CHAPTER 4

Installing and Configuring CiscoWorks

This chapter describes how to install and configure CiscoWorks software on Sun workstations and HP systems.

Installation Overview

Before installing CiscoWorks you must complete the preparatory steps described in the "Preparing to Install CiscoWorks" chapter. To install and configure CiscoWorks, you need to perform the following general tasks:

1. Become the superuser.
2. Perform backups in preparation for a CiscoWorks upgrade, if you are upgrading.
3. Mount the CiscoWorks CD-ROM from a local or remote drive.
4. Install CiscoWorks by using the CiscoWorks installation script.
5. Configure CiscoWorks by using the CiscoWorks configuration script.
6. Unmount the CiscoWorks CD-ROM.
7. Perform the required post-installation tasks.

Becoming the Superuser

To perform the tasks associated with installing and configuring CiscoWorks, you must log into your system as the superuser (*root*). Superusers can perform functions that normal users cannot.

Caution If you are a relatively inexperienced UNIX user, limit your activities as the superuser to the tasks described in this publication. As the superuser, you can adversely affect your operating environment if you are unaware of the effects of the commands you use.

To become the superuser, you must know the root password. In the following examples, the root password is *rootpassword*.

Note This discussion assumes that you use the C shell (csh). If you use the C shell, the prompt displays as a percent sign (%). If you use the Bourne shell, the prompt displays as a dollar sign ($). When you log in as the superuser in either shell, the root prompt displays as a pound sign (#).

If you are not logged in, enter the following commands to log in as the superuser:

```
login: root
Password:<rootpassword>
#
```

The UNIX prompt is a pound sign (#), indicating that you are logged in as the superuser.

Note For security reasons, when you enter *rootpassword*, nothing appears on the screen because passwords are encrypted and not echoed.

If you are already logged in, but not as root, enter the following commands to change your login:

```
% su
Password:<rootpassword>
#
```

The C shell prompt changes from a percent sign (%) to a pound sign (#), indicating that you are logged in as the superuser.

Upgrading from a Previous Version of CiscoWorks

If you are upgrading from a previous version of CiscoWorks, perform the steps outlined in the "Shutting Down the Sybase Database," "Backing Up Your Existing CiscoWorks Software," and "Backing Up Your Existing CiscoWorks Software" sections.

Caution If you are running Sybase, it is extremely important to back up each Sybase version (Version 4.9 and/or Version 10.0) separately. To prevent any possible data loss, back up your system and database before installing CiscoWorks. If your system fails during the upgrade, it could corrupt the Sybase database.

Shutting Down the Sybase Database

Since CiscoWorks uses the Sybase database, you must close all database files and shut down your database before starting the backup process.

To shut down the database, perform the following steps:

Step 1 Log into your system as the superuser.

For information on how to become the superuser, refer to the section "Becoming the Superuser."

Step 2 To ensure your Sybase environment variable is set, enter the following:

```
# setenv SYBASE $NMSROOT/sybase
```

Step 3 Execute the isql binary by entering the following:

```
# $SYBASE/bin/isql -Usa -P <sa_password>
```

Enter the password, if you created one, for the Sybase SA account at your site. If you do not supply a password, the script assumes the value for password is null.

After starting isql, the prompt 1> appears.

Step 4 Enter the **shutdown** command as follows:

```
1> shutdown
2> go
```

The database shuts down, and the root prompt reappears.

Backing Up Your Existing CiscoWorks Software

Back up your entire CiscoWorks system, including the *$NMSROOT* directory, current database(s) and map files, as well as any additional Sybase data files. For information on backing up UNIX files, refer to the UNIX manual pages on **tar**(1) or **cpio**(1).

Caution To prevent any possible data loss, back up your system and database before installing CiscoWorks.

Verifying Installation of Your Operating System and Network Management Platform Software

After you shut down the Sybase database and back up your existing CiscoWorks software, verify that you are running the supported operating systems and network management software versions.

To verify your current operating system, enter **uname -r**.

To verify your current network management platform versions, enter the following:

- For SunNet Manager, enter **$SNMHOME/bin/snm_version**.
- For HP OpenView, start HP OpenView and then select **Help>OnVersion** to view the version number.

If you are not running the supported versions, follow the instructions to upgrade your operating system and the network management platform software. If you are using SunOS, follow the instructions in the Sun documentation to upgrade your version of SunOS to Version 4.1.3 or 4.1.4 (Solaris 1.X). If you are using HP-UX, follow the instructions in the HP documentation to upgrade your version of HP-UX to the appropriate version. After you install your operating system, follow the instructions in your NMS documentation to install SunNet Manager Version 2.2.2 or HP OpenView Version 3.3, if it is not already installed.

CiscoWorks Software Structure for HP-UX

CiscoWorks software is distributed on a CD-ROM. For HP-UX installations, the CD-ROM contains a number of partitions that store the software; some of the partitions are divided into filesets. A *partition* is a portion of a disk. A *fileset* is group of related files. Each partition or fileset contains a specific set of files, as described in Table 4-1.

Table 4-1 Parts of the CiscoWorks Software

Partition Name	Fileset Name	Contents
CWIC		*cwinstall* and *cwconfigure* scripts, which install and configure CiscoWorks
CISCO-WORKS	CW-BIN	Actual CiscoWorks applications
	CW-DOC	CiscoWorks help and UNIX manual (**man**) page files
	CW-ETC	Daemons and utilities that support CiscoWorks applications

Partition Name	Fileset Name	Contents
	CW-MISC	Software you can use with CiscoWorks, such as *tcl* (a scripting language)
	CW-OV-REGISTER	CiscoWorks files that support HP OpenView
	CW-WGD	WorkGroup Director application
HYPERHELP		HyperHelp text files
SYBASE		Sybase relational database
SHARE-LIBS	LIBXMU	X11 standard libraries
	SHARE-LIBS	C++ runtime libraries

Installing from a Local or Remote CD-ROM

Before you install CiscoWorks from a CD-ROM drive attached to your system or a remote system, perform the following steps:

Step 1 Connect a CD-ROM drive either to your workstation or to a remote workstation. Retain the device number used by the CD-ROM drive for later use in installing CiscoWorks.

Step 2 To install CiscoWorks from a remote host, acquire the appropriate login account to mount the CD-ROM remotely.

Step 3 Log in as the superuser. For instructions, see "Becoming the Superuser" in this chapter.

Step 4 Perform the installation steps that follow.

Caution Avoid exposing the CiscoWorks CD-ROM to direct sunlight because it might harm the contents.

After you log in as the superuser, the installation script prompts you to supply the device name of the local or the remote CD-ROM drive, or the name of the remote system and the device name of the remote drive.

The installation and configuration process takes a minimum of 20 to 30 minutes. Depending on your system performance and installation method, installation from a remote CD-ROM drive may take longer than 30 minutes.

If you are using a CD-ROM drive that is connected to your workstation, refer to the following section, "Installing from a Local CD-ROM Drive." If you are using a CD-ROM drive that is connected to a remote workstation, refer to "Installing from a Remote CD-ROM Drive." These instructions are also provided in the CiscoWorks CD-ROM insert booklet shipped with the product.

Note You can exit the installation or configuration script at any time by pressing **Ctrl-C** to return to the UNIX prompt. Many of the responses you make up to the point you exit are recorded for use as the defaults the next time you start the installation process.

Installing from a Local CD-ROM Drive

If you are installing CiscoWorks from a local CD-ROM drive, complete the steps in this section. Use the Installation Worksheet Items and the Configuration Worksheet Items in the "Preparing to Install CiscoWorks" chapter as a reference.

To install CiscoWorks from a local CD-ROM drive, perform the following steps:

Step 1 Place the CD-ROM in its caddy and insert it into the CD-ROM drive.

Step 2 Log in as the superuser.

For information on how to become the superuser, refer to the section "Becoming the Superuser" section in the "Preparing to Install CiscoWorks" chapter.

Step 3 Create a */cdrom* directory, if one does not exist, by entering the following command:

```
# mkdir /cdrom
```

If the */cdrom* directory already exists, proceed to the next step.

Step 4 Check to see if */dev/cdrom* exists. If it does, proceed to the next step, but use */dev/cdrom* as the device name. If it does not, perform step 5 as written.

Step 5 Mount the CD-ROM by entering the following command:

On Sun:

```
# mount -rt hsfs /dev/device_filename /cdrom
```

On HP-UX:

```
# /etc/mount -o ro -t cdfs /dev/device_filename /cdrom
```

In the Sun command, the **-r** option mounts the CD-ROM in Read Only mode. In the HP-UX command, the **-o ro** option mounts the CD-ROM in Read Only mode. The **-t** indicates the type of file system where **hsfs** and **cdfs** specify a file system with an ISO 9660 standard or High Sierra standard with Rock Ridge extensions. If you do not use these options, media error messages may display on the console. Replace the *device_filename* option (*/dev/device_filename*) with */dev/sr0* for Sun workstations or */dev/dsk/c201d2s0* for HP systems. On HP systems, if */dev/dsk/c201d2s0* is not the correct device number for the CD-ROM, run the **ioscan** program to determine the disk number.

To continue with CiscoWorks installation, refer to the appropriate section in this chapter for your operating system/platform. For SunOS, refer to "Installing CiscoWorks on a Sun Workstation." For HP-UX, refer to "Installing CiscoWorks on an HP System."

Installing from a Remote CD-ROM Drive

If you use a CD-ROM drive attached to a remote system, CiscoWorks does not consume disk space on the remote system because the software is copied across the network to the local workstation.

The root *.rhosts* file on the remote system must contain the host name of your local system and an entry for the user *root*. Otherwise, you cannot access the remote system to download software from its CD-ROM drive. For more information, refer to the **rhosts** UNIX manual page.

If you are installing CiscoWorks from a remote CD-ROM drive, complete the steps in this section. Use the Installation Worksheet Items and the Configuration Worksheet Items in the "Preparing to Install CiscoWorks" chapter as a reference.

To install CiscoWorks from a remote CD-ROM drive, perform the following steps on the remote system:

Step 1 Place the CD-ROM in its caddy and insert it into the CD-ROM drive.

Step 2 Log in as the superuser on the remote workstation.

For information on how to become the superuser, refer to "Becoming the Superuser" section in the "Preparing to Install CiscoWorks" chapter.

Step 3 Create a */cdrom* directory, if one does not exist, by entering the following command:

```
# mkdir /cdrom
```

If the */cdrom* directory already exists, proceed to the next step.

Step 4 Create an */etc/exports* file using a text editor, if one does not exist.

Step 5 Edit the */etc/exports* file to include the following line:

```
/cdrom -ro
```

Step 6 If you just created */etc/exports* (in Step 4), you must enable your workstation as an NFS server. Start the *nfsd* server option by entering the following at the UNIX command line:

```
# nfsd 8 &
# /usr/etc/rpc.mountd -n
```

Step 7 Mount the CD-ROM by entering the following command:

On Sun:

```
# /etc/mount -rt hsfs /dev/device_filename /cdrom
```

On HP-UX:

```
# /etc/mount -o ro -t cdfs /dev/device_filename /cdrom
```

In the Sun command, the **-r** option mounts the CD-ROM in Read Only mode. In the HP-UX command, the **-o ro** option mounts the CD-ROM in Read Only mode. The **-t** indicates the type of file system where **hsfs** and **cdfs** specify a file system with an ISO 9660 standard or High Sierra standard with Rock Ridge extensions. If you do not use these options, media error messages may display on the console. Replace the *device_filename* option (*/dev/device_filename*) to */dev/sr0* for Sun workstations or */dev/dsk/c201d2s0* for HP systems. On HP systems, if */dev/dsk/c201d2s0* is not the correct device number for the CD-ROM, run the **ioscan** program to determine the disk number.

Step 8 If the */etc/exports* file existed previously (before Step 4), enter the following command to run **exportfs**:

```
# exportfs -va
```

If */etc/exports* did not exist previously, reboot your system.

Step 9 Go to the workstation on which you want to install CiscoWorks.

Step 10 Log in as the superuser.

Step 11 Create a */cdrom* directory, if one does not already exist, by entering the following command:

```
# mkdir /cdrom
```

Step 12 Mount the CD-ROM by entering the following command:

```
# mount remote-hostname:/cdrom /cdrom
```

Step 13 Create a directory for the CiscoWorks files by entering the following command:

```
# mkdir /usr/nms
```

If you already have a directory named */usr/nms*, choose another directory name. Otherwise, the installation process overwrites the contents of the existing */usr/nms* directory after the user confirms the command.

If you plan to use CiscoConnect, the value of $NMSROOT, which is defined to be the directory where CiscoWorks is installed, must be less than 22 characters long. It is recommended you use the default value of */usr/nms*. If you choose to use some other directory, make sure that the directory you choose is less than 22 characters long. This is because the Perl scripts use the #! syntax to find the Perl interpreter, which is located in *$NMSROOT/etc*. There is a limit of 32 characters imposed by the operating system on the length of the #! line. The '#!' and the '/etc/perl' parts use 10 characters, leaving 22 for the $NMSROOT variable.

Note You cannot install CiscoWorks into a symbolically linked directory. Install the software into the actual directory and then make the symbolic link.

To continue with your CiscoWorks installation, refer to the appropriate section for your operating system/platform.

Installing CiscoWorks on a Sun Workstation

The installation process on a Sun workstation requires you to run the installation script, modify the kernel configuration file, and run the configuration script. If you want to modify the kernel manually instead of letting the script update it automatically, perform the steps in the "Manually Entered Sybase Modifications to the Kernel Configuration File" section later in this chapter.

Note While you complete the following steps, remember that you can press **Ctrl-C** to exit the installation script at any time.

To complete the installation process on your Sun workstation, perform the following steps:

Step 1 Extract the files from the CD-ROM by entering the following commands:

```
# cd /cdrom
# ./extract_unbundled -c /cdrom_install_directory
```

If you do not specify the *-c* option, the */cdrom* directory is used as the default.

While the **./extract_unbundled** script runs, answer the questions it displays according to the information you entered on your CiscoWorks Installation Worksheet.

Step 2 Reboot your system to ensure that the new kernel is used by entering the following command:

```
# reboot
```

If you answered no to the automatic kernel modification during the installation, you must manually update the kernel by performing the steps in the "Manually Entered Sybase Modifications to the Kernel Configuration File" section later in this chapter.

Step 3 Log into your system as the superuser after your computer reboots.

```
login: root
password:rootpassword
#
```

Step 4 Begin the CiscoWorks configuration process by entering the following command:

```
# /usr/tmp/unbundled/cwconfigure
```

While the **cwconfigure** script runs, answer the questions it displays according to the information you entered on the CiscoWorks Configuration Worksheet.

Step 5 After configuring CiscoWorks, you can remove the installation log files by following the instructions in "Removing Log Files" later in this chapter.

Step 6 To eject the CD-ROM, enter the following commands:

```
# cd /
# umount /cdrom
# eject /dev/device_filename
```

Step 7 Remove the CD-ROM caddy from the drive and put the CD-ROM away.

If you are using Network Information Service (NIS) at your site, the configuration script saves NIS-related information to the following files during the configuration:

- */usr/tmp/CW.group*
- */usr/tmp/CW.prod*
- */usr/tmp/CW.sybase*

After completing the CiscoWorks configuration, use the information in these files to update your NIS server.

Your installation and configuration is complete.

If you need to create additional space for the databases and transaction log, enter the following command:

```
# /usr/nms/etc/cw_enlarge
```

While the **cw_enlarge** script runs, answer the questions it displays. This script sets database thresholds for disk space based on your database size.

Manually Entered Sybase Modifications to the Kernel Configuration File

All Sun workstations contain a *kernel*. The kernel is the heart of the UNIX system that is read when your system is started; it is the part of the operating system that allocates resources and controls processing.

If you are using an HP-UX system, you can skip this section. HP-UX recommends you use the system administrator manager, or SAM, to update your configuration.

If you are using a Sun workstation and selected to manually update the kernel instead of having the installation script perform the changes, perform the following procedure. In order for Sybase Version 10.0.1 software to work on your Sun system, you must modify the kernel. The kernel is built from a configuration file in either the */usr/share/$ARCH/conf* directory (where $ARCH could be defined as *sun4c*, *sun4m*, or *sun4n*) or the */usr/sys/$ARCH /conf* directory.

Kernel modifications must be completed after you run your installation and before you run your configuration scripts.

Most systems use a generic kernel stored in a configuration file called *GENERIC*. If the kernel is customized for your system, it may be stored in a configuration file with a different name.

If you choose to allow the installation script to build the new kernel, it uses your current system configuration and automatically saves the old kernel configuration file as *vmunix.syb_inst*.

To modify the kernel manually (as the superuser), perform the following steps:

Step 1 Back up your existing configuration file by entering the following command:

```
# cp /vmunix /vmunix.bak
```

Step 2 Change directories by entering the following command:

```
# cd /usr/share/$ARCH/conf
OR
cd /usr/sys/$ARCH/conf
```

Step 3 Copy the base kernel configuration file (usually called *GENERIC*) to *filename* by entering the following command, where *filename* is the new name you assign to the kernel configuration file:

```
# cp GENERIC filename
```

Step 4 Add the following lines anywhere in the */usr/share/$ARCH/conf/filename* file or */usr/sys/$ARCH/conf/filename* file:

```
options “SHMSIZE=0x20000”
options “SEMMNS=640”
options “SHMMNI=256”
```

Step 5 Start the configuration process by entering the following command:

```
# config directoryname
```

This command executes the configuration process and builds a directory called */usr/share/$ARCH/conf//directoryname* or */usr/sys/$ARCH/conf/directoryname*.

Step 6 Create the *vmunix* or *vmunix_small* file by entering the following command:

```
# cd ../directoryname
# make
```

Step 7 Copy the *vmunix* or *vmunix_small* file, created in the previous step, by entering the following command:

```
# cp ./vmunix /vmunix
OR
# cp ./vmunix_small /vmunix
```

Step 8 Restart your system.

The modified kernel is now loaded and ready to use with Sybase.

For more information on modifying the kernel, refer to the *Sun Workstation and Network Administration* publication.

Installing CiscoWorks on an HP System

To complete the installation process on your HP system, perform the following steps:

Step 1 Copy the installation and configuration scripts to the new CiscoWorks directory by entering the following command:

```
# /etc/update -s /cdrom/cw.tar -d /usr/nms CWIC
```

-s is the source file to be copied and **-d** is the destination directory where the software is downloaded.

Step 2 Install the CiscoWorks software by entering the following command:

```
# /usr/nms/install/bin/cwinstall -s /cdrom/cw.tar -d /usr/nms
```

This causes the **cwinstall** script to prompt you for responses to key questions. While the **cwinstall** script runs, answer the questions it displays according to the information you entered on the CiscoWorks Installation Worksheet.

The **cwinstall** script takes the following options:

-s	Source
-d	Destination
-help	Print the usage
-f *filesets*	CiscoWorks software to install

Step 3 Use the configuration script to configure CiscoWorks by entering the following command:

```
# /usr/nms/install/bin/cwconfigure
```

While the **cwconfigure** script runs, answer the questions it displays according to the information you entered on the CiscoWorks Configuration Worksheet in the "Preparing to Install CiscoWorks" chapter. Table 3-6 "Configuration Descriptions for Sun and HP Systems" explains the CiscoWorks Configuration Worksheet.

Note If you are performing a new installation of CiscoWorks, the installation script creates only 60 MB of storage for both databases and 25 MB for the transaction log. Depending on your needs, you may want to create additional space for the nms and polling databases, and the transaction log.

If you need to create additional space for the databases and transaction log, enter the following command:

```
# $NMSROOT/etc/cw_enlarge
```

While the **cw_enlarge** script runs, answer the questions it displays. This script sets database thresholds for disk space based on your database size.

Step 4 After configuring CiscoWorks, you can remove the installation log files by following the instructions in "Removing Log Files" later in this chapter.

Step 5 Unmount the CD-ROM by entering the following commands:

```
# cd /
# umount /cdrom
```

Step 6 Eject and remove the CD-ROM and store it in a safe place.

Step 7 If you are not using Network Information Service (NIS) at your site, skip this step. If you are using NIS, the CiscoWorks configuration script saves NIS-related information to the following files during the configuration:

- */usr/tmp/CW.group*
- */usr/tmp/CW.prod*

- */usr/tmp/CW.sybase*

Your installation and configuration is complete.

Note Make sure you validate the CiscoWorks installation and configuration process by following the instructions in the "Validating CiscoWorks Installation" chapter. When you validate the CiscoWorks installation, you will be able to access CiscoWorks through your network management platform software. You can perform validation after you set up your TFTP server.

Performing Post-Installation Tasks

To ensure that CiscoWorks run successfully, you may need to perform several post-installation tasks. The following sections contain instructions for these tasks:

- Removing Log Files
- Updating the SunOS XKeysymDB File
- Modifying Your .Xdefaults File or X Resources
- Reinstalling CiscoWorks

TFTP setup is required. Other tasks are optional.

Removing Log Files

During installation, several log files are created to track the installation process and provide diagnostic information if a problem arises.

When you are satisfied that CiscoWorks is properly installed and operating, you can remove each log file by entering the following command.

On SunOS:

```
# rm /usr/tmp/unbundled/log/filename.log
```

On HP-UX:

```
# rm /usr/nms/install/bin/log/filename.log
```

Note Do not use **`rm *.log`** to remove the CiscoWorks log files as other applications can put log files in these directories and you may need to keep those application's log files.

The log files are described in Table 4-2.

Table 4-2 CiscoWorks Log Files

Log File Name	Contents of the Log File
cwconfigure.defs	Your responses to the questions asked during the configuration (This file is not removed because you may want to use the same answers if you need to reinstall CiscoWorks. The software will use these answers as the defaults when you next install CiscoWorks.)

Log File Name	Contents of the Log File
cwconfigure.log	Configuration log messages
cwinstall.log	Installation log messages
update.log	Messages logged while extracting files from CD-ROM

Note On Sun machines, all CiscoWorks installation and upgrade logs are in the directories */tmp* and */var/tmp/unbundled/log*. On HP machines, they are in the directories */tmp* and *$NMSROOT/install/bin/log*.

Updating the SunOS XKeysymDB File

CiscoWorks is based on the OSF/Motif windowing system and therefore requires Motif key mapping. During installation, you are alerted that you need Motif key mapping. The installation script then offers to update the *XKeysymDB* (key mapping) file for you in case you are using a different platform, such as OPEN LOOK. If necessary, you can also manually update the *XKeysymDB* file by appending *$NMSROOT/etc/XKeysymDB* to your *XKeysymDB* file.

Modifying Your .Xdefaults File or X Resources

You can customize certain features of your CiscoWorks and NMS environments by modifying the X Windows resource files. X resources are listed in each user's *.Xdefaults* file or the system X resource files located in the */usr/lib/X11/app-defaults* directory. For example, you can change the window display colors, fonts or sizes or specify certain ways for CiscoWorks to run in your X Windows environment.

This section provides information on the following topics:

- Customizing CiscoWorks X Resources
- Resetting the Default Window Size of CiscoWorks Applications
- Modifying Default Color Settings in Your Help Files
- Editing the .Xdefaults File Entry to Specify the Text Editor
- Enabling Boot File Generation

Customizing CiscoWorks X Resources

You can customize any X resource that CiscoWorks applications use, including colors, fonts, and sizes in CiscoWorks windows. To use your own colors, fonts, and sizes for CiscoWorks, perform one of the following procedures:

- Store your resources in the */usr/lib/X11/app-defaults/XCiscoWorks* file.
- Rename your custom resource file to *$HOME/XCiscoWorks.*
- Store your resource files in your *$HOME/.Xdefaults* file.
- Start your CiscoWorks applications with your specified resource options (for example, **-font 9x15bold**).

Resetting the Default Window Size of CiscoWorks Applications

When working with CiscoWorks applications, you may notice that the window sizes vary from application to application. The layout of the window and the size of its text and graphics is preset to be large enough to contain all the elements that define the window. However, you can resize the window without obscuring the text.

To save the default CiscoWorks window size, perform the following steps:

Step 1 Use a text editor such as **vi** to open the *$HOME/XCiscoWorks* file.

Step 2 Add the following line to your *$HOME/XCiscoWorks* file:

```
XCiscoWorks*geometry:500x400+0+0
```

Step 3 Save the *$HOME/XCiscoWorks* file and quit the text editor.

Step 4 Enter the following command at the UNIX prompt:

```
xrdb -merge ~/XCiscoWorks
```

Modifying Default Color Settings in Your Help Files

CiscoWorks features an expanded Help system with *hyperlinks* (jumps to other help windows), to help you learn more about your CiscoWorks applications.

By default, hyperlinks display link text in forest green. To change the color, you can modify the X resource HyperHelp*LinkColor.

The current default help settings are modeled after Microsoft Help's color scheme. To change the default setting for windows, fonts, and other options, modify lines in your X resource *HyperHelp* file.

Caution For CiscoWorks online help to display correctly on a system running SunOS and the OPEN LOOK window manager, you must run the following command before you start CiscoWorks or add it to your *.cshrc* or *.profile* file so it is read when you log in to your system.

```
% xrdb -merge /usr/lib/X11/app-defaults/HyperHelp
```

To modify the X resources for your Help windows, perform the following steps:

Step 1 Change to the directory where the *HyperHelp* X resource file is located:

```
% cd /usr/lib/X11/app-defaults
```

You may have put the *HyperHelp* file in a different directory; if so, change to the appropriate directory path.

Step 2 Use a text editor such as **vi** to alter any of the following X resources in the *HyperHelp* file:

```
Hyperhelp*fontList: 9x15bold
HyperHelp*ScrolledWindow*background: grey
HyperHelp*NonScrollableWindow.background: gray80
HyperHelp*LinkColor: pink
```

Step 3 Save the *HyperHelp* file and exit.

Step 4 Restart the online help system to allow the new HyperHelp system changes to take effect.

Editing the .Xdefaults File Entry to Specify the Text Editor

To define the look of your text editor window, perform the following steps, substituting the appropriate options:

Step 1 Confirm that X Windows is running.

To start an X window session, enter **x11start** or **xinit** at the UNIX command line.

Step 2 Use a text editor such as **vi** to open the *.Xdefaults* file.

Step 3 Add a line with the following format to the *.Xdefaults* file:

```
EditorFormat:command_string %s
```

Where *command_string* is the value or name of the X resource. For example, to specify the **vi** editor located in */usr/local/bin*, add the following line to the *.Xdefaults* file:

```
EditorFormat:/usr/local/bin/vi %s
```

For example, to specify the **vuepad** editor located in */usr/vue/bin*, add the following line to the *.Xdefaults* file:

```
EditorFormat:/usr/vue/bin/vuepad %s
```

Step 4 Save the *.Xdefaults* file and quit the text editor.

Enabling Boot File Generation

To enable boot file generation, edit the *.Xdefaults* file to specify the *on* state by performing the following steps:

Step 1 Confirm that X Windows is running.

To start an X window enter **x11start** or **xinit** at the UNIX command line.

Step 2 Use a text editor such as **vi** to open the *.Xdefaults* file.

Step 3 Add the following line to the *.Xdefaults* file:

```
Bootfile:on
```

Step 4 Save the *.Xdefaults* file and quit the text editor.

Reinstalling CiscoWorks

After you install CiscoWorks for the first time, you may need to reinstall it. For example, some files on your workstation might become damaged or corrupted. Reinstalling means that you delete all of the existing CiscoWorks files and reinstall them from the same version of CiscoWorks. When you reinstall CiscoWorks, you can do a new or upgrade install as is appropriate.