CHAPTER 4

Validating CiscoWorks Installation

To validate CiscoWorks installation and configuration, you must edit the *.cshrc* file on your system. This chapter describes how to complete the validation of your CiscoWorks installation.

Validation Process Overview

Follow these main steps to validate CiscoWorks installation:

1. Verify the environment variables and search paths in your *.cshrc* file.
2. Set up the CiscoConnect application.
3. Start your network management platform (NMP) software and display CiscoWorks applications.
4. Use the Process Manager window to display the CiscoWorks processes.

Verifying Environment Variables and Search Paths

To use your network management platform software, CiscoWorks and Sybase, you must verify that the appropriate environment variables and paths are set in your *install.cshrc* or *.cshrc* file.

Environment variables define how your particular system is set up, such as how directory paths locate specific files. Table 4-1 explains the environment variables and paths.

Table 4-1 Environment Variables and Directory Paths

Environment Variable or Path	Explanation
NMSROOT	On SunOS and HP-UX 9.x, CiscoWorks is installed in the directory */usr/nms*. On Solaris, CiscoWorks is installed in the directory */opt/CSCOcws*. On HP-UX 10.x, CiscoWorks is installed in the directory */opt/CSCOcwh*. If the software was installed in a different directory, substitute the appropriate directory path to ensure a correct definition of the *NMSROOT* environment variable.
SYBASE	Directory path where Sybase is located. The SunOS and HPUX 9.x default is *$NMSROOT/ sybase*. If you select the default on SunOS or HP-UX 9.x, the Sybase software is installed in the directory */usr/nms/sybase*. If you select the default on Solaris or HP-UX 10.x, the Sybase software is installed in the directory */opt/CSCOsyb*. The *SYBASE* variable refers to the *NMSROOT* variable and the Sybase directory following it.
CW_NMSDB	Name of nms database. Default for the database is *nms.*
CW_POLLDB	Name of the poll database. Default for the database is *polldb.*

Environment Variable or Path	Explanation
PATH	Directory path for your NMS software and various CiscoWorks directories (including *$NMSROOT/bin, $NMSROOT/etc*, and *$SYBASE/bin).* The path should be specified to include SunNet Manager or HP OpenView, CiscoWorks, and Sybase.
MANPATH	Directory path for the CiscoWorks manual pages.
DISPLAY	Environment variable for the monitor on which CiscoWorks displays. The default is *:0* or *hostname:0.*
HHHOME	Home directory where the CiscoWorks online help system is located.
HHPATH	Directory path for the CiscoWorks online help system files.
XLIBI18N_PATH	Library path for HyperHelp. The default is *$HHHOME/lib.*
TCL_LIBRARY	Directory path for the TCL libraries.
TK_LIBRARY	Directory path for the TK libraries.
MIBLIB	Directory path for the MIB libraries.
DSQUERY	Sybase server name. The default is *$CW-SYBASE*.
NMS_CC_WWW	Name of the Mosaic browser to use to override the use of SpyGlass (must be either the full pathname or in their path).
ESQRDIR	Directory path for starting ESQR.The default is *$NMSROOT/bin.*
VVTERMCAP	Used by ESQR to handle the terminal I/O mappings. The default is *$NMSROOT/bin/vvtermcap.*
NMS_CC_HTTPD	Exception when the CiscoConnect server is not on the local workstation. Set this variable to the hostname of the CiscoConnect server.
NMS_CC_PORT	TCP/IP port of the CiscoConnect server to override the default.

Verifying Changes to the .cshrc File

The installation and configuration scripts make the following changes to the *$NMSROOT/etc/install.cshrc* file:

- Set the values of the *$NMSROOT, $MANPATH, $SYBASE*, and other appropriate environment variables.
- Set the path for the CiscoWorks and Sybase executable files.
- Set the path for the CiscoWorks manual pages.

Different steps are required to verify the *.cshrc* file changes depending on which shell you use. If you use a C shell, refer to the instructions in the ".cshrc File Changes Using the C Shell" section. If you are using a Bourne shell, refer to the instructions in the ".profile File Changes Using the Bourne Shell" section.

.cshrc File Changes Using the C Shell

Verify that the correct changes were made to the *install.cshrc* file by performing the following steps:

Step 1 Execute the commands in the new *install.cshrc* file by entering the following command:

```
% source /usr/nms/etc/install.cshrc
```

Substitute your CiscoWorks destination directory if it is not */usr/nms*. Note the *install.cshrc* file is in the */opt/CSCOcwh/etc* default directory (Solaris) or in the */opt/CSCOcwh/etc* default directory (HP-UX 10.x).

Step 2 Display the new values of the environment variables defined for your login account by entering the following command:

```
% printenv | more
```

The values of the environment variables appear on screen. Check that, on SunOS and HP-UX 9.x, values similar to the following are set:

```
NMSROOT            /usr/nms
SYBASE             /usr/nms/sybase
CW_NMSDB           nms
CW_POLLDB          polldb
MANPATH            /usr/man
HHHOME             /usr/nms/hyperhelp
HHPATH             /usr/nms/hyperhelp /bin
XLIBI18N_PATH      /usr/nms/hyperhelp /lib
TCL_LIBRARY        /usr/nms/tcl
TK_LIBRARY         /usr/nms/tk
MIBLIB             /usr/nms/etc/mib
DSQUERY            CW_SYBASE
ESQRDIR            /usr/nms/bin
```

On Solaris and HP-UX 10.x, check that values similar to the following are set:

```
NMSROOT            /opt/CSCOcwh
SYBASE             /opt/CSCOsyb
ESQRDIR            /opt/CSCOcwh/bin
VVTERMCAP          /opt/CSCOcwh/bin/vvtermcap
TCL_LIBRARY        /opt/CSCOcwh/contrib/tcltk/lib/tcl
TK_LIBRARY         /opt/CSCOcwh/contrib/tcltk/lib/tk
MIBFILE            /opt/CSCOcwh/etc/cview/mib.text
HHHOME             /opt/CSCOcwh/hyperhelp
HHPATH             /opt/CSCOcwh/hyperhelp/bin
XLIBI18N_PATH      /opt/CSCOcwh/hyperhelp /lib
MANPATH            /usr/man:/opt/CSCOcwh/man
BACKUP_SERVER_HOME /opt/CSCOcwh/sybase
BACKUP_SERVER_NAME CW_BACKUP_SERVER
CW_NMSDB           nms
CW_POLLDB          polldb
DSQUERY            CW_SYBASE
```

The values on your screen will be different from those displayed above if you specify path names other than the defaults during installation and configuration.

Step 3 To copy the *install.cshrc* file into your existing *.cshrc* file, open both files with a text editor and copy the text from the *install.cshrc* file into the *.cshrc* file. Save the file and exit the editor when finished.

.profile File Changes Using the Bourne Shell

If you are using the Bourne shell, you cannot use the **source** command to run the *install.cshrc* file. You must manually change the *.profile* file to set the appropriate options.

Timesaver To change your default shell to the Bourne shell, run:
chsh *username* **/bin/sh**
or simply type:
/bin/sh

To make the correct changes to the *install.cshrc* file or add those changes to your existing *.profile* file, perform the following steps:

Step 1 Open the *install.cshrc* file with a text editor and edit the file to adapt it for Bourne shell use.

This book does not discuss Bourne shell requirements. Refer to your UNIX reference manual for detailed instructions on changing from C shell to Bourne shell commands. For example, replace the **setenv** command with an equal sign (=):

On SunOS or HP-UX 9.x:

C shell:

```
setenv NMSROOT /usr/nms
```

Bourne shell:

```
NMSROOT=/usr/nms
export NMSROOT
```

On Solaris or HP-UX 10.x:

C shell:

```
setenv NMSROOT /opt/CSCOcwh
```

Bourne shell:

```
NMSROOT=/opt/CSCOcwh
export NMSROOT
```

Step 2 Save the file when finished.

Step 3 Open your *.profile* file and copy the text from the *install.cshrc* file into the *.profile* file. Modify the file, as necessary, for the Bourne shell. Save the file and exit the editor when finished.

Step 4 Source your *.profile* file to execute the new commands.

Setting Up CiscoConnect

To run CiscoConnect, the Hypertext Transfer Protocol Daemon (HTTPD) background process must be running. This process does not run by default. You need to activate it when you run CiscoConnect for the first time. To activate the httpd process, perform the following steps:

Step 1 Start the Process Manager application (**nmproc**).

On HP OpenView:

Select **Administer>CiscoWorks System>CW - Process Mgr**.

On SunNet Manager:

Select **Tools>CW - Process Mgr**.

The Process Manager window appears.

Step 2 Click on the **On** button next to the CiscoConnect CIO Daemon (httpd).

A confirmation message appears to start HTTPD.

Step 3 Click on **OK**.

Alternatively, you can log in as the CiscoWorks user (normally **cscworks**) and run the script *$NMSROOT/etc/start_httpd*.

Starting CiscoWorks Applications

Once you install and configure CiscoWorks and verify the *install.cshrc* file, you can start your network management platform software and display CiscoWorks applications. After you start CiscoWorks, you can verify that the appropriate CiscoWorks processes are running by opening the Process Manager window.

The Process Manager window tracks several different types of CiscoWorks processes or *daemons*. A daemon is a process that performs a specific function for the system.

Refer to your platform-specific instructions to start the CiscoWorks applications.

Displaying CiscoWorks Applications on SunNet Manager

This section briefly discusses how to start the SunNet Manager (SNM) Console to run CiscoWorks. For a more detailed description and options, refer to the *SunNet Manager 2.2 User's Guide*.

You can use any of several commands to start the SNM Console. However, you must be running an X Window Manager session.

Note Do not use the following commands until you install SNM in the default installation directory.

To access SNM and CiscoWorks, perform the following steps:

Step 1 To start the SNM Console initially (when there is no database present) or when you want to bring up the last map file, enter the following:

```
% snm
```

If problems occur, your *PATH* environment variable may not include a path to SNM executables. You can enter a fully qualified path. In the following example, */usr/snm/bin* is the path to the executables:

```
% /usr/snm/bin/snm
```

If you installed SNM on Solaris 2.4, the SNM executables are in the directory */opt/SUNWconn/snm/bin/snm*. Enter the following command:

```
% /opt/SUNWconn/snm/bin/snm
```

Step 2 Load a database map file (in ASCII format) into the SNM Console by selecting **File>Load**.

Step 3 To start the SNM Console using other options than above, enter one of the following:

- To start SNM without a database map file (which clears the run-time database), enter the following:

```
% snm -i
```

Caution The **-i** option in the command starts the SNM Console and removes the current run-time database. If you have a run-time database and want to preserve it, do not use the **-i** option, or you will lose this data.

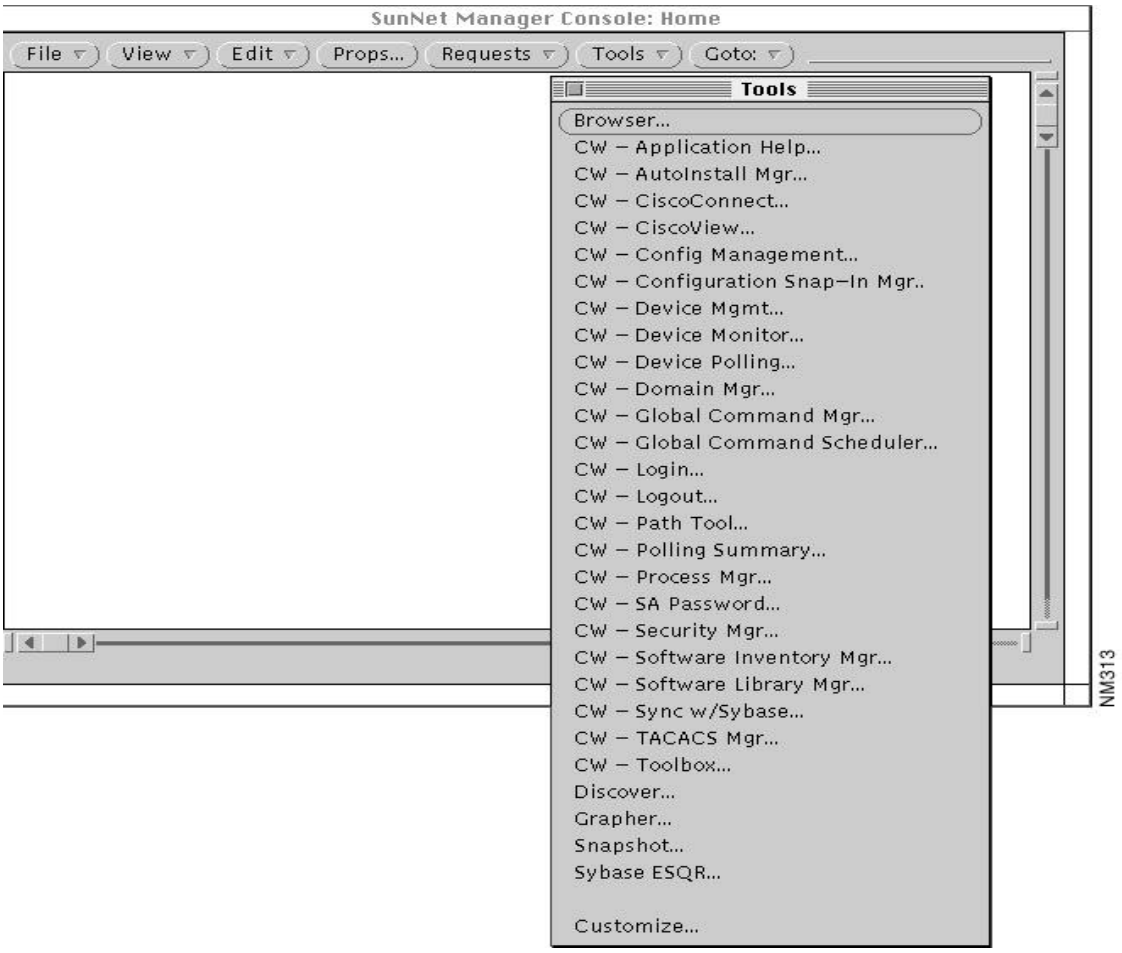
- To start SNM with a specified map file (*map_name* is an ASCII database file), enter the following:

  ```
  % snm map_name
  ```

For more information on starting the SNM Console or troubleshooting startup problems, refer to the *SunNet Manager 2.2 User's Guide*.

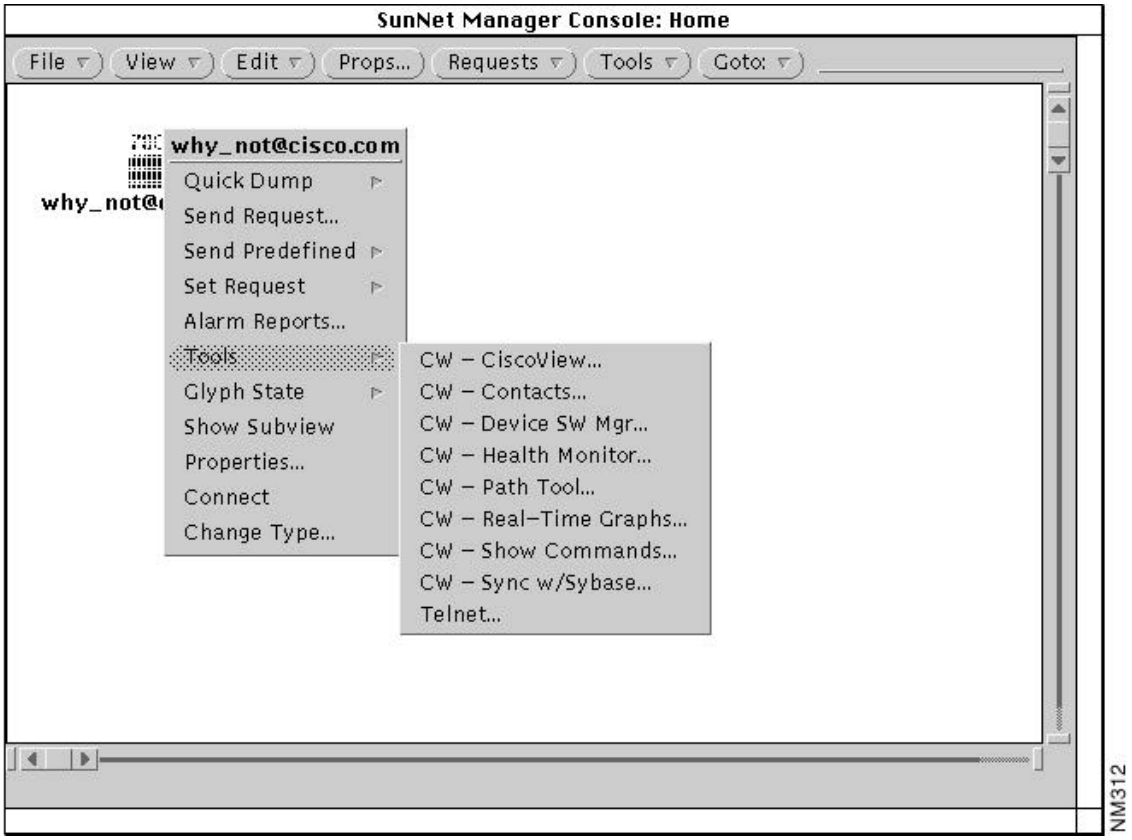
Step 4 On SNM, you can start CiscoWorks applications from either the **Tools** menu or the **Glyphs** menu. Figure 4-1 shows the CiscoWorks applications available on the **Tools** menu.

Figure 4-1 CiscoWorks Applications on the SunNet Manager Tools Menu



SNM also has a menu that becomes available when you click on an icon. To display the menu, select an icon, place the pointer anywhere in the window pane, and press the MENU mouse button. On SNM, icons are called *glyphs*, and the menu that becomes available is called the **Glyph** menu (Figure 4-2).

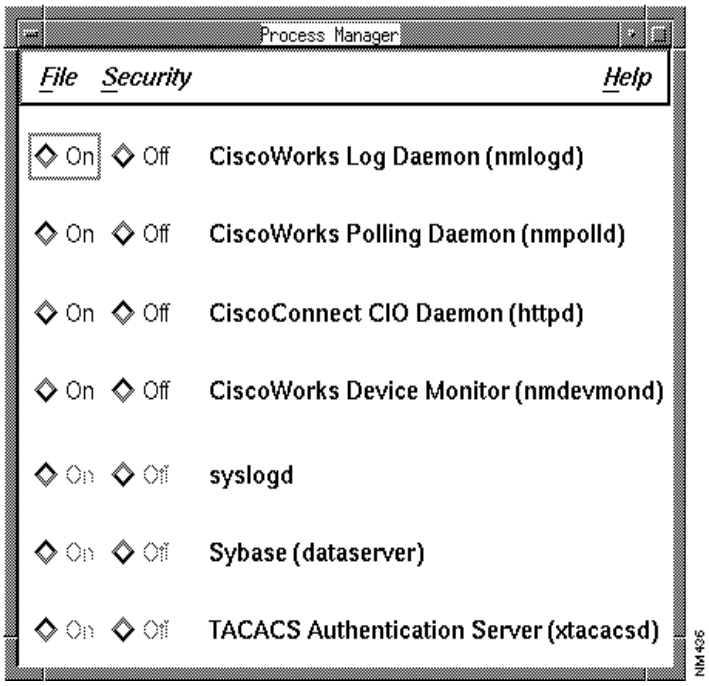
Figure 4-2 CiscoWorks Applications on the Glyph Menu



Step 5 Select **Tools>CW - Process Mgr**.

The Process Manager window opens (Figure 4-3).

Figure 4-3 Process Manager Window



Step 6 To start a process, click the **On** checkbox next to it.

If the process starts successfully, the **On** checkbox appears dark. If an error message indicates that the process could not be started, check your SNM Console window for an error message.

Step 7 To exit the Process Manager application, select **File>Exit**.

After validating CiscoWorks installation as described in this chapter, proceed to the section "Learning to Use CiscoWorks," in the "CiscoWorks Getting Started" chapter to learn some simple tasks associated with CiscoWorks.

Displaying CiscoWorks Applications on HP OpenView

To start HP OpenView and CiscoWorks, perform the following steps:

Step 1 To start HP OpenView, enter *one* of the following command:

HP-UX 9.x and HPOV 3.3:

```
% ovw
% /usr/OV/bin/ovw
```

HP-UX 9.x/10.x and HPOV4.0:

```
% ovw
% /opt/OV/bin/ovw
```

The HP OpenView default network map appears (Figure 4-4 and Figure 4-5).

Figure 4-4 CiscoWorks Menu Options within HP OpenView 3.0

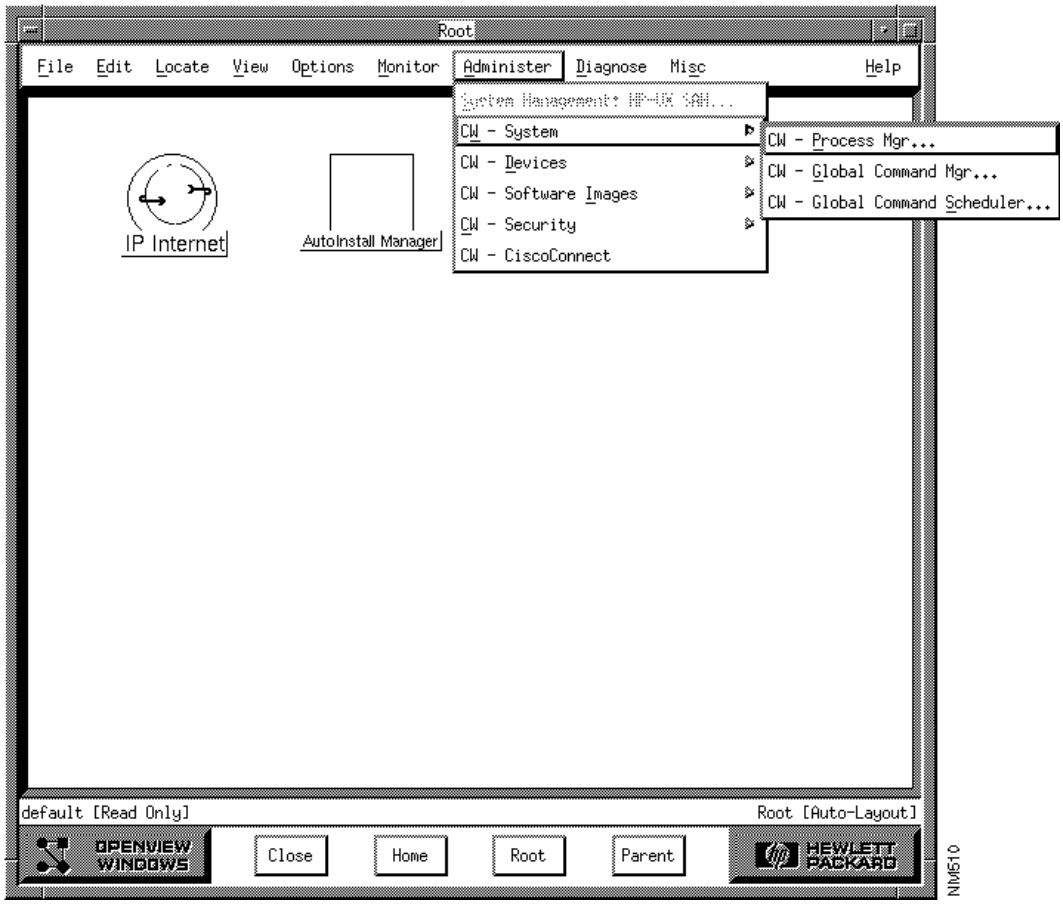
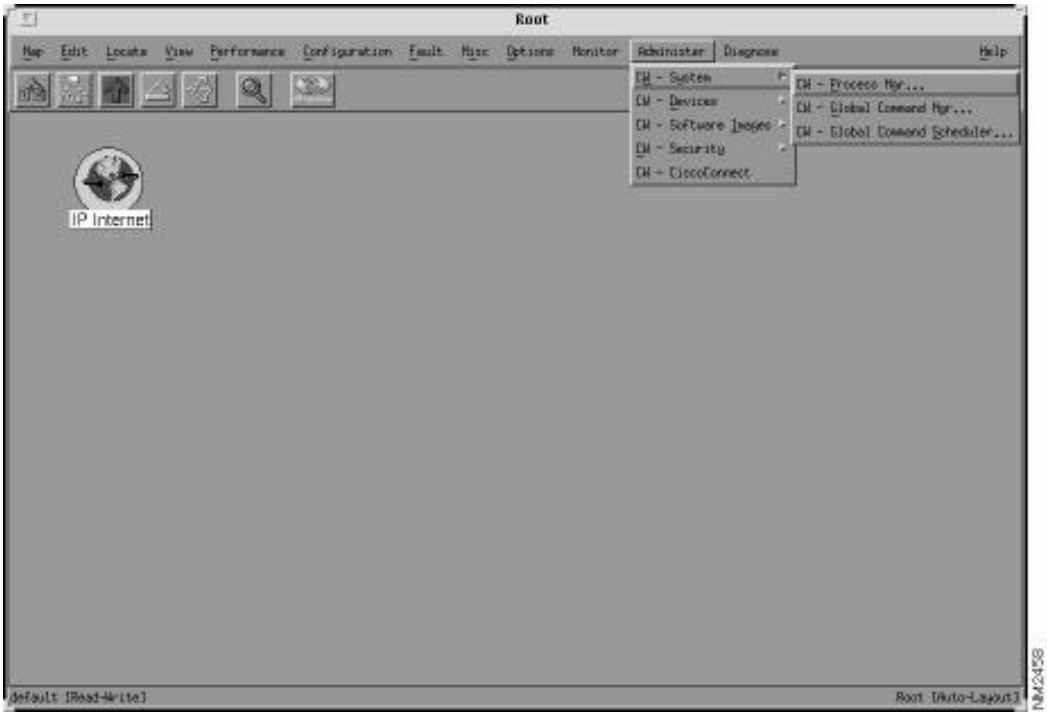


Figure 4-5 CiscoWorks Menu Options within HP OpenView 4.0

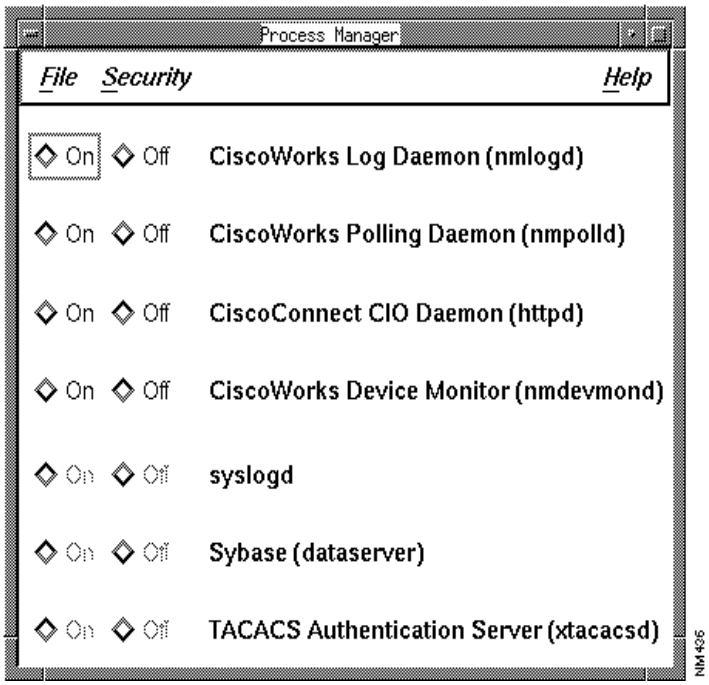


CiscoWorks applications are distributed among the HP OpenView menus. CiscoWorks menu items begin with CW.

Step 2 Select **Administer>CW - System>CW - Process Mgr**.

The Process Manager window opens (Figure 4-6).

Figure 4-6 Process Manager Window



Step 3 To start a process, click the **On** checkbox next to it.

If the process starts successfully, the **On** checkbox is enabled.

Step 4 To exit the Process Manager application, select **File>Exit**.

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