



THE ENTERPRISE MIDDLEWARE SOLUTION

BEAeLink

for Mainframe SNA

Installation Guide

BEA eLink for Mainframe SNA 3.2
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BEA® eLink™ for Mainframe SNA Installation Guide

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1 Pre-Installation Considerations

The normal BEA eLink for Mainframe SNA environment generally consists of two properly configured components, a local environment and a remote environment.

Local Environment

A local environment is a UNIX-based or Windows NT-based machine running eLink SNA software. The software is fully bidirectional, supporting the local system as either a client or server. This environment consists of the following components:

- ◆ Hardware, which is any workstation and network interface supported by the required software.
- ◆ Operating system software and SNA protocol stacks (PU servers). Refer to *BEA eLink for Mainframe SNA Release Notes* for a complete listing.
- ◆ Either BEA TUXEDO 6.5, BEA WebLogic Enterprise 4.0, or 4.2 software

The platform on which eLink SNA software is installed must have either BEA TUXEDO 6.5, BEA WebLogic Enterprise 4.0, or 4.2 software already installed. Stack installation should also be completed and verified. (Refer to vendor documentation for stack installation and verification information.)

You must shut down all domain administrative and gateway servers within an application domain prior to installing eLink SNA software, particularly the following:

- ◆ GWTDOMAIN
- ◆ GWADM
- ◆ DMADM

Do not run the following commands until the installation is complete:

- ◆ dmadmin
- ◆ dmloadcf
- ◆ dmunloadcf

To ensure your applications deploy and operate correctly, the following order of installation must take place:

1. Install the stack software per vendor instructions.
2. Validate the stack software installation by configuring and running any sample applications provided by the vendor.
3. Once the stack software is operational, install TUXEDO or WebLogic Enterprise software.
4. Validate the TUXEDO or WebLogic Enterprise software installation by running the sample applications, such as `simpapp` and `bankapp`.
5. Install the eLink SNA software according to the instructions in this guide.
6. Validate the eLink SNA software installation by running the sample applications, such as `toupclt.c` (UNIX-based platform) or `ntenv.bat` (Windows NT-based platform).

Remote Environment

A remote environment is typically an IBM mainframe that may or may not be on the same local network. As in the local environment, eLink SNA software is fully bidirectional, supporting the remote system as either a client or server. This environment consists of the following components:

- ◆ Hardware is any workstation and network interface supported by the required software.
- ◆ Software (minimum revision level):
 - CICS 2.3 or higher
 - IMS/ESA DC 5.1 (optional)
 - MVS 5.22 9510 or higher, including OS/390 through 2.6
 - VSE/ESA 2.3
 - VTAM 3.4 or higher
- ◆ Support software for a mainframe (optional)

2 Planning

Prior to installing BEA eLink for Mainframe SNA software, you must ensure the CICS/ESA remote domain is prepared to conduct operations with the BEA TUXEDO local domain. This includes:

- ◆ Establishing the VTAM configuration
- ◆ Configuring the CICS/ESA Logical Unit (LU)
 - ◆ Creating connections
 - ◆ Defining sessions
- ◆ Completing cross-platform definitions
- ◆ Setting stack traces

Refer to the *BEA eLink for Mainframe SNA Information Center* home page, located on the product documentation CDROM, for more detailed information about these tasks.

Note: It is important to involve your mainframe system support personnel early in the process. In a large shop, separate individuals are likely to be responsible for MVS, VTAM, and CICS/ESA. Make sure everyone is involved.

3 Installation

BEA eLink for Mainframe SNA software runs on UNIX-based and Windows NT platforms. To install the UNIX-based software, you run a script that is supplied on the product CDROM and enter the needed information as the script progresses through the installation process. To install the Windows NT-based software, you establish a Windows session, launch the `setup.exe` executable, and respond to prompts by clicking on buttons and/or entering data in screen fields. Refer to the appropriate sections that follow for your installation instructions.

Installing on a UNIX-based Platform

To install eLink SNA software on a UNIX-based platform, you run the `install.sh` script. This script installs all of the necessary components required to run the software. As the script runs, it asks you for the following information:

- ◆ Platform on which to install eLink SNA software (Refer to *BEA eLink for Mainframe SNA Release Notes* for a complete listing of supported platforms.)
- ◆ Directory where BEA TUXEDO system is installed (You must enter a valid directory name.)
- ◆ SNA stack support for the platform selected (Refer to *BEA eLink for Mainframe SNA Release Notes* for a complete listing of platform-stack compatibility.)

Caution: If the Compaq SNA Stack is installed on your local system, your user name must appear in the UNIX Group Database Configuration file as a member of the "system" group list before installing eLink SNA software. If your name is not included in that list, a segmentation violation error occurs and the eLink SNA SNACRM fails to start. This applies to all users who must boot the TUXEDO system. Contact your UNIX System Administrator to include your name on the list.

- ◆ Directory where eLink SNA license is installed (Refer to *BEA eLink for Mainframe SNA Release Notes* for information about installing the license key.)

Listing 3-1 gives an example of running this script. The values in bold are supplied by you during installation. To accept default values at a prompt, press Enter.

Note: The platforms, stacks, and file names shown in Listing 3-1 are examples only. These values are dependent on platform and stack configurations for your system and may vary from the example.

Listing 3-1 `install.sh` Example

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

01) alpha/dux40          02) hp/hpux1020        03) hp/hpux11
04) ibm/aix43            05) sun5x/sol126        06) sun5x/sol17

Install which platform's files? [01-6, q to quit, l for list]: 2

** You have chosen to install from hp/hpux1020 **

BEA eLink for Mainframe Release SNA 3.2

This directory contains the BEA eLink for Mainframe System SNA for
HP-UX 10.20 on 9000/800 series.

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

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

The following packages are available:

      1      sna      BEA eLink for Mainframe SNA
```

Select the package(s) you wish to install (or 'all' to install all packages) (default: all) [?,??,q]: **1**

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Directory where SNA files are to be installed
(Enter your WLE or TUXEDO directory path) [?,q]: **/TUXEDO65**

Using /TUXEDO65 as the SNA base directory

The following SNA stack support options are available:

- | | | |
|---|------|----------------|
| 1 | hp60 | SNA plus2 v6.0 |
| 2 | all | All Stacks |

Select an option (default: all) [?,??,q]: **1**

Determining if sufficient space is available ...
32256 blocks are required
9308884 blocks are available to /TUXEDO65

Unloading /hp/hpux1020/sna/SNAT65.Z ...

bin/CRMLOGS
bin/DMINIT
bin/GWSNAX
bin/SNACRM
bin/Xsnacrm
bin/crmlkoff
bin/crmlkon
bin/lic.sh
bin/xsnacrm
eLink/sna/simpapp/BEACONN.RDO
eLink/sna/simpapp/BEASNA.RDO
eLink/sna/simpapp/DMCONFIG
eLink/sna/simpapp/EXPIMSSV.c
eLink/sna/simpapp/IMPIMSSV.cbl
eLink/sna/simpapp/MIRRDPLC.c
eLink/sna/simpapp/MIRRDPLC.cbl
eLink/sna/simpapp/MIRRDTPC.c
eLink/sna/simpapp/MIRRDTPC.cbl
eLink/sna/simpapp/Makefile
eLink/sna/simpapp/README
eLink/sna/simpapp/TOUPDPLS.c
eLink/sna/simpapp/TOUPDPLS.c.VSE
eLink/sna/simpapp/TOUPDPLS.cbl

```
eLink/sna/simpapp/TOUPDTPS.c
eLink/sna/simpapp/TOUPDTPS.c.VSE
eLink/sna/simpapp/TOUPDTPS.cbl
eLink/sna/simpapp/TOUPDTPS.cbl.VSE
eLink/sna/simpapp/UBBCONFIG
eLink/sna/simpapp/app.env
eLink/sna/simpapp/dmunit.scr
eLink/sna/simpapp/hpux.env
eLink/sna/simpapp/mirrorsrv.c
eLink/sna/simpapp/toupclt.c
lib/fmb.def
lib/libcsxappc.sl
lib/libcsxcp.sl
lib/libcsxcrm.sl
lib/libcsxgpw.sl
lib/libcsxscrm.sl
lib/libcsxxcrm.sl
lib/libcsxxfm.sl
lib/libcsxxmw.sl
lib/libctxdebugs_10.sl
lib/libctxmess_10.sl
lib/libctxos_10.sl
lib/libctxprim_10.sl
lib/libgws.sl
locale/C/LIBGWS.text
locale/C/LIBGWS_CAT
udataobj/codepage/00819x00037
udataobj/codepage/00819x00273
udataobj/codepage/00819x00278
udataobj/codepage/00819x00284
udataobj/codepage/00819x00285
udataobj/codepage/00819x00297
udataobj/codepage/00819x00500
udataobj/codepage/00819x00860
udataobj/codepage/00819x01047
udataobj/codepage/00912x00870
udataobj/codepage/tuxedo
30280 blocks
... finished

Unloading /hp/hpux1020/sna/STKT65.Z ...
lib/libcsxhp60.sl
1930 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 Installation Guide for details on how to do this.

Installation of BEA eLink for Mainframe SNA was successful.

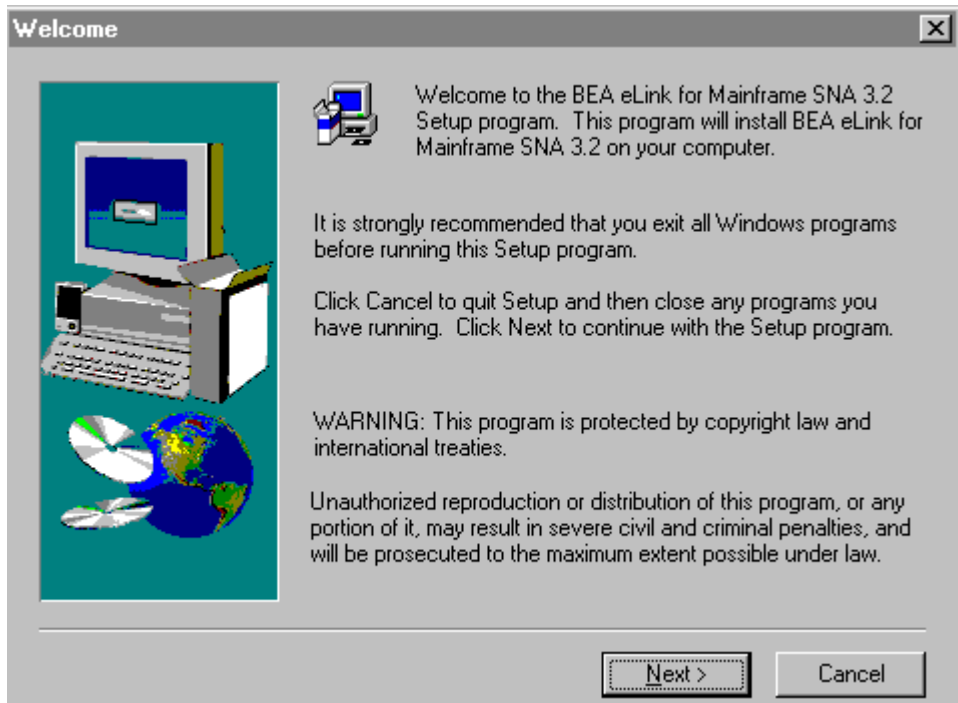
Please don't forget to fill out and send in your registration card.

Installing on a Windows NT Platform

Perform the following steps to install eLink SNA software on a Windows NT system.

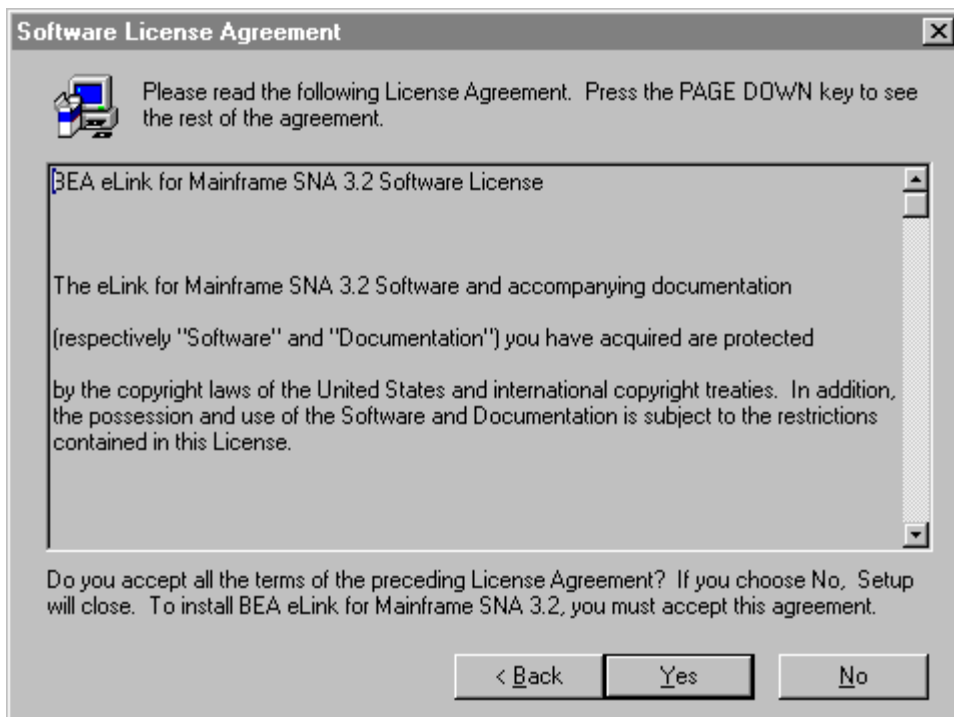
1. Insert the product CDROM into your drive and click on the **Run** option from the **Start** menu. The **Run** window displays. Click on the **Browse** button to select the CDROM drive. Select the winnt folder, then select the Setup.exe file. Click **OK** to run the executable and begin the installation. The **Welcome** screen displays. Click **Next** to continue.

Figure 3-1 Welcome Screen



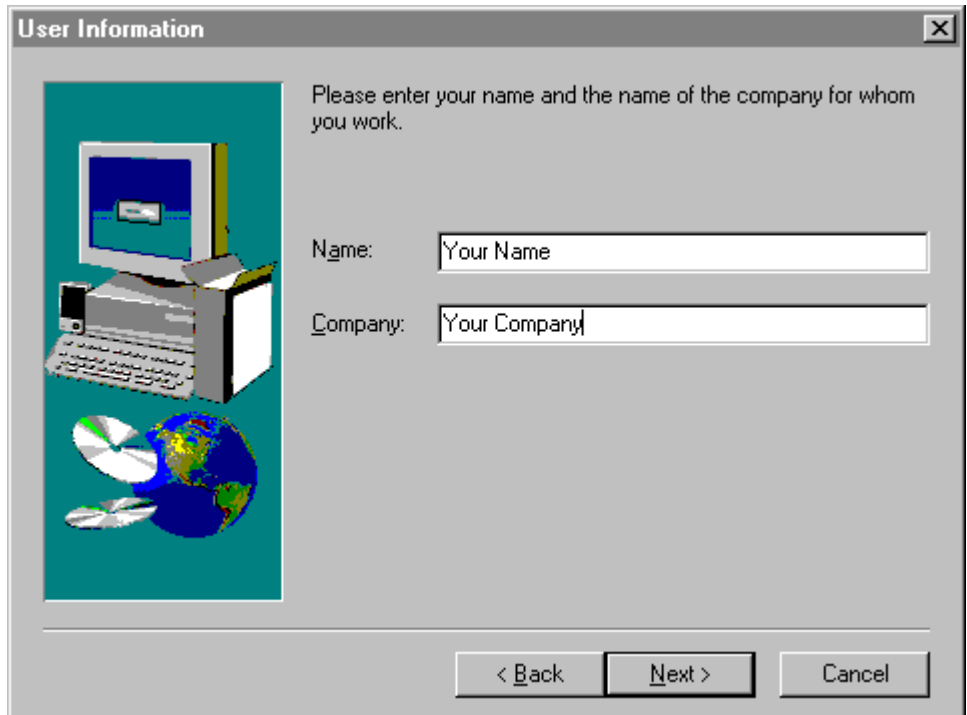
2. The **BEA Software License Agreement** displays. Click **YES** to accept the terms of the agreement and continue with the product installation. Click **No** to exit the installation process.

Figure 3-2 BEA Software License Agreement



3. The **User Information** screen displays next. Enter the name of the BEA TUXEDO System Administrator in the **Name** field. Enter the name of your company in the **Company** field. Click **Next** to continue with the installation.

Figure 3-3 User Information Screen



User Information

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

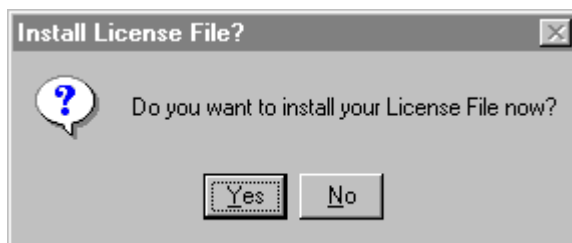
Name:

Company:

< Back Next > Cancel

4. 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 SNA software. If you select YES, continue with Step 5. If you select NO, continue with Step 7.

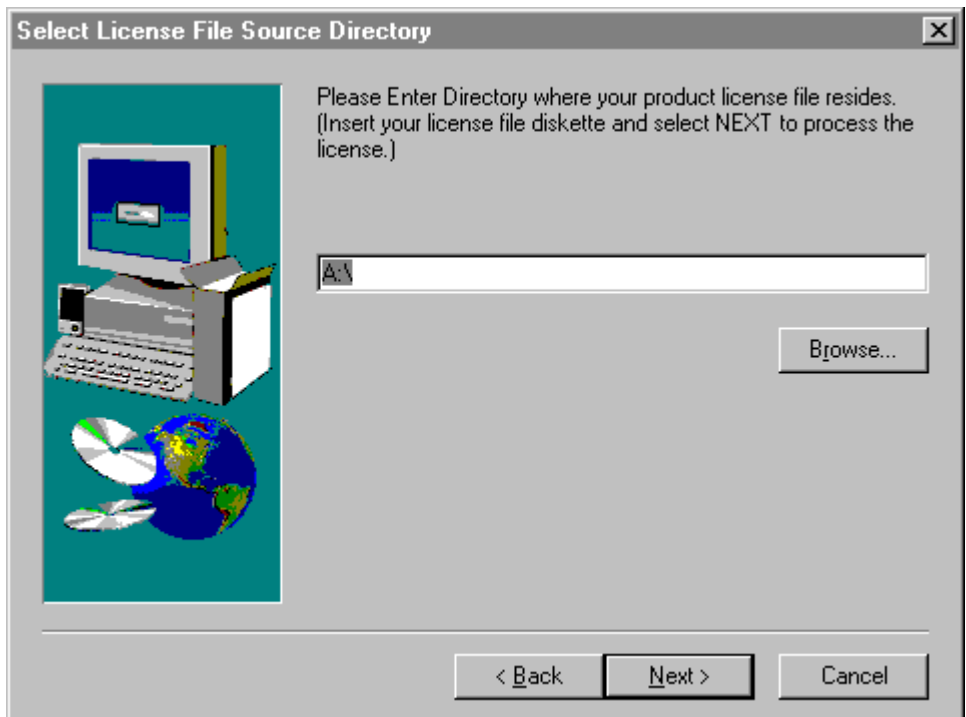
Figure 3-4 Install License File? Screen



5. 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 3-5 Select License File Source Directory Screen.



6. 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 either the TUXEDO or WebLogic Enterprise software. If it finds either, the installation software completes the process. If neither is found, the installation software aborts the process.

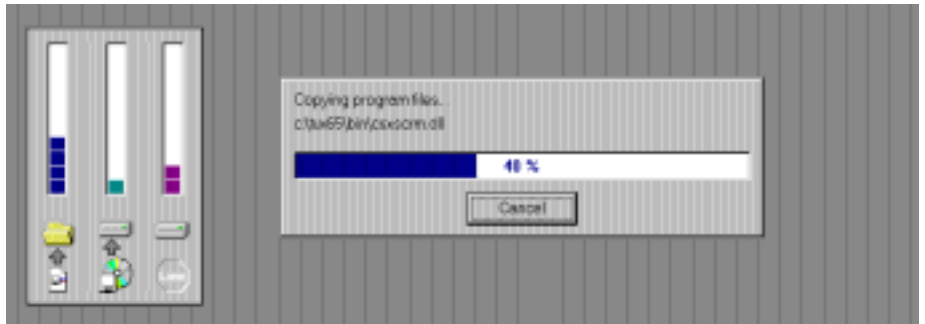
Once you have entered a valid directory path, click **Next** to continue with the installation. Go to Step 7.

Figure 3-6 Invalid License File Directory Dialog Box



7. The **Installation Progress** screen displays. This indicates the progress of the installation of files, the quantity of read operations from the CDROM, the available disk space being used, and the percent completion of the installation process. When the bar displays 100%, the installation has completed. You may abort the installation process anytime prior to completion by clicking the **Cancel** button.

Figure 3-7 Installation Progress Screen



8. The **Setup Complete** screen displays, indicating the eLink SNA software has been successfully installed on your platform. Click **Finish** to exit the installation process.

Figure 3-8 Setup Complete Screen



Installation Components

When the installation process is complete, the following eLink SNA components are established.

Note: Specific file names are platform-dependent. The listings in this section are included for example only.

Executables

Table 3-1 lists the eLink SNA executables that are installed into the `./bin` directory. The executable files with `.dll` extension are also installed on Windows NT platforms.

Table 3-1 eLink SNA Executables

DMINIT	SNACRM	csxgpw.dll	ctxdebugs_10.dll	jsnacrm.html
xsnacrm	crmlkoff	csxibm50.dll	ctxmess_10.dll	jsnacrm.jar
crmlkon	csxappc.dll	csxibm60.dll	ctxos_10.dll	moncrm.jar
GWSNAX	csxcp.dll	csxscrm.dll	ctxprim_10.dll	moncrm.x509
CRMLOGS	csxcrm.dll	csxxfm.dll	gws.dll	

Application Files

Table 3-2 lists the eLink SNA application files that are installed into the `./eLink/sna/simpapp` directory.

Table 3-2 eLink SNA Application Files

BEACONN.RDO	README	app.env
BEASNA.RDO	TOUPDPLS.c	dminit.scr
BEASNA.RDO.VSE	TOUPDPLS.cbl	hpux.env
DMCONFIG	TOUPDPLS.c.VSE	mirrorsrv.c
MIRRDPLC.c	TOUPDTPS.c	solaris.env
MIRRDPLC.c.VSE	TOUPDTPS.cbl	toupclt.c

Table 3-2 eLink SNA Application Files

MIRRDTPC.c	TOUPDTPS.c.VSE	dux.env
MIRRDPLC.cbl	TOUPDTPS.cbl.VSE	ntenv.bat
MIRRDTPC.cbl	UBBCONFIG	
Makefile	aix.env	

Libraries

Table 3-3 lists the eLink SNA libraries that are installed into the ./lib directory.

Table 3-3 eLink SNA Libraries

libctxmess_10.so	libctxdebugs_10.so	libctxos_10.so
libctxprim_10.so	fmb.def	libgws.so
libcsxappc.so	libcsxxfm.so	libcsxxmw.so
libcsxgpw.so	libcsxcrm.so	libcsxxcrm.so
libcsxscrm.so	libcsxhp51.so	libctxmess.sl
libctxdebugs.sl	libctxos.sl	libctxprim.sl
libgws.sl	libcsxappc.sl	libcsxxfm.sl
libcsxxmw.sl	libcsxgpw.sl	libcsxcrm.sl
libcsxxcrm.sl	libcsxscrm.sl	libcsxhp60.sl ¹
libcsxcp.so	libcsxdx32.so	

1. Platform O/S and Stack version dependent. Other possible entries are: libcsxbrx40.sl, libcsxsun91.sl, libcsxibm50.sl, libcsxibm60.sl, and libcsxspx60.sl.

Message Queues

The script installs the following eLink SNA message queue files into the ./locale/C directory:

```
LIBGWS_CAT
LIBGWS.text
```

Post Installation Actions

Modify the DMTYPE File

After installing eLink SNA software, modify your existing DMTYPE file, located in the \$TUXDIR/udataobj directory, to contain either of the following lines:

UNIX-based platform:

```
SNAX:-lgw -lgws:-lgp -lgpnet -lcsxcrm::
```

Windows NT-based platform:

```
SNAX;%TUXDIR%\bin\gws.dll;%TUXDIR%\lib\libnwi.lib %TUXDIR%\  
lib\libnws.lib %TUXDIR%\lib\libnwi.lib;;
```

Configure and Verify the System

After you have installed the eLink SNA product software, you must configure it and verify the operational integrity of the environment. Refer to *BEA eLink for Mainframe SNA Information Center* topics “Configuring the System” and “Verifying the Software” for detailed information.