BEA eLink Adapter for Siebel

User Guide

BEA eLink Adapter for Siebel 1.1
Document Edition 1.2
April 2000

Copyright

Restricted Rights Legend

Trademarks or Service Marks

BEA eLink Adapter for Siebel User Guide

Document Edition	Part Number	Date	Software Version
1.1		April 2000	BEA eLink Adapter for Siebel 1.1

Contents

4. Running eLink Adapter for Siebel

A. Error Messages

About This Document

This document describes the BEA eLink Adapter for Siebel component and gives instructions for transferring data between Siebel and the eLink Platform. This guide explains how to install and configure the eLink Adapter for Siebel and how to initiate data transfer requests.

The BEA eLink Adapter for Siebel User Guide is organized as follows:

- *Understanding EAI and the Role of eLink Adapters* introduces the eLink Adapter Adapter for Siebel component and explains how eLink Adapter for Siebel fits into the BEA eLink Platform environment.
- *Installing BEA eLink Adapter for Siebel* explains how to install the eLink Adapter Adapter for Siebel component.
- *Configuring eLink Adapter for Siebel* provides information for configuring the servers required to run the eLink Adapter for Siebel.
- *Running eLink Adapter for Siebel* provides information about booting the BEA eLink Platform server and initiating information transfer requests between a eLink Platform environment and Siebel.
- *Error Messages* describes error and informational messages as well as actions to resolve the errors.

What You Need to Know

This document is intended for system administrators who will install the eLink Adapter Adapter for Siebel on various platforms, as well as programmers who will configure the eLink Adapter Adapter for Siebel and set up eLink Platform services to execute information transfers with Siebel. This guide assumes knowledge of BEA eLink Platform and Siebel products.

e-docs Web Site

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

How to Print the Document

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

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

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

Related Information

The following BEA publications are also available for more information:

- *BEA Tuxedo Application Development Guide*
- *BEA Tuxedo Programmer's Guide*
- *BEA Tuxedo Reference Guide*

Contact Us

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

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

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

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

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

Document Conventions

The following documentation conventions are used throughout this document:

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

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

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

Item	Examples
Environment variables	Environment variables are formatted in an uppercase font. ENVFILE=${APPDIR}
Key names	Key names are presented in boldface type. Press **Enter** to continue.
Literals	Literals are formatted in a monospace font. `class extendSample`
Window items	Window items are presented in boldface type. Window items can be window titles, button labels, text edit box names or other parts of the window. Type your password in the **Logon window**. Select **Export** to make the service available to the client.

CHAPTER

1 Understanding EAI and the Role of eLink Adapters

This chapter contains the following topics:

- BEA eLink Solution Overview
- Overview of the eLink Adapter for Siebel

BEA eLink Solution Overview

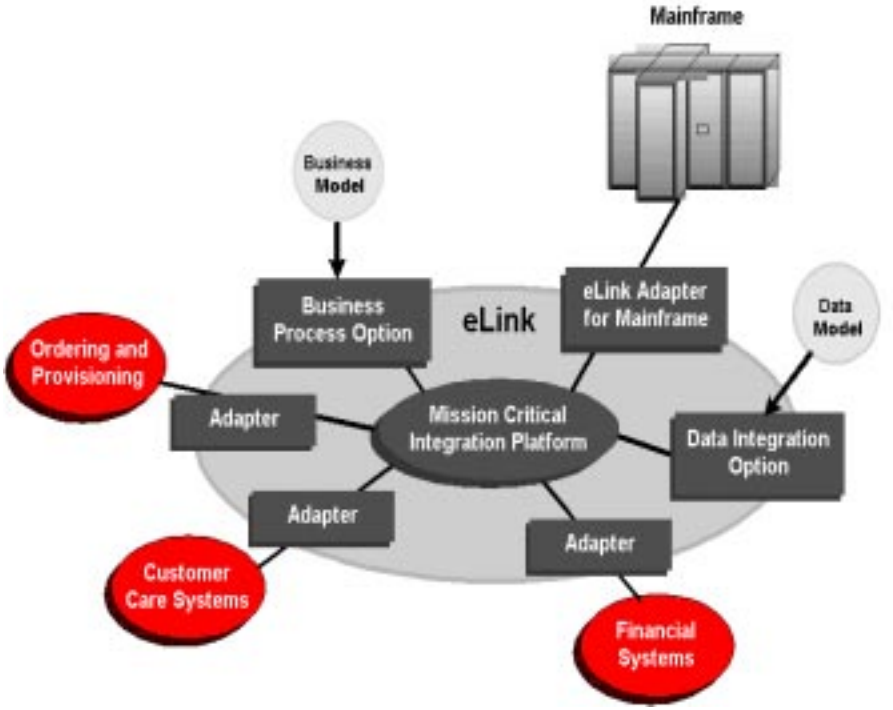
BEA eLink™ provides an open Enterprise Application Integration (EAI) solution that allows applications throughout organizations to communicate seamlessly. Using EAI, you gain the long-term flexibility and investment protection you need to keep up with today's ever-changing business environment.

Typically, companies use packaged applications to automate internal operations, such as financial, manufacturing, or human resources. While they successfully address the needs of these specific areas, these proprietary platforms often do not work together. To compete today, you need a much greater exchange of information. Systems need to communicate at a process level within your own organization, as well as with customer's and supplier's systems. BEA eLink Platform is the underlying basis of

BEA eLink, a family of off-the-shelf enterprise application integration (EAI) products that leverage the BEA transaction platform to integrate existing legacy applications with customer-focused and business-to-business e-commerce initiatives.

BEA eLink Platform provides a proven infrastructure for integrating applications within the enterprise and across the Web. BEA eLink Platform ensures high-performance, secure transactions and transparent access to mission-critical applications and information throughout the enterprise and across the Web. Figure 1-1 illustrates the eLink logical architecture and shows where the eLink Adapters fit into the process.

Figure 1-1 BEA eLink Solution Illustration



The entire BEA eLink family (including all options and adapters) is highly scalable. Multiple instances of BEA eLink components can collaborate so that work is divided between eLink domains. BEA eLink includes Simple Network Management Protocol (SNMP) integration for enterprise management.

The current BEA eLink Platform leverages the BEA eLink Platform infrastructure because it is based on a service-oriented architecture. Both BEA eLink Platform and BEA eLink communicate directly with each other and with other applications through the use of services. Multiple services are grouped into “application servers” or “servers”. The terms eLink Platform services/servers and eLink services/servers can be used interchangeably. Because this document is specifically addressing the eLink family, the terms “eLink service” and “eLink server” are used throughout.

The BEA eLink Platform complies with the Open Group’s X/Open standards including support of the XA standard for two-phase commit processing, the X/Open **ATMI** API, and XPG standards for language internationalization. C, C++, COBOL, and Java are supported. The BEA eLink Platform connects to any RDBMS, OODBMS, file manager or queue manager, including a supplied XA-compliant queueing subsystem.

The BEA eLink Platform

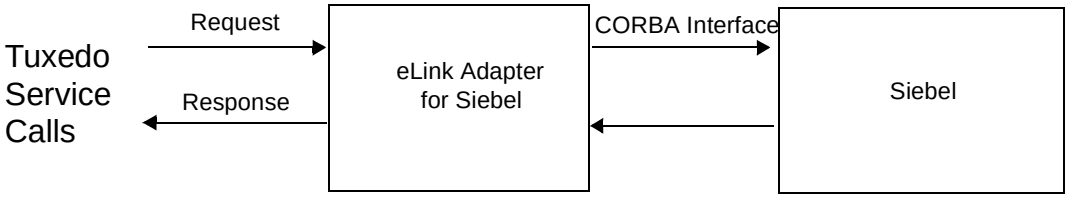
The BEA eLink Platform (in addition to all options and adapters) is highly scalable. Multiple instances of BEA eLink Platforms can collaborate so that work is divided between eLink instances and domains. BEA eLink includes SNMP integration for enterprise management. The BEA eLink Platform features compliance with the Open Group’s X/Open standards including support of the XA standard for Two-phase commit processing, the X/Open ATMI API, and XPG standards for language internationalization. C, C++ and Java (via Jolt) are supported. The BEA eLink Platform connects to any RDBMS, OODBMS, file manager or queue manager. The following components operate with BEA eLink Platform:

- The Data Integration Option translates data models used by different applications into a common data format. It provides a cost-effective alternative to writing or generating programs to perform this function. It also handles complex translation with greater power and scalability than rules engines and formatters.
- The Business Process Option helps automate tasks in the business process and dynamically responds to business events and exceptions.
- The eLink Adapters provide the interface between the BEA eLink Platform and external applications, with out-of-the-box functionality (no programming required).

Overview of the eLink Adapter for Siebel

The eLink Adapter for Siebel provides communication between Siebel Enterprise Applications and BEA eLink Platform applications. The eLink Adapter consists of a server that processes all requests for Siebel services. This server is managed in the eLink Platform environment. The eLink Platform client calls the service advertised by the eLink to Siebel server. The eLink Adapter validates the incoming service request, then initiates the correct calls to the Siebel CORBA Object Manager to complete the request. This enables any eLink Platform compliant client application to access Siebel Enterprise Applications using the eLink Adapter for Siebel. Figure 1-2 illustrates an overview of the process.

Figure 1-2 eLink Adapter for Siebel Transaction Process Overview



The eLink Adapter for Siebel service can perform the following basic operations:

- New -- Creates a new Siebel business component object
- Update -- Updates the properties of an existing Siebel business component object
- Delete -- Deletes a Siebel business component object
- Read -- Reads the fields of a Siebel business component object
- Link -- Links two existing Siebel business component objects

- Delink -- Dissolves the link between two existing Siebel business component objects that were joined using the “Link” or “NewLink” functions
- NewLink -- Creates a new Siebel business component object in the context of an existing business component object and links the two

2 Installing BEA eLink Adapter for Siebel

This chapter contains information for installing and uninstalling the eLink Adapter for Siebel.

This section consists of the following topics:

- Pre-Installation Considerations
- Installing on Unix Platform
- Installing on a Windows NT Platform
- Uninstalling eLink Adapter for Siebel on Windows NT
- Distribution Libraries and Executables

Pre-Installation Considerations

The eLink Adapter for Siebel runs on the Windows NT, HP-UX, and Solaris platforms. Complete the following tasks prior to installing eLink Adapter for Siebel:

- Read the *BEA eLink Adapter for Siebel Release Notes*.
- Install and verify the operation of the eLink Platform product.
- Install and Configure Visibroker or Orbix. Please refer to Visibroker or Orbix documentation for installation and configuration procedures.

- Install and configure Siebel's CORBA Object Manager. Refer to the Siebel documentation for more information.

Installing BEA eLink Adapter for Siebel

To install the eLink Adapter for Siebel software on a UNIX-based platform, run the `install.sh` script. This script allows you to select which package you want to install.

Note: If you install the eLink Adapter for Siebel software on a HP-UX platform, you will be prompted to install eLink Adapter for Siebel Visibroker. If you install the eLink Adapter for Siebel software on a SUN platform, you will be promted to select from either the eLink Adapter for Siebel Visibroker package or the eLink Adapter for Siebel Orbix package.

As the script runs, it asks you for the following information:

- Platform on which to install the eLink Adapter for Siebel software. Refer to the *BEA eLink Adapter for Siebel Release Notes* for a complete listing of supported platforms.
- Directory where the eLink Adapter for Siebel system is installed. You must enter a valid directory name.

Listing 2-1 provides an example of running this script on a SUN platform. The values in bold are supplied by you during installation. To accept default values at a prompt, press Enter.

Note: The platforms and file names shown in the following listing is an examples only. These values are dependent on platform configurations for your system and may vary from the example.

Installing on Unix Platform

Perform the following steps to install the eLink Adapter for Siebel on a supported UNIX platform.

1. Log on as root.

```
$ su -
Password:
```

2. Access the CD-ROM device.

```
# ls -1 /dev/cdrom
total 0
brw-rw-rw-   1 root   sys    27,   0 January 27  10:55 c1b0t010
```

3. Mount the CD-ROM.

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

4. Change the directory to your CD-ROM device.

```
# cd /mnt
```

5. List the CD-ROM contents.

```
# ls

install.sh  hp
```

6. Execute the installation script.

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

7. The installation script runs and prompts you for responses. Listing 2-1 is an example of the installation script. The entries in bold represent user responses.

Listing 2-1 Install.sh Example

```
user@machine-> sh.install.sh

01) hp/hpux1020      02) hp/hpux11        03)  sun5x/sol26

Install which platform's files? [01-3, q to quit, l for list]: 3

** You have chosen to install from sun5x/sol26 **

BEA eLink Adapter for Siebel Release 1.1

This directory contains the BEA eLink Adapter for Siebel System for
SunOS 5.6 (Solaris 2.6) on SPARC.

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

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

The following packages are available:
```

```
  1    siebv         BEA eLink Adapter for Siebel Visibroker
  2    siebo         BEA eLink Adapter for Siebel Orbix

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

BEA eLink Adapter for Siebel Visibroker
9sparc) Release 1.1
Copyright (c) 2000 BEA Systems, Inc.
All Rights Reserved.
Distributed under license by BEA Systems, Inc.
BEA eLink is a trademark of BEA Systems, Inc.

Directory where Siebel Visibroker Adapter files are to be installed
(Enter your eLink Platform directory path) [?,q]: /work/cmadm/tux65

Using /work/cmadm/tux65 as the eLink Adapter for Siebel Visibroker
base directory

Determining if sufficient space is available ...
1284 blocks are required
6694264 blocks are available to /work/cmadm/tux65

Unloading /cmhome/dist/bullet-1/sun5x/sol26/siebv/SIEBT65.Z ...
bin/ELINKSBLO
bin/lic.sh
eLink/catalogs/elinksblo.txt
eLink/siebel/elsieb_env.cfg
eLink/siebel/setenv.ksh
eLink/siebel/ubbelsieb
lib/libadk.sl
udataobj/field32tbl
1270 blocks
... finished

Changing file permissions...
... finished

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

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

Installation of BEA eLink Adapter for Siebel Visibroker was
successful

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

8. Change the directory to your root directory.

   ```
   # cd /
   ```

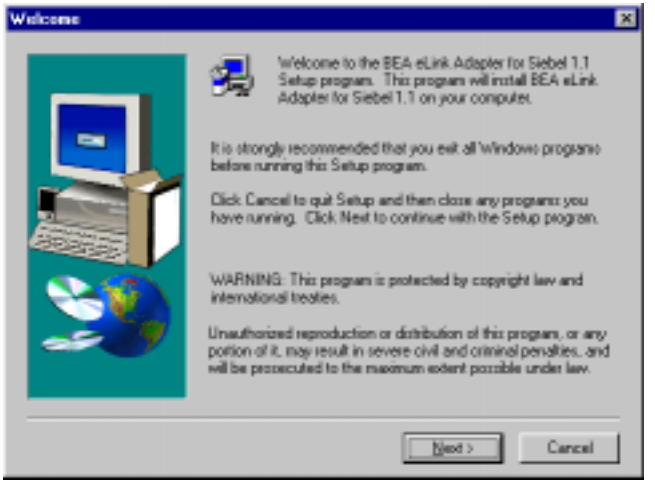
9. Unmount the CD-ROM device.

Installing on a Windows NT Platform

Perform the following steps to install the eLink Adapter for Siebel software on the Windows NT platform.

1. Insert the product CD_ROM and click the **Run** option from the **Start** menu. The **Run** window displays. Click **Browse** to select the CD_ROM drive. Change directories to the `winnt` directory and select the `Setup.exe` program. Click **OK** to run the executable and begin the installation. The following **Welcome** screen displays. Click **Next** to continue with the installation.

Figure 2-1 Welcome Screen

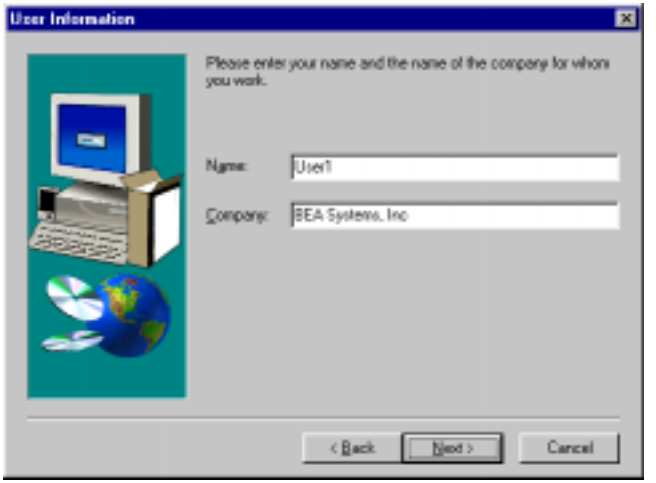


2. The BEA Software License Agreement displays. Click **Yes** to accept the terms of the agreement and continue with the product installation. Click **No** to exit the installation process.

Figure 2-2 BEA Software License Agreement Screen

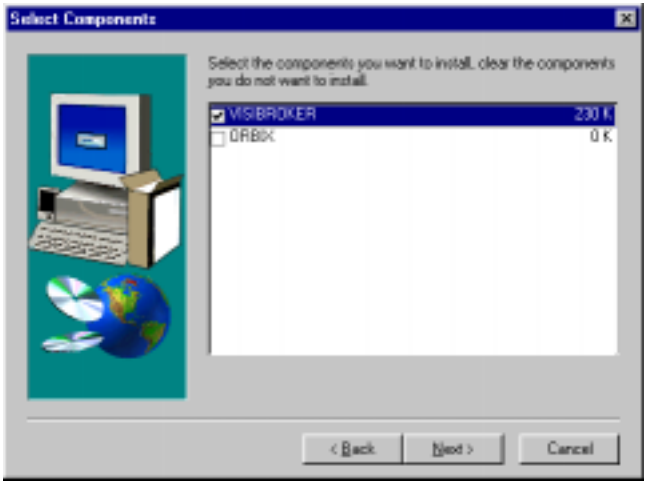
3. The **User Information** screen displays after the License Agreement. Enter the name of the eLink Platform System Administrator in the **Name** field. Enter the name of your company in the **Company** field. Click **Next** to continue with the installation.

Figure 2-3 User Information Screen



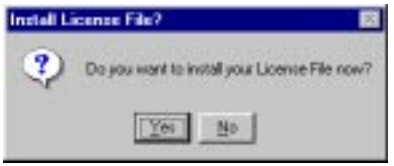
4. The **Select Components** screen displays after the **User Information** screen. Select the ORB component you want to install. You can only select one ORB.

Figure 2-4 Select Components Screen



5. The **Install License File?** option screen displays next. You may select **Yes** to install your BEA Software License File, or you may select **No** to bypass this step and continue installing the eLink Adapter for Vantive software. If you select **Yes**, continue with Step 5. If you select **No**, continue with Step 7.

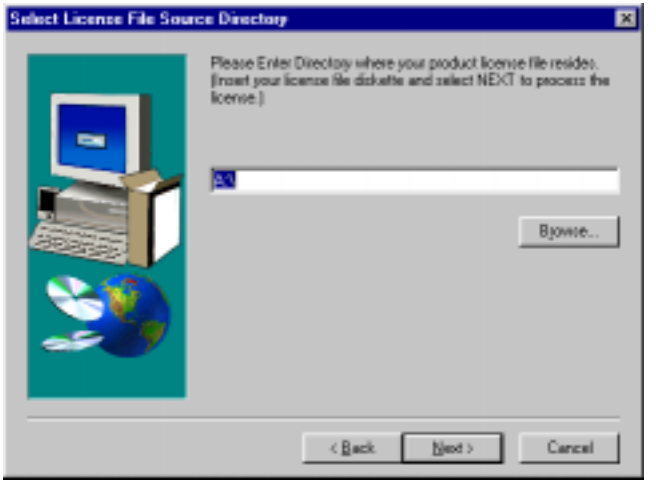
Figure 2-5 Install License File? Screen



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

   If you entered a valid directory path, click **Next** to continue with the installation. Go to Step 7. If you entered an invalid directory path, go to Step 6.

Figure 2-6 Select License File Source Directory Screen



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

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

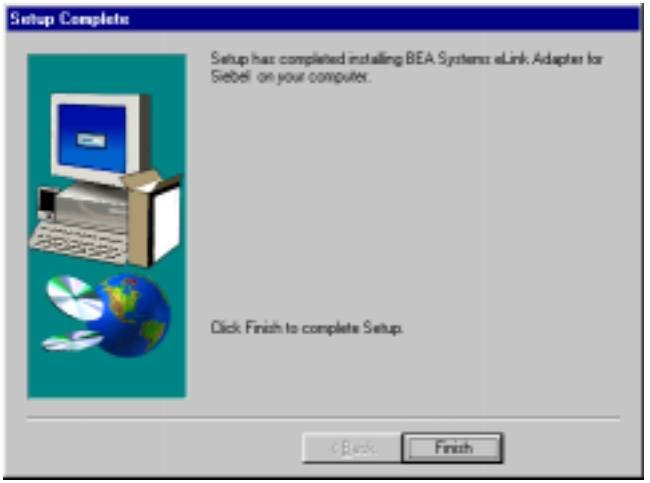
   Once you have entered a valid directory path, click **Next** to continue with the installation. Go to Step 7.

Figure 2-7 Invalid License File Directory Dialog Box

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

9. The **Setup Complete** screen displays notifying you that the BEA eLink Adapter for Siebel product is installed on your system. Click **Finish** to complete the Setup process.

Figure 2-8 Setup Complete Screen



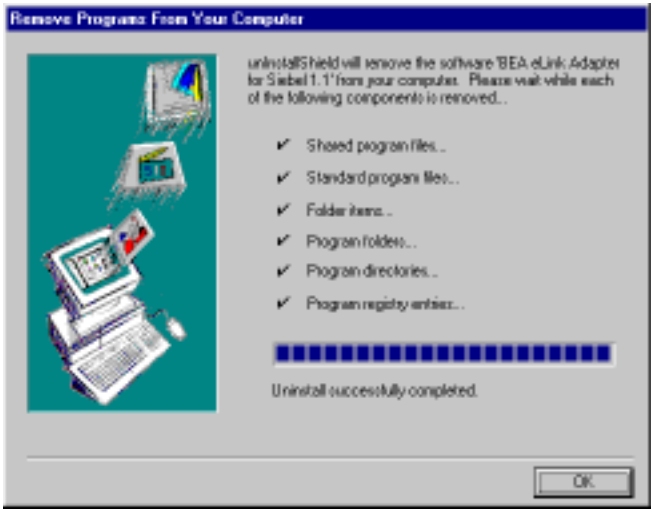
Uninstalling eLink Adapter for Siebel on Windows NT

Perform the following steps to uninstall the eLink Adapter for Siebel on a Windows NT system.

1. Click the **Start** button, and then point to **Settings**. Point to the folder that contains **Control Panel**, and then click **Control Panel**.
2. Double-click on the **Add/Remove Programs** option from the **Control Panel** listings to access the **Add/Remove Programs Properties** window.
3. In the **Add/Remove Program Properties** window, select **BEA eLink Adapter for Siebel** from the program list and click the **Add/Remove** button.

4. You are prompted by a message box asking if you are sure you want to completely remove the software and its components. Click **Yes** to continue with uninstalling. Click **No** to cancel uninstalling.
5. The uninstall process for eLink Adapter for Siebel begins. The **Remove Programs From Your Computer** screen displays. Click **OK** to complete the uninstall process.

Figure 2-9 Remove Programs From Your Computer Screen



Distribution Libraries and Executables

The eLink Adapter for Siebel CD-ROM contains the following libraries and executable programs for each of the following installation scenarios and their supported platforms. After installing the eLink Adapter for Siebel software, verify that these libraries and programs are installed on your system.

Solaris

Verify that the following files are installed by the eLink Adapter for Siebel software:

Table 2-1 Solaris Installation Files and Directories

Directory	Files
bin	ELINKSBLO lic.sh
elink/catalogs	elinksblo.txt
/lib	libadk.so.1.10
elink/siebel	elsieb_env.cfg ubbelsieb setenv.ksh
/udataobj	field32tbl

HP-UX

Verify that the following files are installed by the eLink Adapter for Siebel software.

Table 2-2 HP-UX Installation Files and Directories

Directory	Files
bin	ELINKSBLO lic.sh
elink/catalogs	elinksblo.txt
/lib	libadk.sl.1.10
elink/siebel	elsieb_env.cfg ubbelsieb setenv.ksh
/udataobj	field32tbl

Windows NT

Verify that the following files are installed by the eLink Adapter for Siebel software.

Table 2-3 Windows NT Installation Files and Directories

Directory	Files
bin	ELINKSBLO.exe libadk.dll
elink/catalogs	elinksblo.txt
elink/siebel	elsieb_env.cfg ubbelsieb setenv.bat
/udataobj	field32tbl

3 Configuring eLink Adapter for Siebel

Defining the Server

Before running the eLink Adapter for Siebel, you must identify the ELINKSBLO server in the UBBCONFIG file. A sample UBBCONFIG file is provided on the installation CD-ROM. You can use this sample file as a base for creating your own UBBCONFIG file. Listing 3-1 shows the syntax for defining the ELINKSBLO server in the UBBCONFIG file.

Listing 3-1 Syntax for ELINKSBLO Server Definition in the UBBCONFIG File

```
*SERVERS
   ELINKSBLO SRVGRP="identifier" SRVID="number'
   CLOPT= " -- -C configuration_file_name "
```

For information about the SRVGRP, SRVID, and CLOPT parameter syntax and definitions, refer to the *BEA Tuxedo Reference Manual*.

CLOPT= " -- -C *configuration_file_name*"
specifies the eLink Adapter for Siebel configuration file.

Configuring the eLink Adapter for Siebel

The `elsieb_env.cfg` file controls the operation of the eLink Adapter for Siebel server (ELINKSBLO). Following are the sections of the configuration file and the parameters you can define for each section. A sample configuration file is provided in the Sample eLink Adapter for Siebel Configuration File section.

Note: `elsieb_env.cfg` is a generic filename. You can name this file anything you choose, but the filename must match the `-C` *`configuration_file_name`* parameter you specify in the eLink Platform UBBCONFIG file. (See Defining the Server for instructions on configuring the ELINKSBLO server in the UBBCONFIG file.)

The eLink Adapter configuration file is divided into the following sections:

- `SERVER`

  Contains the general parameters required during server startup.

- `SERVICE`

  Contains a list of services to be performed and the parameters required for each service.

- `FIELDMAP`

  Contains the field names required by the services listed in the SERVICE section.

Defining the SERVER Section

The syntax for the SERVER section of the eLink Adapter configuration file is as follows:

Listing 3-2 Syntax for SERVER section

```
*SERVER
   NAME="identifier"
   EXIT_CONNECT_LOSS="Y/N"
   CORBAOM_HOST="host_name"
   MAXMSGLVL="max_trace_level_range"
   MINMSGLVL="min_trace_level_range"
   LOGIN_NAME="userID"
   PASSWORD="password"
```

Required Parameters

The following parameters must be defined in the SERVER section:

NAME
: A unique identifier for this specific instance of the adapter. Alphanumeric.

CORBAOM_HOST
: The host name where the Siebel Object Manager is installed and running. The eLink Adapter makes a connection to the Object Manager to instantiate the application object.

LOGIN_NAME
: Login name to be used to for logging in to the Siebel server. Each Siebel user is assigned a unique login name. Each user is also assigned access to specific Siebel screens/views in applications.

PASSWORD
: Password associated with the LOGIN_NAME.

Optional Parameters

The following parameters are optional in the SERVER section:

EXIT_CONNECT_LOSS
: Specifies whether the eLink Adapter should exit when it detects that the connection to the Siebel server has been lost. 'Y' indicates that the eLink Adapter will exit; 'N' indicates that it will not exit.

MAXMSGLVL
: Indicates the maximum trace level range to be used by the eLink Adapter for logging trace messages.

MINMSGLVL
: Indicates the minimum trace level range to be used by the eLink Adapter for logging trace messages.

Defining the SERVICE Section

The syntax for the SERVICE section of the eLink Adapter configuration file is as follows:

Listing 3-3 Syntax for SERVICE section

```
*SERVICE
  NAME="service_name"
  BUSINESS_OBJECT="Siebel_business_object"
  BUSINESS_COMPONENT="Siebel_business_component_object"
  OPERATION="operation_performed"
  PARENT_BUS_COMP="Siebel_business_component_object"
  MVG_FIELD="multi-value_group_field_name"
  LINK_FIELD="key_field_name"
  FMID="field_map_identifier"
```

Required Parameters

The following parameters must be defined in the SERVER section:

NAME
: The service name being advertised.

BUSINESS_OBJECT
: The business object required to access the business component object on which the service will act.

BUSINESS_COMPONENT
: The business component object on which the service will act.

OPERATION
: The operation to be performed on the business component object. Valid values are NEW, UPDATE, DELETE, READ, and LINK.

PARENT_BUS_COMP
: The parent business component object for the specified BUSINESS_COMPONENT. This is required if performing a LINK operation.

FMID
: The field map section that lists the field names required for the operation.

Optional Parameters

The following parameters are optional in the SERVICE section:

MVG_FIELD
: When a Business Component object is being linked to its parent object, this field retrieves the Business Component object in context of its parent. Multi-value fields are representative fields for Business Component objects in their parent objects.

LINK_FIELD
: When a child object is created or linked to a parent object, the eLink Adapter updates this field value in the parent object.

Defining the FIELDMAP Section

The syntax for the FIELDMAP section of the eLink Adapter configuration file is as follows:

Listing 3-4 Syntax for FIELDMAP section

```
*FIELDMAP
   FMID="Field_map_identifier"
   <Application Field Name>:<FML32 Field Name>:
       <Input/Output>:<Field Designator>
```

Required Parameters

The following parameters must be defined in the FIELDMAP section:

FMID
: A unique identifier for the field map. This identifier is referenced by the service definition using the map. A field map may be referenced by more than one service, if applicable.

APPLICATION FIELD NAME
: The exact name of the Siebel Business Component object field.

FML32 FIELD NAME
: The name of the FML field associated with this application field name. This is the same field name that is used to build the FML buffer and is specified in the FML field table file.

INPUT/OUTPUT
: Defines whether a field is expected as input, passed as output, or both. Valid values are I (input), O (output), and IO (both). This tag can be used to designate the field names that are returned by the service upon completion of an operation. For the "Link" operation, the output field tags can only be attached to the fields of parent Business Component objects.

FIELD DESIGNATOR
: A designator for the defined field. This can be used to designate required fields, key fields, optional fields, etc. Valid values are:

  R=Mandatory Field
  Field names that are required as input to the service.

  O=Optional Field
  Field Names that may be used as input or output to the service

  K=Primary Key Field
  Retrieves a unique business component object for a read, update, delete, link, delink, or newlink function.

  P=Primary Key Field for the Parent Object
  Retrieves a parent business component object when a link operation is performed.

Following is an example of the FIELDMAP section. In this example, the application field name Middle Name maps to the FML32 field EL_SBL_MIDDLE_NAME. The field is optional (designated by "O"), and the field is an output field (designated by "O").

Listing 3-5 Example `FIELDMAP` section

```
*FIELDMAP
   FMID=Map1
   Middle Name:EL_SBL_MIDDLE_NAME:O:O
   M/M:EL_SBL_M_OR_M:I:R
   Employer ID:EL_SBL_EMPLOYER_ID:O:R
   Work Phone #:EL_SBL_WORK_PHONE_NUM:I:O
```

Sample eLink Adapter for Siebel Configuration File

This section contains a sample configuration file for the New Account Creation service.

Listing 3-6 Sample configuration file for New Account Creation service

```
*SERVER
NAME=sbloAdapter
MINMSGLEVEL=0
MAXMSGLEVEL=9
EXIT_CONNECTION_LOSS=Y
RESPONSE_BUFFER_SIZE=12000
CORBAOM_HOST=SJAIN
LOGIN_NAME=PARULG
PASSWORD=PARULG

# New Account with all Details Service

*SERVICE
NAME=NAccntAccntDWA
BUSINESS_OBJECT=Account
BUSINESS_COMPONENT=Account
OPERATION=New
FMID=NAccntAccntDWAMap

*FIELDMAP
FMID=NAccntAccntDWAMap

# MANFLD_LIST
Name:EL_SBL_NAME:I:R
Primary Contact Last Name:EL_SBL_PRI_CONTACT_LAST_NAME:I:R
Primary Contact First Name:EL_SBL_PRI_CONTACT_FIRST_NAME:I:R
# OPTFLD_LIST
```

```
SA House Num:EL_SBL_SA_HOUSE_NUM:I:O
SA Street Name:EL_SBL_SA_STREET_NAME:I:O
SA Building:EL_SBL_SA_BUILDING:I:O
SA City:EL_SBL_SA_CITY:I:O
SA State:EL_SBL_SA_STATE:I:O
SA Postal Code:EL_SBL_SA_POSTAL_CODE:I:O
SA Country:EL_SBL_SA_COUNTRY:I:O
Type:EL_SBL_TYPE:I:O
Account Status:EL_SBL_ACCOUNT_STATUS:I:O
Parent Account Name:EL_SBL_PARENT_ACCOUNT_NAME:I:O
Primary Contact Work Phone:EL_SBL_PRI_CONTACT_WORK_PHONE:I:O
Primary Contact Home Phone:EL_SBL_PRI_CONTACT_HOME_PHONE:I:O
Primary Contact Fax:EL_SBL_PRIMARY_CONTACT_FAX:I:O
Primary Contact Authorization
Level:EL_SBL_PRI_CONTACT_AUTH_LVL:I:O
Primary Contact Comm Method:EL_SBL_PRI_CONTACT_COMM_METH:I:O
Primary Contact Password:EL_SBL_PRI_CONTACT_PASSWORD:I:O
Password:EL_SBL_PASSWORD:I:O
Customer Since:EL_SBL_CUSTOMER_SINCE:I:O
Language:EL_SBL_LANGUAGE:I:O
Preferred Communication Method:EL_SBL_PREF_COMM_METHOD:I:O

# OUTFLD_LIST
Id:EL_SBL_ID_ACCOUNT:O:R
Primary Contact Id:EL_SBL_PRIMARY_CONTACT_ID:O:R
Current Service Address Id:EL_SBL_CURRENT_SERVICE_ADD_ID:O:R
```

Understanding Service Invocation Requirements

Each unique business-level function that can be invoked by the eLink Adapter for Siebel is advertised as a eLink Platform service. To invoke a service, a calling application prepares an FML32 request buffer specifying the input values that are to be passed to Siebel. The calling application then invokes the corresponding eLink Platform service, passing the FML32 request buffer.

The eLink Adapter for Siebel has a generic `EL_SIEBEL_OUT` service that processes all of the service requests. When invoked, the service code determines the service name that was used to invoke it. The service code then calls a function that processes the

request, depending on the operation requested. This function takes the service name and FML32 request buffer as input parameters and returns the FML32 response buffer and error information (if any) as output parameters. From the service operation, the function determines the Siebel interface functionality to invoke. The function then processes the FML32 request buffer, invokes the Siebel interface functionality, and then returns the response parameters in an FML32 buffer. If any errors occur, the function returns error information.

If the Siebel interface functionality was invoked successfully, a `TPSUCCESS` code is returned, with the `tpurcode` set to 0. If the invocation failed, the service code returns the error code and error message as parameters of `tpreturn()` call.

The eLink Adapter for Siebel uses only FML32 Field names, not Field IDs, when processing the request and response buffers. The Field names must be defined in the eLink Platform FML Field Table file. This allows the actual Field IDs to be customer-defined.

Understanding Siebel Adapter Services

The Siebel adapter service can manipulate any Siebel Business Component Object.

Services are created via the adapter configuration file for the New, Read, Update, Delete, Link, Delink, and NewLink operations on each Business Component Object. For Link, Delink, and NewLink operations, you will need to specify additional information such as parent/child Business Component Objects.

The Siebel interface function can open only one connection to the application server at a time. Every Siebel user is part of a certain Siebel group, and every group has certain permissions for the business objects views. The Siebel application can present the same business object to different users using different views. Groups can be assigned permissions to access these views. This can be handled using one of the following methods:

- Create a service for the eLink Adapter, which can read the object name and operation on the Siebel business component object as mentioned in the configuration file.
- More than one Tuxedo server can be configured using the configuration file for the Siebel adapter so as to connect to different Siebel applications.
- The configuration file lists all the servers and services advertised by every server.
- The configuration file contains variables for the business object name, business component object name, and user name and password. Siebel can determine the group from the user name and associated access permissions to it.

4 Running eLink Adapter for Siebel

The eLink Adapter for Siebel reads a server configuration files and attempts to connect to the specified Siebel server.

Running the eLink Adapter for Siebel consists of the following startup operations:

- Specifying the Configuration File
- Reading the Configuration Information
- Advertising Services for Siebel Applications

Note: The eLink Adapter for Siebel supports Visibroker C++ version 3.3 ORB and Orbix 3.0c. Make sure the ORB is properly configured and running before issuing requests to the eLink Adapter.

Specifying the Configuration File

The eLink Adapter for Siebel configuration file must be specified on the `CLOPT` line of the `UBBCONFIG` file or the eLink Adapter for Siebel generates an error and exit the startup. (See Configuring eLink Adapter for Siebel for more information).

Reading the Configuration Information

The eLink Adapter for Siebel reads the configuration variables in the SERVER section of the specified configuration file. If any required variables are missing, the eLink Adapter generates an error and exits the startup procedure.

Once all configuration information in the SERVER section is parsed and stored into a lookup table, the eLink Adapter for Siebel opens a connection to the Siebel CORBAOM. If the connection cannot be opened, the eLink Adapter logs an error and exits.

The eLink Adapter for Siebel then reads the services listed in the SERVICE section of the specified configuration file. Each service must have a NAME and an OPERATION specified. The NAME is used to advertise the service, and the OPERATION specifies the function to be performed on the Siebel business object. The eLink Adapter parses the information in the SERVICE section and stores it in a lookup table.

Note: Service names must comply with eLink Platform requirements.

Advertising Services for Siebel Applications

Once the eLink Adapter for Siebel has processed all the service names specified in the SERVICE section of the configuration file, the eLink Adapter for Siebel advertises the service names. If the configuration file contains insufficient data for the service, an error is generated and the service is not advertised. The eLink Adapter for Siebel then proceeds with the next service configuration.

A Error Messages

This document contains the following descriptions of error, informational, and warning messages that can be encountered while using the BEA eLink Adapter for Siebel component.

1:ELINK_EPERM	**ERROR: Unable to pass License check**	
	DESCRIPTION	License to run adapter is not present in tuxedo_home\udataobj\lic.txt file.
	ACTION	Add required license text lines to tuxedo_home\udataobj\lic.txt file and run adapter again.
2:ELINK_EINVAL	**ERROR: Unable to retrieve configuration file name using parameter -C**	
	DESCRIPTION	The adapter configuration file name is not given in command line parameter -C of "elinksblo" server entry in eLink Platform configuration file.
	ACTION	Check the eLink Platform configuration file for command line parameter -C of "elinksblo" server and specify adapter configuration file with proper syntax or check that file is present in application directory.
3:ELINK_ECONFIG	**ERROR: Unable to process configuration file <%s>**	
	DESCRIPTION	Specified adapter configuration file has erroneous or missing data.

	ACTION	Correct the erroneous or missing data in configuration file. See other error messages if any, before this message.
4:ELINK_ECONFIG	**ERROR: Unable to set Message Levels**	
	DESCRIPTION	The message level tags for trace defined in adapter configuration file might be wrong or missing.
	ACTION	Check the message level tags MINMSGLEVEL or MAXMSGLEVEL names and values. The values should be between 0 to 9.
5:ELINK_ELINIT	**WARN: MINMSGLEVEL or MAXMSGLEVEL is not in the range 0-9**	
	DESCRIPTION	The MINMSGLEVEL and/or MAXMSGLEVEL parameters in configuration parameter file are not set within 0 to 9.
	ACTION	Check the message level tags MINMSGLEVEL and/or MAXMSGLEVEL values are set between 0 to 9 (including both).
6:ELINK_EAPP_UNAVAIL	**ERROR: Unable to connect Siebel Data Server**	
	DESCRIPTION	The adapter is unable to make connection to Siebel Data Server. Error might be due to incorrect logon name and/or password, CORBA Object Manager is not running or incorrect CORBA OM machine name or security and/or network problems between adapter server machine and machine running CORBA OM

.	**ACTION**	Check values of CORBAOM_HOST, LOGIN_NAME, PASSWORD parameters. Check the connectivity/security between adapter server machine and machine running CORBA OM is correct and CORBA OM is running. See other error messages before this message, if any.
7:ELINK_EINVAL	**ERROR: Unable to get Service <%s> from hash table**	
	DESCRIPTION	The ADK API failed to get required service from hash table for further processing.
	ACTION	Call technical support.
8:ELINK_EATMI	**ERROR: Unable to advertise service <%s>, error = <%s>**	
	DESCRIPTION	The service could not be advertised due to eLink Platform call failure.
	ACTION	Call technical support.
11:SBL_ADK_ERROR	**ERROR: Unable to initialize hash table**	
	DESCRIPTION	The ADK API failed to initialize hash table for storing service data from configuration file.
	ACTION	Call technical support.
12:ELINK_EINVAL	**ERROR: Unable to open configuration file <%s>**	
	DESCRIPTION	Adapter is unable to open required configuration file as specified.
	ACTION	Check that adapter configuration file name is correct and present in application directory and appropriate permissions are granted.

13:ELINK_ECONFIG	**ERROR: No SERVER section defined in config file <%s>**	
	DESCRIPTION	Adapter unable to retrieve SERVER section from specified configuration file.
	ACTION	Define SERVER section required for adapter in configuration file with proper syntax.
14:ELINK_ECONFIG	**ERROR: Invalid SERVER name: <%s> in config file <%s>**	
	DESCRIPTION	The NAME parameter value in SERVER section of specified configuration file is either missing or incorrect.
	ACTION	Define correct NAME parameter value as “sbloAdapter”.
15:ELINK_ECONFIG	**ERROR: Required parameter NAME missing from SERVER section**	
	DESCRIPTION	Adapter unable to retrieve NAME parameter of SERVER section from adapter configuration file.
	ACTION	Define NAME parameter tag and value in SERVER section of adapter configuration file.
17:ELINK_ECONFIG	**ERROR: Required parameter RESPONSE_BUFFER_SIZE missing from SERVER section**	
	DESCRIPTION	Adapter unable to retrieve RESPONSE_BUFFER_SIZE parameter of SERVER section from adapter configuration file.
	ACTION	Define RESPONSE_BUFFER_SIZE parameter tag and value in SERVER section of adapter configuration file.

18:ELINK_ECONFIG	**WARN: MINMSGLEVEL and MAXMSGLEVEL is 0-0, tracing will not be started**	
	DESCRIPTION	This is warning to user that no tracing will be started as specified parameter tag values are set to 0.
	ACTION	If you want tracing to be started then, set message level parameters appropriately between 0 to 9.
19:ELINK_ECONFIG	**ERROR: Required parameter CORBAOM_HOST missing from SERVER section**	
	DESCRIPTION	Adapter unable to retrieve CORBAOM_HOST parameter of SERVER section from adapter configuration file.
	ACTION	Define CORBAOM_HOST parameter tag and value in SERVER section of adapter configuration file.
20:ELINK_ECONFIG	**ERROR: Required parameter LOGIN_NAME missing from SERVER section**	
	DESCRIPTION	Adapter unable to retrieve LOGIN_NAME parameter of SERVER section from adapter configuration file.
	ACTION	Define LOGIN_NAME parameter tag and value in SERVER section of adapter configuration file.
21:ELINK_ECONFIG	**ERROR: Required parameter PASSWORD missing from SERVER section**	
	DESCRIPTION	Adapter unable to retrieve PASSWORD parameter of SERVER section from adapter configuration file.

	ACTION	Define PASSWORD parameter tag and value in SERVER section of adapter configuration file.
22:ELINK_ECONFIG	**WARN: More than one SERVER section found in config file, ignoring**	
	DESCRIPTION	Adapter has found more than one SERVER section in adapter configuration file. It will ignore these server sections.
	ACTION	Remove the unwanted SERVER sections from adapter configuration file. Adapter is designed to work with one SERVER section in configuration file.
23:ELINK_ECONFIG	**ERROR: No SERVICE section defined in config file <%s>**	
	DESCRIPTION	Adapter unable to retrieve SERVICE section from specified configuration file.
	ACTION	Define SERVICE section required for adapter in configuration file with proper syntax.
24:ELINK_EOS	**WARN: Failed to allocate memory for <%s>**	
	DESCRIPTION	A general memory allocation failure has occurred.
	ACTION	Call technical support.
25:ELINK_ECONFIG	**ERROR: No FIELDMAP section defined for the service <%s>**	
	DESCRIPTION	Adapter unable to retrieve FIELDMAP section for specified service in configuration file.
	ACTION	Define the FIELDMAP section for service or check FMID value in service section and its FIELDMAP section.
26:ELINK_ECONFIG	**ERROR: Invalid SERVICE parameter: <%s>**	

	DESCRIPTION	The tag defined in SERVICE section for specified service is not valid tag.
	ACTION	Correct the tag name for specified service in adapter configuration file.
27:SBL_ADK_ERROR	**ERROR: Unable to add service <%s> to hashtable**	
	DESCRIPTION	The ADK API failed to add service details to hash table.
	ACTION	Error might be due to duplicate service name or memory allocation error. Call technical support.
28:ELINK_ECONFIG	**WARN: Service <%s> validation failed, will not be added to hash table**	
	DESCRIPTION	The specified service contains invalid tag name/value and will not be added to hash table for further processing.
	ACTION	Check the specified service parameter tag names/values in configuration file. See other error messages before this message, if any.
29:SBL_ADK_ERROR	**ERROR: Unable to read next service section**	
	DESCRIPTION	The ADK API failed to read service section from configuration file.
	ACTION	Call technical support or check SERVICE section parameter tags names/values and format.
31:ELINK_ECONFIG	**ERROR: Unable to get FIELDMAP for the service <%s> in configfile**	
	DESCRIPTION	Adapter unable to retrieve FIELDMAP section for specified service in configuration file using FMID.

	ACTION	Check that the FIELDMAP section for service is defined and/or check FMID value in service section and its FIELDMAP section.
32:ELINK_ECONFIG	**WARN: Invalid input output field type <%s> for field name <%s>**	
	DESCRIPTION	The input/output field type for specified field name from FIELDMAP section contains invalid field type. Field name will be ignored.
	ACTION	Correct the input/output field type for specified field. The valid values are 'I', 'O' and 'IO'.
33:ELINK_ECONFIG	**WARN: Invalid field designator <%s> for field name <%s>**	
	DESCRIPTION	The field designator for specified field name from FIELDMAP section contains invalid field designator. Field name will be ignored.
	ACTION	Correct the field designator for specified field. The valid values are 'K', 'P', 'O' and 'R'.
36:ELINK_ECONFIG	**ERROR: Required parameter NAME missing from SERVICE section**	
	DESCRIPTION	Adapter unable to retrieve NAME parameter of SERVICE section from adapter configuration file, for one of the service.
	ACTION	Define NAME parameter tag and value in SERVICE section of adapter configuration file.
37:ELINK_ECONFIG	**ERROR: Required parameter BUSINESS_OBJECT missing from SERVICE section <%s>**	

	DESCRIPTION	Adapter unable to retrieve BUSINESS_OBJECT parameter from SERVICE section of specified service.
	ACTION	Define BUSINESS_OBJECT parameter's tag and value in SERVICE section of specified service in adapter configuration file.
38:ELINK_ECONFIG	**ERROR: Required parameter BUSINESS_COMPONENT missing from SERVICE section <%s>**	
	DESCRIPTION	Adapter unable to retrieve BUSINESS_COMPONENT parameter from SERVICE section of specified service.
	ACTION	Define BUSINESS_COMPONENT parameter's tag and value in SERVICE section of specified service in adapter configuration file.
39:ELINK_ECONFIG	**ERROR: Required parameter OPERATION missing from SERVICE section <%s>**	
	DESCRIPTION	Adapter unable to retrieve OPERATION parameter from SERVICE section of specified service.
	ACTION	Define OPERATION parameter's tag and value in SERVICE section of specified service in adapter configuration file.
40:ELINK_ECONFIG	**ERROR: No fields defined in FIELDMAP section for SERVICE section <%s>**	
	DESCRIPTION	Adapter unable to retrieve FIELDMAP section from SERVICE section of specified service.
	ACTION	Define FIELDMAP section and FMID parameter's tag and value in SERVICE section of specified service in adapter configuration file.

46:SBL_ADK_ERROR	**ERROR: Unable to get CORBAOM_HOST from hash table, can not make connection to Siebel application.**	
	DESCRIPTION	The ADK API failed to get required CORBAOM HOST name from hash table for making connection to Siebel Data Server.
	ACTION	Call technical support.
47:SBL_ADK_ERROR	**ERROR: Unable to get LOGIN_NAME from hash table, can not make connection to Siebel application.**	
	DESCRIPTION	The ADK API failed to get required LOGIN_NAME name from hash table for making connection to Siebel Data Server.
	ACTION	Call technical support.
48:SBL_ADK_ERROR	**ERROR: Unable to get PASSWORD from hash table, can not make connection to Siebel application.**	
	DESCRIPTION	The ADK API failed to get required PASSWORD name from hash table for making connection to Siebel Data Server.
	ACTION	Call technical support.
49:ELINK_EAPP_API	**ERROR: CORBA - Unable to Initialize ORB and/or unable to bind factory object to host <%s>, see dump in stderr file.**	
	DESCRIPTION	The bind call of ORB is failed to initialize or unable to bind Siebel Object Factory to specified CORBAOM HOST name.
	ACTION	Check that correct CORBAOM HOST name is given in configuration file and is running. Check network connectivity/security between adapter server and CORBAOM machine.
50:SBL_APPLICATION_ERR	**ERROR:SIEBEL - Code: 4184, Description: You have entered an invalid set of logon parameters. Please type in your logon parameters again.**	
	DESCRIPTION	The Siebel application login call failed.

	ACTION	Check LOGIN_NAME and PASSWORD parameter values in configuration file.
56:SBL_ADK_ERROR	**ERROR: Unable to get NAME from hash table**	
	DESCRIPTION	The ADK API failed to get required NAME tag value from hash table for SERVER section.
	ACTION	Call technical support.
59:SBL_ADK_ERROR	**ERROR: Unable to get RESPONSE_BUFFER_SIZE from hash table**	
	DESCRIPTION	The ADK API failed to get required RESPONSE_BUFFER_SIZE tag value from hash table for SERVER section.
	ACTION	Call technical support.
60:SBL_ADK_ERROR	**ERROR: Unable to get CORBAOM_HOST from hash table**	
	DESCRIPTION	The ADK API failed to get required CORBAOM_HOST tag value from hash table for SERVER section.
	ACTION	Call technical support.
61:SBL_ADK_ERROR	**ERROR: Unable to get LOGIN_NAME from hash table**	
	DESCRIPTION	The ADK API failed to get required LOGIN_NAME tag value from hash table for SERVER section.
	ACTION	Call technical support.
66:SBL_ADK_ERROR	**ERROR: Unable to get Service <%s> from hash table**	
	DESCRIPTION	The ADK API failed to get required Service name from hash table for further processing.

	ACTION	Call technical support.
68:ELINK_EAPP_API	**ERROR: CORBA - Possible error might be: 1. Due to attribute setting of the business component object, 2. Invalid field name or field attribute setting of business component object (Check settings in Siebel Tools), 2. Due to connection loss to CORBA OM, 3. Due to illegal application or object pointer (Retry again or shutdown and restart CORBAOM and eLink Platform adapter server, See dump in stderr)**	
	DESCRIPTION	The adapter has encountered application interface level error.
	ACTION	Check settings of business component object and field names in Siebel Tools. Check connection to CORBAOM. Retry again or shutdown and restart CORBAOM and eLink Platform adapter server.
69:ELINK_EAPP_API	**ERROR: SIEBEL - Code: <%d>, Description: <%s>**	
	DESCRIPTION	The Siebel application call has encountered error. As described in description tag.
	ACTION	See details in Siebel application manual.
70:ELINK_EFML	**ERROR: Unable to get data from FML buffer for service <%s>, see more error in ulog.**	
	DESCRIPTION	Adapter is unable to retrieve the required FML field data from buffer it has received. eLink Platform call to process FML buffer has failed.
	ACTION	Check the FML field table, FML field names in FIELDMAP section and client sending the FML field for the specified service.
71:ELINK_ENOENT	**ERROR: Unable to map appropriate Siebel Function for service <%s>**	

	DESCRIPTION	Adapter is unable to map the specified service operation to adapter Siebel function.
	ACTION	Correct the OPERATION tag value for specified service. The valid values are 'New', 'Update', 'Delete', 'Read', 'Link', 'DeLink' and 'NewLink'.
72:ELINK_EFML	**ERROR: Failed to allocate FML response buffer: <%s>**	
	DESCRIPTION	The eLink Platform FML buffer memory allocation call failed to allocate memory to FML buffer.
	ACTION	Check the size of RESPONSE_BUFFER_SIZE or Call technical support.
73:ELINK_EFML	**ERROR: Unable to add field name <%s> to FML response buffer: <%s>**	
	DESCRIPTION	The eLink Platform FML buffer manipulation call failed.
	ACTION	Call technical support.
76:ELINK_EINVAL	**ERROR: Required field name <%s> not found in the request buffer for service <%s>**	
	DESCRIPTION	The specified mandatory field name/value is missing in request buffer received from caller for specified service.
	ACTION	Check the FML field name/value sent to adapter.
77:ELINK_ECONFIG	**ERROR: RESPONSE_BUFFER_SIZE parameter value is less than required size <%ld> for returning result.**	
	DESCRIPTION	The RESPONSE_BUFFER_SIZE parameter value is not enough to return result back to caller.

	ACTION	Increase the value of RESPONSE_BUFFER_SIZE parameter value as specified in message.
82:ELINK_EOS	**ERROR: ADAPTER - Reallocation of output buffer in read operation failed**	
	DESCRIPTION	A general memory allocation failure has occurred.
	ACTION	Call technical support.
83:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to retrieve records from database for read operation, check search criteria set for input fields PRIMARY KEY (K) or MANDATORY FIELD (R) values.**	
	DESCRIPTION	Adapter is unable to fetch records using given primary key and/or mandatory field values.
	ACTION	Check search criteria set for primary key and/or mandatory field values or record does not exists.
86:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to get required input PRIMARY KEY (K) or MANDATORY FIELD (R) fields for retrieving record from database for update.**	
	DESCRIPTION	The input list given for update operation does not contain primary key and mandatory fields required for fetching record.
	ACTION	Specify the primary key and/or mandatory field names in configuration file for fetching unique record for update.
87:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to get unique record from database for update, check search criteria set for input PRIMARY KEY (K) or MANDATORY FIELD (R) fields values.**	
	DESCRIPTION	Adapter is unable to fetch unique record using given primary key and/or mandatory field values.

	ACTION	Check search criteria set for primary key and/or mandatory field values to fetch unique record for update.
88:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to retrieve the required record from database for update, check search criteria set for input PRIMARY KEY (K) or MANDATORY FIELD (R) fields values**	
	DESCRIPTION	Adapter is unable to fetch records using given primary key and/or mandatory field values for update.
	ACTION	Check search criteria set for primary key and/or mandatory field values or record does not exists.
91:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to get required input PRIMARY KEY (K) or MANDATORY FIELD (R) fields for retrieving record from database for delete.**	
	DESCRIPTION	The input list given for delete operation does not contain primary key and mandatory fields required for fetching record.
	ACTION	Specify the primary key and/or mandatory field names in configuration file for fetching unique record for delete.
92:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to get unique record from database for delete, check search criteria set for input PRIMARY KEY (K) or MANDATORY FIELD (R) fields values.**	
	DESCRIPTION	Adapter is unable to fetch unique record using given primary key and/or mandatory field values.
	ACTION	Check search criteria set for primary key and/or mandatory field values to fetch unique record for delete.

93:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to retrieve the required record from database for delete, check search criteria set for input PRIMARY KEY (K) or MANDATORY FIELD (R) fields values**	
	DESCRIPTION	Adapter is unable to fetch records using given primary key and/or mandatory field values for delete.
	ACTION	Check search criteria set for primary key and/or mandatory field values or record does not exists.
96:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to get required input PARENT PRIMARY KEY (P) field to retrieve parent object for linking.**	
	DESCRIPTION	The input list given for link operation does not contain parent primary key required for fetching parent record.
	ACTION	Specify the 'parent primary key' field name in configuration file for fetching unique parent record for linking.
97:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to get unique parent object record from database for linking, check search criteria set for input PARENT PRIMARY KEY (P) field value for retrieving record.**	
	DESCRIPTION	Adapter is unable to fetch unique record using given parent primary key field value.
	ACTION	Check search criteria set for 'parent primary key' field value to fetch unique parent record for linking.
98:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to get required input MVG FIELD field for linking.**	
	DESCRIPTION	The input list given for link operation does not contain 'MVG FIELD' field name required for fetching associated primary (child) object.

	ACTION	Specify the 'MVG FIELD' field name in configuration file for fetching associated primary (child) object for linking.
99:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to get required input PRIMARY KEY (K) field for linking.**	
	DESCRIPTION	The input list given for link operation does not contain Primary Key field name required for fetching associated primary (child) record.
	ACTION	Specify the Primary Key field name in configuration file for fetching associated primary (child) record for linking.
100:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to get unique child object record from database for linking, check search criteria set for input PRIMARY KEY (K) field values for retrieving record.**	
	DESCRIPTION	Adapter is unable to fetch unique record using given primary key field value.
	ACTION	Check search criteria set for 'primary key' field value to fetch unique primary (child) record for linking.
101:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to retrieve the required child record from database for linking, check search criteria set for input PRIMARY KEY (K) field value.**	
	DESCRIPTION	Adapter is unable to fetch records using given primary key field values for linking.
	ACTION	Check search criteria set for primary key field value or record does not exists.
102:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to get required LINK FIELD field for linking.**	
	DESCRIPTION	The input list given for link operation does not contain 'LINK FIELD' field name required for associating primary (child) record.

	ACTION	Specify the 'LINK FIELD' field name in configuration file for associating primary (child) object for linking.
103:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to retrieve the required parent object record from database for linking, check search criteria set for input field PARENT PRIMARY KEY (P) field value.**	
	DESCRIPTION	Adapter is unable to fetch any parent object record using given 'parent primary key' field values for linking.
	ACTION	Check search criteria set for 'parent primary key' field value or record does not exists.
106:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to get required input PARENT PRIMARY KEY (P) field for linking new child record.**	
	DESCRIPTION	The input list given for new-link operation does not contain parent primary key field name required for fetching parent record.
	ACTION	Specify the 'parent primary key' field name in configuration file for fetching parent record for new-link.
107:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to get unique parent object record from database for linking (in NewLink - Operation), check search criteria set for input PARENT PRIMARY KEY (P) field value for retrieving record.**	
	DESCRIPTION	Adapter is unable to fetch unique record using given parent primary key field value.
	ACTION	Check search criteria set for 'parent primary key' field value to fetch unique parent record for new-link operation.
108:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to get required input MVG FIELD field for linking new child record.**	

	DESCRIPTION	The input list given for new-link operation does not contain 'MVG FIELD' field name required for fetching associated primary (child) object.
	ACTION	Specify the 'MVG FIELD' field name in configuration file for fetching associated primary (child) object for new-link operation.
109:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to get required input PRIMARY KEY (K) field for linking new child record.**	
	DESCRIPTION	The input list given for new-link operation does not contain primary key field name required for fetching associated child record.
	ACTION	Specify the primary key field name in configuration file for fetching associated primary (child) record for new-link operation.
110:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to get required input LINK FIELD field for linking new child record.**	
	DESCRIPTION	The input list given for new-link operation does not contain 'LINK FIELD' field name required for associating primary (child) record.
	ACTION	Specify the 'LINK FIELD' field name in configuration file for associating primary (child) object for new-link operation.
111:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to retrieve the required parent record from database for linking to child record, check search criteria set for input PARENT PRIMARY KEY (P) field value.**	
	DESCRIPTION	Adapter is unable to fetch any parent object record using given 'parent primary key' field values for new-link operation.

	ACTION	Check search criteria set for 'parent primary key' field value or record does not exists.
116:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to get required input PARENT PRIMARY KEY (P) field to retrieve parent object for de-linking.**	
	DESCRIPTION	The input list given for de-link operation does not contain parent primary key required for fetching parent record.
	ACTION	Specify the 'parent primary key' field name in configuration file for fetching unique parent record for de-linking.
117:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to get unique parent object record from database for de-linking, check search criteria set for input PARENT PRIMARY KEY (P) field value for retrieving record.**	
	DESCRIPTION	Adapter is unable to fetch unique record using given parent primary key field value.
	ACTION	Check search criteria set for 'parent primary key' field value to fetch unique parent record for de-linking.
118:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to get required input MVG_FIELD field for de-linking.**	
	DESCRIPTION	The input list given for de-link operation does not contain 'MVG FIELD' field name required for fetching associated primary (child) object.
	ACTION	Specify the 'MVG FIELD' field name in configuration file for fetching associated primary (child) object for de-linking.
119:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to get required input PRIMARY KEY (K) field for de-linking.**	

	DESCRIPTION	The input list given for de-link operation does not contain primary key field name required for fetching associated primary (child) record.
	ACTION	Specify the 'primary key field' name in configuration file for fetching associated primary (child) record for de-linking.
120:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to get unique child object record from database for de-linking, check search criteria set for input PRIMARY KEY (K) field value for retrieving record.**	
	DESCRIPTION	Adapter is unable to fetch unique record using given primary key field value.
	ACTION	Check search criteria set for 'primary key' field value to fetch unique primary (child) record for de-linking.
121:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to retrieve the required child record from database for de-linking, check search criteria set for input PRIMARY KEY (K) field value.**	
	DESCRIPTION	Adapter is unable to fetch records using given primary key field values for de-linking.
	ACTION	Check search criteria set for primary key field value or record does not exists.
122:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to get required input LINK_FIELD field for de-linking.**	
	DESCRIPTION	The input list given for de-link operation does not contain 'LINK FIELD' field name required for de-linking primary (child) record.
	ACTION	Specify the 'LINK FIELD' field name in configuration file for de-linking primary (child) object.

123:ELINK_APPLICATION_ERR	**ERROR: ADAPTER - Unable to retrieve the required parent object record from database for de-linking, check search criteria set for PARENT PRIMARY KEY (P) field value.**	
	DESCRIPTION	Adapter is unable to fetch any parent object record using given 'parent primary key' field values for de-linking.
	ACTION	Check search criteria set for 'parent primary key' field value or record does not exists.