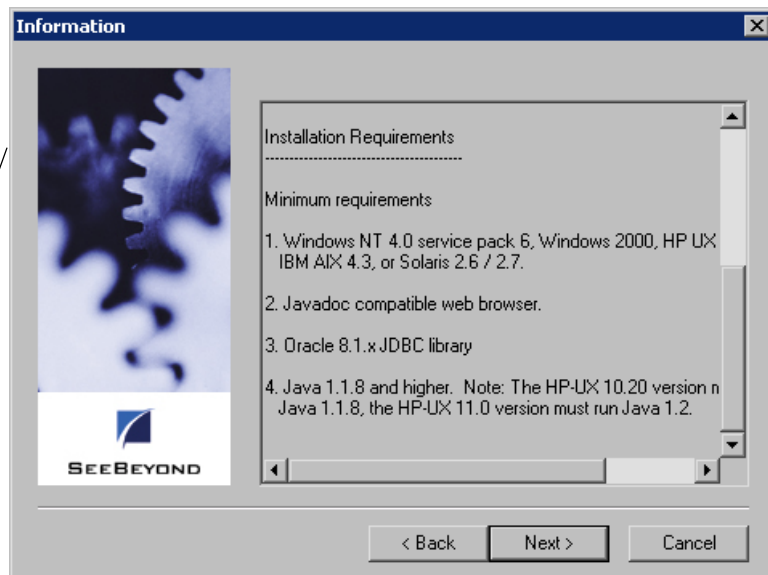
You must agree to the terms of the license agreement in order to proceed



Yes button

- 5 If you agree to the license agreement, click **Yes**. The Information window appears with a list of requirements to remind you of the applications you need to install before installing e*Index.

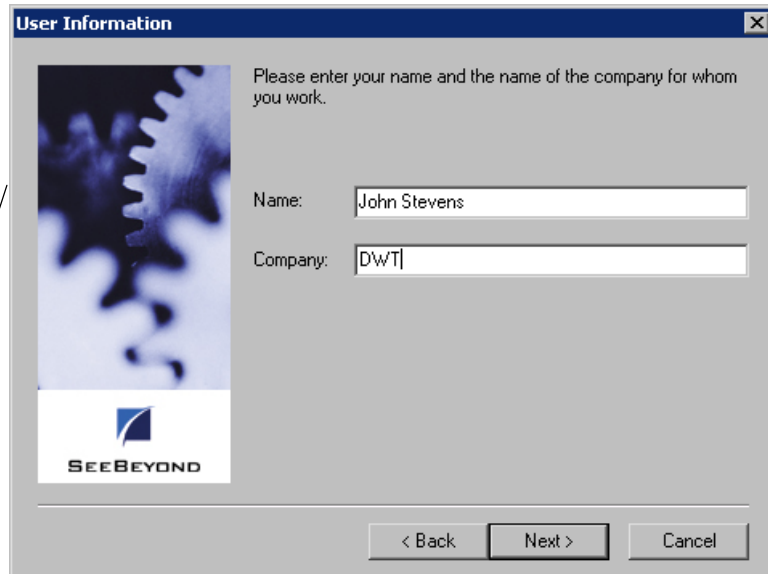
The Information window reminds you of the system requirements



Next button

- 6 On the Information window, click **Next**. The User Information window appears.

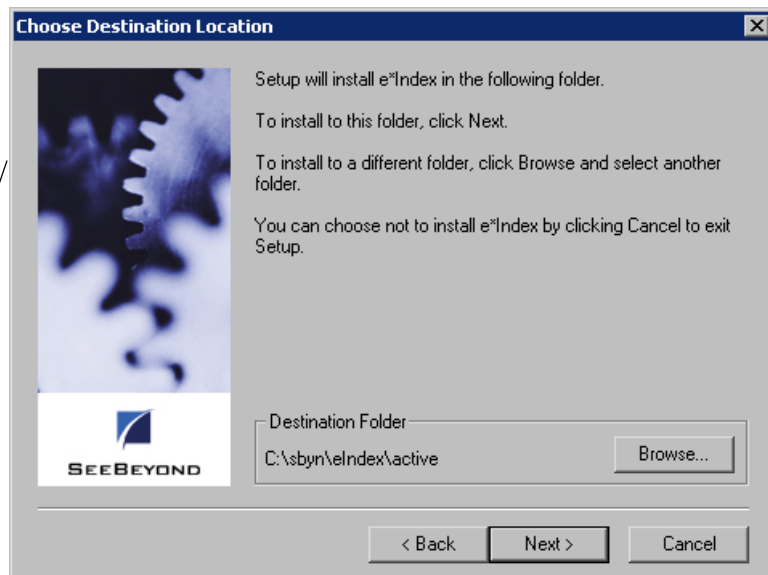
Enter your name and your company name on the User Information window



Next button

7 On the User Information window, enter your name and your company's name, and then click **Next**. The Choose Destination Location window appears.

On the Choose Destination Location window, verify the installation path



Next button



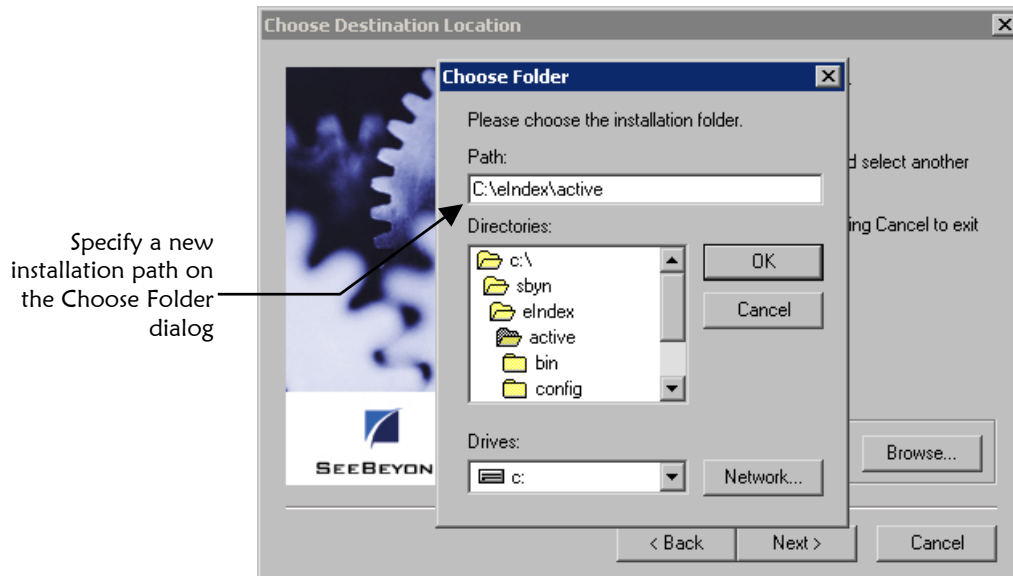
Browse button

8 On the Choose Destination Location window, do one of the following:

*To install the files in the folder that appears in the Destination Folder path, click **Next**.*

To change the location in which the files will be installed:

- Click **Browse**.
- On the Choose Folder dialog, type or select the path where you want to install the files.



- Click **OK**. The new path you specified appears in the Destination Folder path.

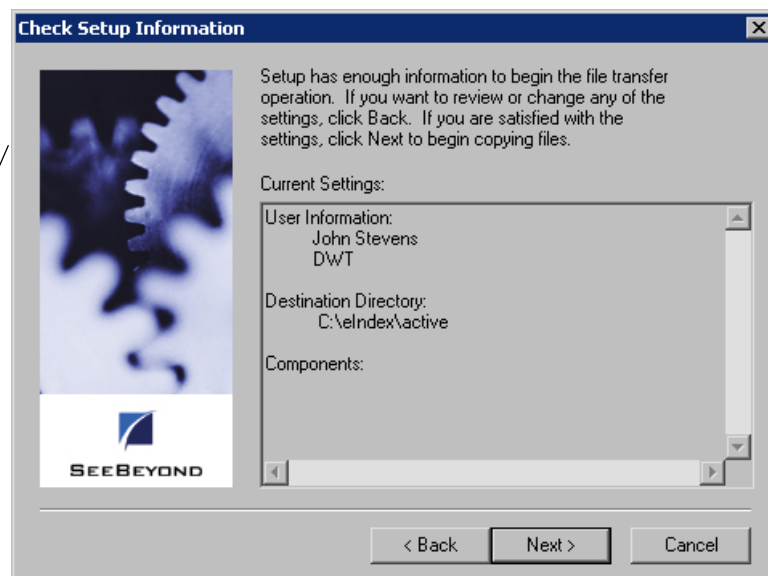
***Note:** If the path you specified does not exist, a dialog appears asking if you want to have the folder created. If you select **Yes**, Setup creates the specified path for you.*

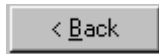


Next button

- 9 On the Choose Destination Location window, click **Next**. The Check Setup Information window appears.

The Check Setup Information window displays the options you have chosen





Back button



Next button



Finish button

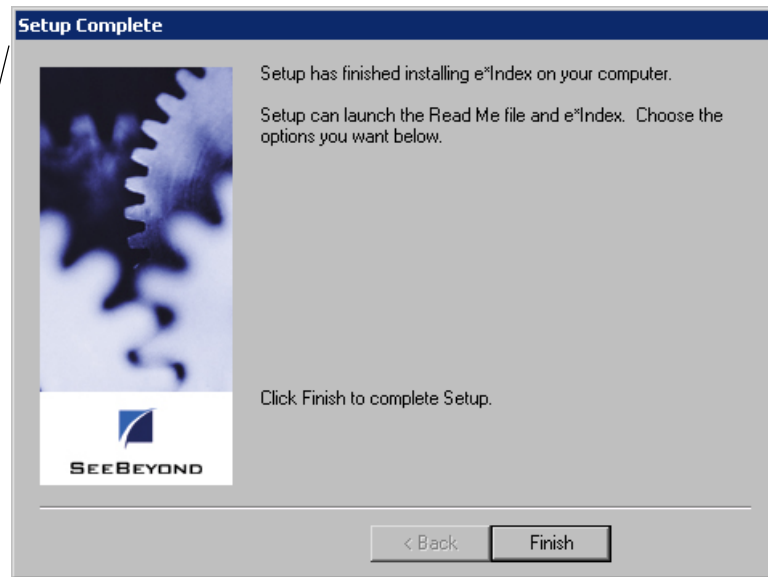
10 On the Check Setup Information window, verify the information you specified, and do one of the following:

*To change any of the options you selected, click **Back**, and make the necessary changes.*

*To install the files in the specified directory, click **Next**. The Setup Complete window appears after the files are installed.*

11 The Setup Complete window indicates that all necessary files are installed. On the Setup Complete window, click **Finish** to conclude the setup process.

The Setup Complete window indicates that the files have been installed



12 Continue to "Step 4: Create the Active Integration Home Directory".

Step 4: Create the Active Integration Home Directory

If you did not install the Active Integration files on the machine on which you will be working with the APIs, you need to move the files to that machine. Before you move the files, create the home directory and associated subdirectories on the Active Integration host machine. If you did install the APIs on the host machine, you can skip this step and continue to "Step 5: Move the Active Integration Files".

► To create the Active Integration home directory

Before you begin:

- ✓ Complete "Step 3: Install the Active Integration Files"

- 1 On the machine that will host the Active Integration APIs, create a home directory for the APIs. For example:

```
/eIndex/Active
```

- 2 In the home directory, create subdirectories named **bin**, **config**, **docs**, **db**, **lib**, and **sample**. Continuing from the above example:

```
/eIndex/Active
├── /bin
├── /config
├── /docs
├── /db
├── /lib
└── /sample
```

- 3 Continue to "Step 5: Move the Active Integration Files".

Step 5: Move the Active Integration Files

Once you create the home directory on the machine that will host the Active Integration APIs, you can move the files to that machine. If you installed the APIs on the host machine, you only need to move the files from the **/bin/<os>** directory as described in step 1 below.

► To move the Active Integration files

Before you begin:

- ✓ Complete "Step 4: Create the Active Integration Home Directory"

Note: In the steps below, **<install_path>** refers to the path in which you installed the files, **<home_dir>** refers to the home directory you created for the files, and **<os>** refers to the operating system of the API host machine.

- 1 Move the files located in **/<install_path>/bin/<os>** to **/<home_dir>/bin**, where **<os>** is the operating system running on the Active Integration host machine. If you installed the APIs on the host machine, you only need to move these files up one directory so they reside in **/bin**. After you move the files, you can delete the **<os>** folders.
- 2 Move the files and folder located in **/<install_path>/config** to **/<home_dir>/config**.
- 3 Move the files and folder located in **/<install_path>/db** to **/<home_dir>/db**.
- 4 Move the files and folders located in **/<install_path>/docs** to **/<home_dir>/docs**.
- 5 Move the files located in **/<install_path>/lib** to **/<home_dir>/lib**.

- 6 Move the files and folders located in `/<install_path>/sample` to `/<home_dir>/sample`.
- 7 The new directory structure should resemble Figure 6-2 on page 6-6.
- 8 Continue to "Step 6: Modify Environment Variables".

Step 6: Modify Environment Variables

Certain environment variables need to be set on the machine that will host the Java APIs for e*Index Active Integration before you can work with the APIs. If you installed the Java APIs in your 4.1.1 API environment, some of these variables will already be set. Verify the pathnames defined for any existing variables.

► To modify environment variables

Before you begin:

- ✓ Complete "Step 5: Move the Active Integration Files"

***Note:** In addition to the variables described below, make sure to set the environment variables for your Java SDK environment as described in your Java documentation. If you have more than one Java SDK environment installed, make sure the `JAVA_HOME` variable is set to the correct environment.*

- 1 On the Active Integration host machine, add the `/<home_dir>/bin` path to your library path environment variable. The variable you need to modify is specific to the operating system you are using.
 - For Windows, modify the `PATH` variable
 - For Sparc Solaris, modify the `LD_LIBRARY_PATH` variable
 - For HP Unix, modify the `SHLIB_PATH` variable
 - For AIX, modify the `LIBPATH` variable
- 2 Create a new environment variable named `VTICFG` and define the value as the absolute path of the `/<home_dir>/config` directory.
- 3 Create a new environment variable named `INTBIN` and define the value as the absolute path to the `/codesets` folder. By default, this folder is located in `/<home_dir>/config`.

***Important!** If you are installing the APIs on a machine that already hosts an e*Index GUI environment, the `VTICFG` and `INTBIN` variables will already be defined. If you change the path, remember that the rule set files in the path specified by `VTICFG` and the codeset files in the path specified by `INTBIN` will be used by both the GUI and the Java API.*

- 4 If it is not already included in the **CLASSPATH** variable, you need to add the path to the **classes12.zip** file in your Oracle environment. This should be located in the **/jdbc/lib** subdirectory of your Oracle home directory.
- 5 Add the absolute path and filenames of the **.jar** files to the **CLASSPATH** variable. The **.jar** files are named **eIndex.jar** and **RealtimeJ.jar** and are located in the **/<home_dir>/lib** directory.
- 6 To work with the sample code provided, add the **/<home_dir>/sample** to the **CLASSPATH** variable so the JVM can find the property file and class files provided with the sample code.

Note: If you create new property files and you use the files as parameters to *EiServer* (instead of using a *Properties* object), make sure the absolute path to each file is defined in the **CLASSPATH** variable. For more information about *EiServer*, see "EiServer Class" in the Java Programmer's Reference for e*Index Active Integration.

- 7 If you use the Oracle OCI/JDBC driver, you also need to add the following paths to the **PATH** variable: **/<Oracle_home>** and **/<Oracle_home>/bin** (where **<Oracle_home>** is the Oracle home directory).
- 8 Make sure your Java SDK variables are set up as required for the version of Java you are using (see your Java documentation for more information).

Note: Oracle JDBC uses the JNDI package, which was an extension in Java 1.2, but became part of the core in version 1.3. If your Java environment is version 1.2.x or earlier, you need to add the JNDI package to your **CLASSPATH**. This is not required for version 1.3.

- 9 Continue to "Step 7: Create the Active Integration Database Tables".

Tip: If you are using Oracle OCI, you can **tnsping** the e*Index database to verify the setup is correct after you configure all of the environment variables.

Step 7: Create the Active Integration Database Tables

If you want to use custom capabilities of the active API, such as specifying required fields and default values for certain fields, you need to create several additional tables: *ui_active_set*, *ui_active_function*, *ui_active_field*, *ui_active_field_config*, *ui_active_field_fill*, and *ui_active_user_set*. If you have already installed these tables, you can skip this and the following steps, and continue to "Step 9: Update the Java Code". A physical data model of the active integration tables appears on page 6-18.

► To create the active integration database tables

Before you begin:

- ✓ Complete "Step 6: Modify Environment Variables"
- 1 If you installed the Active Integration files on a Windows machine, open an MS-DOS command line. For Unix, continue to the following step.
- 2 Navigate to the home directory for the Active Integration files and then to **/db/oracle**.
- 3 If the active integration files are not located on a machine running a Windows NT, 98, or 2000 operating system, copy the files from the **.../db/oracle** directory to an e*Index Quality Workstation with access to the database you are modifying.
- 4 Open the file **install_active.bat** in any text editor.
- 5 Modify the value for the variable **SET TNS_NAME** to be the TNS service name of the database you are modifying. For example:


```
SET TNS_NAME=EI01
```
- 6 Save and close **install_active.bat**.
- 7 Run **install_active.bat**.
- 8 Continue to "Step 8: Populate the Auxiliary Tables".

Step 8: Populate the Auxiliary Tables

SeeBeyond provides a sample file, **d_set_active_row.sql**, that you can use as a guide to populate the auxiliary tables. This file provides the correct format for populating the tables to ensure that the sequence numbers are assigned accurately. If you populate the table using this file, make sure to modify the file to suit your settings, systems, functions, users, and field-specific data elements. If you have already installed and populated these tables, skip this step and continue to "Step 9: Update the Java Code".

*Note: If you want to run **d_set_active_rows.sql** without tailoring the file to your data requirements (as you might do for a test run), you need to add a user with a login ID of JEFF before you can run the file.*

► To populate the auxiliary tables

Before you begin:

- ✓ Complete "Step "
- 1 Navigate to the home directory for the Active Integration files and then to **/db/oracle**.

- 2 Open `d_set_active_row.sql` in any text editor. Modify the file so the data elements you add to each table are valid for your processing environment. For example, when creating the first set and child table data, make sure to change the default system code, **SBYN**, to a valid system code for your organization.
- 3 Close and save the file.
- 4 Open a SQL program, and then type `@/<pathname>/d_set_active_row` where `<pathname>` is the absolute path to the file `d_set_active_row.sql`.
- 5 Commit the changes to the database, and continue to "Step 9: Update the Java Code".

Step 9: Update the Java Code

Once you install the updated Java APIs, you need to update your existing code with the new functions. For information about the changes between version 4.1.1 and 4.5.3, see the *e*Index Global Identifier Release Bulletin* for release 4.5.3. For detailed information about methods and classes in the API, see the *Java Programmer's Reference for e*Index Active Integration*.

e*Index Active Integration Database Tables

The following diagram illustrates the structure of the active integration database tables. *ui_table*, *ui_table_column*, and *ui_seq_no* are standard e*Index tables, but are included here to illustrate their relationship to the active integration tables. For descriptions of the tables, see "About Active Integration Database Tables" in chapter 3 of the *Java Programmer's Reference for e*Index Active Integration*.

