

Administration Application Reference Manual

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Preface

The *Administration Application Reference Manual* provides procedural and reference information about Administration Tool, a suite of tools used to perform system administration tasks in the Solaris™ 2.x environment. The suite of tools is sometimes referred as `admintool`, the program that is used to start the application tools.

Administration Tool was developed by Sun to provide a graphical user interface for performing both simple and common administration tasks in the Solaris 2.x environment in a consistent way.

This book also contains reference information about Software Manager. See the *Software and AnswerBook Packages Administration Guide* for information on using Software Manager.

Who Should Use This Book

This book is intended for experienced and junior administrators who need information on using the administration tools to perform administrative tasks such as setting up a user, printer, diskless client, or terminal.

Before You Read This Book

To use this book, you should be familiar with all aspects of Solaris 2.x system administration. You should also be familiar with using a three-button mouse and graphical user interface.

How This Book Is Organized

This book is divided into two parts:

- Part 1—Using Administration Tool

Part 1 of this book provides task-specific information needed to use the administration tools.

- Part 2—Administration Tool Reference

Part 2 of this book provides reference information about each tool's command menus and options.

This table provides a brief description of the chapters in this book.

Chapter Numbers	Contents
Part 1	
Chapter 1	An overview of the administration tools and a description of common features.
Chapter 2	Information about using the administration tools in a name service environment and setting up administration tool security.
Chapters 3-7	Information on performing specific system administration tasks using the application tools.
Part 2	
Chapters 8-14	Reference information about each tool's commands, menus, and windows.

Related Books

The following SunSoft documentation provides information on using the OPEN LOOK[®] version of the application tools, and can be used to provide additional background information for the tools described in this book.

- *Name Services Administration Guide*
- *Common Administration Tasks*
- *User Accounts, Printers, and Mail Administration*
- *SPARC: Installing Solaris Software*
- *x86: Installing Solaris Software*
- *Peripherals Administration*

What Typographic Changes and Symbols Mean

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 <code>.login</code> file. Use <code>ls -a</code> to list all files. system% You have mail.
AaBbCc123	What you type, contrasted with on-screen computer output	<div style="border: 1px solid black; padding: 2px;">system% su Password:</div>
<i>AaBbCc123</i>	Command-line placeholder: replace with a real name or value	To delete a file, type <code>rm filename</code> .
<i>AaBbCc123</i>	Book titles, new words or terms, or words to be emphasized	Read Chapter 6 in <i>User's Guide</i> . These are called <i>class</i> options. You <i>must</i> be root to do this.

Code samples are included in boxes and may display the following:

C shell prompt	system%
Superuser prompt, C shell	system#
Bourne and Korn shell prompt	\$
Superuser prompt, Bourne and Korn shells	#

Part 1 — Using Administration Tool

- Chapter 1, “Administration Tool Overview”
- Chapter 2, “Name Service Management”
- Chapter 3, “Managing User Accounts”
- Chapter 4, “Managing Printers”
- Chapter 5, “Managing Network Services”
- Chapter 6, “Using Serial Port Manager”

Administration Tool Overview



Administration Tool is a graphical user interface used to perform administrative tasks such as managing users, hosts, printers, and serial devices.

This chapter contains the following topics.

<i>When to Use Administration Tool</i>	<i>page 2</i>
<i>Benefits of Administration Tool</i>	<i>page 2</i>
<i>Requirements for Using Administration Tool</i>	<i>page 3</i>
<i>Administration Tool Applications</i>	<i>page 3</i>
<i>Starting Administration Tool</i>	<i>page 4</i>
<i>Selecting a Name Service</i>	<i>page 5</i>
<i>Filtering Entries</i>	<i>page 6</i>
<i>Main Windows</i>	<i>page 7</i>
<i>Typing in Text Boxes</i>	<i>page 8</i>
<i>Buttons</i>	<i>page 8</i>
<i>Using the Help Viewer</i>	<i>page 9</i>

When to Use Administration Tool

Administration Tool applications enable you to manage:

- Important system database files such as `aliases` and `netmasks`
- User account information including tasks such as adding users, modifying password aging features, and removing user account information
- Local and remote printer setup
- Terminal and modem setup
- Diskless and dataless client setup

These tasks can be done on local and remote systems if the right access has been set up. See Chapter 2, “Name Service Management,” for information on controlling access to Administration Tool.

Benefits of Administration Tool

Using a graphical user interface to perform administration tasks has the following benefits:

- The application programs are faster than using numerous SunOS™ commands to perform the same tasks.
- System files are updated automatically without the risk of making errors by editing important system files manually.
- The application programs interact with appropriate system daemons and notify you when the two are out of sync.

Administration Tool Applications

Administration Tool provides the applications listed in Table 1-1.

Table 1-1 Administration Tool Applications

Application	Enables You to Manage ...
Database Manager	Network-related system files such as aliases and netmasks
Host Manager	Network client services
Printer Manager	Local and remote printer setup
Serial Port Manager	Serial devices
User Account Manager	User account information

Requirements for Using Administration Tool

You need the following to use Administration Tool:

- A bit-mapped display monitor – Administration Tool’s applications can be used only on a system where the console is a bit-mapped screen such as a standard display monitor that comes with a Sun system.

If you want to perform administration tasks on a system with an ASCII terminal as the console, use SunOS commands.

- OpenWindows™ software.
- Superuser privilege or membership in the sysadmin group (group ID=14) and the required access privileges for managing the NIS or NIS+ databases. See Chapter 2, “Name Service Management,” for more information.

You should use Administration Tool as a regular user who has membership in the sysadmin group rather than as superuser.

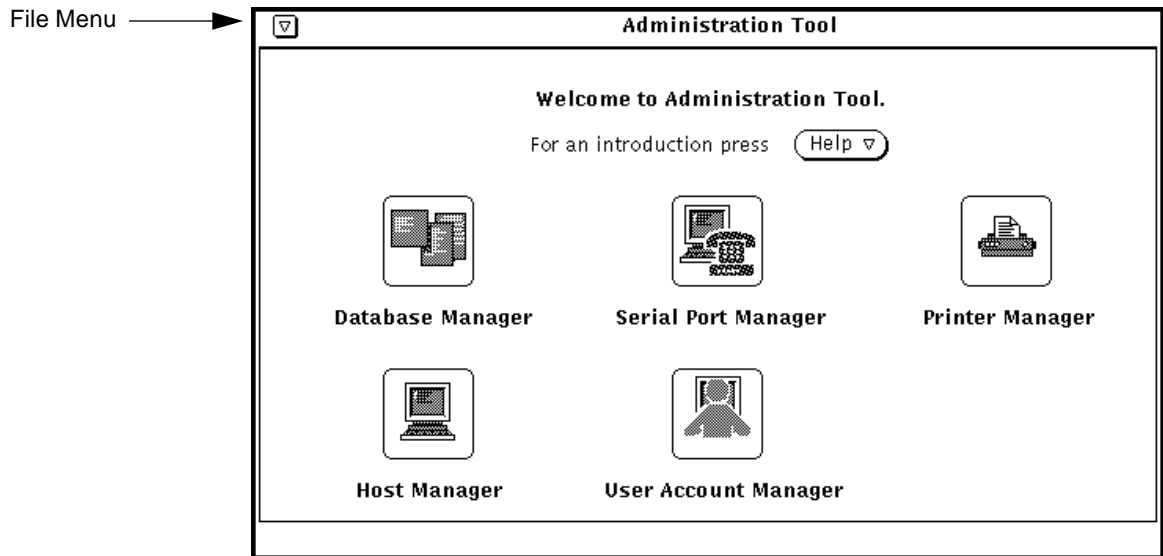
Starting Administration Tool

Start Administration Tool from an OpenWindows window as follows:

```
$ admintool &
```

You can also start Administration Tool with the `-display` option to remotely display Administration Tool on a bit-mapped screen.

The Administration Tool main window is displayed.



The Administration Tool main window is also referred to as the Administration Tool *launcher* because it is used to start the applications.

The Administration Tool launcher menus are described in Table 1-2.

Table 1-2 Administration Tool Launcher Menus

Menu	Description
File	Contains the Quit option used to exit and close the Administration Tool launcher
Help	Used to access Administration Tool's Help Viewer

Selecting a Name Service

After you start the Administration Tool launcher and click on a tool icon, you must select the name service appropriate for your environment.

Administration Tool can be used to manage information on the local system or across the network by using the NIS+ name service. The sources of information that can be managed by Administration Tool are described in Table 1-3.

Table 1-3 Available Name Services

Name Service	Select This Name Service to Manage ...
NIS+	NIS+ table information. This requires sysadmin group (group ID=14) membership and the appropriate ownership and permission on the NIS+ tables that will be modified.
NIS	NIS map information can only be displayed using Administration Tool; it cannot be modified.
None	The <code>/etc</code> files on the local system. You must be superuser or a member of the sysadmin group to modify these files. The local system (identified under Host:) is selected by default.

Administration Tool can be used to manage three types of information: NIS+ tables, NIS maps, and `/etc` files on the local system. This book refers to all three types of information as *system files*.

See Chapter 2, “Name Service Management” for information on creating the sysadmin group with or without using a name service.

Filtering Entries

Each of the administration applications (except Printer Manager and Serial Port Manager) provide a means of filtering entries if you do not want to see all of the entries in a system file. You can specify a filter by clicking on the Show menu. The following menu (from the Host Manager, for example) is displayed:

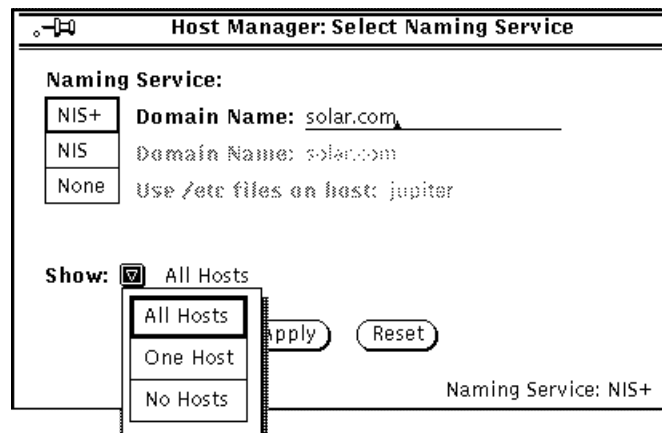


Table 1-4 describes the different Show commands.

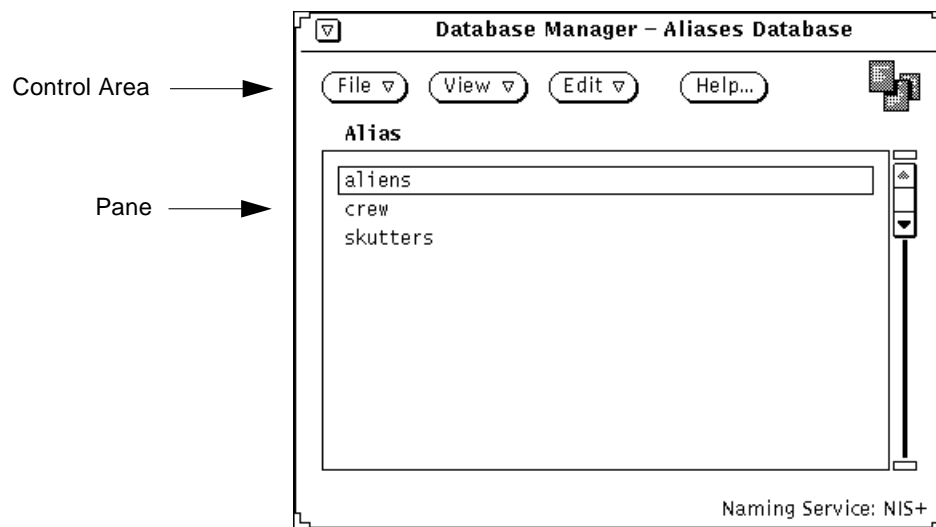
Table 1-4 Show Commands

Option	Use This Command To ...
All items	Display all file entries. This is the default setting.
One item	Specify a text string to display the file entries that match the text string. Specifying wildcards is acceptable. This option is helpful if you want to focus on a small number of entries.
No items	Turn off file entry display. This is helpful if you only want to add new entries and don't want to view existing entries.

After you have selected a name service and a method for filtering entries, click on Apply. The tool's main window is displayed.

Main Windows

Each application tool has a main (or base) window that looks similar to the following Database Manager Main window.

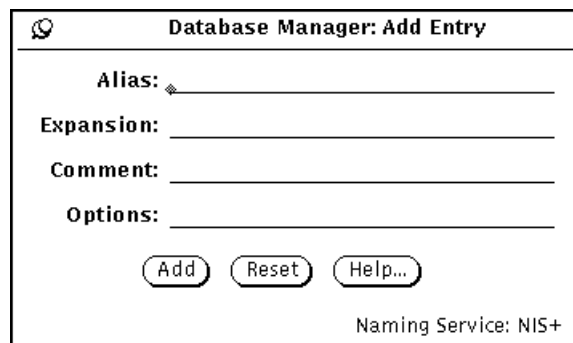


The main window contains two areas: the *control area* and the *pane*.

The control area usually contains four menus: File, View, Edit, and Help.

Typing in Text Boxes

The following Add Entry window from Database Manager illustrates the text boxes used for typing text in a tool window.



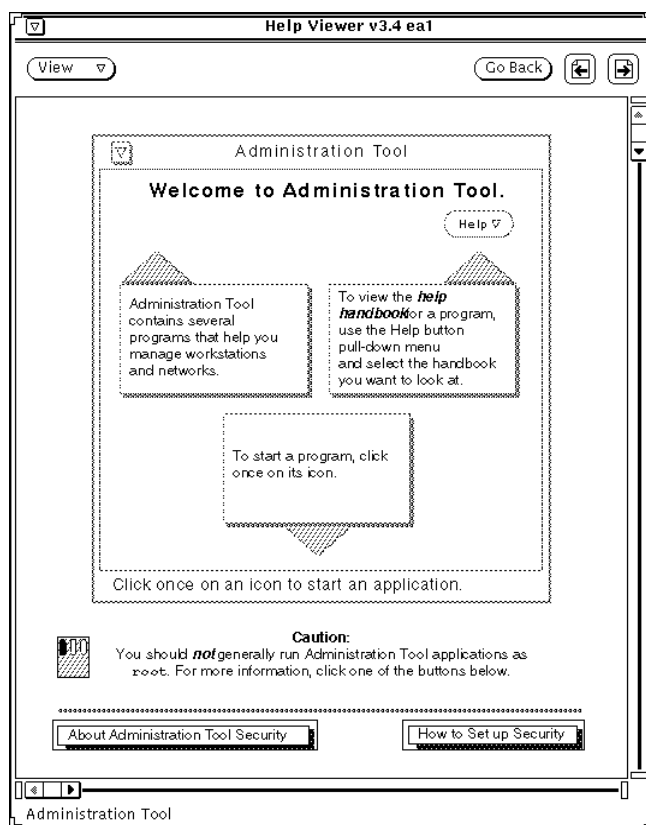
Buttons

The Add Entry window displayed above also illustrates some of the buttons used in the application windows. Table 1-5 describes when to use each button.

Table 1-5 Administration Tool Buttons

Button	Is Used To ...
OK	Complete a task so that it can be processed. The window is closed after the task is completed.
Apply	Complete a task but leave the window open. (Not available on all windows and not shown above.)
Reset	Erase any text entered in the window and position the insertion pointer in first field of the window.
Cancel	Cancel the task and close the window.
Help	Access the online Help Handbook.

Using the Help Viewer



An important part of Administration Tool is an online Help handbook called Help Viewer. Help Viewer provides detailed information about the Administration Tool applications and their functions.

The Help Viewer handbook is accessed by clicking on a Help button. A Help button can be found on the main Administration Tool window.

Help Viewer handbooks are also available for each of Administration Tool's five applications. These too are accessed by clicking on help buttons, found in the main (base) window of each application.

The online help handbooks are anywhere from ten to 65 pages long. Navigate through the books by clicking on arrows in the upper-right corner that move you from page to page, or by double-clicking on a subject in the handbook's Table of Contents to go directly to that topic.

See Table 1-6 for a summation of help's navigational buttons.

Table 1-6 Navigating Online Help

Button Name	Use This Button To...
Help	Access an Administration Tool's Help Viewer
---->, <----	Go to the next page or previous page
<i>Topic</i>	Go directly to a specific Help topic
Table of Contents	Return to Help's Table of Contents
Go Back	Return to the Help page you were previously on
View	Resize the Help window

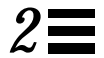
Icons

You can close the Administration Tool launcher (and each tool) to an icon by clicking on the file menu in the top left corner of each tool's main window.



Proceed to Chapter 2, "Name Service Management," for information on using Administration Tool in your particular name service environment.

Name Service Management



Administration Tool can be used in different name service environments. An important part of using Administration Tool is understanding how its security features work in different environments and setting up security policies to protect system files in your network of systems.

This chapters contains the following topics.

<i>Selecting a Name Service Environment</i>	<i>page 12</i>
<i>Using Administration Tool in a Name Service Environment</i>	<i>page 12</i>
<i>Additional Administration Tool Security Information</i>	<i>page 15</i>
<i>Creating a Security Policy for Administration Tool</i>	<i>page 19</i>

Name Service Environment

Administration Tool can be used to manage information on the local system or across the network via a name service. The sources of information that can be managed by Administration Tool are:

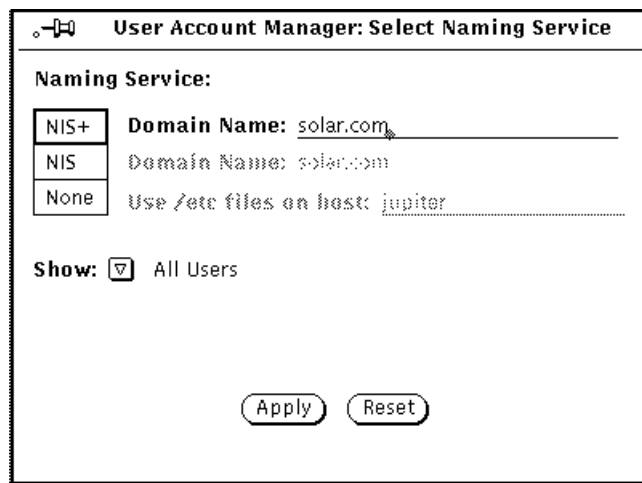
- Network Information Service (NIS) maps (display only)
- Network Information Service Plus (NIS+) tables
- `/etc` files

See the section called “Using Administration Tool in a Name Service Environment” on page 12 for information on using Administration Tool with or without a name service environment.

Selecting a Name Service Environment

After you start Administration Tool and click on an application icon, the Select Name Service window is displayed. Choose the name service that is appropriate for your environment from.

This example is from User Account Manager's Load window.



Note – The NIS and NIS+ environments are not available for Serial Port Manager and Printer Manager.

Using Administration Tool in a Name Service Environment

The following procedures describe how to use Administration Tool in each name service environment.

In the NIS+ Environment

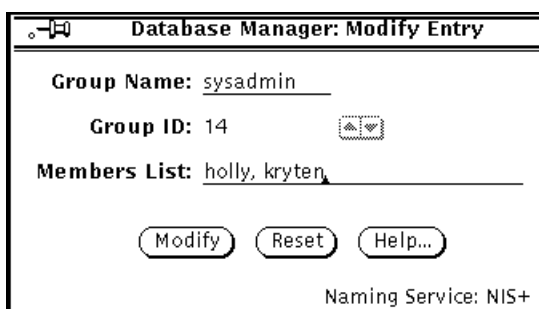
The requirements for viewing and modifying NIS+ table information are:

- Membership in the UNIX® group, sysadmin, which allows use of the Administration Tool applications.

- Modify permissions on the NIS+ tables to be managed. These permissions are usually given to the NIS+ group members. See *Name Services Administration Guide* for information on adding users to a NIS+ group.

▼ How to Add Authorized Users to the sysadmin Group

1. **Log in as root on the NIS+ master server.**
2. **Type `admintool` & in a shell or command tool window.**
The Administration Tool main window is displayed.
3. **Click on the Database Manager icon.**
The Database Manager Load Database window is displayed.
4. **Select the NIS+ naming service.**
5. **Select the Group file.**
6. **Click on Load.**
The Group file is displayed.
7. **Select Modify Entry from the Edit menu.**
The Modify Entry window is displayed.
8. **Add comma separated members (user names) to the sysadmin group (group ID=14) entry.**



9. **Click on Modify.**

Without a Name Service

▼ **How to Add Authorized Users to the sysadmin Group**

This procedure assumes you will be using Administration Tool on the local system only.

1. Become superuser on your system.

2. Edit the `/etc/group` file.

Add an entry for the sysadmin group with a group ID of 14 and a comma separated list of members (user names).

```
sysadmin::14:user_name , user_name , user_name
```

3. Log out and back in to activate this new group membership.

Additional Administration Tool Security Information

Administration Tool uses the distributed system administration daemon (`admind`) to carry out security tasks when you perform administrative tasks across the network. The `admind` daemon executes the request on the server on behalf of the client process and controls who can access Administration Tool.

Administering security involves authentication of the user ID (UID) and authorization of permissions.

- Authentication means that the `admind` daemon must authenticate the client identity to the server. Before the `admind` daemon can execute a request, it must verify the identity of the client making the request.
- Authorization means that `admind` verifies the authenticated user has permission to execute Administration Tool on the server. After the client identity is verified, `admind` uses this identity to perform authorization checks.

If you have permission to use Administration Tool, you also need to have create, delete, or modify permission before you can change an NIS+ file. See *Name Services Administration Guide* for a description of NIS+ security.

User and group identities are used for authorization checking as follows:

- **Root identity** – The root identity has superuser privileges (to access and update data) only on the local system. If the server is the local system (in other words, if the user has logged in as root on the server), the user will be allowed to perform Administration Tool functions on the server under the root identity.
- **User ID** – A regular user can view, but not change, information using Administration Tool.
- **User ID who is a member of sysadmin group (group ID=14)** – Administration Tool permissions are granted to users who are members of the `sysadmin` group (group ID=14). This means that a user modifying administration data must be a member of the `sysadmin` group on the system where the task is being executed.

Security Levels

Each request to change administration data contains a set of credentials with a user ID (UID) and a set of group IDs (GIDs) to which the user belongs. The server uses these credentials to perform identity and permission checks. Three levels of authentication security are available.

The security levels are described in Table 2-1.

Table 2-1 Administration Tool Security Levels

Level	Level Name	Description
0	NONE	No identity checking is done by the server. All user IDs are set to the <code>nobody</code> identity. This level is used mostly for testing.
1	SYS	The server accepts the original user and group identities from the client system and uses them as the identities for the authorization checks. There is no checking to be sure that the user ID of the client represents the same user on the server system. That is, it is assumed the administrator has made the user IDs and group IDs consistent on all systems in the network. Checks are made to see if the client has permission to execute the request.
2	DES	Credentials are validated using DES authentication, and checks are made to be sure that the client has permission to execute the request. The user and group identities are obtained from files on the server system by mapping the user's DES network identity to a local user ID and set of group IDs. The file used depends on which name service is selected on the server system. Level 2 requires that a <code>publickey</code> entry exists for all server systems where the <code>admind</code> daemon is running, and for all users accessing the tools. This levels provides the most secure environment for performing administrative tasks.

Note – Level 1 is the default security used by `admind`.

Changing the Security Level

You can change the security level from level 1 to level 2 by editing the `/etc/inetd.conf` file on each system, and adding the `-S 2` option to the `admind` entry. If you do this, make sure that the servers on the domain are set up to use security level 2.

You do not need to maintain the same level of security on all systems in the network. You can run some systems, such as file servers requiring strict security, at security level 2, while running other systems, such as workstations, at the default level 1 security.

See the description of how to set up security for NIS+ in *Name Services Administration Guide*.

Name Service Information

The `admind` daemon uses information held by the name service. The three sources of information are:

- Files in the `/etc` directory such as `passwd`, `group`, and `shadow`, referred to by the keyword `files`
- The NIS name service referred to by the keyword `nis`
- The NIS+ name service referred to by the keyword `nisplus`

On each system, the `/etc/nsswitch.conf` file lists several administrative files, followed by a list of one or more keywords that represent the name services to be searched for information. If more than keyword is listed, they are searched in the order given. For example, the entry

```
group: files nisplus
```

indicates that the security mechanism looks first in the local `/etc/group` file for an entry. If the entry exists, it uses the information in this entry. If it doesn't exist, the NIS+ `group` file is searched.

By default, systems do not have an entry for the `sysadmin` group in the local `/etc/group` file. If you want to set up your system to use network-wide information, do not add a `sysadmin` group to the local system. Remove it if it exists.

When running under Level 2 security, the security mechanisms use the public/private key information. Make sure that the entry for `publickey` is followed by either `nis` or `nisplus` (depending on which name service you are using), and remove the `files` designation. See *Name Services Administration Guide* for more information about the `nsswitch.conf` file.

Creating a Security Policy for Administration Tool

Consider the following when creating a security policy for using Administration Tool in a name service environment.

- Determine how much trust is needed.

If your network is secure and you do not need to use authentication security, you can use the Administration Tool applications with the default level 1 security.

If you need to enforce a higher level of security, you can set the security level of `admind` to level 2. Level 2 security is primarily used with the NIS+ name service.

- Determine which name service will be used.

The name service determines where the security methods get information about user and group identities. The name services are designated in the `/etc/nsswitch.conf` file (see “Name Service Information” on page 17).

- Decide which users have access to Administration Tool.

Decide which users will perform administrative functions over the network with Administration Tool. List these users as members of the `sysadmin` group accessed by the server system as defined in the `/etc/nsswitch.conf` configuration file.

- Determine global and local policies.

The *global policy* affects all hosts in the network. For example, you can create a `sysadmin` group in the NIS or NIS+ `group` file. Members of this group will have permission to perform administrative tasks on all server systems that list the network name service as the primary source of information. For more information about the `nsswitch.conf` file, see “Name Service Information” on page 17.

A user can establish a local policy that is different from the global policy by creating a `sysadmin` group in the local `/etc/group` file and listing the users who should have access to the local system. The members of this group will have permission to use Administration Tool applications on the user’s local system.

- Set up permissions for NIS+ management.

You need the proper permissions when using Administration Tool to modify or update the NIS+ files. In addition to the permissions required by Administration Tool, the NIS+ security mechanisms impose their own set of access permissions. The NIS+ security mechanisms are described in *Name Services Administration Guide*.

- Set up access for NIS management.

In addition to the permissions required by Administration Tool, a user must have a `.rhosts` entry on the NIS master server to modify the NIS files.

- Set up initial security.

When a system is first installed, no UNIX group with a group ID of 14 exists. It must be created. You can use Administration Tool by logging in to the server system as root.

Managing User Accounts



This chapter describes Administration Tool's User Account Manager application, a graphical interface for managing user account information and Database Manager, a graphical interface for managing system files.

Use this table to proceed directly to the section that provides step-by-step instructions for the following tasks.

<i>How to Start Database Manager</i>	<i>page 23</i>
<i>How to Add a Group</i>	<i>page 24</i>
<i>How to Start User Account Manager</i>	<i>page 25</i>
<i>How to Add a User Account</i>	<i>page 26</i>
<i>How to Modify a User Account</i>	<i>page 29</i>

See Chapter 7, "User Account Manager Reference," and Chapter 10, "Database Manager Reference," for additional information on each tool's menus and menu commands.

Overview of Adding a New User Account

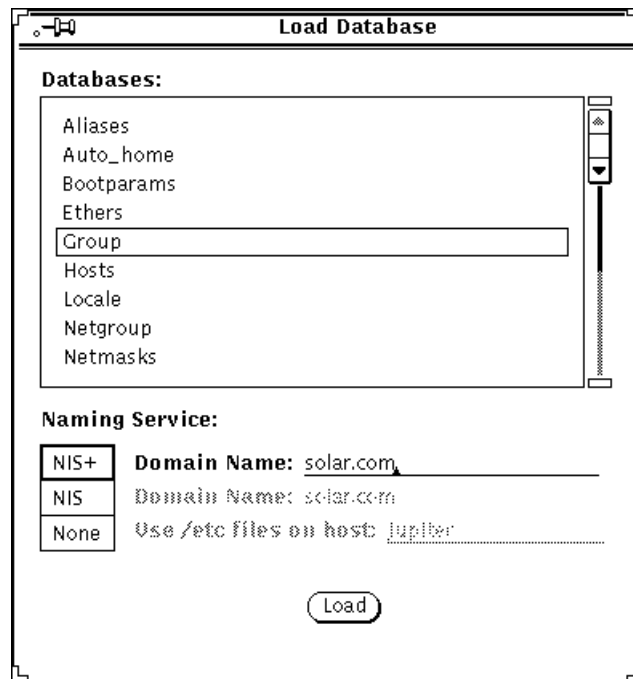
This chapter describes the steps used to add a new user account including:

- Using Database Manager to add a group
- Using User Account Manager to add a user account, supplying the following information:
 - User name
 - User ID
 - Primary group ID
 - Real name as a comment
 - Login shell
 - Password
 - Home directory information
- Setting up the new user's initialization files and home directory

▼ How to Start Database Manager

The following procedure describes how to start Database Manager.

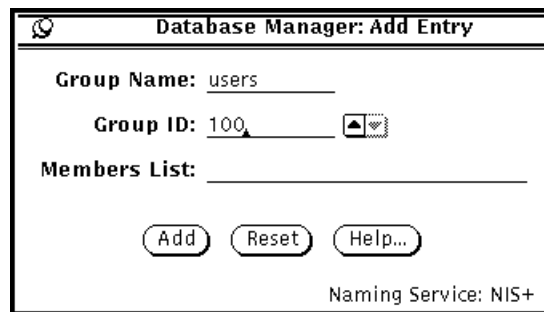
1. Type `admintool` & from a shell tool prompt and press Return.
The Administration Tool main window is displayed.
2. From the Administration Tool main window, click on the Database Manager icon.
The Load Database window is displayed.



3. Select the name service used in your network.
4. Check that the domain or host name is correct.
If not, type the domain or host name you need to access.
5. Select the Group file.
6. Click on Load.
The `group` file is displayed.

▼ **How to Add a Group**

- 1. Choose Add Entry from the Edit Menu.**
The Add Entry window is displayed.
- 2. Type the group name in the Group Name field.**
- 3. Type the group ID in the Group ID field.**



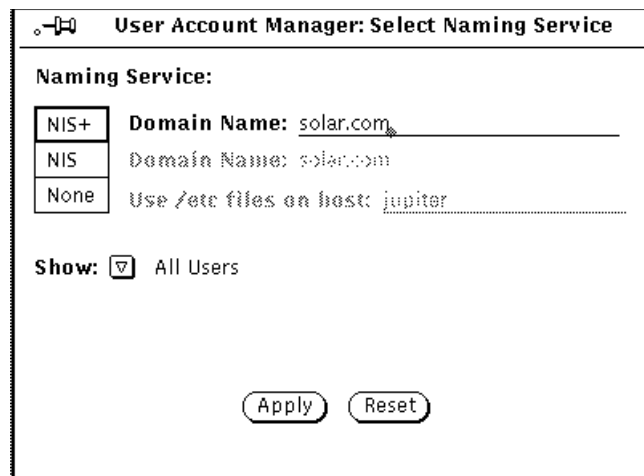
- 4. Click on Add.**
- 5. Verify the group has been added by locating the entry in the main window.**

▼ How to Start User Account Manager

The following procedure describes how to start User Account Manager.

1. **Click on the User Account Manager icon from the Administration Tool main window.**

The Select Naming Service window is displayed.

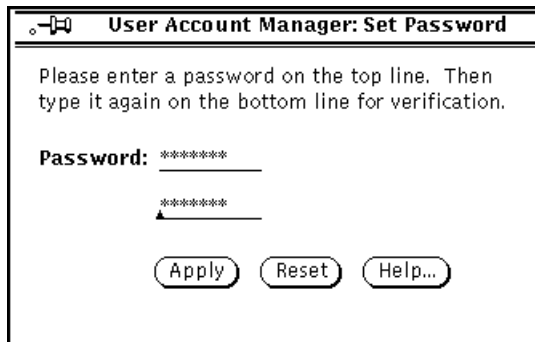


2. **Select the name service used in your network.**
3. **Check that the domain or host name is correct.**
If not, type the domain or host name you need to access.
4. **Click on Apply.**
The User Account Manager main window is displayed.

▼ **How to Add a User Account**

This procedure describes how to add a user account. The procedure assumes the group file contains any groups referenced in the Add window.

1. **Choose Add User from the Edit menu.**
The Add User window is displayed.
2. **Fill out the Add User window using the information described in Table 7-4 on page 82 and the following instructions:**
 - a. **Specify the group name (`users`) instead of the group ID (`100`) so that you can quickly identify group ownership on the home directory.**
 - b. **Choose Normal Password from the Password menu to assign the new user a password. Use this pop-up window to enter the password.**



- c. **Use `/etc/skel` as the skeleton path for the user's home directory.**
This prototype directory contains different initialization files for each available shell type.

See an example of a completed Add User window on the next page.

3. **Click on Add.**
4. **Verify the user has been added by locating the entry in the User Account Manager main window.**

Completed Add Window

User Account Manager: Add User

USER IDENTITY

User Name: kryten

User ID: 101

Primary Group: users

Secondary Groups: _____

Comment: Kryten Series 4000

Login Shell: C /bin/csh

ACCOUNT SECURITY

Password: Normal password...

Min Change: _____ days

Max Change: _____ days

Max Inactive: _____ days

Expiration Date: None None None

Warning: 1 _____ days

HOME DIRECTORY

Create Home Dir: Yes if checked

Path: /export/home/kryten

Server: jupiter

Skeleton Path: /etc/skel

AutoHome Setup: Yes if checked

Permissions	Read	Write	Execute
Owner:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Group:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
World:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

MISCELLANEOUS

Mail Server: _____

Cred. Table Setup: Yes if checked

▼ How to Set Up the New User's Initialization File

Use this procedure to set up the user's `.login` file. The procedure assumes that the `/etc/skel` directory was used as the skeleton path for the user's home directory.

Log in to the new user's system or into the system that contains the user's home directory.

1. Change to the user's home directory.

```
# cd /export/home/user_name
```

2. Type `mv local.login .login` and press Return.

This step renames the initialization file so it will be executed upon login.

3. Type `rm local.*` and press Return.

This step deletes unused initialization files.

4. Add any additional files to the user's home directory.**5. Test the new account by logging in as the new user.**

▼ How to Modify a User Account

The following procedure describes how to modify a user account using User Account Manager's Modify command. Adding secondary group membership is used as an example.

1. Select the user entry to modify from the User Account Manager main window.

2. Choose Modify/View User from the Edit menu.

The Modify User window contains the selected user entry. The completed form is displayed on the next page.

3. Add the appropriate secondary group membership.

4. Click on Apply.



Caution – User Account Manager's Modify/View User command can only change the user's home directory entry in the `passwd` database—not the home directory on disk.

Completed Modify Window

◦-[] User Account Manager: Modify User

USER IDENTITY
User Name: kryten
User ID: 101
Primary Group: 100
Secondary Groups: lp
Comment: Kryten Series 4000
Login Shell: C /bin/csh

ACCOUNT SECURITY
Password: Normal password...
Min Change: 0 days
Max Change: days
Max Inactive: days
Expiration Date: None None None
Warning: 1 days

HOME DIRECTORY
Path: /export/home/kryten
Server: jupiter
AutoHome Setup: Yes if checked

Permissions	Read	Write	Execute
Owner:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Group:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
World:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

MISCELLANEOUS
Mail Server:
Cred. Table Setup: Yes if checked

Apply Reset Help...

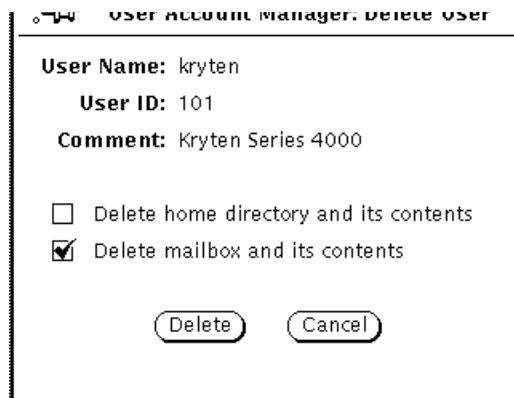
▼ How to Delete a User Account

The following procedure describes how to use User Account Manager's Delete User command to remove a user account including the user's home directory and mailbox contents.

1. Select the user entry to remove from the User Account Manager main window.

2. Choose Delete User from the Edit menu.

The Delete User window is displayed to confirm the removal of the user account.



3. Click on the boxes for removing the user's home directory and mailbox contents, if desired.

4. Click on Delete when you are ready to remove the user account.

▼ How to Search for User Account Information

Use User Account Manager's Find command to search for a user account in a large NIS/NIS+ `passwd` file by user name, user ID, or comment.

- 1. Click on the Find button in the control area.**
- 2. Fill in the Find User window with unique information about the user.**
- 3. Click on Find.**

The user entry, if found, will be highlighted in the main window.

Managing Printers



This chapter describes how to manage printer information by using Printer Manager.

Use this table to proceed directly to the section that provides step-by-step instructions for the following tasks.

<i>Gathering Printer Information</i>	<i>page 36</i>
<i>How to Start Printer Manager</i>	<i>page 38</i>
<i>How to Install a Local Printer</i>	<i>page 39</i>
<i>How to Add Access for a Remote Printer</i>	<i>page 40</i>
<i>How to Modify a Printer Entry</i>	<i>page 41</i>
<i>How to Delete a Printer Entry</i>	<i>page 42</i>

See Chapter 8, “Printer Manager Reference,” for additional information on Printer Manager’s menus and commands.

Overview of Printer Manager

Printer Manager is a graphical user interface that simplifies the setup and administration of local and remote printers across a network.

You can use Printer Manager from one system to add, modify, or delete printer information on other systems. All systems to be administered in this way must have Printer Manager software installed.

Definition of Terms

- A *print server* is a system that has a printer physically connected to it.
- A *print client* is a system that uses a print server for printing files.

Configuring Printer Services

Configuring printer services using Printer Manager involves three main tasks:

- Setting up the printer
 - Physically connecting the printer to the system.
 - Setting the printer switches and other settings.
- Setting up the print server
 - Using Printer Manager to add a local printer to the print server.
- Setting up the print client
 - Using Printer Manager to add access to a remote printer on the print client. Printer Manager enables you to set up remote printer access for a list of print clients in one session.

Printer Manager automatically configures the port monitor and service that is used to pass remote print requests between the print client's and print server's `lpNet` daemons.

Note – Both print servers and print clients must have each other's host name and IP address in their local `/etc/inet/hosts` file or in their name service's `hosts` file.

The Solaris 2.x Printing Environment

Print servers and their print clients can run different versions of the SunOS operating system. For example, a configuration can include any combination of client and server systems running the SunOS 4.1.x or 5.x operating systems.

Printer Manager, however, can run only on systems that have the SunOS 5.x operating system installed. Therefore, you have some limitations on what you can set up via Printer Manager, as summarized in Table 4.1:

Table 4-1

Server OS	Client OS	What You Can Do Through Printer Manager
4.1.x	4.1.x/4.x	Cannot be set up through Printer Manager
	5.x	The 4.1.x server must previously have been set up through <code>lp</code> commands. The 5.x client can be set up through Printer Manager.
5.x	4.1.x	The 5.x print server can be set up through Printer Manager; the 4.1.x client cannot.
	5.x	Both server and client can be set up through Printer Manager.

Gathering Printer Information

When Setting Up Print Servers...

Table 4-2 describes the buttons, menus, and text boxes on the window used to install a local printer on a print server.

Table 4-2 Items on the Install Local Printer Window

Field Name	Menu Type	Description
Printer Name	Field	A unique name for the printer (maximum of 14 characters).
Comment	Field	A description of the printer.
Printer Port	Menu	The port the printer is connected to.
Printer Type	Menu	A designation for the type of printer. (See Chapter 8, "Printer Manager Reference," for a list of printer types.)
File Contents	Menu	The particular format of the file being printed without being filtered, as long as the correct printer software is available. (See Chapter 8, "Printer Manager Reference," for a list of file content types.)
Fault Notification	Menu	The method of notifying the superuser in case of a printer error. Choices are: Write to superuser (in the console window), Mail to superuser, or None.
System Default	Button	The default printer, the printer your print requests will be sent to if you do not specify a printer.
Print Banner	Button	Used to control user permission to enable or disable banner page printing.
Register with NIS+	Button	If the button is enabled, the printer name will be added to the NIS+ printer table.
User Access List	Field	The print clients that can print to this printer. By default, all print clients have access to this printer. Use Add and Delete buttons to add and remove print clients.

Determining the File Content Types

It is important to associate the printer with the correct content type such PS for PostScript printers and ASCII for ASCII printers. See *User Accounts, Printers, and Mail Administration* and Chapter 8 for more information about determining the file content types.

When Setting Up Print Clients...

Table 4-3 describes the buttons and fields in the window used to enable access to a remote printer.

Table 4-3 Items on the Enable Access to Remote Printer Window

Field Name	Menu Type	Description
Printer Clients	Field	The print client name is identified here. (This is an inactive field.)
Printer Name	Field	The remote printer name.
Print Server	Field	The name of the system the remote printer is connected to.
Comment	Field	Description of the printer that helps you identify it.
Print Server OS	Button	Used to identify the BSD or SV protocol on the print server. BSD is the default.
System Default	Button	Used to identify printer as the default printer, which is the printer your print requests will be sent to if you do not specify a printer.

Before Using Printer Manager

Verify that the following requirements are met before using Printer Manager.

- A bit-mapped display monitor is connected to the system you are using.
- The OpenWindows environment is started using the following command:

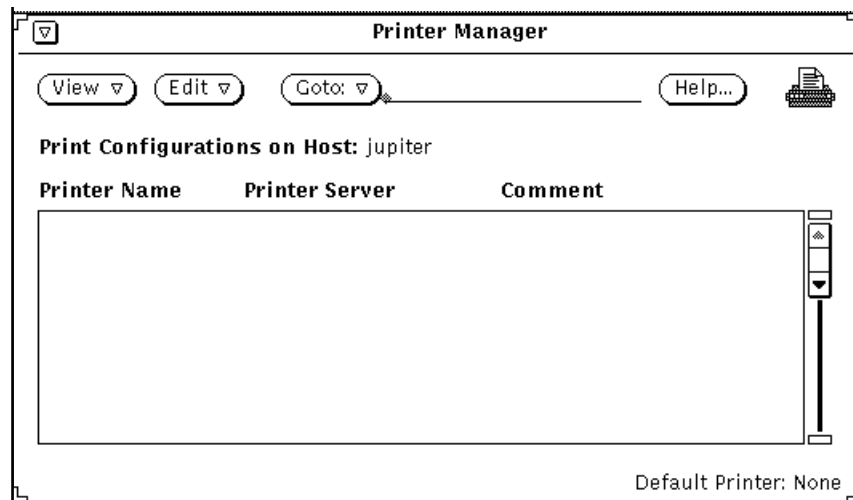
```
$ /usr/openwin/bin/openwin
```

- You have the required access privileges such as root (superuser) access to the local system or membership in the sysadmin (group ID=14) group for remote systems.

▼ **How to Start Printer Manager**

The following procedure describes how to start Printer Manager.

1. **Type `admintool` & from a command or shell tool prompt and press Return.**
The Administration Tool main window is displayed.
2. **Click on the Printer Manager icon.**
The Printer Manager main window is displayed.



▼ How to Install a Local Printer

The following procedure describes how to install a local printer on a print server.

1. **Choose Add Local Printer from the Edit menu's Add Printer option menu.**
The Local Printer window is displayed.
2. **Fill in the form by using the information described in the section called "When Setting Up Print Servers..." on page 36.**
An example of a completed form is displayed below.

Printer Manager: Local Printer

Printer Name:

Printer Server:

Comment:

Printer Port:

Printer Type:

File Contents:

Fault Notification:

System Default:

Print Banner:

Register with NIS+:

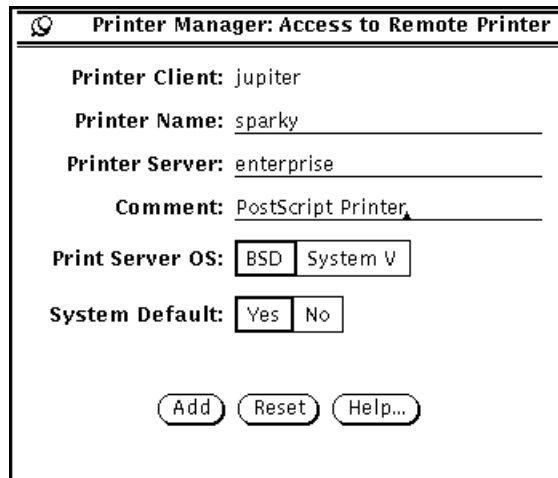
User Access List:

3. Click on Add.
4. Verify the local printer has been added by locating the new printer entry in the Printer Manager main window.

▼ **How to Add Access for a Remote Printer**

The following procedure describes how to add access for a remote printer on a print client.

1. **Choose Add Access to Remote Printer from the Edit menu's Add Printer option.**
The Access to Remote Printer window is displayed.
2. **Fill in the form by using the information described in the section called "Before Using Printer Manager" on page 37.**
An example of a completed form is displayed below.



Printer Manager: Access to Remote Printer

Printer Client: jupiter

Printer Name: sparky

Printer Server: enterprise

Comment: PostScript Printer

Print Server OS: BSD System V

System Default: Yes No

3. Click on Add.
4. Verify the printer access has been added by locating the new printer entry in the Printer Manager main window.

▼ How to Modify a Printer Entry

The following procedure describes how to modify a printer entry. Changing a printer entry so that it will not accept or print any new print requests is used as an example.

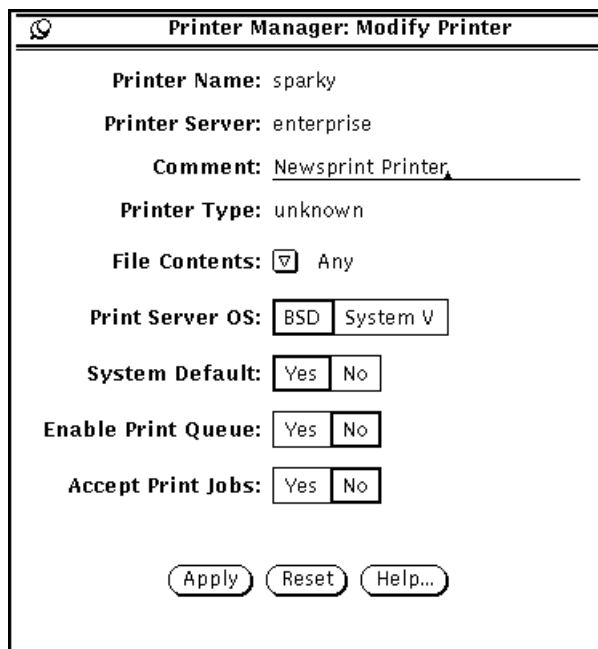
1. **Choose Modify Printer from the Edit menu on the Printer Manager main window.**

The Modify Printer window is displayed.

2. **Click on No on the Enable Print Queue option to disable the printer from printing requests.**

3. **Click on No on the Accept Print Jobs option to prevent any further queuing of print requests.**

An example is displayed below.



Printer Manager: Modify Printer

Printer Name: sparky

Printer Server: enterprise

Comment: Newsprint Printer

Printer Type: unknown

File Contents: Any

Print Server OS: BSD System V

System Default: Yes No

Enable Print Queue: Yes No

Accept Print Jobs: Yes No

4. **Click on Apply.**

▼ How to Delete a Printer Entry

The following procedure describes how to remove a printer entry.

- 1. Remove all currently queued print requests to this printer with the `cancel` or `lpmove` commands.**
- 2. Choose the Delete Printer command from the Edit menu on the Printer Manager main window.**
A window is displayed asking you to confirm the deletion.
- 3. Click on Delete when you are ready to remove the printer entry.**

Managing Network Services



This chapter describes how to manage network services by using two Administration Tool applications:

- Host Manager, a graphical interface for managing network client information
- Database Manager, a graphical interface used to manage network-related system files

Use this table to proceed directly to the section that provides step-by-step instructions for the following tasks.

<i>How to Start Host Manager</i>	<i>page 46</i>
<i>How to Add Standalone System Information</i>	<i>page 47</i>
<i>How to Add Support for a Diskless Client</i>	<i>page 49</i>
<i>How to Add Support for a Dataless Client</i>	<i>page 52</i>
<i>How to Display Host Information</i>	<i>page 54</i>
<i>How to Enable Remote Software Installation Privileges</i>	<i>page 55</i>
<i>How to Start Database Manager</i>	<i>page 57</i>
<i>How to Add a System File Entry</i>	<i>page 59</i>
<i>How to Modify a System File Entry</i>	<i>page 59</i>
<i>How to Delete a System File Entry</i>	<i>page 59</i>

See Chapter 9, “Host Manager Reference,” and Chapter 10, “Database Manager Reference,” for additional information on each tool’s menus and commands.

Overview of Host Manager

The first part of this chapter describes how to use Host Manager to manage network client information. A *network client* is a system that uses remote resources from a server. Network client systems include standalone, diskless, and dataless system configurations.

Host Manager is primarily used on a local server system to manage support for diskless and dataless clients that need remote file resources and disk storage space. In addition, Host Manager can be used on remote systems with the appropriate access privileges.

There are also important reasons for using Host Manager to add information about standalone systems.

- Host names and IP addresses must be registered in the `hosts` file on systems that want to use network access commands such as `rlogin` and `rsh`.
- Standalone systems without CD-ROM drives can be authorized for remote installation privileges via Host Manager's remote installation setup menu.

Note – Host Manager cannot be used to modify host information. You must remove the host information and then re-add it.

This second part of this chapter describes Database Manager, another tool for managing network-related system files.

Before Using Host Manager

Verify that the following requirements are met before using Host Manager:

- A bit-mapped display monitor is connected to the system you are using.
- The OpenWindows environment is started using the following command:

```
$ /usr/openwin/bin/openwin
```

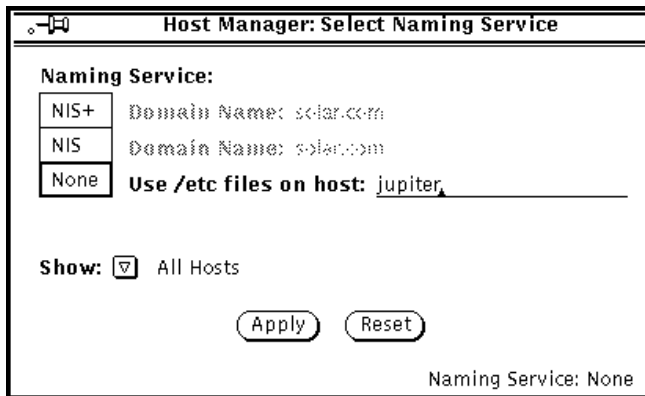
- You have the required access privileges such as root (superuser) access to the local system or membership in the sysadmin (group ID=14) group for remote systems. If you are using Host Manager to update a NIS or NIS+ file, you must be a member of the sysadmin group and have the appropriate access privileges.

Refer to Chapter 2, “Name Service Management,” for information on setting up the name service security features.

▼ **How to Start Host Manager**

The following procedure describes how to start Host Manager.

1. **Type `admintool` & from a command or shell tool prompt and press Return.**
The Administration Tool main window is displayed.
2. **Click on the Host Manager icon.**
The Select Naming Service window is displayed.



3. **Select the name service used in your network.**
4. **Check that the domain or host name is correct.**
If not, type the domain or host name you need to access.
5. **Click on Apply.**
The Host Manager main window is displayed.

▼ How to Add Standalone System Information

Use these steps to add standalone system information. The following items must be provided for the standalone system:

- Host name
- IP address
- Ethernet address

- 1. Choose Add Host from the Edit menu on the Host Manager window.**
The Add Host window is displayed.
- 2. Fill out the Add window by using the information described in Table 9-4 on page 112. See an example of a completed Add Host window on the following page.**
- 3. If this system will be installed remotely, follow steps a and b to enable remote install privileges. Otherwise, skip to step 4.**
 - a. Click on the Enable button under Remote Install.**
The Media Server defaults to the current host.
 - b. Select Other from the Media Server pull-down menu to specify another host as the media server, if necessary. Type the host name in the text box provided and click on Apply in the Specify Media Server window.**
- 4. Click on Add in the Add Host window.**
- 5. Verify that the new host has been added by locating the new host entry in the Host Manager main window.**

Completed Add Window

Host Manager: Add Host

Client Type: ▾ standalone

Host Name: pluto

IP Address: 129.152.225.2

Ethernet Address: 8:0:20:b:40:e9

Timezone Region: ▾ United States

Timezone: ▾ Mountain

Remote Install:

Media Server: ▾ jupiter

OS Release: ▾

Naming Service: None

▼ How to Add Support for a Diskless Client

Use these steps to add support for a diskless client. This procedure assumes the system providing the services has already been configured as a server, meaning the `/export` and `/export/swap` file systems are already created. The following items must be provided for the diskless client:

- Host name
- IP address
- Ethernet address

Default settings are also available for:

- Time zone region and time zone
- File server
- OS release
- Root and swap paths
- Swap size

- 1. Choose Add Host from the Edit menu on the Host Manager main window.**
The Add Host window is displayed.
- 2. Choose diskless from the Client Type menu.**
- 3. Fill out the Add Host window by using the information described in Table 9-4 on page 112. See an example of a completed Add window on page 51.**
- 4. If another host will act as the file server for this system, follow steps a and b. Otherwise, skip to step 5.**
 - a. Select Other from the File Server menu to specify another host as the file server.**
 - b. Fill out the host information in the Specify File Server window provided and click on Apply.**
- 5. Click on Add in the Add Host window.**
It takes several minutes to add the diskless client support, particularly to create the client's root and swap areas.
- 6. You may need to reboot the file server to start the appropriate client daemons after the client information has been added successfully.**
A message about rebooting the system will be displayed.

7. Boot the diskless client system.

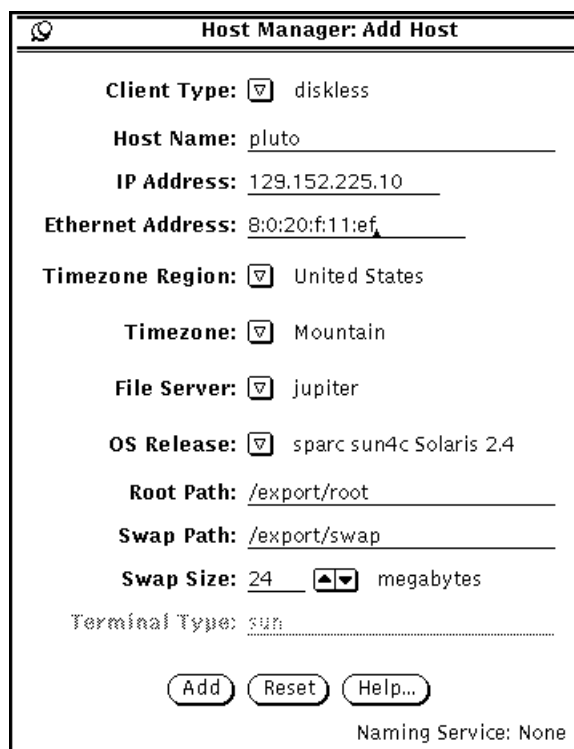
```
# boot net
```

8. Provide the following system configuration information for the diskless client during the initial boot process, if prompted.

- Geographic region
- Time zone
- Date and time

9. Create a root password when prompted.

Completed Add Window



The image shows a dialog box titled "Host Manager: Add Host". It contains several fields for configuring a host:

- Client Type:** diskless
- Host Name:**
- IP Address:**
- Ethernet Address:**
- Timezone Region:** United States
- Timezone:** Mountain
- File Server:** jupiter
- OS Release:** sparc sun4c Solaris 2.4
- Root Path:**
- Swap Path:**
- Swap Size:** megabytes
- Terminal Type:**

At the bottom, there are three buttons: "Add", "Reset", and "Help...". Below the buttons, it says "Naming Service: None".

▼ How to Add Support for a Dataless Client

The following procedure describes how to add support for a dataless client on a server. This procedure assumes the following tasks have already been completed:

- The system providing the services has already been configured as a server, meaning the `/export` file system is already created.
- The dataless client system has already been configured using the Solaris installation program. See *SPARC: Installing Solaris Software* or *x86: Installing Solaris Software* for information about using the Solaris installation program.

- 1. Choose Add Host from the Edit menu on the Host Manager main window.**
The Add Host window is displayed.
- 2. Choose dataless from the Client Type menu.**
- 3. Fill out the Add Host window by using the information described in Table 9-4 on page 112. See an example of a completed Add Host window on page 53.**

The following information must be provided for the dataless client:

- Host name
- IP address
- Ethernet address

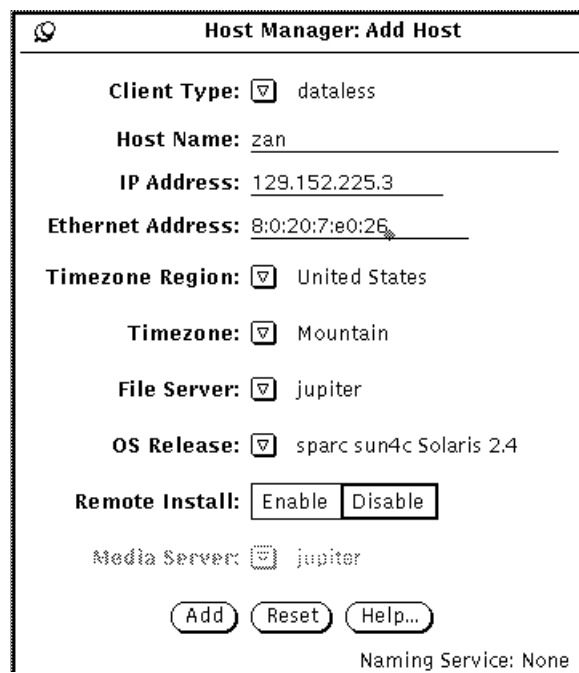
Default settings are also available for:

- Time zone region and time zone
- File server
- OS release
- Remote install
- Media server

- 4. Click on Add.**

It takes several minutes for the dataless client support to be added.

Completed Add Window



The image shows a dialog box titled "Host Manager: Add Host". It contains several configuration fields, each with a dropdown arrow icon:

- Client Type:** dataless
- Host Name:** zan
- IP Address:** 129.152.225.3
- Ethernet Address:** 8:0:20:7:e0:26
- Timezone Region:** United States
- Timezone:** Mountain
- File Server:** jupiter
- OS Release:** sparc sun4c Solaris 2.4
- Remote Install:** Enable (selected) / Disable
- Media Server:** jupiter

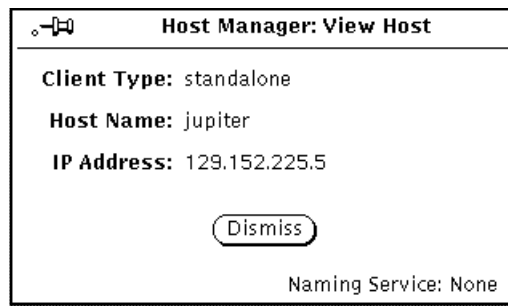
At the bottom, there are three buttons: "Add", "Reset", and "Help...". Below the buttons, it says "Naming Service: None".

▼ How to Display Host Information

There are two ways to view host information:

- Double clicking on a host entry in the Host Manager main window
- Choosing the View Host command from the Edit menu

Either way, the following information is displayed:



Note – The View Host window will not include a system’s Ethernet address if the host entry was added to the `/etc/inet/hosts` file manually, and there was no corresponding entry added to the `/etc/ethers` file.

Additional Network Client Tasks

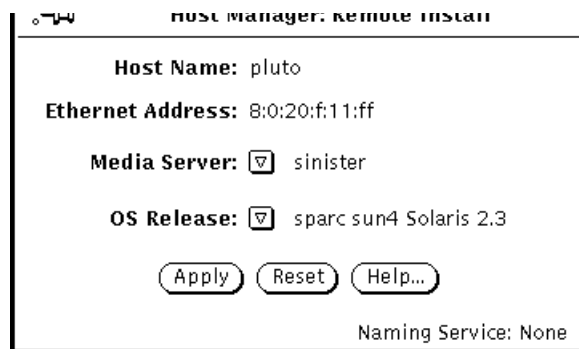
The following section describes additional network client tasks that are performed occasionally.

▼ How to Enable Remote Software Installation Privileges

This procedure describes how to enable remote software installation privileges for an existing system. This feature allows you to use the `boot net` command from the client system to perform a remote installation.

This procedure assumes the media server is accessible over the network and the installation CD is in the CD-ROM drive.

1. Select a host entry in the Host Manager main window.
2. Choose **Enable Remote Install** from the **Edit** menu.
The Remote Install window is displayed.



3. Verify the Media Server name and if necessary, select **Other** from the **Media Server** menu to specify an alternate media server.
 - i. If Host Manager does not understand how the CD is mounted on the media server, you will be prompted to supply a path name for the CD. The path name may be one of the following:
 - /cdrom/cdrom0/s0
 - /cdrom/cdrom0/s2
 - ii. On x86 systems, you may have to select the media server system again to specify the CD pathname.

4. **Verify that the OS Release for the system is correct and if necessary, select an alternate OS Release from the OS Release menu.**
5. **Click on Apply.**

▼ **How to Delete Host Information**

The following procedure describes how to delete host information.

1. **Select the host to be deleted from the Host Manager main window.**
2. **Choose Delete Host from the Edit menu.**
A window is displayed asking you to confirm the deletion.
3. **Click on Delete when you are ready to delete the host information.**

Managing Network Services Files

The following section describes how to use Database Manager to manage network services files.

▼ How to Start Database Manager

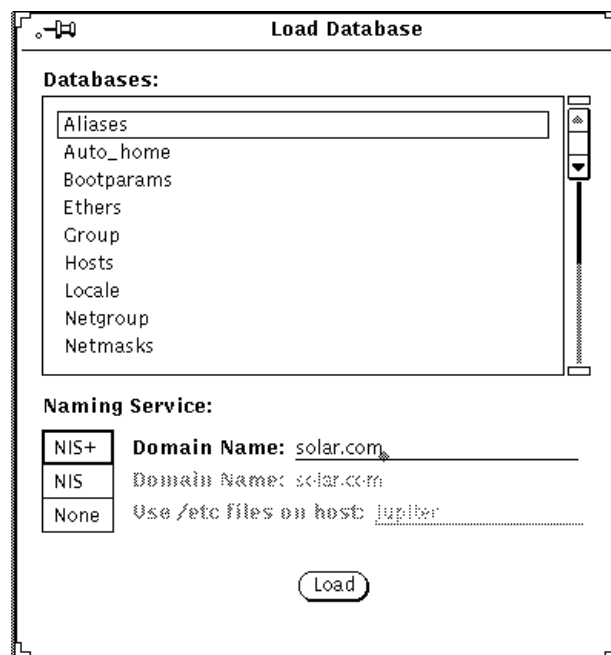
The following procedure describes how to start Database Manager.

1. **Type `admintool` & from a command or shell tool prompt and press Return.**

The Administration Tool window is displayed.

2. **Click on the Database Manager icon.**

The Load Database window is displayed.



3. **Select the name service used in your network.**

4. **Check that the domain or host name is correct.**

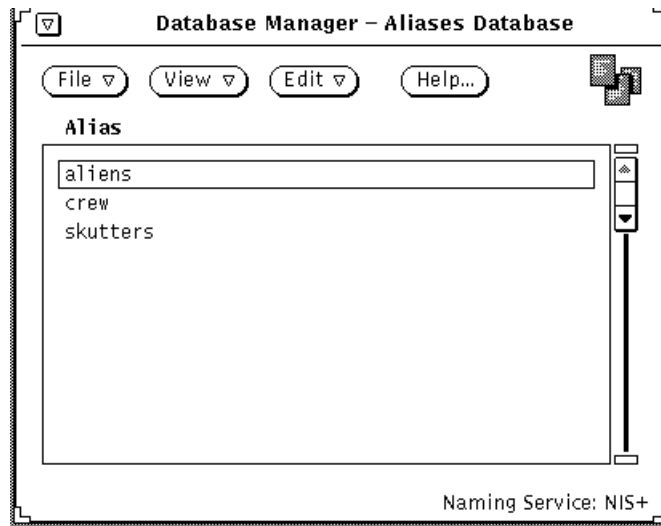
If not, type the domain or host name you need to access.

5. Select the file you want to display.

The `aliases` file, for example.

6. Click on Load.

The Database Manager main window is displayed with the `aliases` file contents displayed.



▼ How to Add a System File Entry

The following procedure describes how to add an entry to a system file.

1. **Select Add Entry from the Edit menu on the Database Manager main window.**
The Add Entry window displays.
2. **Fill out the Add Entry window by using Table 10-5 on page 125 to determine the information required when adding an entry to the specified system file.**
3. **Click on Add.**

▼ How to Modify a System File Entry

The following procedure describes how to modify a system file entry.



Caution – Notify users before you modify their work environment.

1. **Select a system file to modify from the Database Manager main window.**
2. **Choose Modify Entry from the Edit menu.**
The Modify Entry window is displayed.
3. **Fill out the Modify window by using Table 10-5 on page 125 to determine the modifiable fields for the specified system file.**
4. **Click on Modify when finished.**

▼ How to Delete a System File Entry

The following procedure describes how to delete a system file entry.

1. **Select a system file to remove an entry from in the Database Manager main window.**
2. **Select Delete Entry from the Edit menu.**
A window is displayed asking you to confirm the deletion.
3. **Click on Delete if you really want to delete the system file entry.**

Advanced Uses for Database Manager

Database Manager is primarily used to manage the network-related system files since other tools are used to manage user, client system, serial ports, and printer-related files.

Using Database Manager to add an entry to a system file usually managed by another tool can save time. For example, Host Manager requires the Ethernet address when adding a standalone system even though you may want to use this system for remote copy and login only. (However, the Ethernet address is not required when you use Database Manager to update the `hosts` file.)



Caution – Do *not* bypass critical information when providing services to users and client systems. Use caution when using Database Manager to update system files normally managed by other tools.

1. **Select the `hosts` file from the Load Database window, and click Load.**
The `hosts` file is displayed in Database Manager's main window.
2. **Select Add Entry from the Edit menu.**
The Add Entry window is displayed.
3. **Fill in the host information.**

4. **Click on Add.**

Using Serial Port Manager

Modems and terminals provide both local and remote access to system and network resources. Maintaining this access with Serial Port Manager, an Administration Tool application, is an important, if infrequent, responsibility of a system administrator.

Use this table to proceed directly to the section that provides step-by-step instructions for the following tasks.

<i>How to Start Serial Port Manager</i>	<i>page 63</i>
<i>How to Add a Terminal</i>	<i>page 64</i>
<i>How to Add a Modem</i>	<i>page 66</i>
<i>Initializing a Port Without Configuring</i>	<i>page 69</i>
<i>How to Disable a Port</i>	<i>page 71</i>
<i>How to Delete a Port Service</i>	<i>page 72</i>

See Chapter 11, “Serial Port Manager Reference,” for additional information on Serial Port Manager’s menus and commands.

Overview

Serial Port Manager is an Administration Tool application used for adding and maintaining port services for terminals and modems.

The Serial Port Manager configures the serial port software to work with terminals and modems by calling the `pmadm` command and supplying the appropriate information. It features:

- Templates for common terminal and modem configurations
- Multiple port setup, modification, or deletion
- Quick visual status of each port

Before Using Serial Port Manager

Verify that the following requirements are met before using Serial Port Manager:

- A bit-mapped display monitor is connected to the system you are using.
- The OpenWindows environment is started using the following command:

```
$ /usr/openwin/bin/openwin
```

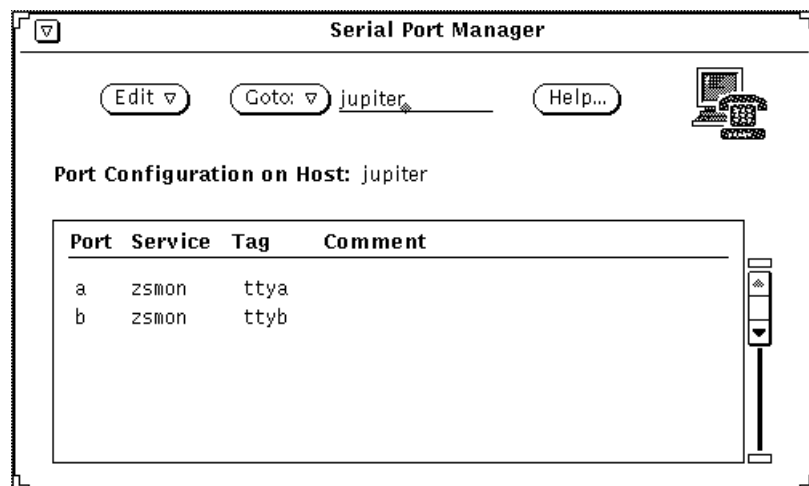
- You have the required access privileges such as root (superuser) access to the local system or membership in the `sysadmin` (group ID=14) group for remote systems.

Refer to Chapter 2, “Name Service Management,” for information on setting up the name service security features.

▼ How to Start Serial Port Manager

The following procedure describes how to start Serial Port Manager.

1. Type `admintool` & from a command or shell tool prompt and press **Return**.
2. **Click on the Serial Port Manager icon.**
The Serial Port Manager main window is displayed.



▼ **How to Add a Terminal**

Follow these steps to add a terminal to a system.

- 1. From the Serial Port Manager main window, select the port or ports that will be used with a terminal**
- 2. Choose Modify Service from the Edit menu.**
The Modify Service window is displayed in the Basic Detail mode. (Click on More or Expert to select either the More or Expert Detail modes.)
- 3. Choose Terminal – Hardwired from the Template menu.**

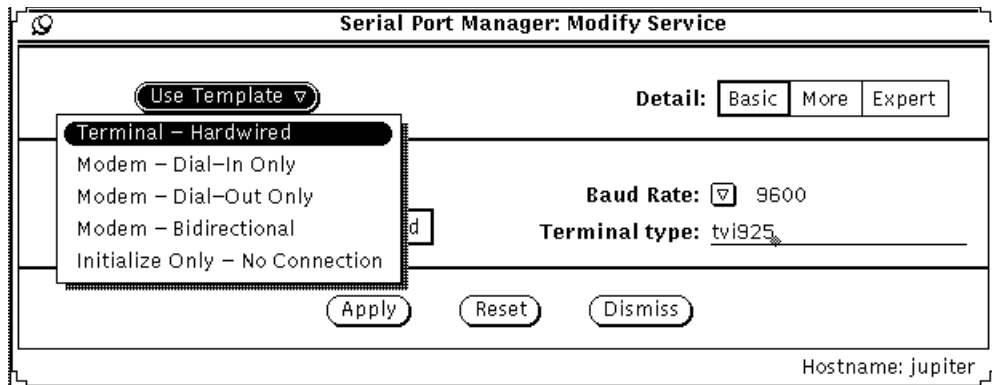


Table 6-1 shows the values that the Terminal – Hardwired template provides for the selected port. See Chapter 11, “Serial Port Manager Reference,” for more information about these items.

Table 6-1 Terminal – Hardwired Default Values

Detail	Item	Default Value
Basic	Port	—
	Service	Enabled
	Baud Rate	9600
	Terminal Type	tvi925
More	Option: Initialize Only	no
	Option: Bidirectional	no
	Option: Software Carrier	yes
	Login Prompt	login:
	Comment	Terminal – Hardwired
	Service Tag	—
Expert	Port Monitor Tag	zsmon
	Create utmp entry	yes
	Connect on Carrier	no
	Service	/usr/bin/login
	Streams Modules	ldterm, ttcompat
	Timeout (secs)	Never

4. Change values of template entries if desired.

5. Click on Apply to configure the port.

▼ How to Add a Modem

Follow these steps to add a modem to a system.

- 1. From the Serial Port Manager main window, select the port or ports that will be used with a modem.**
- 2. Choose Modify Service from the Edit menu.**
The Modify Service window appears in the Basic Detail mode. (For additional details, select either the More or Expert Detail modes.)
- 3. Choose the modem configuration from the Template menu that meets or most closely matches your modem service.**
The modem template choices are described in Table 6-2.

Table 6-2 Modem Templates

Modem Configuration	Description
Modem – Dial In Only	Users may dial in to the modem but cannot dial out.
Modem – Dial Out Only	Users may dial out from the modem but cannot dial in.
Modem – Bidirectional	Users may either dial in or out from the modem.

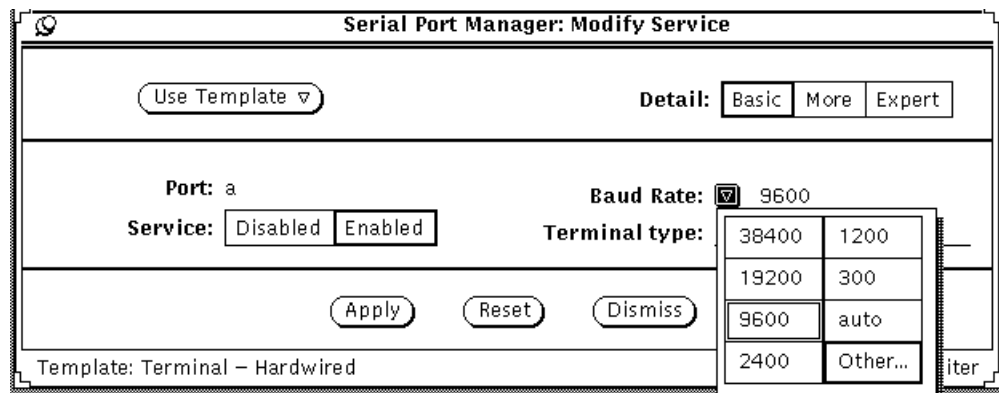
See Table 6-3 on page 68 for the default values of each modem template. If a UUCP service will be used to dial in to your modem on a Solaris 2.x system, see “How to Configure a Modem for Use With UUCP” for the rest of the procedure.

- 4. Change values of template entries if desired.**
- 5. Click on Apply to configure the port.**

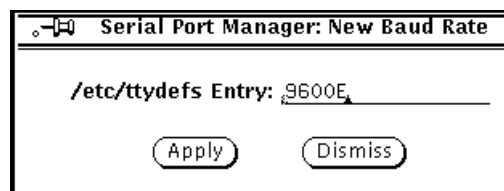
▼ How to Configure a Modem for Use With UUCP

UUCP sends information using seven bits and even parity. Solaris 2.x modem configurations use eight bits and no parity to meet international compatibility requirements. To set up your modem service to work with UUCP, follow these instructions.

1. Follow Step 1 through Step 3 in the “How to Add a Modem” procedure.
2. On the Modify Service window, choose Other from the Baud Rate menu.



3. Enter a baud rate value from the `/etc/ttydefs` file that provides seven bit, even parity service and click on Apply.



In this example, the 9600E baud rate was selected. This provides a service with a 9600 baud rate, seven bits, and even parity.

4. Change values of other template entries if desired.
5. Click on Apply to configure the port.

Modem Template Default Values

The modem templates provides the following values for the selected port. For more information, see Chapter 11, “Serial Port Manager Reference.”

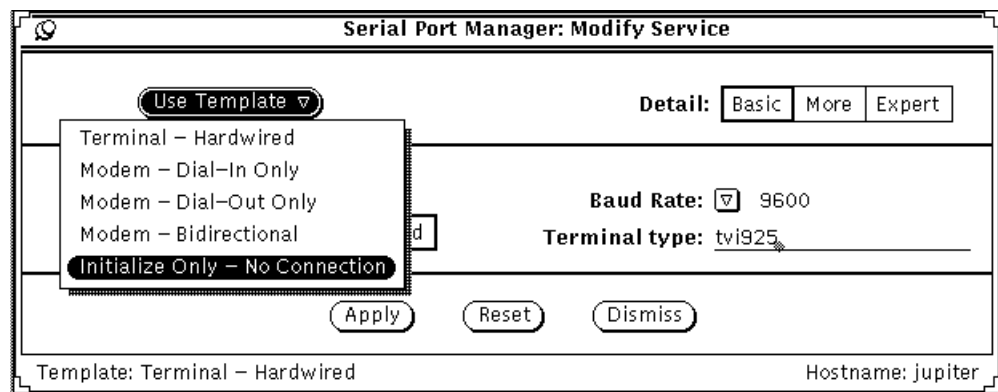
Table 6-3 Modem Template Default Values

Detail	Item	Modem - Dial In Only	Modem - Dial Out Only	Modem - Bidirectional
Basic	Port	—	—	—
	Service	Enabled	Enabled	Enabled
	Baud Rate	9600	9600	9600
	Terminal Type	—	—	—
More	Option: Initialize Only	yes	no	no
	Option: Bidirectional	no	no	yes
	Option: Software Carrier	no	no	no
	Login Prompt	login:	login:	login:
	Comment	Modem - Dial-In Only	Modem - Dial-Out Only	Modem - Bidirectional
	Service Tag	—	—	—
	Port Monitor Tag	zsmon	zsmon	zsmon
Expert	Create utmp Entry	yes	yes	yes
	Connect on Carrier	no	no	no
	Service	/usr/bin/login	/usr/bin/login	/usr/sbin/login
	Streams Modules	ldterm, ttcompat	ldterm, ttcompat	ldterm, ttcompat
	Timeout (secs)	Never	Never	Never

▼ Initializing a Port Without Configuring

Follow these steps to initialize a port without configuring a specific device. Use Table 6-4 on page 70 for default values of the Basic, More, or Expert Detail modes.

1. **Select the port or ports that you want to initialize from the Serial Port Manager main window.**
2. **Choose Modify Service from the Edit menu.**
The Modify Service window appears in the Basic Detail mode. For additional details, select either the More or Expert Detail modes.
3. **Choose Initialize Only – No Connection from the Template menu.**



4. **Click on Apply to initialize the port.**

The Initialize Only – No Connection template provides the following values for the selected port. For more information, see Chapter 11, “Serial Port Manager Reference.”

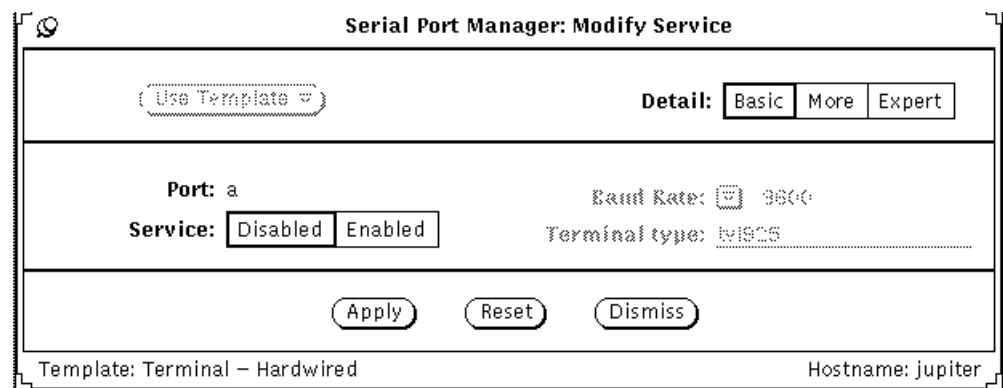
Table 6-4 Initialize Only – No Connection Default Values

Detail	Item	Default Value
Basic	Port	—
	Service	Enabled
	Baud Rate	9600
	Terminal Type	—
More	Option: Initialize Only	yes
	Option: Bidirectional	no
	Option: Software Carrier	no
	Login Prompt	login:
	Comment	Initialize Only – No Connection
	Service Tag	—
Expert	Port Monitor Tag	zsmon
	Create utmp Entry	yes
	Connect on Carrier	no
	Service	/usr/bin/login
	Streams Modules	ldterm, ttcompat
	Timeout (secs)	Never

▼ How to Disable a Port

Follow these steps to disable a service on a configured port.

1. **Select the port or ports that you want to disable from the Serial Port Manager main window.**
2. **Choose Modify Service from the Edit menu.**
3. **Click Service Disabled in the Modify Service window to disable the port.** The other items in the Modify Service window will turn gray when the port service is disabled.

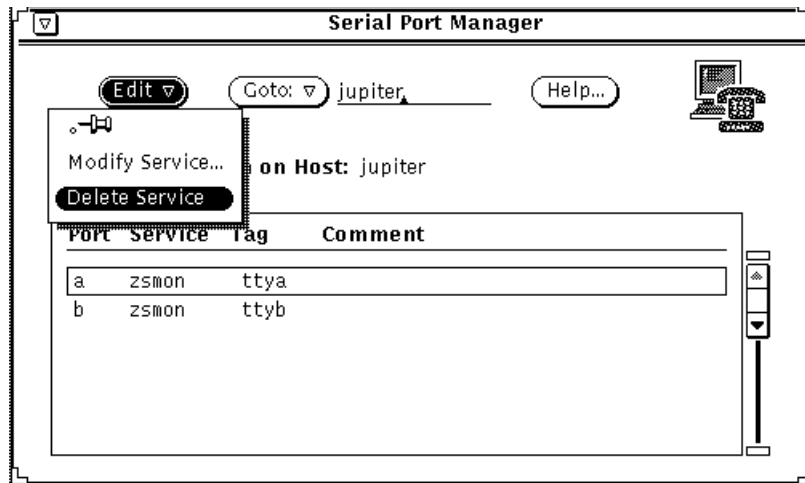


4. **Click on Apply to disable the port.**

▼ **How to Delete a Port Service**

Follow these steps to delete a service on a configured port.

1. **Select the port or ports with a service you want to delete from the Serial Port Manager main window.**
2. **Choose Delete Service from the Edit menu.**



A window is displayed asking you to confirm that the service should be removed.

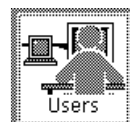
3. **Click on Delete when you are ready to remove the service.**

Part 2 — Administration Tool Reference

- Chapter 7, “User Account Manager Reference”
- Chapter 8, “Printer Manager Reference”
- Chapter 9, “Host Manager Reference”
- Chapter 10, “Database Manager Reference”
- Chapter 11, “Serial Port Manager Reference”
- Chapter 12, “Software Manager Reference”

User Account Manager Reference

This chapter provides reference information for User Account Manager.



Use this table to find information about specific User Account Manager features.

<i>Using User Account Manager</i>	<i>page 76</i>
<i>User Account Manager Select Naming Service Window</i>	<i>page 78</i>
<i>User Account Manager Main Window</i>	<i>page 79</i>
<i>Add User Window</i>	<i>page 81</i>
<i>Modify/View User Window</i>	<i>page 85</i>
<i>Copy User Window</i>	<i>page 87</i>
<i>Delete User Window</i>	<i>page 89</i>
<i>Files Modified by User Account Manager</i>	<i>page 90</i>

Using User Account Manager

When to Use User Account Manager

User Account Manager can be used to perform the following tasks:

- Add, display, and remove user account information
- Copy user account information to facilitate the creation of user accounts with similar characteristics
- Modify user account information such as adding password aging features

Requirements for Using User Account Manager

The requirements for using User Account Manager are:

- A bit-mapped display monitor
- Ability to use the OpenWindows environment
- Access privileges as described in Chapter 1, “Administration Tool Overview”

Alternatives to Using User Account Manager

User Account Manager cannot be used on an ASCII terminal. All user account related tasks can be performed using SunOS commands. Table 7-1 provides more information about choosing to use User Account Manager or SunOS commands.

Table 7-1 When to Use User Account Manager

Use User Account Manager If You:	Use SunOS Commands If You:
Have a bit-mapped display monitor	Are using an ASCII terminal
Are running OpenWindows	Want output for each command issued

Where to Find Specific Task Information

This table contains references for User Account Manager tasks.

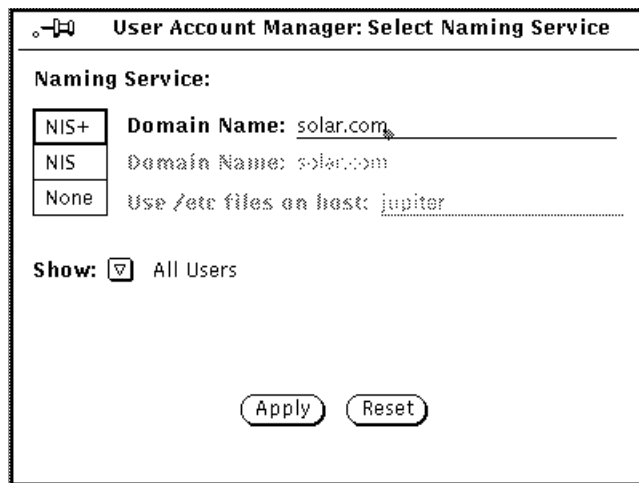
Table 7-2 Where to Find User Account Task Information

Task	Location
<i>How to Start User Account Manager</i>	<i>page 25</i>
<i>How to Add a User Account</i>	<i>page 26</i>
<i>How to Modify a User Account</i>	<i>page 29</i>
<i>How to Search for User Account Information</i>	<i>page 32</i>

Window, Menu, and Command Descriptions

User Account Manager Select Naming Service Window

When you start User Account Manager or click on the Naming Service button, the following window is displayed:



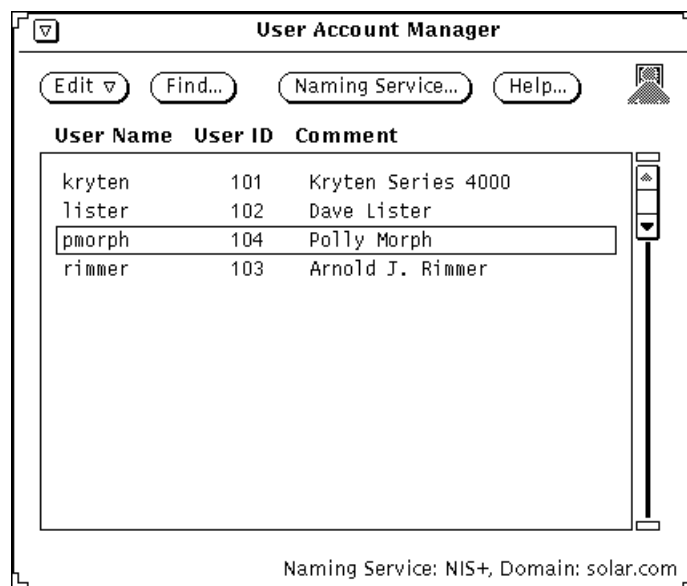
This window is used to select:

- The appropriate name service for your environment. See Chapter 2, “Name Service Management” for information on selecting a name service.
- The amount of user information to be displayed in the User Account Manager main window. This is done using the Show menu, which is described in Chapter 1, “Administration Tool Overview.”

After you have selected a name service and a method for filtering the user entries that are displayed, click on Apply. The user account information is loaded and the User Account Manager main window is displayed.

User Account Manager Main Window

The User Account Manager main window is displayed after you click on the User Account Manager icon on the Administration Tool window.



The main window contains the Edit, Find, Naming Service, and Help menus. The `passwd` file contents are also displayed.

Edit Menu Commands

The Edit menu commands are described in Table 7-3.

Table 7-3 User Account Manager Edit Menu Commands

Command	Use This Command To ...
Add User	Add a user account
Modify/View User	Modify or view selected user account information
Copy User	Create a new account by copying selected information from an existing account
Delete User	Remove a user account
Refresh List	Rebuild user account display after manually editing the <code>passwd</code> file.

Find Command

The Find menu command is used to find and highlight a specific user account entry.

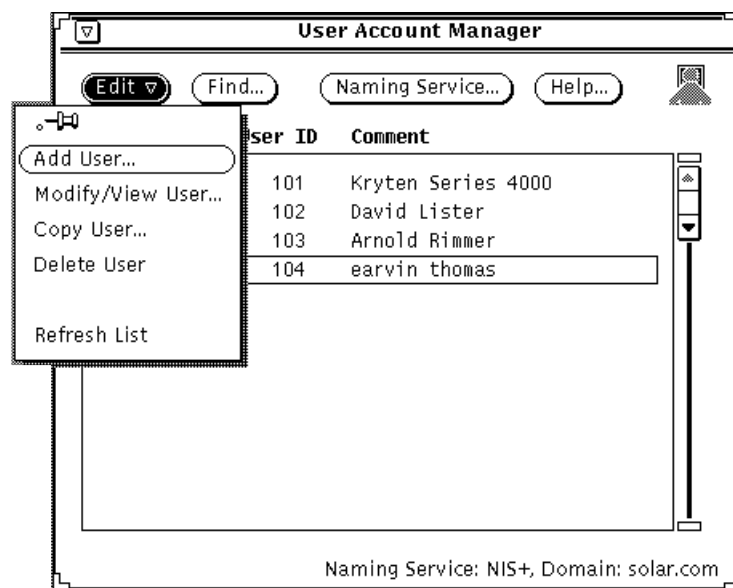
Naming Service Command

The Naming Service menu command is used to return to the Naming Service window where you can select an alternate name service.

Help Menu Command

Use the Help menu command to access an online handbook that describes how to use the User Account Manager application. See “Using the Help Viewer” on page 9 for more information.

User Account Manager Edit Menu



Add User Window

The Add User window is used to add a user account. You are prompted to supply the information described in Table 7-4.

Note – The password aging features in the Account Security section on the Add User window will not appear if you are adding the user to the NIS password database.

Table 7-4 Items on the User Account Manager Add Window (1 of 3)

Category	Item Name	Menu Type	Description
User Identity	User Name	Field	Unique name by which the user is known to the system. Valid characters are alphanumeric plus the underscore (_); no other characters are acceptable. First character must be a letter; name must include at least one lowercase letter.
	User ID	Field	Unique number in the range 100–60,000 that identifies the user to the system.
	Primary Group	Field	A group identifier associated with a particular group. Range is 100–60,000. Default is 100.
	Secondary Groups	Field	One or more group names or numbers to which the user also belongs. If you enter more than one name or number, separate them with commas. Default is none.
	Comment	Field	Information such as user’s full name, phone number, and organization.
	Login Shell	Menu	Name of program that starts at login: /bin/sh for the Bourne shell, /bin/csh for the C shell, or /bin/ksh for the Korn shell. Default is the Bourne shell.

Table 7-4 Items on the User Account Manager Add Window (2 of 3)

Category	Item Name	Menu Type	Description
Account Security	Password	Menu	Password status setting. Default is no password until first login.
	Min Change	Field	Minimum number of days between password changes. Used to prevent a user from changing a password and immediately changing it back to the original password. Default is no minimum.
	Max Change	Field	Number of days the password may remain unchanged. If the password has not been changed within this number of days, the user will not be able to log in to the account. The administrator must reactivate the account. Default is no expiration.
	Max Inactive	Field	Number of days an account can go unused (no login) before it is automatically locked. Default is no limit.
	Expiration Date	Menus	Date on which the user account expires. Default is no expiration date.
	Warning	Field	The number of days before a password expires that the user is warned. Default is no warning.

Table 7-4 Items on the User Account Manager Add Window (3 of 3)

Category	Item Name	Menu Type	Description
Home Directory	Create Home Dir	Check Box	Setting to create a home directory for the new user account.
	Path	Field	The full path to the home directory for this user account. By convention, this is <code>/export/home/<i>user-name</i></code> .
	Server	Field	The host name (the name you assigned to your system when you installed the system).
	Skeleton Path	Field	The path name (usually <code>/etc/skel</code>) that contains the initialization files to be supplied for this user. Example: <code>.login</code>
	AutoHome Setup	Check Box	Setting to create an automount entry for user's home directory.
	Permissions Owner: Group: World:	Check Box	Permissions to read, write, and execute files by owner, group, and world in the home directory.
Miscellaneous	Mail Server	Field	Name of the system where the user's mailbox is located.
	Cred. Table Setup	Check Box	NIS+ security entry for the user.

Modify/View User Window

The Modify/View User window is used to modify selected user account information such as the account security features.

User Account Manager: Modify User

USER IDENTITY

User Name:

User ID:

Primary Group:

Secondary Groups:

Comment:

Login Shell:

ACCOUNT SECURITY

Password:

Min Change: days

Max Change: days

Max Inactive: days

Expiration Date:

Warning: days

HOME DIRECTORY

Path:

Server:

AutoHome Setup: Yes if checked

Permissions	Read	Write	Execute
Owner:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Group:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
World:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

MISCELLANEOUS

Mail Server:

Cred. Table Setup: Yes if checked

The Modify User window can be used to change the user ID and home directory path. It cannot be used to change the user ID. Instead, use the Delete User command on the Edit menu to delete the user account and re-add the account using the Add command specifying a new user ID.

Copy User Window

User Account Manager: Copy User

USER IDENTITY

User Name: _____

User ID: _____

Primary Group: 100 _____

Secondary Groups: _____

Comment: Temp User 1 _____

Login Shell: C /bin/csh

ACCOUNT SECURITY

Password: Cleared until first login

Min Change: 0 _____ days

Max Change: _____ days

Max Inactive: _____ days

Expiration Date: None None None

Warning: 1 _____ days

HOME DIRECTORY

Create Home Dir: Yes if checked

Path: /export/home/user1_____

Server: jupiter _____

Skeleton Path: _____

AutoHome Setup: Yes if checked

Permissions	Read	Write	Execute
Owner:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
World:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

MISCELLANEOUS

Mail Server: _____

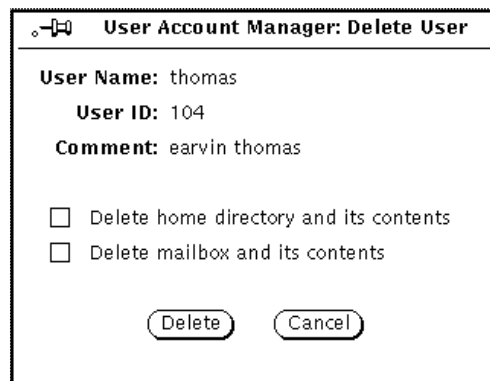
Cred. Table Setup: Yes if checked

Use the Copy User command to create a user account by copying selected information from an existing user account and modifying that information as needed. This feature is useful when you need to create several similar user accounts.

The user name, user ID, and password are not copied because they should be unique.

Delete User Window

Use the Delete User command to remove an existing user account.



The screenshot shows a dialog box titled "User Account Manager: Delete User". It displays the following information:

- User Name: thomas
- User ID: 104
- Comment: earvin thomas

Below the information, there are two checkboxes:

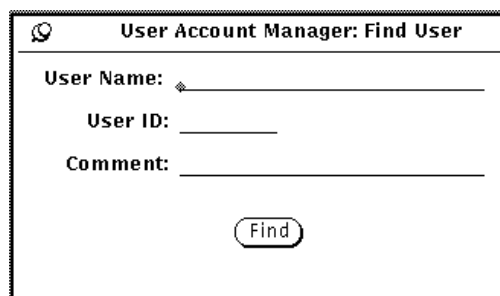
- Delete home directory and its contents
- Delete mailbox and its contents

At the bottom of the dialog, there are two buttons: "Delete" and "Cancel".

Clicking on the Delete home directory and Delete mailbox buttons removes the user's home directory and mailbox contents. User Account Manager does not remove files belonging to the user that are stored in other locations.

User Account Manager Find Command

The Find command enables you to search through the `passwd` file to find a user account entry.



The screenshot shows a dialog box titled "User Account Manager: Find User". It contains three input fields:

- User Name: _____
- User ID: _____
- Comment: _____

At the bottom of the dialog, there is a "Find" button.

You can search by user name, user ID, or comment, but not by combinations of the items. You can also use wildcards to match text strings.

Files Modified by User Account Manager

Table 7-5 describes the system files that are modified by User Account Manager.

Table 7-5 Files Modified by User Account Manager

System File	Description
auto_home	An indirect automounter map that contains entries enabling client systems to mount their home directories automatically
group	A file containing UNIX group entries recognized on the local system or in a name service
passwd	A file containing user account entries such as user name, user ID, group ID, and home directory
shadow	A file containing user password entries in encrypted form, and password aging information

Printer Manager Reference

This chapter provides reference information for Printer Manager.



Use this table to find information about specific Printer Manager features.

<i>Using Printer Manager</i>	<i>page 92</i>
<i>Printer Manager Main Window</i>	<i>page 94</i>
<i>Add Access to Remote Printer Window</i>	<i>page 96</i>
<i>Add Local Printer Window</i>	<i>page 97</i>
<i>Modify Printer Window</i>	<i>page 100</i>
<i>Delete Printer Window</i>	<i>page 101</i>
<i>Find Printer Command</i>	<i>page 103</i>
<i>Files Modified by Printer Manager</i>	<i>page 104</i>

Using Printer Manager

When to Use Printer Manager

Printer Manager can be used to:

- Add, display, and remove printer information
- Access remote printers on behalf of print clients over the network
- Access remote print servers over the network

Requirements for Using Printer Manager

The requirements for using Printer Manager are

- A bit-mapped display monitor
- Ability to use the OpenWindows environment
- Access privileges as described in Chapter 1, “Administration Tool Overview”

Alternatives to Using Printer Manager

Printer Manager cannot be used on an ASCII terminal. If needed, all printer tasks can be performed using SunOS commands. Table 8-1 provides more information about choosing to use Printer Manager or SunOS commands.

Table 8-1 When to Use Printer Manager

Use Printer Manager If You:	Use SunOS Commands If You:
Have a bit-mapped display monitor	Are using an ASCII terminal
Are running OpenWindows	Want output for each command issued

Where to Find Specific Task Information

This table contains references for Printer Manager tasks.

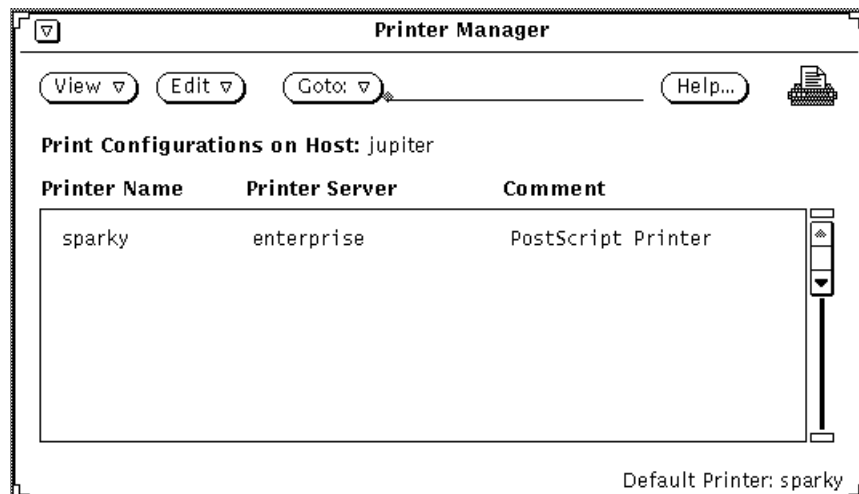
Table 8-2 Where to Find Printer Manager Task Information

Task	Location
<i>How to Start Printer Manager</i>	<i>page 38</i>
<i>How to Install a Local Printer</i>	<i>page 39</i>
<i>How to Add Access for a Remote Printer</i>	<i>page 40</i>
<i>How to Modify a Printer Entry</i>	<i>page 41</i>
<i>How to Delete a Printer Entry</i>	<i>page 42</i>

Window, Menu, and Command Descriptions

Printer Manager Main Window

The Printer Manager main window is displayed after you click on the Printer Manager icon on the Administration Tool window.



The main window contains the View, Edit, Goto and Help menus. The main window also displays the printers that have been added to the system, if any.

View Menu Commands

The View menu commands are described in Table 8-3.

Table 8-3 Printer Manager View Menu Commands

Command	Use This Command To ...
Show NIS+ Printers	This command is not available at this time
Find	Find and highlight a specific printer entry

Edit Menu Commands

The Edit menu commands are described in Table 8-4.

Table 8-4 Printer Manager Edit Menu Commands

Command	Use This Command To ...
Add Access to Remote Printer	Add access to a remote printer for the designated system
Add Local Printer	Add a local printer to the system
Modify Printer	Modify printer characteristics, such as availability and control of print requests
Delete Printer	Delete a printer entry

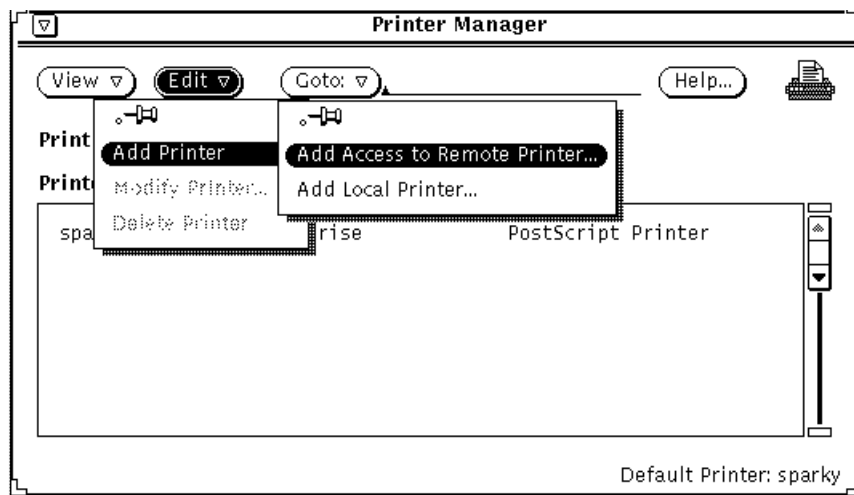
Goto Menu Command

The Goto menu command enables you to display printer information on another host. If you have the appropriate access privileges, you can also use this feature to modify printer information on another host.

Help Menu Commands

Use the Help menu command to access the Help Viewer online handbook that describes Printer Manager functions and requirements. See “Using the Help Viewer” on page 9 for more information.

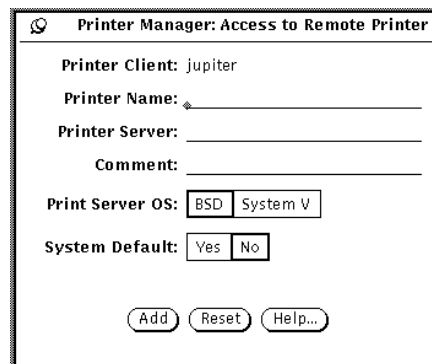
Printer Manager Edit Menu



Add Access to Remote Printer Window

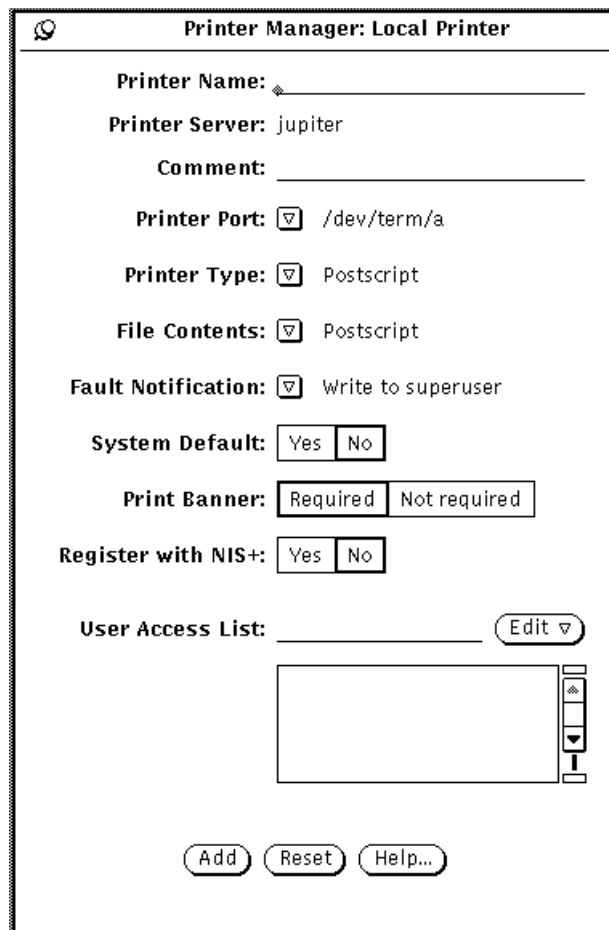
Use this window to add access to a remote printer. Supply the following information:

- Printer name
- Printer server
- Print server OS
- Whether this printer is the default system printer



Add Local Printer Window

Use this window to add access to a local printer, and to specify information such as printer type, fault notification, and user accessibility.



The screenshot shows the 'Printer Manager: Local Printer' window. It contains the following fields and controls:

- Printer Name:** A text input field.
- Printer Server:** A text input field containing 'jupiter'.
- Comment:** A text input field.
- Printer Port:** A dropdown menu showing '/dev/term/a'.
- Printer Type:** A dropdown menu showing 'Postscript'.
- File Contents:** A dropdown menu showing 'Postscript'.
- Fault Notification:** A dropdown menu showing 'Write to superuser'.
- System Default:** Two radio buttons labeled 'Yes' and 'No'.
- Print Banner:** Two radio buttons labeled 'Required' and 'Not required'.
- Register with NIS+:** Two radio buttons labeled 'Yes' and 'No'.
- User Access List:** A text input field followed by an 'Edit' button with a dropdown arrow.
- Below the User Access List is a list box with a vertical scrollbar.
- At the bottom are three buttons: 'Add', 'Reset', and 'Help...'.

Each check box, field, and menu in the window is described on the following pages.

Printer Port Menu

Select the appropriate printer port from this menu.

Printer Port	Description
/dev/term/a	Device name of port to which printer is attached. This is the default setting.
/dev/term/b	Device name of port to which printer is attached.
Other	Select Other to specify another port.

Printer Type Menu

Select the appropriate printer type from this menu, which lists various printers derived from their manufacturers' name or model number. The default printer type is PostScript.

PostScript
HP Printer
Reverse PostScript
Epson 2500
IBM ProPrinter
Qume Sprint 5
Daisy
Diablo
Datagraphix
DEC LA100
DEC LN03
DECwriter
Texas Instruments 800
Other

For special cases, select Other to specify another printer type. See *User Accounts, Printers, and Mail Administration* for instructions on adding other printer types.

File Contents Menu

Use this menu to select the type of file that can be printed. The default file content type is Any.

PostScript
ASCII
Both PostScript and ASCII
None
Any

Fault Notification Menu

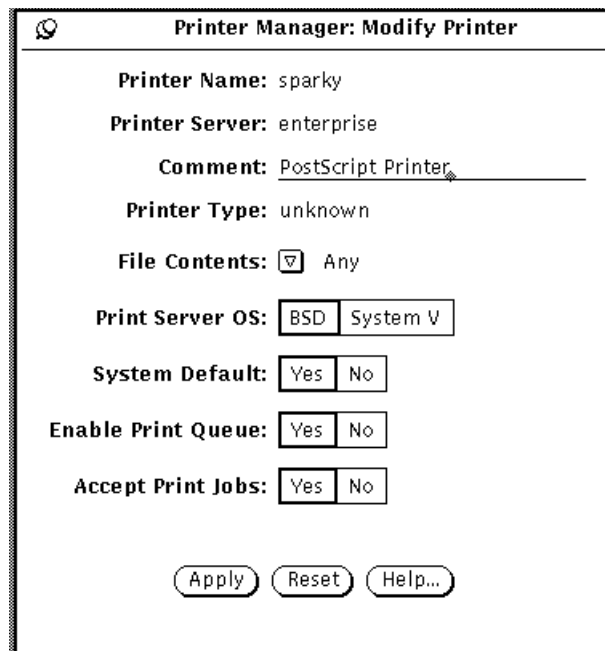
Use this menu to choose the action to take in case of a printer error.

Method of Fault Notification	Description
Write to superuser	Superuser is notified in the console window. This is the default setting.
Mail to superuser	Superuser is notified via electronic mail.
None	No action occurs.

Modify Printer Window

The Modify Printer window enables you to change categories of information, depending on whether the printer is local or remote. The most common reasons for using the Modify window are:

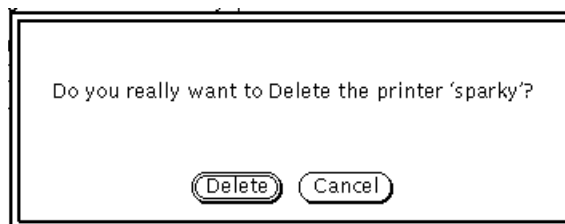
- Disabling or enabling printing of print requests
- Enabling or preventing queuing of print requests
- Changing system default printer



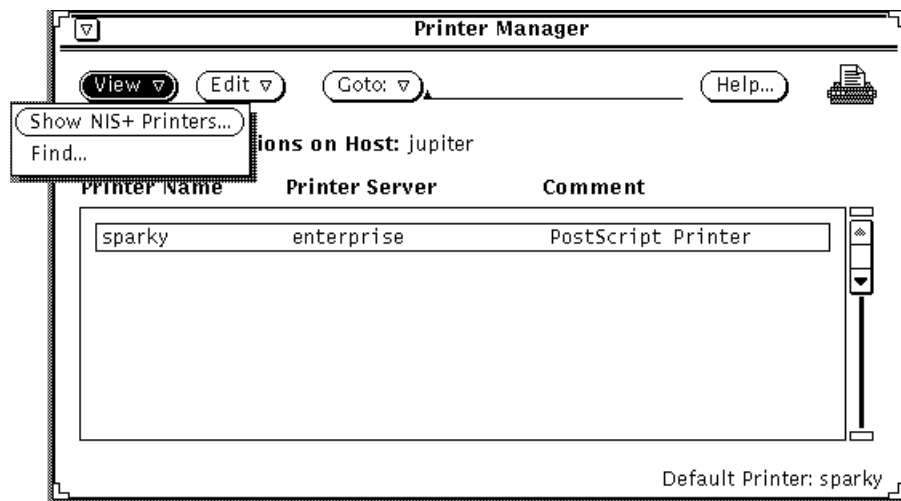
Delete Printer Window

Use the Delete Printer command to remove a printer entry. All currently queued print requests to this printer must be removed with the `cancel` or `lpmove` commands before the printer entry can be successfully removed.

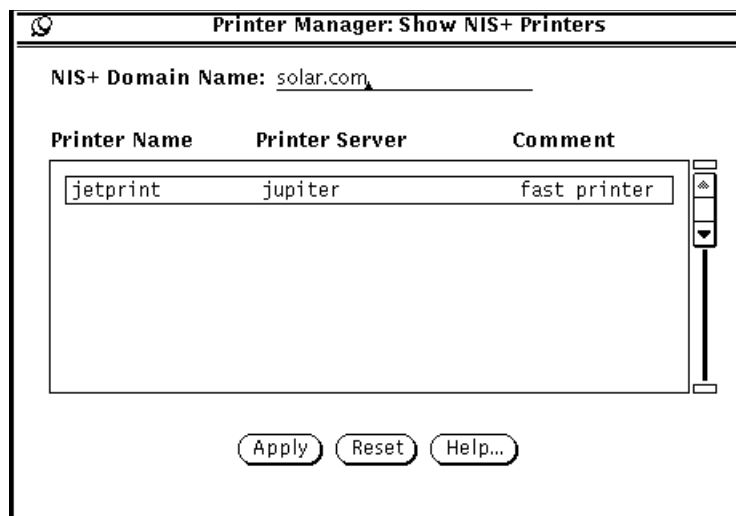
The following window is displayed asking you to confirm the deletion:



Printer Manager View Menu



Show NIS+ Printers Command



The Show NIS+ Printers command enables you to display printer names defined in the NIS+ printer database.

Find Printer Command

The Find Printer command enables you to search through the printer entries for a particular entry. This command is useful when you are working with a large number of entries.



Files Modified by Printer Manager

Table 8-5 describes the system files that are modified by Printer Manager.

Table 8-5 Files Modified by Printer Manager

System File	Description
<code>/etc/lp/default</code>	A file containing the name of the default printer
<code>/etc/lp/printers</code>	A directory containing configuration information about each printer
<code>/etc/lp/Systems</code>	A file containing the remote hosts registered with print service
<code>/etc/lp/filter.table</code>	A printer filter lookup table of downloaded filter information
<code>/etc/lp/interfaces/ <i>printer_name</i></code>	A file containing the default interface program used to set default printer settings

Host Manager Reference

9

This chapter provides reference information for Host Manager.



Use this table to find information about specific Host Manager features.

<i>Using Host Manager</i>	<i>page 106</i>
<i>Window, Menu, and Command Descriptions</i>	<i>page 108</i>
<i>Host Manager Naming Service Window</i>	<i>page 108</i>
<i>Host Manager Main Window</i>	<i>page 109</i>
<i>Host Manager Edit Menu</i>	<i>page 111</i>
<i>Add Host Window</i>	<i>page 111</i>
<i>View Host Window</i>	<i>page 114</i>
<i>Remote Install Window</i>	<i>page 115</i>
<i>Host Manager Find Command</i>	<i>page 117</i>
<i>Files Modified by Host Manager</i>	<i>page 118</i>

Using Host Manager

When to Use Host Manager

Host Manager can be used to perform the following tasks:

- Add, display, and remove network client support (which includes standalone, diskless, and dataless system configurations)
- Enable and disable remote software installation privileges

Requirements for Using Host Manager

The requirements for using Host Manager are:

- A bit-mapped display monitor
- Ability to use the OpenWindows environment
- Access privileges as described in Chapter 1, “Administration Tool Overview”

Alternatives to Using Host Manager

Host Manager cannot be used on an ASCII terminal. Instead, you can use SunOS commands or `ttyhstmgr`, an ASCII menu interface, for host management tasks. Table 9-1 provides more information about choosing to use Host Manager or SunOS commands.

Table 9-1 Using Host Manager

Use Host Manager If You:	Use SunOS Commands If You:
Have a bit-mapped display monitor	Are using an ASCII terminal
Are running OpenWindows	Want output for each command issued

Where to Find Specific Task Information

Table 9-2 contains references for Host Manager tasks.

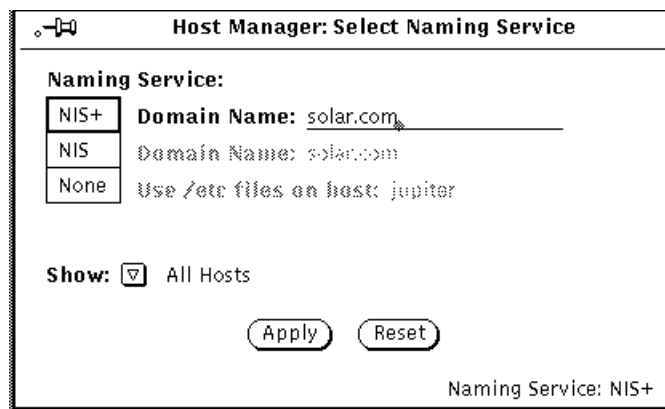
Table 9-2 Where to Find Host Manager Task Information

Task	Location
<i>How to Start Host Manager</i>	<i>page 46</i>
<i>How to Add Standalone System Information</i>	<i>page 47</i>
<i>How to Add Support for a Diskless Client</i>	<i>page 49</i>
<i>How to Display Host Information</i>	<i>page 54</i>
<i>How to Enable Remote Software Installation Privileges</i>	<i>page 55</i>
<i>How to Delete Host Information</i>	<i>page 56</i>

Window, Menu, and Command Descriptions

Host Manager Naming Service Window

When you start Host Manager or choose the Naming Service command, the following window is displayed:

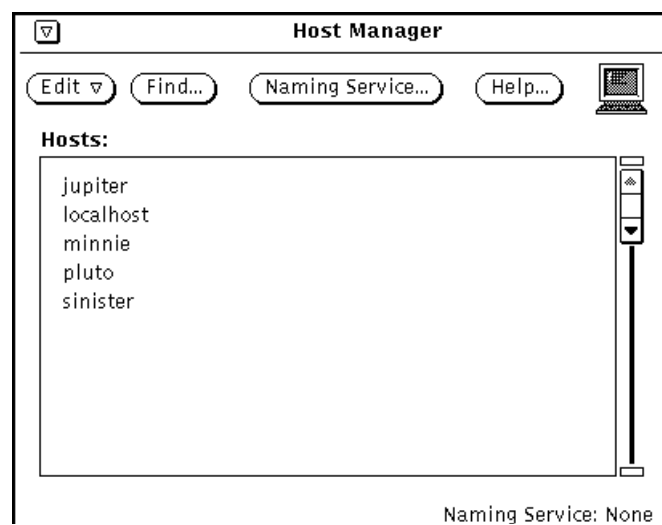


This window is used to select:

- The appropriate name service for your environment. See Chapter 2, “Name Service Management,” for information on selecting a name service.
- The amount of host information to be displayed in the Host Manager main window. This is done using the Show menu, which is described in Chapter 1, “Administration Tool Overview.”

After you have selected a name service and a method for filtering the host entries that are displayed, click on Apply. The host information is loaded and the Host Manager main window is displayed.

Host Manager Main Window



The Host Manager main window contains the Edit, Find, Naming Service and Help menus, and displays host entries that have been added to the system, if any.

Edit Menu Commands

The Host Manager Edit menu commands are described in Table 9-3.

Table 9-3 Host Manager Edit Menu Commands

Command	Use This Command To ...
Add Host	Add a host
View Host	Display information for the host currently selected in the main window
Delete Host	Delete the host currently selected in the main window
Enable Remote Install	Enable remote install privileges for the host currently selected in the main window

Find Menu Command

Use the Find command to find and highlight a host entry in the main window.

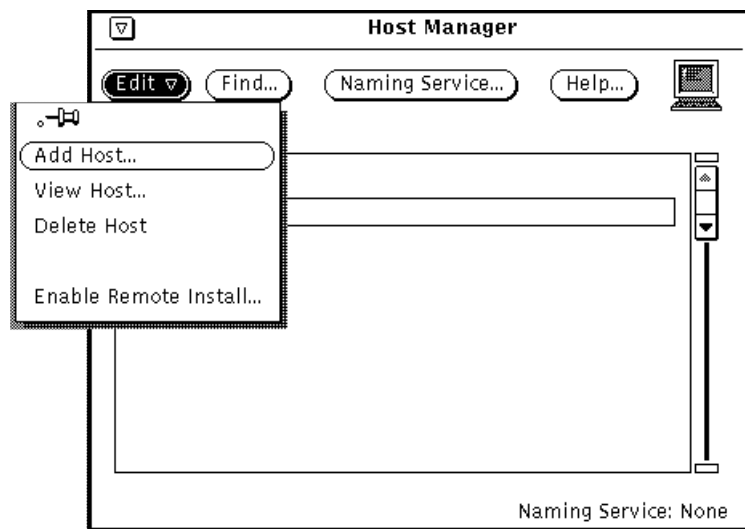
Naming Service Command

Use the Naming Service command to return to the Load window where you can select an alternate name service.

Help Menu Commands

The Help menu command is used to access the Help Viewer online handbook, which describes Host Manager functions and requirements. See “Using the Help Viewer” on page 9 for more information.

Host Manager Edit Menu



Add Host Window

Use the Add Host window to add network client information. Table 9-4 on the next page describes the buttons, menus, and text boxes in the Add Host window. You might not see all of the options, depending on which client type (standalone, diskless, or dataless) you select.

Table 9-4 Items on the Host Manager Add Host Window

Item Name	Menu Type	Description
Client Type	Menu	The client's configuration type (standalone, diskless, or dataless).
Host Name	field	The client's host name.
IP Address	field	The client's IP address.
Ethernet Address	field	The client's Ethernet address.
Timezone Region	Menu	The major geographic time zone region.
Timezone	Menu	The local time zone.
File Server	Menu	The client's file server. If you select Other, the Specify File Server window is displayed, which enables you to specify a file server other than the ones listed in the pull-down menu. (See Specify File Server window on the next page.)
OS Release	Menu	Used to list and select the client's architecture and operating system version.
Root/Swap Paths	field	Provides default path names for the client's root file system and swap area.
Swap Size	field	Provides a field to set the swap size (in megabytes) for a diskless client.
Terminal Type	field	<i>For SunOS 4.1.x systems only:</i> Provides a field to specify the terminal type for a diskless client.

Specify File Server Window

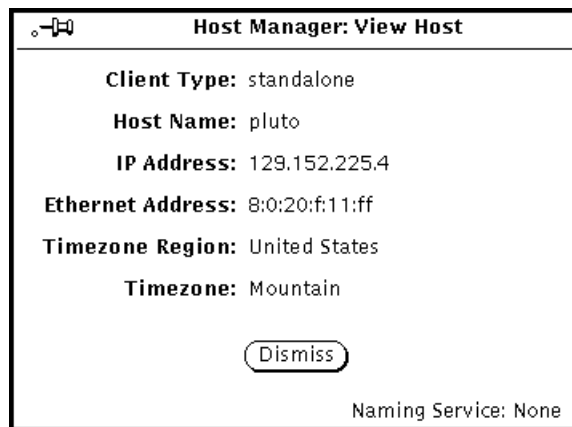
This window is displayed if Other is selected from the File Server menu in the Add window.



After you type an alternate file server name in the text box, click on Apply.

View Host Window

The View Host window displays information on the host selected in the main window.

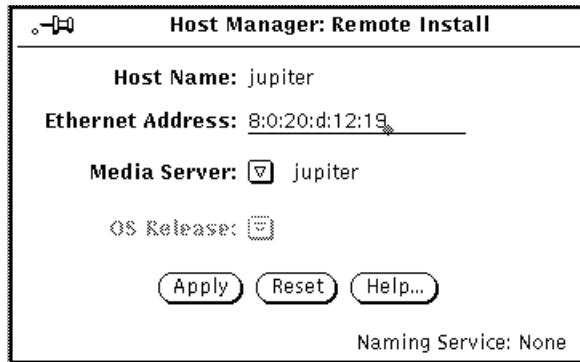


The displayed information includes:

Field Name	Description
Client Type	Identifies the client's configuration type (standalone, diskless, dataless)
Host Name	Displays the client's host name
IP Address	Displays the client's IP address
Ethernet Address	Displays the client's Ethernet address
Timezone Region	Displays the client's regional time zone
Timezone	Displays the client's local time zone

Remote Install Window

Use this window to enable remote installation privileges for an existing host. Remote software installation privileges are also enabled or disabled when the client system is added using Host Manager's Add Host window for standalone systems.



The Remote Install window information is described in Table 9-5.

Table 9-5 Items on the Host Manager Remote Install Window

Item Name	Menu Type	Description
Host Name	Text box	Displays the selected host name.
Ethernet Address	Text box	Displays the selected host's Ethernet address.
Media Server	Menu	Used to list and select the media server from which the host can install remote software. Select Other to specify an alternate media server in the Specify Media Server window. (See Media Server window on the next page). If Host Manager does not understand how the CD is mounted on the media server, a window is displayed so that you can specify the path name of the CD. (See the Specify Device window on the next page.)
OS Release	Menu	Used to list and select the client's architecture and operating system version.

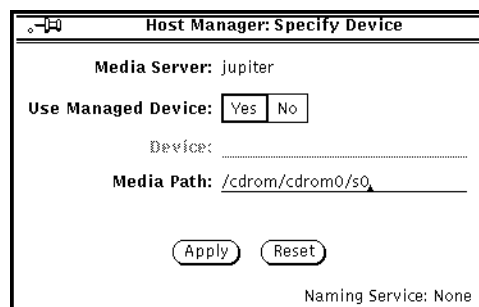
Specify Media Server Window

This window enables you to designate the media server from which remote software will be installed.



Specify Device Window

Use this window to designate the path name for the mounted CD on the media server.



This window is displayed whenever the remote install privileges are selected and Host Manager cannot determine how the CD is mounted.

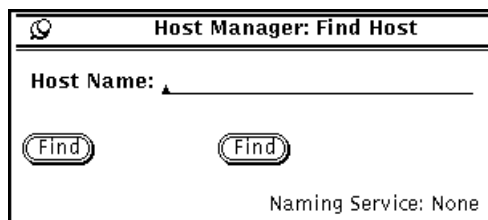
Delete Host Window

To delete a host entry, select the host in the main window. Then select Delete Host from the Edit menu. The following window is displayed asking you to confirm the deletion:



Host Manager Find Command

Use the Find Host command to find and highlight a specific host entry in the main window. You can use wildcards.



Type the host name you want to locate in the Host Name field. Click on the Find button *on the right*.

Files Modified by Host Manager

Table 9-6 describes the system files modified by Host Manager.

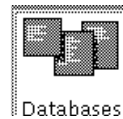
Table 9-6

System File	Description
<code>bootparams</code>	A file containing the file server that provides the client's root and swap areas
<code>/etc/dfs/dfstab</code>	A file containing a series of <code>share</code> commands that make file resources available to the client system
<code>ethers</code>	A file containing the client's Ethernet address
<code>hosts</code>	A file containing the client's host name and associated IP address
<code>timezone</code>	A file containing the client's time zone
<code>/export/root/ hostname/etc/vfstab</code>	A file listing which of the client's file system entries to mount at boot time
<code>/tftpboot</code>	A directory containing diskless client booting information

Database Manager Reference

10 

This chapter provides reference information for Database Manager, a graphical interface used to manage network-related system files.



Use this table to find information about specific Database Manager features.

<i>Using Database Manager</i>	<i>page 120</i>
<i>Database Manager Load Database Window</i>	<i>page 121</i>
<i>Database Manager Main Window</i>	<i>page 122</i>
<i>Database Manager Edit Menu</i>	<i>page 124</i>
<i>Add Entry Window</i>	<i>page 124</i>
<i>Modify Entry Window</i>	<i>page 126</i>
<i>Delete Entry Window</i>	<i>page 126</i>
<i>Find Command</i>	<i>page 128</i>
<i>Files Modified by Database Manager</i>	<i>page 129</i>

Using Database Manager

When to Use Database Manager

Database Manager can be used to perform the following tasks:

- Manage network-related system files using a graphical user interface that provides search capabilities and syntax checking
- Manage system files on the local system or across the network using the NIS+ or NIS name service (with the appropriate access privileges)

Requirements for Using Database Manager

The requirements for using Database Manager are:

- A bit-mapped display monitor
- Ability to use the OpenWindows environment
- Access privileges as described in Chapter 1, “Administration Tool Overview”

Alternatives to Using Database Manager

Database Manager, like the other Administration Tools, cannot be used on an ASCII terminal to modify or display system files. Use an editor and SunOS commands to manage system files when using an ASCII terminal.

Where to Find Information on Specific Tasks

Table 10-1 contains references for Database Manager tasks.

Table 10-1 Where to Find Database Manager Task Information

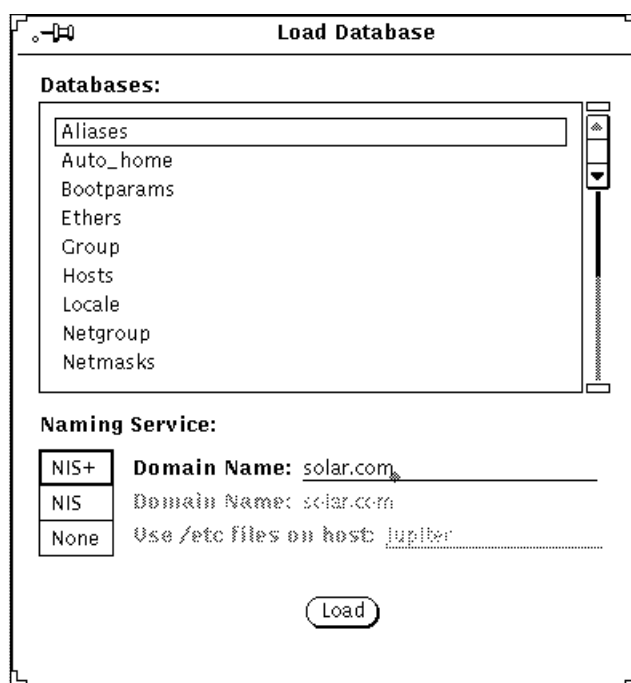
Task	Location
<i>How to Start Database Manager</i>	<i>page 57</i>
<i>How to Add a System File Entry</i>	<i>page 59</i>
<i>How to Modify a System File Entry</i>	<i>page 59</i>
<i>How to Delete a System File Entry</i>	<i>page 59</i>

Window, Menu, and Command Descriptions

The following section describes Database Manager's windows, menus, and commands.

Database Manager Load Database Window

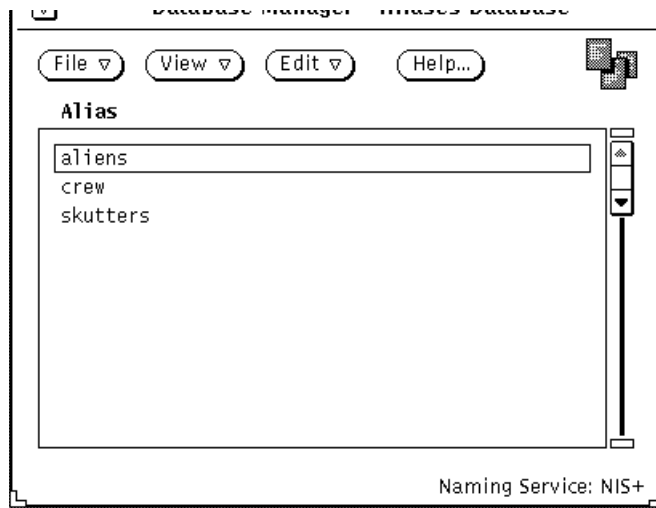
When you start Database Manager or choose the Load Database command from the File menu, the following window is displayed:



This window is used to select the appropriate name service for your environment. See Chapter 2, "Name Service Management," for information on selecting a name service.

After you have selected a name service, click on Load. The selected system file is loaded and the Database Manager main window is displayed.

Database Manager Main Window



The main window contains four menus: File, View, Edit and Help. The contents of the `aliases` file are displayed.

File Menu Commands

The Database Manager File menu commands are described in Table 10-2.

Table 10-2 Database Manager File Menu Commands

Command	Use This Command To ...
Load Database File	Return to the Load window to select another name service, domain, host, or filter command
Write Text File	Save a version of a system file in another directory

View Menu Commands

The Database Manager View menu commands are described in Table 10-3.

Table 10-3 Database Manager View Menu Commands

Command	Use This Command To ...
Show All Entries	Display all file entries. This is the default.
Show Entries That Match	Display entries that match the specified text string
List By <i>Item</i>	Display system file by <i>item</i> category
Find	Find and highlight the first occurrence of an entry that matches the specified text string

Edit Menu Commands

The Database Manager Edit menu commands are described in Table 10-4.

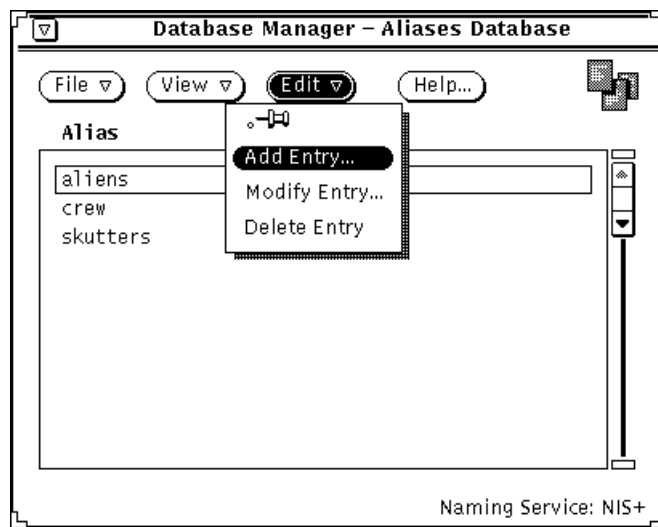
Table 10-4 Database Manager Edit Menu Commands

Command	Use This Command To ...
Add Entry	Add an entry to a system file
Modify Entry	Modify an entry in a system file
Delete Entry	Delete an entry in a system file

Help Menu Commands

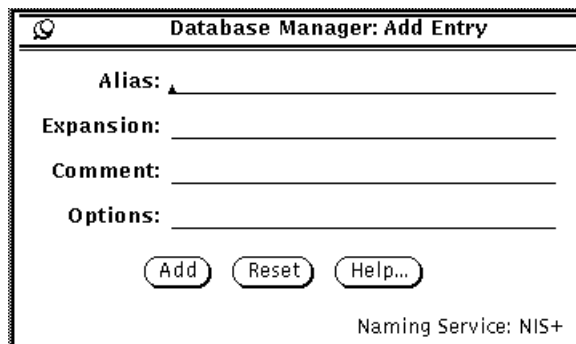
The Help menu command is used to access an online handbook, which describes the Database Manager functions of and requirements. See “Using the Help Viewer” on page 9 for more information.

Database Manager Edit Menu



Add Entry Window

Use the Add Entry command on the Edit menu to add an entry to a system file. For example, you can create a new alias in the `aliases` file by supplying a new alias name and a list of alias members in the Expansion field.



See Table 10-5 on page 125 for a list of required fields when adding entries to the system files managed by Database Manager.

Table 10-5 summarizes the network-related system files managed by Database Manager and the fields that are required and optional when adding entries.

Table 10-5 System File Fields and Descriptions

System File	Field Name	Required or Optional	Field Modifiable by Database Manager?	Field Description
aliases	Alias	Required	No	Mail alias name
	Expansion	Required	Yes	List of alias members
locale	Host Name	Required	No	Host name of client system
	Locale	Required	Yes	Native language environment variable
	Comment	Optional	Yes	Text describing locale
netgroup	Net Group	Required	No	Network group name
	Members	Required	Yes	List of hosts in network group
netmasks	Network	Required	No	IP network number
	Number	Required	Yes	Subnetwork mask number
	Subnet Mask	Optional	Yes	Text describing netmasks
	Comment			
networks	Net Name	Required	No	Network name
	Net Number	Required	Yes	Network number
	Aliases	Optional	Yes	Aliases for network name
	Comment	Optional	Yes	Text describing networks
protocols	Protocol Name	Required	Yes	Official protocol name
	Protocol	Required	No	Protocol number
	Number	Optional	Yes	Aliases for protocol name
	Aliases	Optional	Yes	Text describing protocols
	Comment			
rpc	RPC Name	Required	Yes	Name of RPC program
	RPC Number	Required	No	RPC program number
	Aliases	Optional	Yes	Aliases for program names
	Comment	Optional	Yes	Text describing rpc
services	Service Name	Required	Yes	Official Internet™ service name
	Port Number	Required	No	Service port number
	Protocol Name	Optional	No	Protocol used to provide service
	Aliases	Optional	Yes	Aliases for service names
	Comment	Optional	Yes	Text describing services

Modify Entry Window

Use the Modify Entry command on the Edit menu to add or remove an entry from a system file. For example, an alias in the `aliases` file can be modified by adding or removing user names from the members list in the Expansion text box. You cannot modify the alias name.

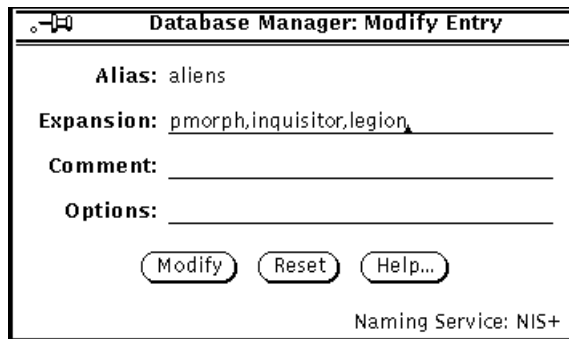


Table 10-5 on page 125 summarizes the modifiable fields of system files that are usually managed by Database Manager. If a field is not modifiable using Database Manager, you can delete the entry and re-add it with the changed information.

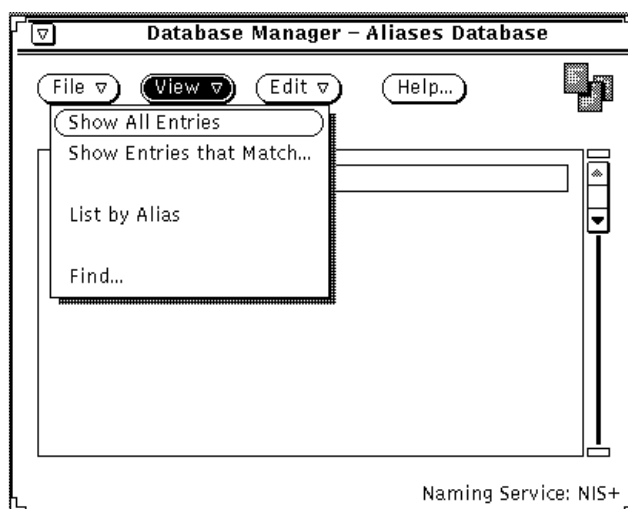
Delete Entry Window

To delete an entry from a file, select the entry from the Database Manager main window. Then select Delete Entry from the Edit menu. The following window is displayed asking you to confirm the deletion:



Database Manager View Menu

The View menu contains commands to find and sort system file entries.

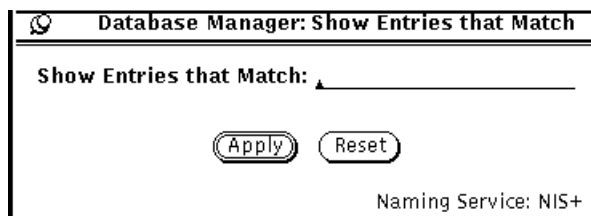


Show All Entries

This is the default value, which displays all entries in the selected file.

Show Entries that Match

Show Entries that Match is used to display all entries that match the specified text string.

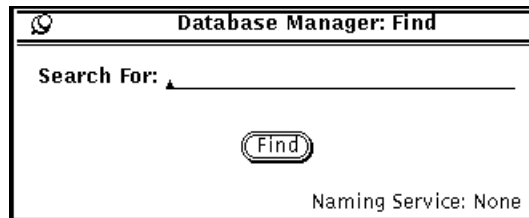


List by Item Command

This option allows you to sort the file by a field within the file.

Find Command

The Find command enables you to search through the specified file for a particular entry. This command is useful when you are working with a large number of entries.



Files Modified by Database Manager

The network-related system files modified by Database Manager are described in Table 10-6. Some of these files should be managed by their primary tools.

Table 10-6 Files Modified by Database Manager

System File	Description
aliases	Contains aliases in ASCII format for the local host. Or, if it is an NIS+ or NIS file, contains aliases available for use across the network.
auto.home (NIS) or auto_home (NIS+)	Contains entries for client systems to mount their home directories automatically; an indirect automounter map.
bootparams	Contains a list of client systems that need to boot from the network.
ethers	Contains Ethernet addresses of network client systems.
hosts	Contains a list of systems on the network and their associated IP addresses.
locale	Contains the default locales used by network clients.
netgroup	Contains entries for netgroups, a group of systems granted identical access to network resources for security and organizational reasons.
netmasks	Contains network mask values used to implement IP subnetting.
networks	Contains information about available networks.
protocols	Contains information about Internet protocols used in your network.
rpc	Contains entries for available RPC services (by name) and their associated program numbers and aliases.
services	Contains information about network services and their “well-known” port numbers.
timezone	Contains entries for systems and their geographic region and time zone used at installation.

Note – All of the system files and their primary tools are summarized in Table 10-7 on the next page.

Table 10-7 System Files and Their Primary Management Tools

System File	Administration Tool
aliases, locale, netgroup, netmasks, networks, protocols, rpc, and services	Database Manager
bootparams, ethers, hosts, and timezone	Host Manager
/etc/lp directory	Printer Manager
/etc/saf directory	Serial Port Manager
passwd and auto_home (or auto.home)	User Account Manager

Serial Port Manager Reference

This chapter provides reference information for the Serial Port Manager.



Use this table to find information about specific Serial Port Manager features.

<i>Using Serial Port Manager</i>	<i>page 132</i>
<i>Serial Port Manager Main Window</i>	<i>page 134</i>
<i>Modify Service Window</i>	<i>page 136</i>
<i>Template Menu</i>	<i>page 138</i>
<i>Baud Rate Menu</i>	<i>page 138</i>
<i>Port Monitor Tag Menu</i>	<i>page 139</i>
<i>Timeout Menu</i>	<i>page 139</i>
<i>Delete Service Window</i>	<i>page 140</i>

Using Serial Port Manager

When to Use Serial Port Manager

Use Serial Port Manager to configure serial port software for use with terminals or modems. You can use Serial Port Manager to configure one or more ports on a local or remote system.

With Serial Port Manager, you can

- Add a service
- Modify a service
- Initialize a port without configuring the service
- Disable a service
- Delete a service

Requirements for Using Serial Port Manager

The requirements for using Serial Port Manager are:

- A bit-mapped display monitor
- Ability to use the OpenWindows environment
- Access privileges as described in Chapter 1, “Administration Tool Overview”

Alternatives to Using Serial Port Manager

When you configure a serial port for use with a modem or terminal, you have a choice between two tools:

- *Service Access Facility*—a collection of background processes and administrative commands used from the command line to configure and administer port services and monitors.
- *Serial Port Manager*—an Administration Tool application that provides a graphical user interface and the functionality of the Service Access Facility’s `pmadm` command, a port monitor administration tool.

For more information about the Service Access Facility and when to use the Service Access Facility or Serial Port Manager, see *Peripherals Administration*.

Where to Find Specific Task Information

This table contains references for Serial Port Manager tasks.

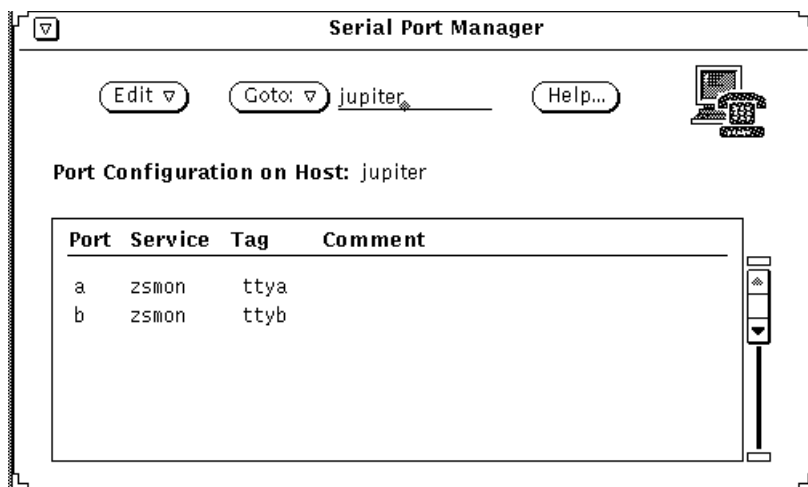
Table 11-1 Where to Find Serial Port Manager Task Information

Task	Location
<i>How to Start Serial Port Manager</i>	<i>page 63</i>
<i>How to Add a Terminal</i>	<i>page 64</i>
<i>How to Add a Modem</i>	<i>page 66</i>
<i>Initializing a Port Without Configuring</i>	<i>page 69</i>
<i>How to Disable a Port</i>	<i>page 71</i>
<i>How to Delete a Port Service</i>	<i>page 72</i>

Window, Menu, and Command Descriptions

Serial Port Manager Main Window

The Serial Port Manager main window lists the existing services that have been configured on your system. It also contains menu buttons that help you modify or delete a service.



The main window contains the Edit, Goto, and Help menus.

Edit Menu Commands

The Serial Port Manager Edit menu commands are described in Table 11-2.

Table 11-2 Serial Port Manager Edit Menu Commands

Command	Use This Command To ...
Modify Service	Modify a service
Delete Service	Delete a service

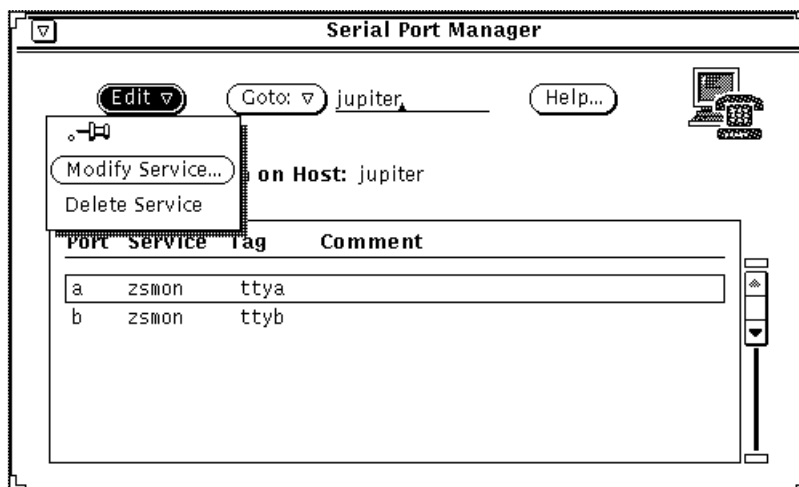
Goto Command

The Goto command enables you to manage serial port information on another system. To configure the port services on another system, you need administrative privileges for that system. See Chapter 2, “Name Service Management,” for more information on Administration Tool security.

Help Menu Commands

Use the Help menu command to access an online handbook that describes the functions of and requirements for the Serial Port Manager application. See “Using the Help Viewer” on page 9 for more information.

Serial Port Manager Edit Menu



Modify Service Window

When configuring port information, choose Modify Service from the Edit menu to bring up the Modify Service window.

Serial Port Manager: Modify Service

Use Template ▾ Detail: Basic More Expert

Basic →

Port: a Baud Rate: ▾ 9600
 Service: Disabled Enabled Terminal type: tvi925

More →

Options: Initialize Only Login Prompt: ttya login:␣
 Bidirectional Comment: Terminal – Hardwired
 Software Carrier Service Tag: ttya
Port Monitor Tag: ▾ zsmn

Expert →

Expert Options: Create utmp entry Service: /usr/bin/login
 Connect on Carrier Streams Modules: ldterm,ttcompat
Timeout (secs): ▾ Never

Apply Reset Dismiss

Template: Terminal – Hardwired Hostname: jupiter

The descriptions of each item in the Modify window are listed in Table 11-3.

Table 11-3 Items on the Serial Port Manager Modify Window

Detail	Item Name	Menu Type	Description
Basic	Port	Menu	Lists the port or ports you selected from Serial Port Manager's main window.
	Service	Field	Specifies that the service for the specified port is turned on (enabled).
	Baud Rate	Menu	Specifies the line speed used to communicate with the terminal. The line speed represents an entry in <code>/etc/ttydefs</code> .
	Terminal Type	Field	Shows the terminal type abbreviation, for example, <code>wyse50</code> , <code>ansi</code> , or <code>vt100</code> . Similar abbreviations are found in <code>/etc/termcap</code> . This value is set in the <code>\$TERM</code> variable.
More	Option: Initialize Only	Menu option	Specifies that the port software is initialized but not configured.
	Option: Bidirectional	Menu option	Specifies that the port line is used in both directions.
	Option: Software Carrier	Menu option	Specifies that the software carrier detection feature is used. If the option is <i>not</i> checked, the <i>hardware</i> carrier detection signal is used.
	Login Prompt	Field	Shows the prompt displayed after a connection is made.
	Comment	Field	Shows a text description of the service, if any.
	Service Tag	Current setting	Lists the service tag associated with this port—typically an entry in the <code>/dev/term</code> directory.
	Port Monitor Tag	Menu	Specifies the name of the port monitor to be used for this port. Note: The default monitor is typically correct.
Expert	Create <code>utmp</code> Entry	Check box	Specifies that a <code>utmp</code> entry is created in the accounting files upon login. Note: This item must be checked if a login service is used. See the Service item.
	Connect on Carrier	Check box	Specifies that a port's associated service is invoked immediately when a connect indication is received.
	Service	Field	Shows the program that is run upon connection.
	Streams Modules	Field	Shows the STREAMS modules that are pushed before the service is started.
	Timeout (secs)	Menu	Specifies the number of seconds before a port is closed if the open process on the port succeeds and no input data is received.

Template Menu

The template menu provides a list of templates that help you quickly set up a port service. Table 11-4 describes the template menu.

Table 11-4

Template	Is Used To ...
Terminal — Hardwire	Connect an ASCII terminal
Modem — Dial In Only	Connect a modem with dial-in service, allowing users to dial in to the modem but not dial out
Modem — Dial Out Only	Connect a modem with dial-out service, allowing users to dial out from the modem but not dial in
Modem — Bidirectional	Connect a modem with bidirectional service, providing users with both dial-in and dial-out capabilities
Initialize Only — No Connection	Initialize the port only; does not provide connection service

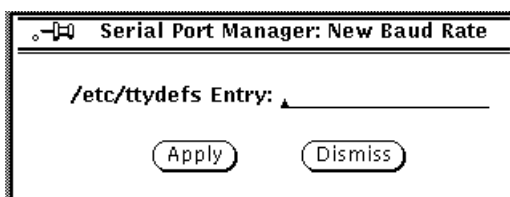
Choose the template that most closely matches the port configuration you want. You can then change values in the Modify window to meet your needs.

Baud Rate Menu

The baud rate menu provides a list of common baud rates. These entries are also listed in the `/etc/ttydefs` file.

38400
19200
9600
2400
1200
300
auto
Other

To specify a baud rate not listed, choose Other. The Baud Rate window is displayed.



To specify a valid baud rate, enter a value from the `/etc/ttydefs` file and click on Apply.

Port Monitor Tag Menu

The port monitor tag menu lists the default tag—`zsm0n`—and Other. To specify a tag other than `zsm0n`, choose Other. The Port Monitor Tag window is displayed.



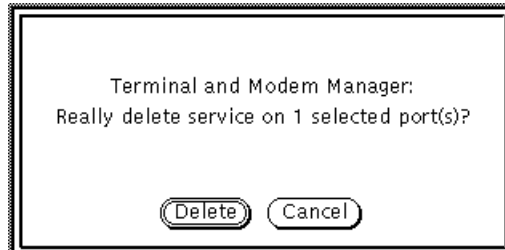
Timeout Menu

The timeout menu provides a list of common timeout parameters. If no input data is received within the timeout parameter, the port will be closed.

Never
30
60
120

Delete Service Window

To delete a service on a configured port, select the port that has a service you want to delete. Choose Delete Service from the Edit menu. The following window is displayed asking you to confirm the deletion:




Files Modified by Serial Port Manager

Table 11-5 describes the files that are modified by Serial Port Manager.

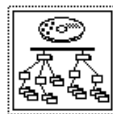
Table 11-5 Files Modified by Serial Port Manager

System File	Description
<code>/etc/saf/_sactab</code>	The Service Access Facility's administrative file that contains configuration data for the port monitors it controls
<code>/etc/saf/pmtag/ _pmtab</code>	The port monitor's administrative file that contains port monitor-specific configuration data for the services it provides
<code>/var/saf/pmtag/ log</code>	The port monitor's log file logging service states: successful initialization, failure, enabled, or disabled

Software Manager Reference

12 

This chapter provides reference information for the Software Manager.



Use this table to find information about specific Software Manager features.

<i>Using Software Manager</i>	<i>page 144</i>
<i>Software Manager Main Menu Window</i>	<i>page 145</i>
<i>File Menu Commands</i>	<i>page 146</i>
<i>View Menu</i>	<i>page 149</i>
<i>Edit Menu</i>	<i>page 151</i>
<i>Props Menu</i>	<i>page 151</i>
<i>Source Media</i>	<i>page 152</i>
<i>Package Administration Window</i>	<i>page 154</i>
<i>Current Product Category Window</i>	<i>page 161</i>
<i>Browser Display Window</i>	<i>page 163</i>
<i>Remote Hosts Window</i>	<i>page 165</i>

Using Software Manager

When to Use Software Manager

Use Software Manager to:

- Save configuration files
- Select software to install or remove from the local machine
- Display a graphical overview of storage space used by a file system

Requirements for Using Software Manager

The requirements for using Software Manager are:

- A bit-mapped display monitor
- Ability to use the OpenWindows environment
- Access privileges as described in Chapter 1, “Administration Tool Overview”

Alternatives to Using Software Manager

Software Manager cannot be used on an ASCII terminal. If needed, all software-related tasks can be performed using the package administration commands. Table 12-1 provides more information about choosing to use package administration commands or Software Manager.

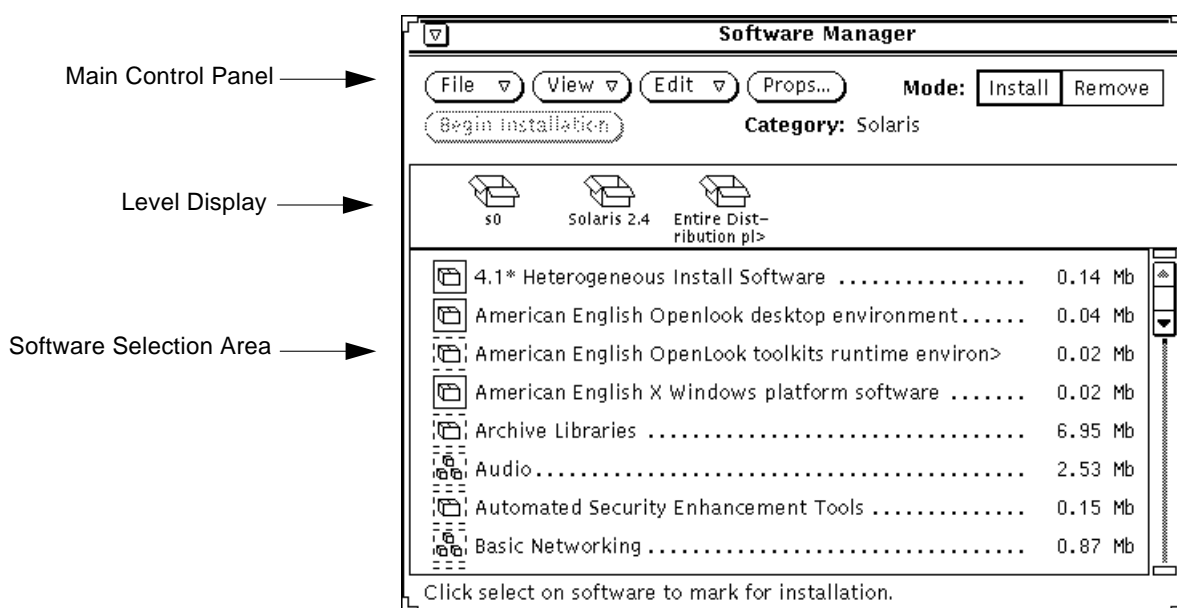
Table 12-1 When to Use Software Manager

Use Software Manager If You:	Use Package Administration Commands If You:
Have a bit-mapped display monitor	Are using an ASCII terminal
Are running OpenWindows	Want output for each command issued

Window, Menu, and Command Descriptions

Software Manager Main Menu Window

The Software Manager main window lists the software applications available for installation or removal. It has three areas: a main control panel, a level display, and a software selection area.



Main Control Panel

The main control panel contains menu items that allow you to take specific actions and bring up other windows and options. In addition, the main control panel contains the Category field which displays the product. (See “Current Product Category” on page 161 for more information about the product category.)

Level Display

The level display uses icons to represent the software available for installation or removal. The level display lists the software in a hierarchic view, allowing easy movement among levels of the hierarchy.

The Software Selection Area

The software selection area displays the software in the current distribution. In this window, you select the software you want to install or remove.

In the bottom area of the window, Software Manager displays the software modules found in the active software distribution. The format of this display is controlled by the Software Manager's display properties. See "Browser Display Window" on page 163 for more information.

You can limit the number of modules displayed by using the Current Product Category window (see page 161).

The border of each module's icon shows whether any version of that module is currently installed on the local system. The three possible border types are listed in Table 12-2.

Table 12-2 Icon Borders in the Software Selection Area

Icon Border	Description
None	No version of the module is installed on the local system.
Solid	The version of the module being examined is already installed on the local system.
Broken or Dashed	The version of the module being examined is different from the version of the module already installed.

To select a module for installation or removal, click on the module icon. Selected items appear in reverse video (white on black).

Pressing MENU (right) mouse button while the pointer is positioned over a module displays the Software menu:

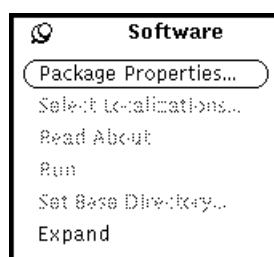
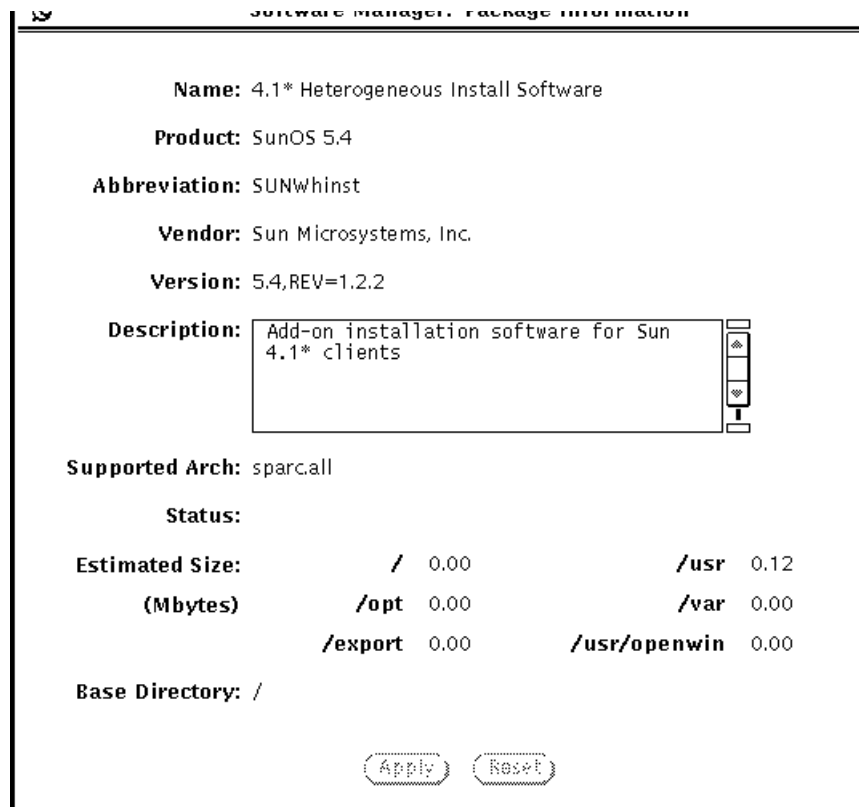


Table 12-3 describes the Software menu commands, some of which may not be active (they will be grayed out), depending on the module's type.

Table 12-3 Software Menu in the Software Selection Area

Command	Use This Command To...
Package Properties	Display a pop-up window containing additional statistics describing the module.
Select Localizations	Choose which localizations to install or remove.
Read About	(If active) See more information about the module. (Drag the mouse to the right of this command to display a menu containing additional textual descriptions of the module.)
Run	(If active) Run a demonstration of the module. (Drag the mouse to the right of this command to display a menu containing the names of executable demonstrations of the module.)
Set Base Directory	Specify the directory in which a software module should reside. If the module is a cluster, all its components will be installed relative to this root directory.
Expand	(If active) View and select a cluster's individual components. Double-clicking on a cluster also expands it.

Double-clicking over a software cluster expands the cluster into a scrolling list of its software packages. Double-clicking while the cursor is positioned over a software package displays the package's property sheet. The following figure shows an example property sheet.



File Menu Commands

The Software Manager's main window File menu commands are summarized in Table 12-4.

Table 12-4 File Menu Commands in Software Manager's Main Window

Command	Use This Command To...
Save	Save the configuration file. The default path is <code>./swmrc</code> . If you used the command line to specify a configuration file, pressing Save in the File menu saves the configuration file you specified on the command line (with the <code>-c</code> option).
Save as	Save the current configuration file as a new file with a new name. Specify the directory path and the name of the configuration file.

View Menu

The View menu commands are summarized in the following table.

Table 12-5 View Menu Commands in Software Manager's Main Window

Command	Use This Command To...
Prev Level	Reverse the Expand command. Use this command after you have expanded a software cluster in either the software selection or level display areas. Returning to the previous level enables you to view and select the modules contained in the cluster you most recently expanded
Command Window	Display the window in which Software Manager executes programs. The most important are <code>pkgadd</code> and <code>pkgrm</code> , the package installation and removal commands.
Space Meter	Display a window that shows a graphical overview of storage space used by file systems. The Space Meter window shows how many megabytes a file system uses, and how many megabytes are free.

Space Meter Window

The Space Meter window indicates how much disk space is required to install the selected software or how much disk space would become available after you remove selected software. The meter automatically displays the first time you select a software module for which there is insufficient disk space.

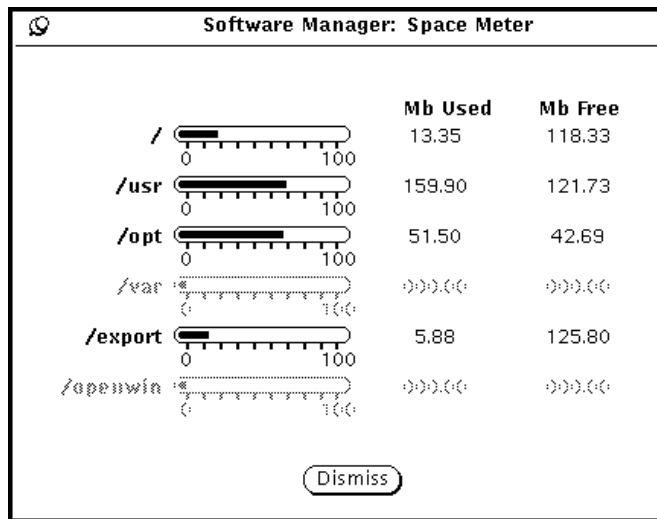


Table 12-6 lists and describes the columns in the meter.

Table 12-6 Window fields in the Space Meter

Field	Description
File System (left column)	Mount point name. Software Manager tracks several possible mount points and calculates space totals for those that correspond to actual mount points on your system. Names that are not mount points are grayed out.
Percentage Used (the meter)	Graphically represents the combined percentage of disk space used and disk space required to install selected software.
Mb Used	Total, in megabytes, of the amount of disk space currently in use plus that required to install selected software.
Mb Free	Amount of free space, in megabytes, that would remain in each file system after installation of any selected software. A negative value indicates the program estimates insufficient space is available for the selected software.

Edit Menu

The Edit menu enables you to add client support software and selecting or deselecting groups of software packages.

Table 12-7 summarizes Edit menu commands.

Table 12-7 Edit Menu Commands

Command	Use This Command To...
Native Environment	Select software to install or remove from the local machine.
Add Client Support	Add support (services) for diskless clients.
Select All	Select all modules matching the current category.
Deselect All	Deselect all modules currently selected.

Note – Deselect All behaves differently than Select All. Deselect All will deselect all modules, visible or not, whereas Select All selects only modules that match the current software category.

Props Menu

The Props menu invokes the Properties window, which you can use to save or edit the configurable properties of Software Manager. The Properties window contains the following categories:

- Source Media
- Package Administration
- Current Product Category
- Browser Display
- Remote Hosts

The following sections describe each of these categories.

Source Media

The Source Media category lets you specify the physical format (type), and name (device name or directory name) of the software distribution you want to examine. Table 12-8 on the following page describes the menu items in the Source Media window.

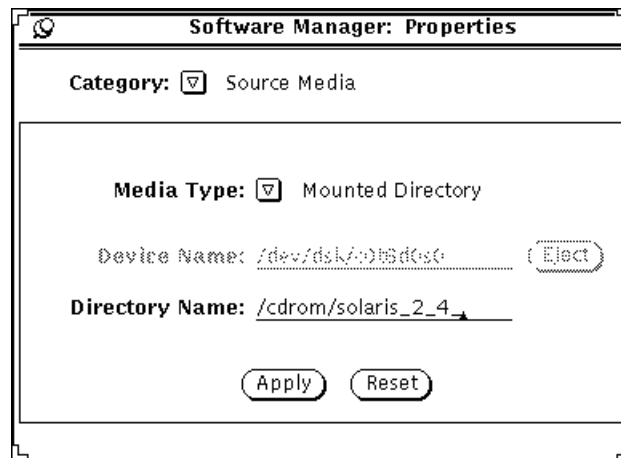
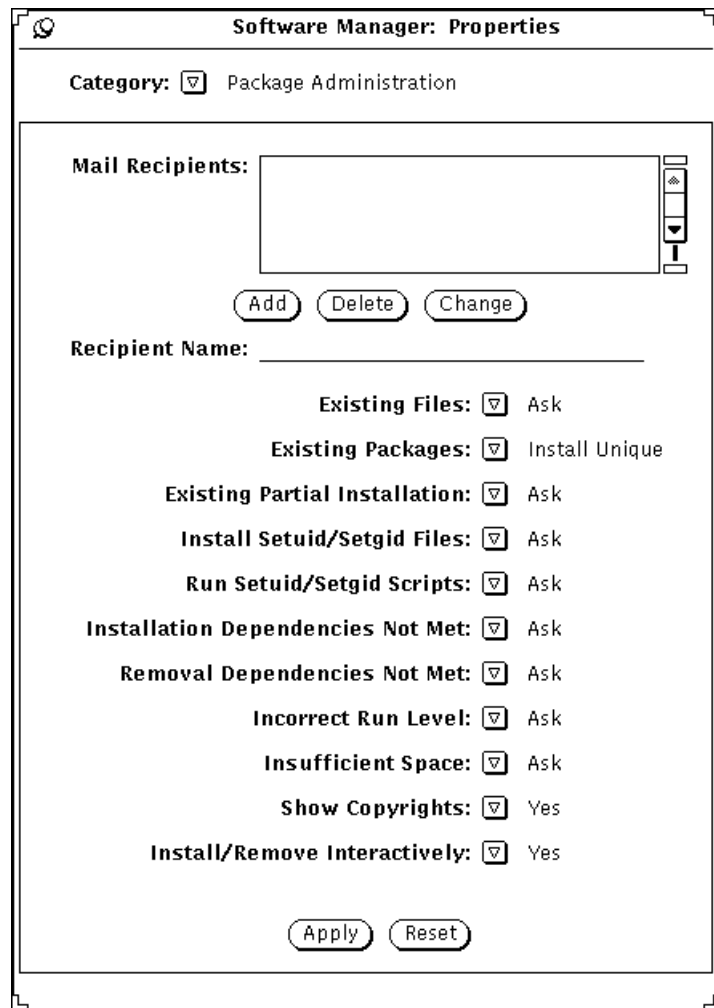


Table 12-8 Menu Items in Source Media

Item	Description
Media Type	<p>Specifies the physical format of the software distribution you intend to examine. The Software Manager supports two types of formats:</p> <p>CD-ROM – Use this setting to examine a software distribution from a locally attached CD-ROM device not yet mounted as a local file system.</p> <p>Directory – Use this setting if your software distribution has already been locally mounted. If your software is CD-based and you do not have a local CD-ROM device, you will need to use this setting and mount the disk manually, using NFS®.</p>
Device Name	<p>Specifies the name of the device containing the software distribution. Use this field if you indicated your software is CD-based. For a standard local CD-ROM device, the default device, <code>/dev/dsk/c0t6d0s0</code>, should suffice. The device name you specify must not be mounted or must have been mounted from within Software Manager. Consult the documentation included with your software product for further information.</p>
Directory Name	<p>Specifies the location of a mounted software distribution. Use this field if you indicated your software is already mounted. Enter the path name of the distribution. Press the Return key after entering your text to begin the load operation.</p> <p>Note: This path can be relative; however, Software Manager does not recognize the home directory expansion character, tilde (~).</p>

Note – You must set Media Type to Directory and use the Directory Name field if Volume Management controls the device you want to use. By default, Volume Management automatically mounts the CD-ROM.

Package Administration Window



The Package Administration window contains menu items that allow you to set Package Administration options. Status messages may be displayed at the bottom of the window. The fields and options are discussed in the following pages.

Mail Recipients Field

The Mail Recipients list contains the mail addresses of people who should be informed about the installation or removal of a package. Enter the name of a recipient in the Recipient Name field and use the buttons listed in Table 12-9 to update the list.

Table 12-9 Mail Recipients Buttons in the Package Administration window

Button	Description
Add	Adds an address to the recipient list.
Delete	Deletes an address from the recipient list. To delete an address from the list, select the address and click on the Delete button.
Change	Modifies an address already in the recipient list. To change an address, select the address and enter the new address in the Recipient Name field. Click on Change.

Recipient Name Field

Use the Recipient Name field to specify the mail address of a recipient.

Existing Files Options

Use the Existing Files options to control attempts to overwrite existing files. The options are described in Table 12-10.

Table 12-10 Existing Files options in the Package Administration window

Option	Use This Option To...
Ask	Receive a confirmation prompt before existing files are overwritten.
Overwrite	Replace existing files with the version contained in the package.
Skip	Install new files but skip installation of files that already exist.
Abort	Abort the operation without making any changes to the system if it detects conflicts with existing files.

Existing Packages Options

Use the Existing Packages options to control attempts to install packages more than once. The options are described in Table 12-11.

Table 12-11 Existing Packages options in the Package Administration window

Option	Use This Option To...
Ask	Receive a confirmation prompt before any attempt to install a package that has already been installed. (This check is based on package name.)
Overwrite	Install packages in place of any previous installations. Note that you are only allowed to reinstall the package “on top” of the old one. You are not allowed to install the package in a different location.
Install Unique	Install packages as uniquely named instances, if they are installed already. Note that this option may overwrite existing files. This option is useful if you are installing packages that are architecture- or locale-specific pieces of a product, or if you want to install a new version of a previously installed package in a different location.
Abort	Abort the operation without making any changes to the system if you attempt to install a package more than once.

Existing Partial Installation Options

Use the Existing Partial Installation options to control attempts to reinstall a partially installed package. The options are described in Table 12-12.

Table 12-12 Existing Partial Installation Options in the Package Administration Window:

Option	Use This Option To...
Ask	Receive a confirmation prompt before any attempt to reinstall a partially installed package.
Ignore	Ignore previous attempts to install the package, overwriting any previous partial installations.
Abort	Abort the operation if Software Manager detects a previous partial installation. In this case, Software Manager will not make any changes to the system.

Install Setuid/Setgid Files Options

Use the Install Setuid/Setgid Files options to control attempts to install files with set-ID bits activated. The options are described in Table 12-13.

Table 12-13 Install Setuid/Setgid Files Options in the Package Administration Window

Option	Use This Option To...
Ask	Receive a confirmation prompt before attempts to install a file with <code>setuid</code> or <code>setgid</code> bits activated.
Yes	Install files regardless of the states of their <code>setuid</code> and <code>setgid</code> bits.
No	Install <code>setuid</code> and <code>setgid</code> files with their <code>setuid</code> and <code>setgid</code> bits turned off.
Abort	Abort the operation without making any changes to the system if Software Manager detects an attempt to install <code>setuid</code> or <code>setgid</code> files.

Run Setuid/Setgid Scripts Options

Some packages contain scripts to be executed after the package is installed or removed. These “action” scripts potentially impact system security if their `setuid` or `setgid` bits are enabled. Use the Run Setuid/Setgid Scripts options to control attempts to run scripts with set-ID bits activated. The options are described in Table 12-14.

Table 12-14 Run Setuid/Setgid Scripts options in the Package Administration window

Option	Use This Option To...
Ask	Receive a confirmation prompt before executing a <code>setuid</code> or <code>setgid</code> action script.
Yes	Install packages regardless of the security impact of their action scripts.
Abort	Halt the operation without making any changes to the system if the installation program encounters a package containing <code>setuid</code> or <code>setgid</code> action scripts.

Installation Dependencies Not Met Options

Use the Installation Dependencies Not Met options to control attempts to install packages without satisfying all prerequisites. The options are described in Table 12-15.

Table 12-15 Installation Dependencies Not Met Options Package Administration window

Option	Use This Option To...
Ask	Receive a confirmation prompt before attempts to install a package without all prerequisite packages installed.
Ignore	Install a package even if all packages on which it depends have not been installed.
Abort	Abort the operation without making any changes to the system if prerequisite packages are not completely installed.

Removal Dependencies Not Met Options

Use Removal Dependencies Not Met options to control attempts to remove packages required by other packages. The options are described in Table 12-16.

Table 12-16 Removal Dependencies Not Met Options in Package Administration Window

Option	Use This Option To...
Ask	Receive a confirmation prompt before removing a package required by other packages.
Ignore	Remove a package even if it is required by other packages.
Abort	Abort the operation without making any changes to the system if you attempt to remove a package required by other packages.

Incorrect Run Level Options

Use Incorrect Run Level options to control attempts to install packages when the system run level does not match the run level specified by the package. The options are described in Table 12-17.

Table 12-17 Incorrect Run Level Options in the Package Administration Window

Option	Use This Option To...
Ask	Receive a confirmation prompt before installing a package with the system at a run level not specified in the package.
Ignore	Install packages regardless of the current or specified run levels (installation of the package is still subject to other consistency checks).
Abort	Abort without making any changes to the system if you attempt to install a package when the system's run level does not match one of those specified by the package.

Insufficient Space Options

Use the Insufficient Space options to control attempts to install packages for which there is insufficient space. The options are described in Table 12-18.

Table 12-18 Insufficient Space Options in the Package Administration window

Option	Use This Option To...
Ask	Receive a prompt before installing a package for which there is not enough disk space.
Ignore	Install packages regardless of the amount of disk space available.
Abort	Abort without making any changes to the system if you attempt to install a package for which there is not enough disk space.

Show Copyrights Field

Usually each software package comes with a long copyright notice that is displayed when the package is installed. This message can take a significant amount of time and resources to display. The Show Copyrights field controls the display of verbose messages like copyrights during package installation.

To see these copyright notices, select Yes, otherwise select No.

Install/Remove Interactively Field

Package installation and removal can either be interactive or noninteractive. If run interactively, the Software Manager will prompt you for appropriate action if any of several error or abnormal conditions arise. If you disable interactivity, these conditions result in the failure of the package operation in progress (other operations may proceed).

The Install/Remove Interactively field controls the ability to interact with package installation and removal commands.

If you would like to execute package installation and removal commands interactively, select Yes, otherwise select No.

Action Buttons

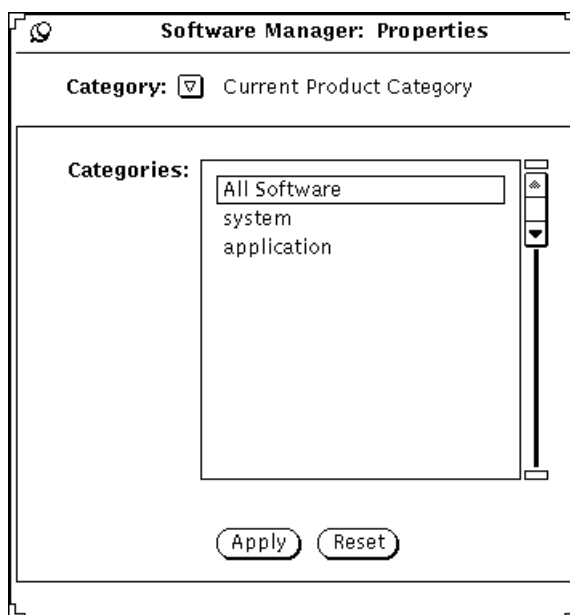
The buttons described in Table 12-19 inform the Software Manager of changes made in the Package Administration Properties window.

Table 12-19 Action Buttons in the Package Administration Window

Button	Description
Apply	Save current Package Administration settings for use during the current session of software installation and removal. Saving current settings does not save the settings to a file; you must use the File menu items Save or Save As.
Reset	Reset Package Administration settings to match current program values. These values are those in force when you last pressed Apply or those taken from the program's configuration file (if you have not yet applied any changes).

Current Product Category Window

The Current Product Category window enables you to restrict to specific categories the software displayed in the Software Display area.



Categories List

This list contains the software categories to which the modules in the currently active software distribution belong.

Software vendors can attach category names to the modules in their distributions. You may limit the number of modules displayed in the Software Selection area by selecting a category (the selected category will appear highlighted), then clicking on Apply. Only modules in the current category will be displayed. To display all modules, select All Software from the list, then click on Apply.

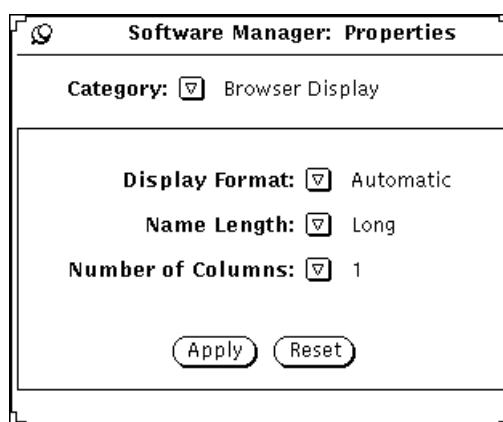
Action Buttons

Table 12-20 describes the Current Product Category Action buttons.

Table 12-20 Action Buttons in the Current Product Category Window

Button	Description
Apply	Saves the selected (highlighted) name as the currently active category.
Reset	Resets the Categories list to match the current category. This operation does not change the current category.

Browser Display Window



Display Format

The Display Format option field is used to specify software modules are represented in the Software Selection area. The available formats are listed in Table 12-21.

Table 12-21 Display Format Options in the Browser Display Window

Format	Use This Mode To...
Automatic	Invoke the default display mode of the software module. If any module in the current display has an icon, all modules primarily display as icons. If a particular module does not have an icon, a generic icon is used. If no modules have icons, all modules are primarily displayed as text, with a small generic icon representing each module's type.
Iconic	Force all modules to be displayed as icons. If no icon is explicitly associated with a module, a generic icon is used.
Textual	Force representation of modules as names. Each name is accompanied by a small generic icon that denotes the module's type (individual package or cluster) and an indication of the total amount of disk space required to install the module.

Name Length Options

This field specifies the format of module names in the Software Selection area. The formats are described in Table 12-22.

Table 12-22 Name Length Options in the Browser Display Window

Format	Use This Format To...
Long	Display the full name of each module.
Short	Display the abbreviated name of each module. This format is useful if you are using multiple columns.

Number of Columns Field

This field specifies the number of columns used in text mode (1, 2, or 3).

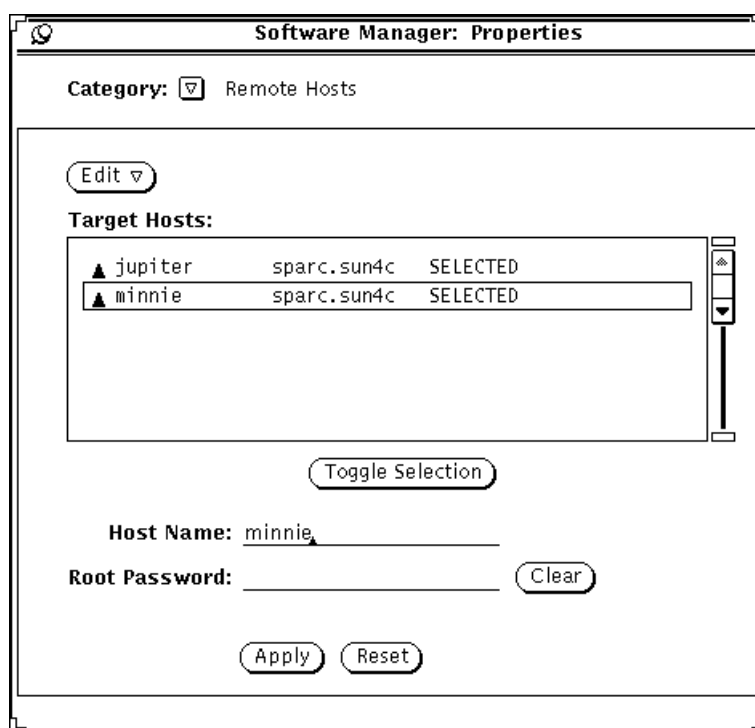
Action Buttons

Table 12-23 describes the Browser Display window Action buttons.

Table 12-23 Action Buttons in the Browser Display Window

Button	Description
Apply	Temporarily saves the current display settings and updates the display. Note that this does not save the settings to a file; this must be done using the Props menu items Save or Save As.
Reset	Resets settings to match the display. These values are those in force when you last pressed Apply, or those taken from the Software Manager's configuration file (if you have not yet applied any changes).

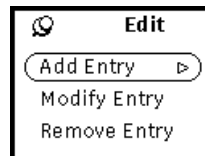
Remote Hosts Window



The descriptions on the following pages explain the use of the fields and buttons shown in the Remote Hosts window.

Edit Menu

The Edit Menu, shown below, enables you to add, modify, or remove entries in the Target Hosts list.



Toggle Selection

Pressing this button toggles between SELECTED and UNSELECTED in the Target Hosts list.

Clear

Pressing this button clears any entry in the Root Password field.

Note – For security reasons, clearing this field will not display the password.

Target Hosts List

The Target Hosts list contains the names of hosts on which software can be installed or removed. The Target Hosts list has three fields:

- Machine Name
- Machine Architecture
- SELECTED/UNSELECTED

Use this list to specify hosts on which software is to be installed or removed. This is a three-step process that entails:

1. Editing the list and add any desired hosts.
2. Selecting hosts from the list.
3. Pressing the Apply button.

Use the Mode setting to switch between host list editing and host selection. Each host name is accompanied by a small symbol indicating the host's status. See Table 12-24 for a description of the Target Hosts symbols and their meaning.

Table 12-24 Target Hosts Symbols and Their Meaning

Target Hosts glyph	Meaning
▲	The host is up. Software Manager has the necessary permissions to install or remove software on this host.
▼	The host is down.
⊗	The host is a known host on the network. Software Manager does not have the necessary permissions to install or remove software on this host.
?	The host is not known to the network or the host is not a Solaris 2.x system.

Host Name Field

Use the Host Name field to specify the name of a new host. This field is used when you add and modify host entries.

Root Password Field

Use the Root Password field to specify the root password for the host identified in the Host Name field.

To execute programs on remote systems, Software Manager requires either a `.rhosts` entry on the remote system, or that you know the remote system's root password. If a root password is required, you will be notified by pop-up notices and the password-required symbol (a circle with a diagonal line) in the host list. In either case, the `CONSOLE` entry in `/etc/default/login` must be commented out.

Root passwords are not stored in the Software Manager configuration file. They are flushed each time you quit the Software Manager, to protect the security of the remote systems.

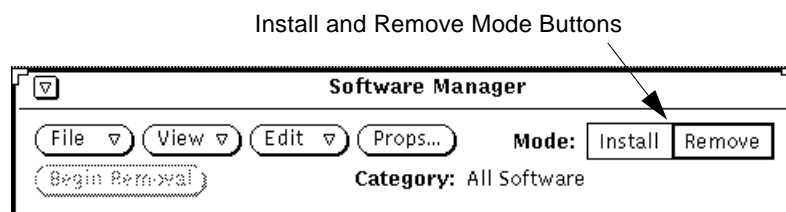
Action Buttons

After entering information on the remote hosts or selecting remote hosts, use the Action buttons at the bottom of the Remote Hosts window to update the Software Manager. These buttons are described in Table 12-25.

Table 12-25 Action Buttons in the Remote Hosts Window

Button	Description
Apply	Commit the host list and host selections to Software Manager. Subsequent installations and removals during this session will operate on the hosts selected in the order they appear in the list. Note that this does not save the list to a file; this must be done using the File menu items Save or Save As.
Reset	Resets the host list and host selection values to the values in force when you last clicked on Apply or the values from Software Manager's configuration file (if you have not yet applied any changes). Note that the file-based configuration does not save selection status or root passwords.

Install/Remove



The Install and Remove buttons on the Main Menu represent two modes of behavior for the Software Manager—installing or removing software. Table 12-26 describes the two modes.

Table 12-26 Mode field

Mode	Select This Mode To...
Install	Install software. Use the Software Selection area at the bottom of the window to select modules to be installed.
Remove	Remove software. After you press this button, the Software Selection area at the bottom of the window shows the software packages installed on the selected host. Use this area to select the packages you want to remove.

Glossary

admind

A distributed system administration daemon that carries out security tasks when administrative tasks are performed across the network.

Administration Tool

A graphical user interface used to perform administrative tasks such as managing users, groups, hosts, printers, and serial devices.

Administration Tool launcher

The main window of the interface used to start the other application tools.

aliases file

A file containing mail aliases, which are names that represent distribution lists of users.

auto_home (or auto.home) file

An indirect automounter map containing entries that enable client systems to mount their home directories automatically. It is primarily accessed using User Account Manager.

bootparams file

A file containing entries used to enable client systems to boot from the network.

baud rate

The switching speed of a line, which is the number of changes in the electrical state of the line per second. At low speeds, baud rate is equivalent to bits transmitted per second. At higher speeds, the bits transmitted per second is greater than the baud rate because one baud can be made to represent more than one bit.

Berkeley Software Distribution (BSD)

One of two major “flavors” of the UNIX operating system, the other being *System V*. SunOS operating system releases before SunOS 5.0 are the BSD flavor.

content type

Specified when adding support for a local printer to identify the particular formats of files that can be printed. Supported content types are: PS (PostScript), ASCII, simple, or any.

default

An assumed value, or an action taken automatically unless you specify otherwise.

device

A hardware component, such as a printer or disk drive, acting as a unit to perform a specific function.

diskless client

A system with a monitor and keyboard, CPU and memory, and Ethernet hardware. A diskless client gets its file resources and swap space from a server on a network.

Database Manager

One of Administration Tool's suite of applications used to manage network-related system files such as `aliases` and `netmasks`.

dataless client

A system with a monitor and keyboard, CPU and memory, Ethernet hardware, and small local disk for the swap area and the root (`/`) file system. A dataless client gets its other file resources from a server on the network.

Ethernet address

A system's hardware address. You can display the Ethernet address by using the `banner` command from the PROM level.

ethers file	A file containing Ethernet addresses of network client systems.
file server	A reachable system that shares file resources and disk storage space for network clients.
file system	A hierarchy of files and directories in the SunOS operating system.
group	A collection of users who share files and other system resources. Each user belongs to a primary group (listed in the user's <code>passwd</code> entry), and optionally, one or more secondary groups.
group ID (GID)	A group identification number used by the system to identify a user's primary group. GID numbers for users usually range from 100 to 60000.
group file	A file containing entries for UNIX groups. The <code>group</code> file is accessed from Database Manager.
hardwired	Refers to a device such as a terminal that is physically connected to the local system.
hosts file	A file containing host names and their associated IP addresses.
host name	A unique name that identifies a system.
Host Manager	One of Administration Tool's suite of applications used to manage network client services.
initialization files	Special files run automatically when you log in. When an account is created and you specified a skeleton path, User Account Manager copies generic versions of the initialization files into the user's home directory. You can then edit the copies as needed to customize each user's environment.
IP address	A system's unique network address.

launcher

See Administration Tool launcher.

local printer

A printer physically connected to the local system.

locale file

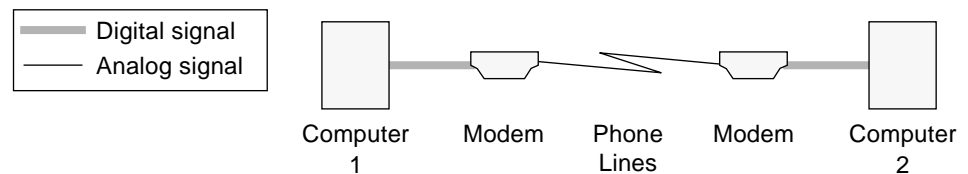
A file containing the default locales used by network clients.

media server

A reachable system that shares a CD-ROM device for remote installation of software.

modem

A data communication device that translates, or *modulates*, digital information into an analog signal that can be transmitted via phone lines.

**name service**

Method by which system information is maintained in the network. There are three types: NIS, NIS+, and None.

- **NIS** – Name service shipped with the SunOS 4.1.x operating system. Designated machines, called NIS servers, contain maps that store information about the network, its workstations, and its users.
- **NIS+** – Name service shipped with the Solaris 2.x product. Making use of true databases (instead of two-column maps that simply associate one variable with another), NIS+ stores even more information than does NIS.
- **None** – Method for administrators of networks that do not use a network name service; administrators usually select one machine on the network on which to maintain a master copy of the `/etc` configuration files.

name service domain

A group of systems and the information served to those systems.

netgroup file	A file containing entries for <i>netgroups</i> , a group of systems granted identical access to network resources for security and organizational reasons.
netmasks file	A file containing network mask values used to implement IP subnetting.
network client	A system that uses remote resources from a server.
networks file	A file containing information about available networks.
nsswitch.conf	A file that contains an entry for each system file and a corresponding name service source to search for the system file information. The name service sources are designated as keywords— <i>nis</i> , <i>nisplus</i> , or <i>files</i> . If more than one name service source is listed, they are searched in the order given.
OpenWindows	A windowing system based on the OPEN LOOK graphical user interface.
parallel port	A port that transfers one or more bytes simultaneously over multiple lines. See also serial port .
passwd file	A file that contains user account information such as user name, user ID, group ID, and home directory. It accessed using User Account Manager.
password status	A menu on the User Account Manager's Add User window that enables you to control user password characteristics. The choices are: <ul style="list-style-type: none"> • Normal password – Sets a password for the user. • Cleared until first login – Prompts user for a password on first login. • Account is locked – Disables account with an invalid password, Account can be unlocked by assigning a new password. This type of account allows a user to own files but not log in. • No password—setuid only – Disables the ability to directly log in to the account. This allows programs such as <i>lp</i> or <i>uucp</i> to run under an account, without allowing a user to login.

permissions

A set of attributes assigned to each file and directory that determines which users have access to read, write, and execute its contents.

port

A channel through which a device communicates with the operating system.

port monitor

A program that continuously “watches out” for requests to log in, or requests to access printers or files.

When a port monitor detects a request, it sets whatever parameters are required to establish communication between the operating system and the device requesting service. Then the port monitor transfers control to other processes that provide the services needed.

primary group

A user belongs to at least one *primary* (or default) group, which determines the group ownership on a file the user creates, or is allowed to access, if already created. Membership in this group is defined by the group identifier listed in the user’s entry in the `passwd` file.

print client

A system that uses a print server for printing files.

print server

A system with a printer physically connected to it and the appropriate software configured to print both local and remote print requests.

Printer Manager

One of Administration Tool’s suite of applications used to manage local and remote printer setup.

printer name

A unique name, with a maximum of 14 characters, for a printer.

printer type

The `terminfo` database entry that contains the control sequences that initialize the printer.

PROM

A programmable read-only memory chip with a program called the monitor that runs a quick self-test procedure and checks such things as the hardware and memory on the system. If no errors are found, the system begins the automatic boot process.

PROM prompt

The prompt displayed when the system is halted; either `>` or `ok`.

protocols file

A file containing information about Internet protocols used in your network.

remote printer

A printer connected to a remote system such as a print server.

rpc file

A file containing entries for available Remote Procedure Call (RPC) services (by name) and their associated program numbers and aliases.

secondary group

Membership in this group is defined by the group identifier listed in the `group` file with a list of users as members.

services file

A file containing information about network services and their “well-known” port numbers.

serial port

A port which transmits a byte of information bit-by-bit over a single line using a standard communications protocol such as RS-423. See also **parallel port**.

Serial Port Manager

One of Administration Tool’s suite of applications used to manage serial devices.

shadow file

A file containing encrypted user passwords and password aging information. It is accessed using User Account Manager.

shell

A command-line interpreter program that accepts and executes commands that you type. There are several varieties of shell programs, and three are included in the Solaris 2.x product: Bourne, Korn, and C.

skeleton path	A prototype directory containing start-up files. See also initialization files .
standalone system	A system with a monitor and keyboard, CPU and memory, approximately 200 megabytes of disk space, and usually a backup device. It may or may not be connected to a network.
superuser	A user who has access to all parts of the system. This is usually the system administrator. Also known as <i>root</i> .
sysadmin group	The UNIX group whose members, along with a group ID of 14, can use Administration Tool's applications locally or remotely.
system default (printer)	The printer your print requests will be sent to if you do not specify a printer.
system files	Files that contain important system administration information such as user accounts, passwords, and groups. These files are contained on the local system in the <i>/etc</i> directory, or in the NIS or NIS+ database on a name server.
System V	One of two major "flavors" of the UNIX operating system, the other being BSD. The SunOS 5.0 operating system and subsequent releases are of the System V flavor.
terminal	An input/output device that usually has a keyboard for input and a video screen or printer for output. Terminal, however, is often used as a shorthand for <i>alphanumeric terminal</i> , which is a serial port device capable of displaying only letters, numbers, and other characters such as those produced by a typewriter.
timezone file	A file containing entries for systems and their geographic region and time zone.
user account	A record of essential user information stored on the system. You must have a user account to access a system.

user ID (UID)	A number used by the operating system to identify a user. UID numbers for users usually range from 100 to 60000.
user name	The name a user uses to log in to a system.
workspace	The background screen area on which windows and icons are displayed.
User Account Manager	One of Administration Tool's suite of applications used to manage user account information.
utmp entry	A entry made in the <code>/var/adm/utmp</code> file when a user logs in and out of the system.
ypbind	A NIS daemon process that runs on all client systems and allows the client to communicate with an NIS server.
zsmon	Sun's naming convention for the port monitor that monitors a system's two serial ports. It is derived from the Zilog serial communications driver.

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