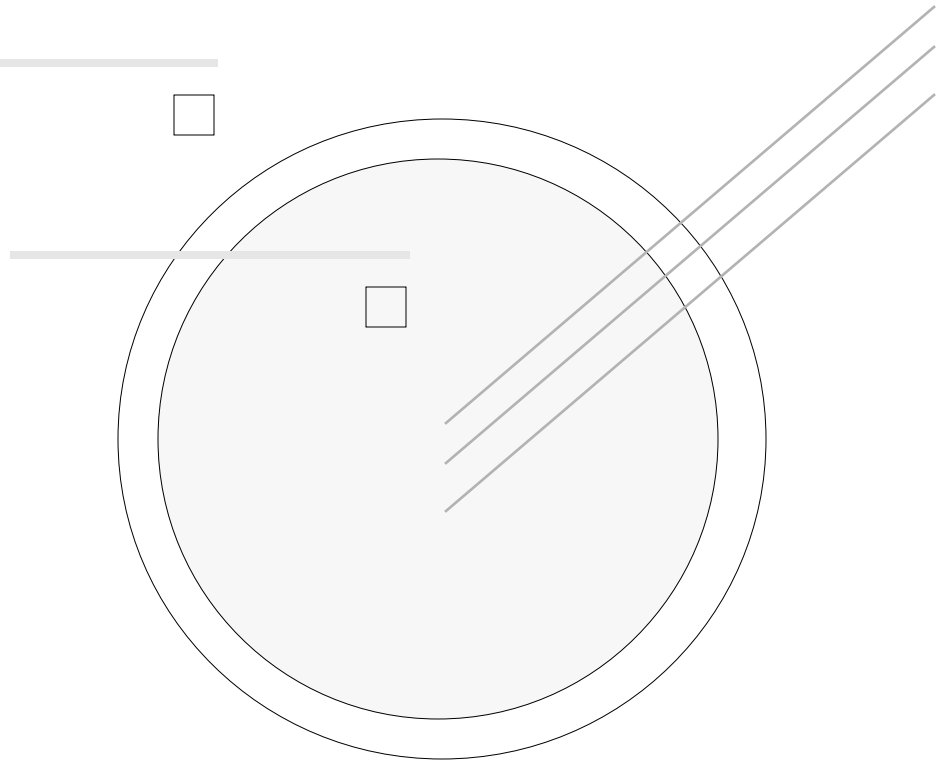
Cooperative Consoles 1.1
Installation Guide

for Solaris 2.3/SPARC



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Part No: 802-4503-10
Revision A of September 1995

SunSoft
A Sun Microsystems, Inc. Business

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Preface

This manual explains how to install the Cooperative Consoles 1.0 and AnswerBook® software from the product CD-ROM on to your machine.

Who Should Use This Book

This book is written for users who need to install the Cooperative Consoles software. It assumes you are familiar with the Solaris® 2.3 or later operating environment.

How This Book Is Organized

This book contains the following chapters and appendices:

- Chapter 1, “Pre-Installation Notes and Requirements,” provides information you should have before installing Cooperative Consoles software, and information on getting help.
- Chapter 2, “Planning for Licensing and AnswerBook Installation,” provides information to help prepare you for installing the AnswerBook package and your product license.
- Chapter 3, “Installing Cooperative Consoles 1.1 Software,” explains how to install the Cooperative Consoles 1.1 software on a management station — a machine where you have SunNet Manager software installed.

- Appendix A, "Installing a License for Cooperative Consoles 1.1," explains how to install the Cooperative Consoles 1.1 license if you want to install the license after having installed the CC software rather than during `pkgadd` installation process.
- Appendix B, "Removing Cooperative Consoles Software," explains how to use the `pkgrm` program to remove the Cooperative Consoles software from the machine on which it was installed.

Conventions Used in This Manual

This section describes the conventions used in this manual.

Command Line Examples

All command line examples in this manual use the C-shell environment. If you use either the Bourne or Korn shells, refer to `sh`(1) and `ksh`(1) man pages for information about the equivalent commands in these environments to the C-shell.

Typographic Conventions

The following table describes the type changes and symbols used in this book.

Table P-1 Typographic Conventions

Typeface or Symbol	**Meaning**	**Example**
`AaBbCc123`	The names of commands, files, and directories; on-screen computer output	Edit your `.login` file. Use `ls -a` to list all files. `system% You have mail.`
`AaBbCc123`	What you type, contrasted with on-screen computer output	`system% su` `Password:`
AaBbCc123	Command-line placeholder: replace with a real name or value	To delete a file, type `rm` *filename*`.`
AaBbCc123	Book titles, new words or terms, or words to be emphasized	These are called *class* options. You *must* be root to do this.
%	System prompt for an ordinary user account	`hostname%`
#	System prompt for the root (superuser) account	`hostname#`
The instruction, “Enter”	A combination of typing a value, then pressing the Return key	Enter the path name.

Mouse Conventions

This book assumes that you are using a standard Sun workstation three-button mouse. The mouse buttons are called SELECT (left), ADJUST (middle), and MENU (right).

Click means to press and quickly release a mouse button.

Press indicates you should hold the button down until an action is completed — such as a menu appearing.

Related Documents

The Cooperative Consoles 1.0 documentation set includes the following documents:

- *Cooperative Consoles 1.0 Installation Guide* (this document)
- *Cooperative Consoles 1.0 Important Product Information*
- *Cooperative Consoles 1.0 Administrator's Guide*

You may want to have your Solaris 2.x or SunOS 4.x system documentation available as a reference if you need additional information on procedures in this manual.

Pre-Installation Notes and Requirements

1

Cooperative Consoles 1.1 allows multiple SunNet Manager Consoles, running on diverse hosts, to share alarm and topology information. The Cooperative Consoles 1.1 software consists of four packages installed using `pkgadd`. They are:

- Cooperative Consoles Configuration Tool (`SUNWccfg`)
- Cooperative Consoles Sender Daemon (`SUNWccsnd`)
- Cooperative Consoles Receiver Application (`SUNWccrcv`)
- Cooperative Consoles 1.1 AnswerBook (`SUNWccab`)

The `SUNWccsnd` package contains the Cooperative Consoles Sender Daemon. This package should be installed on an SNM Console machine if you want event and topology information from the SNM Console on that machine to be forwarded to remote SNM Consoles.

The `SUNWccrcv` package contains the Cooperative Consoles Receiver Application. This package should be installed on an SNM Console machine if you want the SNM Console on that machine to receive forwarded event and topology information from remote SNM Consoles.

The `SUNWccfg` package needs to be installed on any SNM Console machine that has either the SUNWccrcv or SUNWccsnd package installed. This package contains the Cooperative Consoles Configuration Tool which is used to configure the Sender and Receiver processes on the local machine.

1

The SUNWccab package provides you with on-line access to the following manuals:

- *Solstice Cooperative Consoles 1.1 Installation Guide* (this document)
- *Solstice Cooperative Consoles 1.1 Administrator's Guide*

Installation Requirements

Note – Consult the *Cooperative Consoles 1.1 Important Product Information* document for the definitive compatibility and requirements information, and other information that was not available at the time this guide was published.

Before attempting to install this product you should make sure that each machine meets the following hardware and software installation requirements:

Hardware and Software Platforms: Cooperative Consoles 1.1 was developed for SPARC™ workstations or servers (32 Mbytes RAM minimum) running a Solaris 2.3 or later environment. You must also have installed the 2.2.2 or later version of SunNet Manager software. You should also have 3 Mbytes of free disk space in the partition where you intend to install CC (`/opt` is the default). You must also have access to a locally or remotely configured CD device.

OpenWindows™: Although you do not require OpenWindows to install the product software, you must be running (or be able to display remotely) OpenWindows 3.3 or later in order to configure Cooperative Consoles.

Note – Cooperative Consoles must be installed under the same path as SunNet Manager. For example. if the SNM executables are located in `/opt/SUNWconn/snm/bin`, then the CC executables must be located in this directory as well.

The following checklist is provided to help you gather information you must have to complete the installation procedures. You must be able to answer yes or fill in the appropriate information on the lines provided. If you have problems with your installation, you will need this information when you call for help.

1. Is the machine that you are installing Cooperative Consoles 1.1 software on a Sun SPARC® machine? _____

2. Does your machine have at least 32 Mbytes of memory?_____
3. Is your machine running Solaris 2.3 or later system software?_____
4. Is your machine running OpenWindows 3.3 or later software?_____
5. The installation medium is a CD-ROM.
   - Do you have access to a local or remote CD-ROM drive?_____ (The remote drive can be attached to a SunOS 4.1.x machine.)
   - If remote, what is the hostname of the machine to which the CD-ROM drive is attached? _____
6. In which directory will you install the Cooperative Consoles software? (The default directory is `/opt`.) _____

Note – Throughout this book, `/opt` is referenced. `/opt` is the default installation directory for the Cooperative Consoles product. If the Cooperative Consoles product is going to be installed in a directory other than `/opt`, all references should be changed accordingly.

---

7. Use the following command to check for disk space usage:

```
hostname% df -k /opt
```

Table 1-1 lists the amount of free disk space required to install the Cooperative Consoles and AnswerBook packages:

Table 1-1 Required Free Space

Package Name	**Required Free Space (Mb)**
Cooperative Consoles	3Mbytes
AnswerBook (nil option)	less than 1
AnswerBook (heavy option)	3Mbytes

Is enough free disk space available in your installation directory?_____

8. Do you have the superuser password for both the machine where the software is to be installed and the machine with the CD drive, if different? _____

9. Does superuser have read, write, and execute access to the installation directory (where Cooperative Consoles and the AnswerBook software are being installed)? _____

   Does the user have read and execute permission? _____

Getting Help

If you have problems installing or using the SunNet Manager 1.1 software, call your authorized service provider and have the following information ready:

- Model number of the machine
- Serial number of the machine
- SunOS release number
- Release number of the Cooperative Consoles product (1.1)

You can display information needed for help calls by entering the following command:

```
hostname% showrev
```

Your screen will show information similar to the following:

```
Hostname: gatoloco
Hostid: 554083d0
Release: 5.3
Kernel architecture: sun4c
Application architecture: sparc
Hardware provider: Sun_Microsystems
Domain: EBB.Eng.Sun.COM
Kernel version: SunOS 5.3 Generic Patch June 1994
```

Planning for Licensing and AnswerBook Installation

2

Both the license instsllation process and AnswerBook installation require some planning. This chapter provides the information you need to plan your installation.

Getting License Passwords

The license password is an alphanumeric code that you must obtain from the license distribution center and type in during installation. There are three ways to contact the license center:

- **Email** — You will need to compose an e-mail message with the information requested in the License Password Request Form (on page 2-4) and send it to one of the e-mail addresses listed inTable 2-1.

Table 2-1 License Center E-mail Addresses

Region/Country	E-mail address
USA, Canada	license@sun.com
Europe	eu-licensing@UK.sun.com
Japan	license@rrd.co.jp
All other countries	eu-license@UK.sun.com

- **Fax —** Fill out the License Password Request Form (on page 2-4) and fax it to appropriate number from Table 2-2.

Note – For the Cooperative Consoles product, the “Server Hostname” is the name of the machine where you want to install CC.

Table 2-2 License Center FAX Numbers

Region/Country	FAX Number
USA, Canada	317-364-7220
Europe	44-937-541194
Japan	03-3263-3844
All other countries	44-937-541194

- **Phone —** The Cooperative Consoles 1.1 `pkgadd` script provides phone numbers for most of the license distribution centers. To contact the license distribution center, please use the toll-free phone numbers listed inTable 2-3.

Table 2-3 International Phone List for Licenses

Country	Phone Number
Australia	1-317-364-7216
Belgium	078 11 21 03
Canada	1-800-872-4786
Finland	9800 14406
France	05 90 83 41
Germany	0130 81 47 33
Hong Kong	1-317-364-7216
Italy	1678 77252
Japan	03-3263-3821
Korea	1-317-364-7216
Netherlands	06 0224198
Puerto Rico	1-800-872-4786
Spain	900 97 4448
Sweden	020 793154

Table 2-3 International Phone List for Licenses

Country	**Phone Number**
Switzerland	155 8096
United Kingdom	0800 929 112
United States	1-800-872-4786
European countries not listed	+44 937 541511
All other countries	1-317-364-7216

You will be prompted for your license password during the installation of the CC Configuration Tool package (`SUNWccfg`). The operator at the license distribution center will ask you for the following information:

- Product name
- Version number
- “Server” name (the name of the host where the product is to be installed)
- Host ID

You will also need to provide the serial number from your license certificate.

License Password Request Form

To obtain a password, complete all sections and fax this form to one of the numbers provided below. Please type or print clearly. Use a separate form for each license server you will be using. Your password will be returned to you.

contact name	
company name	
job title	
mailing address	
city	**state**
country	**postal code**
telephone	
fax	
email	

FAX this form to:

In the U.S. and Canada:
(317) 364-7220

In Japan:
(+03) 3263-3844

In Europe and all other countries:
+44 937 541194

Return password via:

- ❑ Email
- ❑ Fax

License Server (Fill out for 1, 3, or 5 servers)
(3 or 5 = Redundant Server Set Only)

Server host name	Server hostid

Product Information (Complete an additional form for more products)

Product name & version	Proof of License Certificate	RTUs to Use (Default is All)

NOTE: You do not have to use all RTUs from a certificate. The unused portions can be redeemed at a later time.

FOR OFFICE USE ONLY	date/time request received	date/time password sent

Planning for AnswerBook Installation

The AnswerBook package SUNWabcc provides on-line access to the following Cooperative Consoles documents:

- *Cooperative Consoles 1.0 Installation Guide*
- *Cooperative Consoles 1.0 Administrator's Guide*

Installing the AnswerBook package is entirely optional. You may choose to install it at the same time you install the other Cooperative Consoles 1.0 software packages, or you may install it at a later time. You may also choose not to install the AnswerBook package.

If you choose to install the AnswerBook package, you must select one of two installation options. If you choose the *heavy* installation, you can merge the Cooperative Consoles 1.0 AnswerBook with the Solaris 2.3 or later AnswerBook and others already installed on your system. For information about merging AnswerBooks, see the Solaris 2.3 or later documentation.

Before you install your software determine whether you will install the AnswerBook package and which installation option you prefer. Table 2-4 describes the installation options available and lists the disk space and installation time required for each.

Table 2-4 Installation Options

Option	Description	Disk Space (Mbytes)	Installation Time
nil	Leave all files on CD-ROM. Performance is slow, but adequate for occasional use.	Less than 1	1 minute
heavy	Store all files on hard disk. Performance is optimized. This configuration is recommended if the AnswerBook package is to be shared by multiple systems.	3	1 minute

Note – If you do not specify the *heavy* installation option, you *must* leave the CD-ROM in the CD-ROM drive so that the AnswerBook is available.

The installation procedure creates a configuration file that contains the installation locations of the AnswerBook product. If your machine is rebooted in the future and you have chosen the `nil` installation option, you must make sure the CD-ROM is remounted on the same mount point you used during the initial installation.

Note – Some of the files used by the AnswerBook product are of a special type that are not recognized by the packaging tools, including `pkgadd`. If you choose the *heavy* installation option, the packaging tools may report a partial failure as the final installation status. *A partial failure does not mean that the installation has failed.*

For more information about AnswerBook, refer to the *Solaris 2.3 System Administrator's Guide to AnswerBook*, part number 801-5273-10.

Installing Cooperative Consoles 1.1 Software

3

Overview	*page 3-2*
Inserting and Accessing the CD-ROM	*page 3-2*
Installing the Cooperative Consoles Software Using pkgadd	*page 3-9*
Finishing Installation	*page 3-18*

This chapter provides instructions for installing Cooperative Consoles software on a network management system from which you will manage the network — a machine on which you have installed SunNet Manager.

Cooperative Consoles software is provided on CD-ROM. The software consists of the Sender Daemon, Receiver Application, Configuration Tool, configuration files, and on-line help and man pages. In addition, the Cooperative Consoles documentation is provided in AnswerBook form. The software is contained in *packages*, which you install from the CD-ROM by running the `/usr/sbin/pkgadd` program.

3

Overview

The software packages are installed using `pkgadd`, which installs the software from a mounted CD-ROM. You can install the packages either from a local or remote CD drive. The installation steps can be summarized as follows:

1. **Verify installation requirements (as specified above under "Installation Requirements" on page 1-2.**
2. **Insert the CD-ROM into the (local or remote) CD-ROM drive.**
3. **Log in as (or become) superuser.**
4. **Mount the CD-ROM**
5. **Install the software packages (SUNWccrcv, SUNWccsnd, SUNWccfg) using `/usr/sbin/pkgadd`.**
   You can also install the Cooperative Consoles AnswerBook package (SUNWabcc) at the same time. Installation of AnswerBook is optional.
6. **Update the Network Information Service (NIS/NIS+) maps/tables (if you are running NIS/NIS+), add the CC Receiver and Configuration Tool to the SNM Console Tools menu, and make sure that you have SNM database trap forwarding turned on.**

Note – Your target machine for *installing* the Solaris 2.3 version of Cooperative Consoles software must always be a system running SunOS 5.3 (Solaris 2.3) or later. You can use a remote SunOS 4.1.x or 5.x system to provide the CD-ROM drive.

Inserting and Accessing the CD-ROM

To install the Cooperative Consoles software you must have either a local CD-ROM drive or a drive that is accessible over a network.

This section describes how to insert the CD-ROM in the drive and, if you are using a remote CD-ROM drive, how to export or share the CD-ROM filesystem.

Note – Your target machine for *installing* the Solaris 2.3 version of Cooperative Consoles software must always be a system running SunOS 5.3 (Solaris 2.3) or later. You can use a remote SunOS 4.1.x or 5.x system to provide the CD-ROM drive.

▼ Inserting Your CD-ROM

In SunOS 5.***x***, to add a CD-ROM device, connect the device to the machine's SCSI bus and to a power source. Power up the device, then halt your machine by entering `init 0`. At the ok prompt enter `boot -r`.

1. **Remove the CD-ROM from its plastic case and place the CD-ROM in its caddy. Refer to Figure 3-1.**
   When the CD-ROM is properly inserted into the caddy, the label is visible.

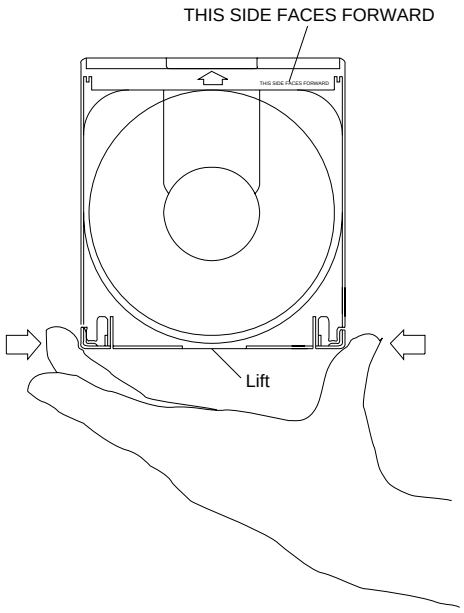

Figure 3-1 Insert the CD-ROM into the Caddy

2. **Insert the caddy into the drive slot. (Make sure the CD drive is powered on.) Refer to Figure 3-2.**

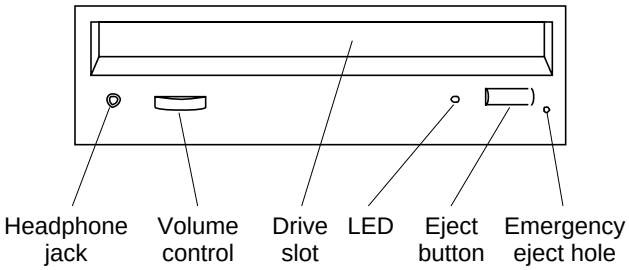

Figure 3-2 CD Device Showing Drive Slot

Proceed to the following section if you are accessing a locally installed CD drive. Go to "Mounting the CD-ROM from a Remote CD Drive" if you are accessing a remotely installed CD drive.

Note – Unless noted otherwise, you must log in as or become root to perform all of the following procedures.

▼ Mounting the CD-ROM from a Local CD Drive

As a default, volume management is ***en***abled for Solaris 2.2 or later. A system administrator would have to kill the `vold` process or modify the `/etc/vold.conf` file to disable this feature.

There is no explicit mounting of the CD-ROM filesystem for a locally-attached CD drive under Solaris 2.2 or later. When you insert the CD into the drive, the CD-ROM filesystem is automatically mounted. In the unlikely event that volume management—the feature that provides this automatic mounting—is disabled, you must, as root, perform the following commands:

1. **Make the directory to mount the CD-ROM if it does not already exist:**

```
hostname# mkdir /cd
```

2. **Mount the CD-ROM:**

```
hostname# mount -r /dev/dsk/c0t6d0s0 /cd
```

Go to “Installing the Cooperative Consoles Software Using pkgadd” on page 3-9.

▼ Mounting the CD-ROM from a Remote CD Drive

To install the software on a machine that does not have its own CD-ROM drive, you must perform some activities on the remote machine (the machine with the CD-ROM device) and some on the local machine (the machine onto which you are installing the software). Be sure you follow the directions carefully. The instructions specify on which machine you must perform the steps.

▼ Exporting or Sharing from the Remote Machine

Because you are mounting the software from a remote CD-ROM, you must first export or share it from the remote machine. The methods are slightly different for remote SunOS 4.x, SunOS 5.1 (Solaris 5.1), and SunOS 5.2 or later (Solaris 5.2 or later) systems and are described in separate procedures.

Exporting from a Remote SunOS 4.x System

Perform the following steps on the *remote* machine:

1. **Make a directory on which to mount the CD-ROM if it does not already exist:**

```
hostname# mkdir /cd
```

2. **Mount the CD-ROM on the remote machine:**

```
hostname# mount -t hsfs -r /dev/sr0 /cd
```

3. **If the entry is not already present, edit the `/etc/exports` file by adding the following line:**

```
/cd -ro
```

4. **Export the directory from the remote machine:**

```
hostname# exportfs /cd
```

5. **If they are not already running, start the NFS mount daemons by entering the following commands:**

```
hostname# nfsd 8
hostname# rpc.mountd &
```

6. **Check to see that the machine is exporting the directory by entering the `exportfs` command. The screen should show the `/cd` directory:**

```
hostname# exportfs
. . .
/cd
```

Go to "Mounting the Remote CD-ROM on the Local Machine" on page 3-8.

Sharing from a Remote SunOS 5.1 System

Perform the following steps on the *remote* machine:

1. **On the remote machine, make a directory on which to mount the CD-ROM if it does not already exist:**

```
hostname# mkdir /cd
```

2. **Mount the CD-ROM on the remote machine:**

```
hostname# mount -r /dev/dsk/c0t6d0s0 /cd
```

3. **If they are not already running, start the NFS daemons by entering the following commands:**

```
hostname# /usr/lib/nfs/nfsd 8
hostname# /usr/lib/nfs/mountd
```

4. **Share the directory from the remote machine:**

```
hostname# share -F nfs -o ro /cd
```

5. **Check to see that the machine is exporting the directory by entering the** `share` **command. The screen should show the** `/cd` **directory:**

```
hostname# share
. . .
-       /cd       ro      " "
. . .
```

It takes a few minutes for this shared directory to become available over the network.

Sharing from a Remote SunOS 5.2 System

Perform the following steps on the *remote* machine:

1. **If they are not already running, start the NFS daemons by entering the following commands:**

```
hostname# /usr/lib/nfs/nfsd 8
hostname# /usr/lib/nfs/mountd
```

2. **Share the directory from the remote machine by entering the command:**

```
hostname# share -F nfs -o ro /cdrom/cooperative_consoles_1_0
```

3. **Ensure that the machine is exporting the directory by entering the** `share` **command. The screen should show the** `/cdrom/cooperative_consoles_1_0` **directory:**

```
hostname# share
. . .
-       /cdrom/cooperative_consoles_1_0       ro      " "
. . .
```

It takes a few minutes for this shared directory to become available over the network.

▼ Mounting the Remote CD-ROM on the Local Machine

Having exported or shared the remote CD-ROM, you can now mount it on your local machine. Perform the following step on the local machine:

- **Use the automounter to automatically mount the exported or shared filesystem.**
  For remote SunOS 4.x and SunOS 5.1 systems enter:

```
hostname# cd /net/<remote_machine>/cd
```

For remote Solaris 2.2 or later systems enter:

```
hostname# cd /net/<remote_machine>/cdrom/cooperative_consoles_1_0
```

- **If the automounter is not running on your machine, do the following on your local machine:**

1. **Make a directory on which to mount the CD-ROM if it does not already exist:**

```
hostname# mkdir /cd
```

2. **Mount the remote directory on** `/cd`**:**
   For remoteSunOS 4.1.x and SunOS 5.1 systems enter:

```
hostname# mount -r -F nfs <remote_machine>:/cd /cd
```

For SunOS 5.2 or later systems enter:

```
hostname# mount -r -F nfs <remote_machine>:/cdrom/cooperative_consoles_1_0 /cd
```

Installing the Cooperative Consoles Software Using pkgadd

Whether you have a directly connected or remotely accessed CD-ROM player, you can now run the pkgadd command.

1. **Invoke the** pkgadd **command.**

   a. **If you want to install the packages in the default directory,** /opt**, enter the following command:**

```
hostname# /usr/sbin/pkgadd -d <pathname>
```

   The replacement for <*pathname*> depends on your method of accessing your CD-ROM player. The possibilities are as follows:

   - If you statically mount (using the mount command) your CD-ROM directory, whether it be local or remote, use /cd.
   - If you are running Solaris 2.2 or later, have vold running (the default case), and have a local CD-ROM player, use /cdrom/cooperative_consoles_1_0.
   - If you use the automounter and are accessing a remote CD-ROM player connected to a remote SunOS 4.x machine or a Solaris 2.x machine that is not running vold, use /net/<*remote_hostname*>/cd.
   - If you use the automounter and are accessing a remote CD-ROM player connected to a Solaris 2.2 or later machine that *is* running vold, use /net/<*remote_hostname*>/cdrom/cooperative_consoles_1_0.

   b. **If you want to install the packages in a directory other than the default, enter the following command:**

```
hostname# /usr/sbin/pkgadd -d <pathname> -a none
```

   ...where <*pathname*> is the path name you would supply for the command shown in Step 1a.

With the latter command, pkgadd prompts you for the destination directory prior to installing each package. Be sure to enter the same base directory for each CC package you install.

Note – Cooperative Consoles must be installed under the same path as SunNet Manager. For example, if you installed SNM in `/usr` rather than the default `/opt`, then you must also install CC in `/usr`.

The screen displays a list of packages available for installation:

```
The following packages are available:
  1  SUNWccab      Cooperative Consoles AnswerBook
                   (all) 63.3
  2  SUNWccfg      Cooperative Consoles Configuration Tool
                   (sparc) 1.1
  3  SUNWccrcv     Cooperative Consoles Receiver Application
                   (sparc) 1.1
  4  SUNWccsnd     Cooperative Consoles Sender Daemon
                   (sparc) 1.1

Select package(s) you wish to process (or 'all' to process
all packages). (default: all) [?,??,q]:
```

2. **Type in the number(s) of the package(s) you want to install or press Return for `all`.**
   Note that the Configuration Tool (`SUNWccfg`) must be installed on any machine where you install either the Sender Daemon or the Receiver Application.

Note – The remainder of this chapter assumes you have pressed Return to install all of the CC packages.

If you select 1 or press Return for all, you receive the following display:

```
Processing package instance <SUNWabcc> from </cd>

Cooperative Consoles 1.1 AnswerBook
(all) 63.3

<Copyright notice>

Using </opt or other directory> as the package base directory.

The installation options are as follows:
Option: Description:
-------------------------------------------
1. nil:    less than 1 Megabyte disk space required [slowest performance].
2. heavy:   4 Megabytes disk space required [best performance].
Enter the number of an installation option from the list above (1 or 2).


Select an installation option:
```

3. **Enter your choice for AnswerBook, 1 or 2.**
   The following is the output if you select 1 for the nil option.

```
Installation option: nil selected.

The next request for input asks you to specify the parent directory of
AnswerBook
Make sure to choose a parent directory on a file system big enough to
accommodate all the files to be moved for the INSTALL OPTION you selected.


Specify the parent of the AnswerBook home directory: <your directory choice>
## Processing package information.
## Processing system information.
## Verifying package dependencies.
## Verifying disk space requirements.
## Checking for conflicts with packages already installed.
## Checking for setuid/setgid programs.

This package contains scripts which will be executed with super-user
permission during the process of installing this package.

Do you want to continue with the installation of this package [y,n,?] y

Installing Cooperative Consoles 1.0 AnswerBook as <SUNWabcc>

## Installation of part 1 of 1 is complete.
## Executing postinstall script.

Installation of <SUNWabcc> was successful.
```

After the script begins the processing of the Configuration Tool package (`SUNWccccfg`) you will receive a screen that displays copyright information, and then a list of phone numbers to call for obtaining a license for the

software. The phone numbers are listed under “Getting License Passwords” on page 2-1. After the list of phone numbers, a screen like the following is displayed:

```
The license distributor will ask you for the following
information:

    Product Name    : Cooperative Consoles
    Product Version: 1.1
    Server Name     : <host_name>
    Host ID         : <host_ID>
    Data Checksum   : <number>

    You will also need to provide the Serial Number from
    the license certificate.

Please Hit Return to continue .....

You can install the license now or after the installation
of the product. If you choose to install the license
later, you'll need to run the script install_cc_license.

Do you want to install the license now (y/n) [n]: y

Please enter the License Password for this node: <license_password>
```

If you choose to install the license after installation of the product, you can install the license on a later occasion by running the script `/opt/SUNWconn/snm/bin/install_cc_license`. This is explained in Appendix A, “Installing a License for Cooperative Consoles 1.1.” If you choose to install the license later, proceed to Step 4.

When you call the license distribution center, you must do the following:

a. **The operator will provide you with a license password which you must type in at the prompt shown above.**

b. **Give the operator your serial number from your license certificate, product name and version, host name, and host ID.**
Ask the operator to verify the data checksum number. If the operator’s data checksum number is different from yours, the operator must retype the information until the data checksum numbers match.

c. The operator will ask you for your company address, phone number, and email address.

After you type in the license password that the operator gives you, you will receive the following prompt:

```
Is this a demo license (y/n) [y]:
```

If you enter y, then you will be prompted to enter the expiration date of the demo license. For example:

```
Please enter the expiration date (dd-mmm-yyyy): 01-jan-1995
```

After you have answered the prompt about demo licenses, you receive the following display:

```
The password checksum is: <number>

Is this correct (y/n) [y]:
```

d. The operator will provide you with a password checksum.
You must make sure that the password checksum that is displayed matches the password checksum that the license center operator gives you. If the operator's password checksum is different than yours, then you must repeat the process of typing in the password given to you by the operator until the numbers match.

Once the licensing process is complete, the script will proceed with the installation of the Configuration Tool package and you will receive the following display:

```
## Processing package information.
## Processing system information.
   17 package pathnames are already properly installed.
## Verifying disk space requirements.
## Checking for conflicts with packages already installed.
## Checking for setuid/setgid programs.

This package contains scripts which will be executed with super-user
permission during the process of installing this package.

Do you want to continue with the installation of this package [y,n,?]
```

4. Enter `y` **to continue with the installation of the Configuration Tool.**
You will see a list of files and a notice that installation of the Cooperative Consoles Receiver Application (`SUNWccrcv`) has begun. After a copyright notice, you receive the following display:

```
Using </opt or other directory> as the package base directory.
## Processing package information.
## Processing system information.
   10 package pathnames are already properly installed.
## Verifying package dependencies.
## Verifying disk space requirements.
## Checking for conflicts with packages already installed.
## Checking for setuid/setgid programs.

This package contains scripts which will be executed with super-user
permission during the process of installation of this package.

Do you want to continue with the installation of this package [y,n,?]
```

5. **Enter** `y` **to continue with the installation of the Receiver.**
   You will see a list of files and a notice that installation of the Cooperative Consoles Sender Daemon (`SUNWccrcv`) has begun. After a copyright notice, you receive the following display:

```
Using </opt or other directory> as the package base directory.
## Processing package information.
## Processing system information.
   7 package pathnames are already properly installed.
## Verifying package dependencies.
## Verifying disk space requirements.
## Checking for conflicts with packages already installed.
## Checking for setuid/setgid programs.

This package contains scripts which will be executed with super-user
permission during the process of installing this package.

Do you want to continue with the installation of this package [y,n,?]
```

6. Enter `y` **to continue with the installation of the Sender.**

You will receive the following display:

```
Installing Cooperative Consoles Sender Daemon as <SUNWccsnd>

## Executing preinstall script.
Terminating Cooperative Consoles Sender Daemon.
## Installing part 1 of 1.
/opt/SUNWconn/snm/agents/cc_sender
/opt/SUNWconn/snm/man/man8/cc_sender.8
[ verifying class <none> ]
## Executing postinstall script.
Adding cc_sender definitions to /etc/rpc ...

done.
Your /etc/rpc file was already up to date.

Updating /etc/inet/inetd.conf to reflect CC's installation
directory

done.
Your /etc/inet/inetd.conf file was already up to date.
Instructing inetd to re-read config file
done.


Installation of <SUNWccsnd> was successful.

The following packages are available:
  1  SUNWccab      Cooperative Consoles AnswerBook
                   (all) 63.1
  2  SUNWccfg      Cooperative Consoles Configuration Tool
                   (sparc) 1.0
  3  SUNWccrcv     Cooperative Consoles Receiver Application
                   (sparc) 1.0
  4  SUNWccsnd     Cooperative Consoles Sender Daemon
                   (sparc) 1.0

Select package(s) you wish to process (or 'all' to process
all packages). (default: all) [?,??,q]:
```

7. Software installation is now complete. Enter `q` **to quit.**

3

Finishing Installation

If you are running NIS/NIS+, you must manually update the NIS `rpc.bynumber` maps or the equivalent tables in NIS+. To update the NIS/NIS+ maps, do the following:

1. **On the master NIS/NIS+ server, log in as (or become) superuser:**

```
hostname% su
Password: <enter your superuser password>
```

2. **Edit the file `/etc/rpc` by adding the following line, if it does not already exist in the file:**

```
sender     100139    cc_sender
```

3. **Make the change effective:**

   a. **If you are running NIS, update the maps using the `ypmake` command, then push the maps out to the slave NIS servers using the `yppush` command.**

   b. **If you are running NIS+, update the tables using the `nisaddent` command.**

Note – Refer to your system administration documentation if you need more information about these commands.

4. **Look for the number of the `inetd` process by entering the following command:**

```
hostname# ps -ef | grep inetd
```

Now force the inetd process to reread its configuration file by entering the command:

```
hostname# kill -HUP <process number>
```

Adding Cooperative Consoles to the SNM Console Tools Menu

To add the Cooperative Consoles Receiver and Configuration Tool to the SNM Console's Tools menu, you will need to load the `cooptools.schema` file into SunNet Manager. There are two ways to do this:

- **Restart SunNet Manager with the `-i` option.**

If you start SNM with the `-i` option after installing Cooperative Consoles, this forces SNM to reload all the schema files, including `cooptools.schema`.

Note – Starting SNM with the `-i` option erases your runtime management database. If you want to save your current runtime database, you will need to use the Console File menu Save➤Management Database option to save your runtime database to an ASCII file. You can then reload this database using the Load➤Management Database option after restarting SNM with the `-i` option.

- **Load the `cooptools.schema` file from the Console File menu and then restart SNM.**

If you want to use this method, pull down the SNM Console's File menu and select the Load➤Management Database option. Now select the `cooptools.schema` file from the `/opt/SUNWconn/snm/struct` directory, as shown in Figure 3-3.

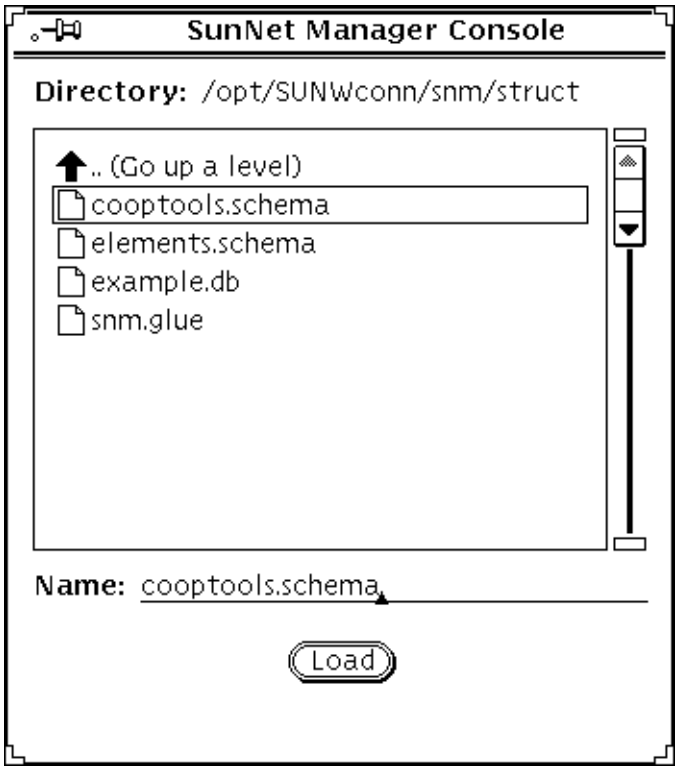

Figure 3-3 Loading the cooptools.schema file

After loading the `cooptools.schema` file, you will need to quit SNM and then restart SNM again. When you restart SNM, you do not need to use the `-i` option.

SNM Database Trap Forwarding

To ensure that *all* SunNet Manager database traps are sent to the local Sender daemon, you will need to make sure that the attribute `snm.console.DBMgrTrapAlways` is set to TRUE in your `.SNMdefaults` file.

The default setting for this SNM attribute is FALSE. You can use `vi` or your favorite text editor to change the setting of this attribute. If there is no `.SNMdefaults` file in your home directory, you can force SNM to create one by making a minor change to some Console attribute from the Console Properties menu.

3

Installing a License for Cooperative Consoles 1.1

A

Cooperative Consoles is a licensed product. You will need a license for each host that will have CC mounted on it. The license password is an alphanumeric code that you must obtain from the license distribution center and type in during installation. You can either install the license at the same time you install the CC software or else you can install the license at a later time. This chapter describes the installation procedure for the license if you choose to do this installation after installing the CC software packages.

To begin the installation of your license, you will need to become (or login as) superuser:

```
hostname% su
Password: enter your superuser password
```

To install the license, you will need to run the `install_cc_license` script. Assuming you have installed CC in the default location, enter the following command:

```
hostname# /opt/SUNWconn/snm/bin/install_cc_license
```

The install script will begin by listing the phone numbers to call to obtain a license password. These phone numbers are listed in Chapter 2, “Planning for Licensing and AnswerBook Installation.” The script then displays the following:

```
The license distributor will ask you for the following
information:

    Product Name   : Cooperative Consoles
    Product Version: 1.1
    Server Name    : gatoloco
    Host ID        : 554083d0
    Data Checksum  : 52

    You will also need to provide the Serial Number from
    the license certificate.

Please Hit Return to continue .....
```

After you press Return, you will be asked:

```
Do you want to install the license now (y/n) [y]:
```

Press return to continue with the license installation.

```
Please enter the License Password for this node:
```

When you call the license distribution center, you must do the following:

a. **The operator will provide you with a license password which you must type in at the prompt shown above.**

b. **Give the operator your serial number from your license certificate, product name and version, host name, and host ID.**
Ask the operator to verify the data checksum number. If the operator’s data checksum number is different from yours, the operator must retype the information until the data checksum numbers match.

c. The operator will ask you for your company address, phone number, and email address.
After you type in the license password that the operator gives you, you will receive the following prompt:

```
Is this a demo license (y/n) [y]:
```

If you enter y, then you will be prompted to enter the expiration date of the demo license. For example:

```
Please enter the expiration date (dd-mmm-yyyy): 01-jan-1995
```

After you have answered the prompt about demo licenses, you receive the following display:

```
The password checksum is: <number>

Is this correct (y/n) [y]:
```

d. The operator will provide you with a password checksum.
You must make sure that the password checksum that is displayed matches the password checksum that the license center operator gives you. If the operator's password checksum is different than yours, then you must repeat the process of typing in the password given to you by the operator until the numbers match.

The license password will then be stored in the file `/var/opt/SUNWconn/snm/cc_files/license.dat`.

A

Removing Cooperative Consoles Software

This appendix provides the procedure for removing Cooperative Consoles software from a local machine using the `pkgrm` program. If you have mounted Cooperative Consoles via NFS, follow this same procedure, however, you will need access to the NFS server to remove some of the files.

You might remove Cooperative Consoles software if you need to free up some disk space on a particular system, or if you want to reinstall Cooperative Consoles.

You remove Cooperative Consoles software by running the `pkgrm` program to remove the packages you installed.

To remove Cooperative Consoles software:

1. **Enter `su` and the password to become root.**

2. **Start the `pkgrm` removal program:**
   If you installed all the CC packages, enter this command:

```
hostname# /usr/sbin/pkgrm SUNWccrcv SUNWccsnd SUNWccccfg
```

If you did not install the Sender (`SUNWccsnd`) or Receiver (`SUNWccrcv`) on a particular machine, then simply omit that package name in the command.

If you want to remove the CC AnswerBook, enter a `pkgrm` command with `SUNWabcc` as its argument.

B

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