



THE ENTERPRISE MIDDLEWARE SOLUTION

BEAeLink

for Mainframe SNA

Installation Guide

BEA eLink for Mainframe SNA 3.1
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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, or BEA WebLogic Enterprise 4.0 software

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

You should 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 `toupc1t.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 3.3 or higher
 - IMS/ESA DC 5.1 (optional)
 - MVS 5.22 9510 or higher, including OS/390 through 1.3
 - VSE/ESA 2.3
 - VTAM 4.3 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 install 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.)
- ◆ 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

sh install.sh

```
01) hp/hpux1020      02) hp/hpux11      03) ibm/aix43
04) sun5x/sol26     05) sun5x/sol26
```

Install which platform's files? [01-5, q to quit, l for list]: **1**

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

BEA eLink for Mainframe Release SNA 3.1

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 , <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 WebLogic Enterprise or TUXEDO directory path) [?,q]:
/bea/work/username/tuxedo

Using /bea/work/username/tuxedo 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]: **4**

Determining if sufficient space is available ...

14338 blocks are required

7615514 blocks are available to /bea/work/dpaulsen/test

Unloading /cmhome/dist/birch-5/sun5x/sol26/sna/SNAT65.Z ...

bin/CRMLOGS

bin/DMINIT

bin/GWSNAX

bin/SNACRM

bin/Xsnacrm

bin/lic.sh

bin/xsnacrm

connect/sna/simpapp/BEACONN.RDO

connect/sna/simpapp/BEASNA.RDO

connect/sna/simpapp/DMCONFIG

connect/sna/simpapp/MIRRDPLC.c

connect/sna/simpapp/MIRRDPLC.cbl

connect/sna/simpapp/MIRRDTPC.c

connect/sna/simpapp/MIRRDTPC.cbl

connect/sna/simpapp/Makefile

connect/sna/simpapp/README

connect/sna/simpapp/TOUPDPLS.c

connect/sna/simpapp/TOUPDPLS.cbl

connect/sna/simpapp/TOUPDTPS.c

connect/sna/simpapp/TOUPDTPS.cbl

connect/sna/simpapp/UBBCONFIG

connect/sna/simpapp/aix.env

connect/sna/simpapp/app.env

connect/sna/simpapp/dminit.scr

connect/sna/simpapp/hpux.env

connect/sna/simpapp/mirrorsrv.c

connect/sna/simpapp/solaris.env

connect/sna/simpapp/toupclt.c

lib/fmb.def

lib/libcsxappc.so

lib/libcsxcrm.so

lib/libcsxgpw.so

lib/libcsxscrm.so

lib/libcsxxcrm.so

lib/libcsxxfm.so

lib/libcsxxmw.so

lib/libctxdebugs_10.so

lib/libctxmess_10.so

```
lib/libctxos_10.so
lib/libctxprim_10.so
lib/libgws.so
locale/C/LIBGWS.text
locale/C/LIBGWS_CAT
12230 blocks
... finished
```

```
Unloading /cmhome/dist/birch-5/sun5x/sol26/sna/STKT65.Z ...
lib/libcsxbrx41.so
lib/libcsxspx60.so
lib/libcsxsun91.so
1790 blocks
... finished
```

```
Changing file permissions...
... finished
```

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

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

```
Directory containing source license text file [?,q]:
tuxedo/udataobj
```

```
Using tuxedo/udataobj/lic.txt to copy license information.
```

```
Updating tuxedo/udataobj/lic.txt with license information.
```

```
Installation of BEA eLink for Mainframe SNA was successful
```

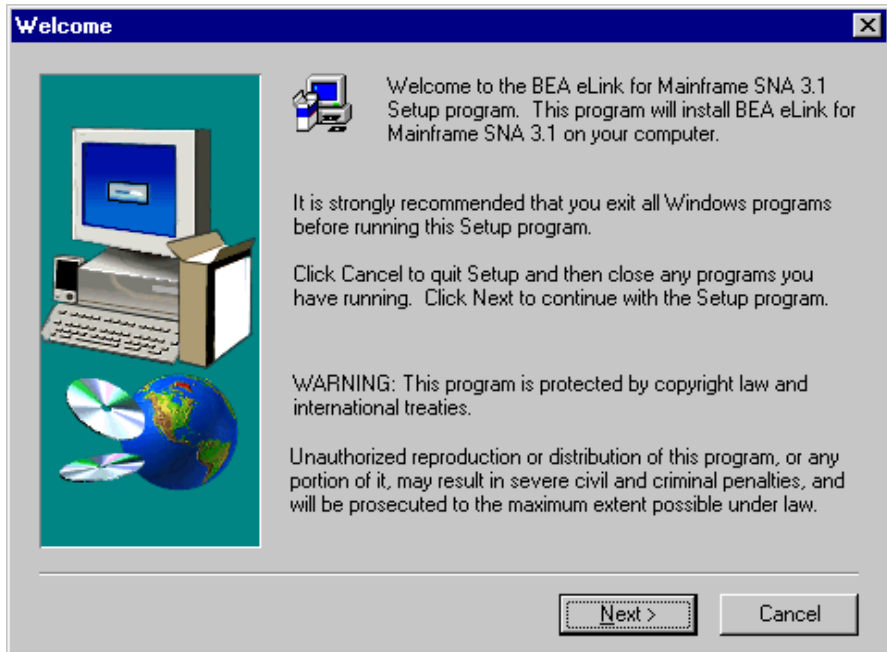
```
Please don't forget to fill out and send in your registration card
```

Installing on a Windows NT Platform

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

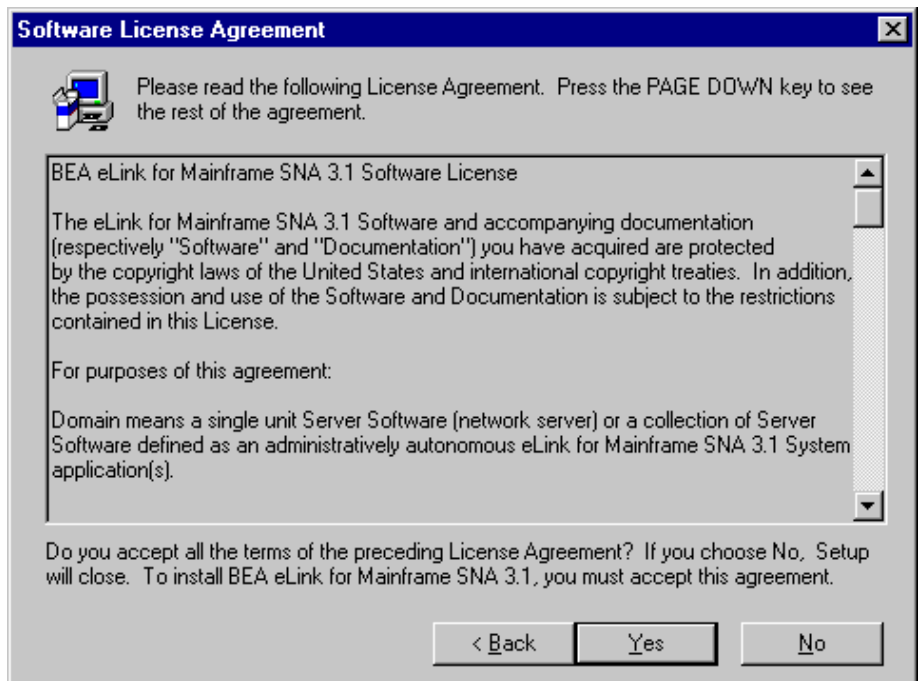
1. Insert the product CDROM into your drive and click on the **Run** option from the **Start** menu. The **Run** window displays. Click on the **Browse** button to select the CDROM drive. Select the `winnt` folder, then select the `Setup.exe` file. Click **OK** to run the executable and begin the installation.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

Figure 3-1 Welcome Screen



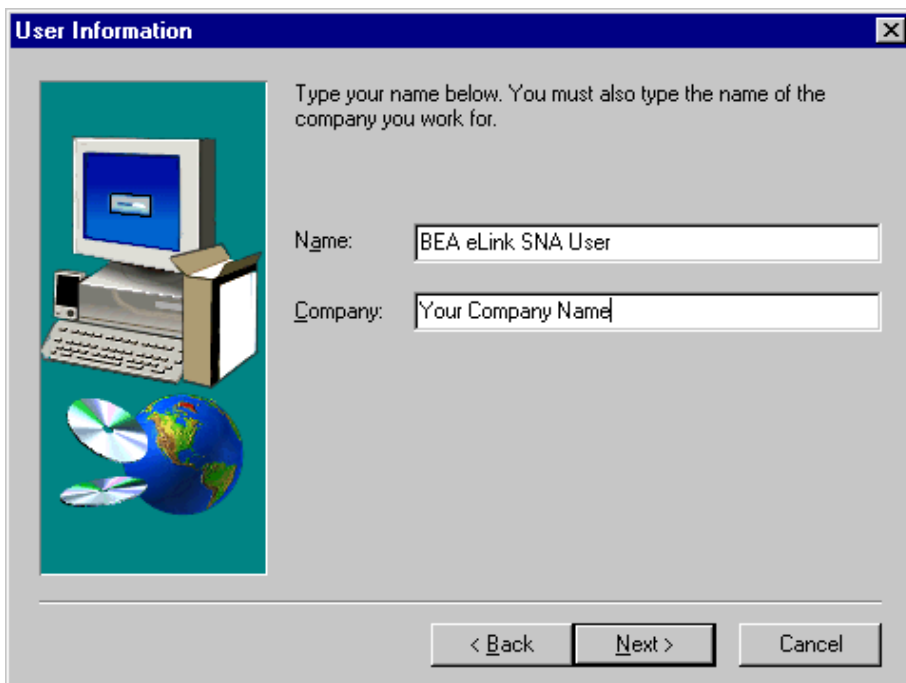
2. The **BEA Software License Agreement** displays. Click **YES** to accept the terms of the agreement and continue with the product installation. Click **No** to exit the installation process.

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

The image shows a Windows-style dialog box titled "User Information". On the left is a graphic of a computer monitor, keyboard, and CD-ROMs. On the right, there is instructional text and two text input fields. The first field is labeled "Name:" and contains the text "BEA eLink SNA User". The second field is labeled "Company:" and contains the text "Your Company Name". At the bottom right are three buttons: "< Back", "Next >", and "Cancel".

User Information

Type your name below. You must also type the name of the company you work for.

Name:

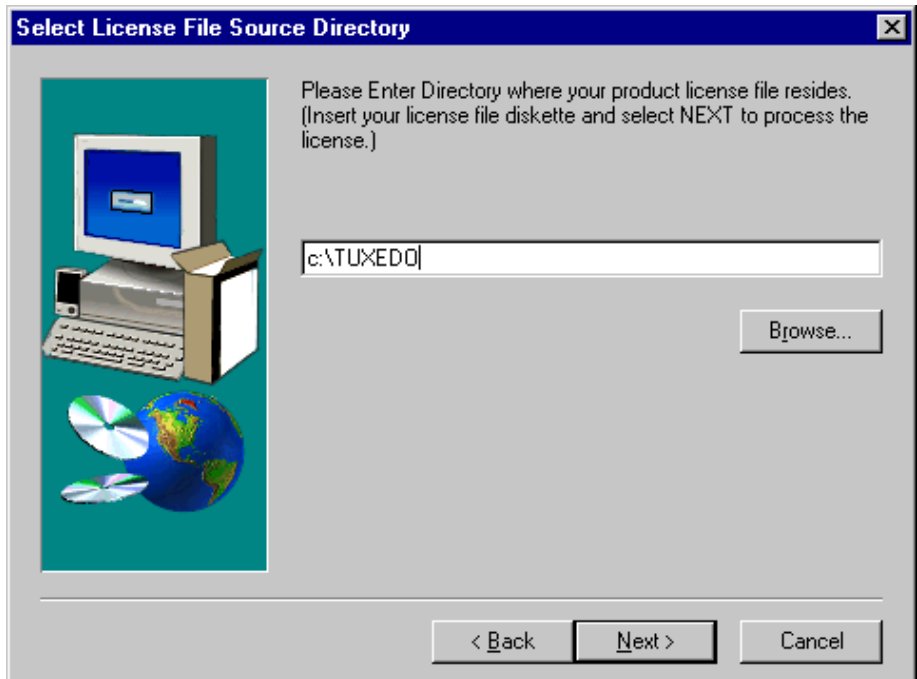
Company:

< Back Next > Cancel

4. 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 6. If you entered an invalid directory path, go to Step 5.

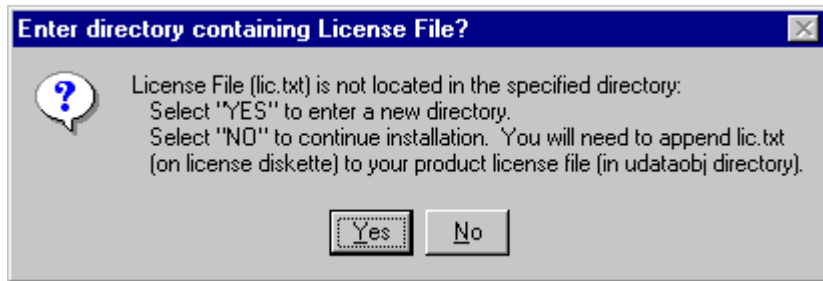
Figure 3-4 Select License File Source Directory Screen.



5. 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.

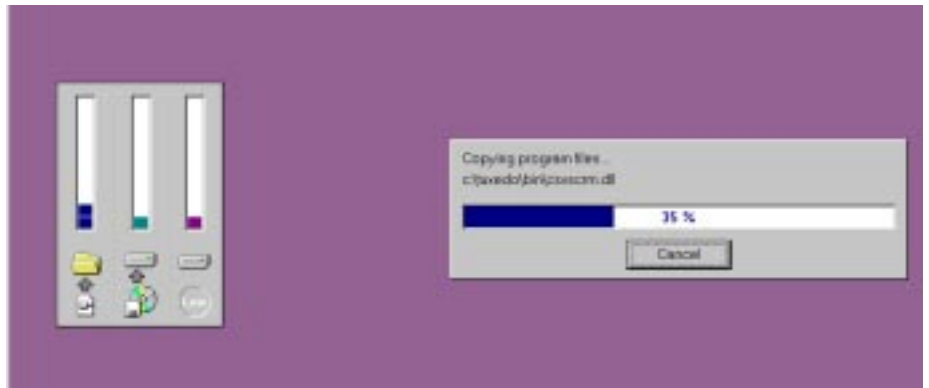
Once you have entered a valid directory path, click **Next** to continue with the installation. Go to Step 6.

Figure 3-5 Invalid License File Directory Dialog Box



6. 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 3-6 Installation Progress Screen



7. 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 3-7 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
xsnaerm	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 `./connect/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 `libcsxsp60.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;-lgw lgws;-lgp -lgpnet -lcsxcrm;;
```

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.