Using the AOM
Menu System

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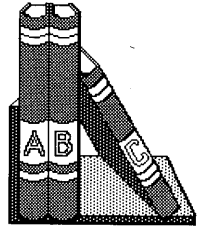XENIX is a registered trademark of Microsoft Corporation.
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About This Guide

USING THIS GUIDE

This manual explains how to use the Altos Office Manager
(AOM) Menu System, an easy-to-use solution for your office
needs. AOM provides simple commands for accessing system
and application functions. This manual explains how to
use AOM for your operating system.

NOTE

The last section of the manual, "Change
Information," summarizes the changes that have
been made to the manual since the previous
version.

ORGANIZATION

The manual is divided into two parts. Part I is for
everyone; Part II is for the system administrator.

Everyone should read the following chapters:

- Chapter 1, "Using the AOM Menu System," explains how
  to log in and out and how to use the menus.

- Chapter 2, "Using Your Files and Directories," ex-
  plains how to back up and restore files and how to
  manage your directories.
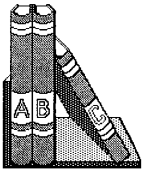
- Chapter 3, "Using the System," explains the AOM commands for maintaining backup copies of data files, sending messages, changing passwords, and using other system utilities.

If you are the system administrator, read the following chapters, which are in Part II of this manual:

- Chapter 4, "The System Administrator," explains system administrator responsibilities, how to become a system administrator, and how to set up a password.

- Chapter 5, "Managing the System," explains management procedures, such as displaying processes and changing file permissions.

- Chapter 6, "Using the Menu Manager," explains how to locate the AOM menus, install a new application, and change a menu.

Read the appendices for information about error messages, setting up multiple AOM Menu Systems, and troubleshooting.

For information about applications installed with AOM, refer to the appropriate application manual.

For information about AOM Windows (if installed, on your system) see the *AOM Windows User's Guide.*
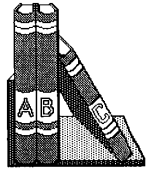
MANUAL CONVENTIONS

This section describes the keys, symbols, and control characters used in this manual.

Symbols	Description
boldface type	What you type or select.
boldface type	Used for commands.
UPPERCASE	Used for menu names.
nn	Number.
[ ]	Used to indicate a specific operating system.
Italics type	Used to indicate a variable (e.g., *username*).

When information describes any Altos operating system, the term operating system (or system for short) is used. If the description applies to a specific Altos operating system, that system is stated (for example, the process status screen for XENIX).
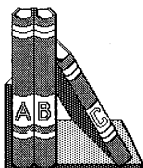
You can use the AOM Menu System with a variety of termi-
nals, each of which has a different keyboard. This manual
uses notation to represent the keys you press when you use
the Altos III; if your terminal does not have one of these
keys, the table below lists alternate keys.

Notation	Definition	Equivalent
Retn or <Retn>	Carriage return	RETURN
Help	Display help text	?
Home	Move to upper-left	Ctrl-t
Break/Del	Stop executing program	Break/Del Rubout
Esc	Cancel a command; select a file; change to a new directory	Escape
Down Arrow	Cursor Key	
Up Arrow	Cursor Key	
Right Arrow	Cursor Key	
Left Arrow	Cursor Key	
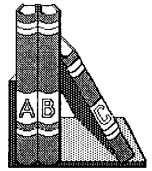
In the AOM Menu System, pressing the ▮Esc▮ key returns you to the menus without making any changes. Typing a **q** returns you to the menus after your changes have been made (executed). Typing any key or pressing ▮Retn▮ takes you to the menus after your changes have been executed and any system messages have been displayed.

Control character sequences provide the terminal functions described in the chart below. To form a control sequence, press and hold down the Control key (represented in this manual as ▮Ctrl▮) while pressing the designated alpha key (lower-case letter).

Control Character	Function	Equivalent
▮Ctrl-h▮	Backspaces and erases	▮Backspace▮
▮Ctrl-s▮	Stops scrolling	
▮Ctrl-q▮	Resumes scrolling	
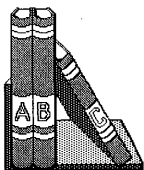
ADDITIONAL REFERENCE MATERIALS

If you have questions not covered by this manual, refer to one of the following Altos documents:

- The owner's, installation, or operator's guide for your computer, which shows how to connect your hardware and run preliminary tests

- The installation manual for your operating system, which describes how to install your operating system software

- The *Altos System V Series 386 Reference (C)* and the *Altos System V Series 386 Reference (M)* manuals, which describe the commands and miscellaneous files available on your operating system

- The *AOM Windows User's Guide*

- The individual application manuals for the software you have installed in AOM

Contents

Part 1: Information For Everyone

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Part 2: Information For The System Administrator

4   THE SYSTEM ADMINISTRATOR

5   MANAGING THE SYSTEM

Contents

FIGURES

FIGURES (Cont.)

TABLES

Part I: Information For Everyone

Part I includes the following:

- Definition of the AOM Menu System

- Explanation of how to log in and out of AOM

- Description of how to use the AOM

- Description of the AOM commands that manage files and directories

- Description of commands that use certain system utilities

- Explanation of how to move between AOM and your operating system

NOTE

If you are a system administrator and need to set up user accounts, configure ports, install an application program, or reorganize the AOM menus, turn to Part II first.

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Chapter 1
Using the AOM
Menu System

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WHAT IS THE AOM MENU SYSTEM?

The Altos Office Manager Menu System (AOM) provides a user-friendly interface to applications (such as Uniplex and File-it!) and specific system utilities (such as creating directories, backing up files, and listing files). AOM also provides simple procedures for installing application software and managing the system. This chapter explains how to log in to AOM and how to use it.

If you want to know which applications are installed on your system, look at the Menu Manager page (see "Viewing the Menu Manager Page" in Chapter 6) or ask your system administrator.

HOW TO START AOM

Accessing AOM depends on how your system is set up. After you log in, AOM may start automatically, or you may need to type the command **aom** at the system prompt.

This section explains how to log in to your system. The following sections explain what occurs after you log in.

Because many people can use your operating system at the same time, your system must be able to differentiate between you and other users. Before the system will process your requests, you must identify yourself by logging in.

A typical log-in sequence for XENIX might look like Figure 1-1.

```
Altosnnn login: marlene <Retn>
Password:


Welcome to XENIX
$
```

Figure 1-1.   Typical Log-in for XENIX Operating System

You may log in to the system by typing a user name (a unique name that has been assigned only to you).

Usually, your system administrator assigns a user name and sets up a user account for you.   Ask the system adminis-trator for your user name; often it's your first name. The user name in Figure 1-1 is marlene.

The *nnn* after the word Altos represents the system number.

<div align="center">

NOTE

</div>

You might already have a system prompt ($), if so, just type:

$ login marlene `Retn`

Be sure to type your user name exactly as it has been assigned to you because your system differentiates between upper-case and lower-case letters.

Logging into AOM Directly

If your system is set up to enter AOM automatically after you have logged in, you will see a screen similar to the one shown in Figure 1-2. You can now use AOM.

```
┌─────────────────────────────┬─────────────────────────────┐
│       Altos Office Manager   │              B_Page         │
├─────────────────────────────┼─────────────────────────────┤
│ W O R D  P R O C E S S I N G │ S P R E A D S H E E T       │
│                              │                             │
│ Uniplex Main Menu            │ Multiplan                   │
│ Edit Document                │ Print Spreadsheet           │
│ Print Document               │ Merge with Transfer File    │
│ Mail Merge                   │ Delete Spreadsheet          │
│ Delete Document              │                             │
│ Update Dictionary            │                             │
├─────────────────────────────┼─────────────────────────────┤
│ P O P U P                    │                             │
│                              │                             │
│ Phone Book                   │                             │
│ Address Book                 │                             │
│ Filing System                │                             │
│                              │                             │
└─────────────────────────────┴─────────────────────────────┘
      Quit: Q  Help: HELP  Page: First Letter of Name
 Available Pages:  B_Page AOM_Utilities Sys_Utilities Menu_Manager
```

Figure 1-2. Example AOM Menu System

Entering AOM from the Operating System

If your system prompt is displayed after you log in, then at the system prompt type the command **aom** and press Retn . You will see a screen similar to the one shown in Figure 1-2.

NOTE

You may have the Pop-Up or AOM Windows appli-
cations on your system. If you do, the manual
AOM Windows User's Guide explains how to use
AOM Windows commands and the Pop-Up appli-
cations.

HOW TO USE AOM

This section explains how to use the AOM menu screens.
It defines the parts of the screen, how to select and
cancel a command, how to choose another menu or page,
and how to move the cursor around the page.

When you enter AOM, you see four squares containing menus
for the applications and utilities that are installed on
your system. You also see three lines of information
about the menus.

The screen shown in Figure 1-3, contains the following
parts:

• Menus

• Page Name

• Key Line

• Available Pages Line

The sections on the next pages explain these parts.

```
┌─────────────────────────────────────────────────────────────┐
│         Altos Office Manager          │           B_Page      ──── Page Name
│───────────────────────────────────────┼───────────────────── │
│ W O R D   P R O C E S S I N G         │ S P R E A D S H E E T │
│                                        │                       │
│ Uniplex Main Menu                      │ Multiplan          ──── Menu
│ Edit Document                          │ Print Spreadsheet     │
│ Print Document                         │ Merge with Transfer File │
│ Mail Merge                             │ Delete Spreadsheet    │
│ Delete Document                        │                    ─── Page
│ Update Dictionary                      │                       │
│───────────────────────────────────────┼────────────────────── │
│ P O P   U P                            │                       │
│                                        │                       │
│ Phone Book                             │                       │
│ Address Book                           │                       │
│ Filing System                          │                       │
│                                        │                       │
└─────────────────────────────────────────────────────────────┘

         Quit: Q  Help: HELP  Page: First Letter of Name  ──── Key Line
 Available Pages:  B_Page AOM_Utilities Sys_Utilities Menu_Manager
                                                       ──── Available
                                                            Pages Line
```

Figure 1-3. Four Parts of the AOM Screen

Menus

Each menu is a list of commands for performing utility and
application functions. For example, one of the menus in
Figure 1-3 is called WORD PROCESSING. This name enables
you to access commands for using the AOM word processing
application.

Page Name

The menus are organized on pages; each page has a name. For example, the page that contains the three menus WORD PROCESSING, SPREADSHEET, and POPUP is called the B_Page. The name of the page is in the upper-right corner of the screen. Figure 1-4 shows the B_Page. Page names can be changed by the system administrator using the Menu Manager (see Chapter 6, "Using the Menu Manager").

```
┌──────────────────────────┬──────────────────────────────┐
│      Altos Office Manager │              B_Page ◄────────── Page N
├──────────────────────────┼──────────────────────────────┤
│  W O R D  P R O C E S S I N G │  S P R E A D S H E E T     │
│                          │                              │
│  Uniplex Main Menu       │  Multiplan                   │
│  Edit Document           │  Print Spreadsheet           │
│  Print Document          │  Merge with Transfer File    │
│  Mail Merge              │  Delete Spreadsheet          │
│  Delete Document         │                              │
│  Update Dictionary       │                              │
├──────────────────────────┤                              │
│  P O P  U P              │                              │
│                          │                              │
│  Phone Book              │                              │
│  Address Book            │                              │
│  Filing System           │                              │
│                          │                              │
└──────────────────────────┴──────────────────────────────┘
       Quit: Q  Help: HELP  Page: First Letter of Name
 Available Pages:  B_Page AOM_Utilities Sys_Utilities Menu_Manager
```

Figure 1-4. B_Page

AOM has three default pages:

- AOM_Utilities page

- Sys_Utilities page

- Menu Manager page

There can be one to eight pages, depending on what the system administrator has set up. You will see these names at the bottom of your screen on the Available Pages Line (see explanation below). The names may be different from those listed above, and there may be more pages, depending on what your system administrator has set up for you.

To learn how to access a page and the commands on these pages, see "Introducing Menus and Pages" later in this chapter.

Key Line

The first line of words at the bottom of the screen is called the Key Line. These words tell you which keys to press in order to use AOM. Figure 1-5 shows the Key Line. This line changes to correspond to your terminal, so don't worry if your Key Line looks different from the one shown below.

Key Line   Available Pages Line

Quit: Q Help: HELP Page: First Letter of Name
Available Pages: B_Page AOM_Utilities Sys_Utilities Menu_Manager
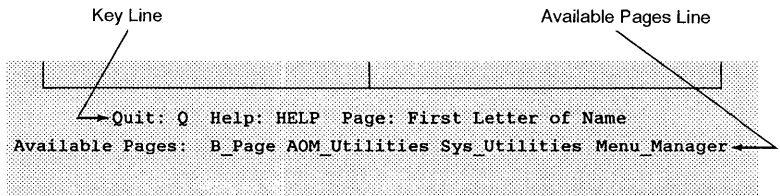
Figure 1-5. Key Line and Available Pages Line

Available Pages Line

The Available Pages Line is directly beneath the Key Line. It contains the names of the available pages and looks similar to the one shown previously in Figure 1-5.

Introducing Pages and Menus

The following sections explain how to select pages, menus, and commands in menus. They also explain what is on the three default AOM pages, how to move around a page, and how to cancel a command.

Selecting a Page

To select a page that contains a command, type the first letter of the page name. The page you select is displayed on your screen.

For example, type **s**. The Sys_Utilities page is displayed. Sys_Utilities is the name of this page when it was first installed. Your system administrator may have changed the name.

NOTE

If you do not know what menus are on a page, you can look at the Menu Manager. For a description of the Menu Manager, refer to Chapter 6, "Using the Menu Manager."

Selecting a Menu

To select a menu on a page, type the number of the menu. The menus are numbered from 1 to 4 as shown in Figure 1-6.
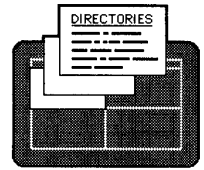
Figure 1-6. Numbering of Menus

For example, to move the cursor from the DIRECTORIES menu to the MESSAGES menu as shown in Figure 1-7, type **2** (the number key at the top of the keyboard and on the numeric keypad for the Altos III).

```
┌─────────────────────────────────┬──────────────────────────────────┐
│        Altos Office Manager      │           AOM_Utilities           │
├─────────────────────────────────┼──────────────────────────────────┤
│  D I R E C T O R I E S          │  M E S S A G E S                  │
│                                  │                                   │
│  Create Directory                │  Who is on the System?            │
│  Move to New Directory           │  Send a Message                   │
│  List Directory Contents         │  Send to All Users                │
│  Details of Directory Contents   │  Allow/Disallow Messages          │
│  Display Current Directory Name  │                                   │
│  Delete Directory                │                                   │
├─────────────────────────────────┼──────────────────────────────────┤
│  F I L E S                       │  B A C K U P / R E S T O R E      │
│                                  │                                   │
│  Display Contents of File        │  Format Floppy Disk               │
│  Print a File                    │  Backup Files to Floppy Disk      │
│  Copy a File                     │  Restore Files from Floppy Disk   │
│  Move a File                     │  List Tape/Floppy Disk Files      │
│  Delete a File                   │  Backup Files to Tape             │
│  Change File Permissions         │  Restore Files from Tape          │
└─────────────────────────────────┴──────────────────────────────────┘
         Quit: Q   Help: HELP   Page: First Letter of Name
  Available Pages:  B_Page AOM_Utilities Sys_Utilities Menu_Manager
```

Figure 1-7. Selecting the MESSAGES Menu

Selecting a Command in a Menu

Each one-line phrase in a menu is called a command. You use a command to tell AOM to do something. When you select a command, you are actually selecting a utility or application function.

To select a command, move the cursor to it and press ▮Retn▮. For example, move the cursor to the **Create Directory** command on the AOM_Utilities page. Move the cursor to a command by pressing the Arrow keys (see the section "Moving the Cursor" later in this chapter).

A quicker way to select a command is to type the number of the menu, a \ (back slash), the number of the command, and then press ▊Retn▊.   The menus and commands are numbered invisibly.   The menus are one to four (left to right) and the commands are one to six (top to bottom). For example, if you are in the AOM_Utilities page, you would type **3\2** and press ▊Retn▊ to select the **Print a File** command in the FILES menu.

If there are only three commands in a menu and you type **\5** for a command, the cursor moves to the third command (the last one in the menu).

Canceling a Command

If you change your mind about using a command, press ▊Esc▊, then type **c** to cancel the command and return to the AOM menus.

For example, try moving the cursor to the **List Directory Contents** command in the DIRECTORIES menu and press ▊Retn▊.   Type in the name **test;** before pressing ▊Retn▊, press ▊Esc▊ and then type **c.**

The AOM_Utilities page returns to the screen.

Using the Default Pages

• AOM_Utilities page

• Sys_Utilities page

• Menu Manager page

The menus and commands contained on these pages are shown in Figure 1-8 and briefly described below.   To learn how to access a page, see the previous section "Selecting a Page."

Altos Office Manager	AOM_Utilities
D I R E C T O R I E S	**M E S S A G E S**
Create Directory	Who is on the System?
Move to New Directory	Send a Message
List Directory Contents	Send to All Users
Details of Directory Contents	Allow/Disallow Messages
Display Current Directory Name	
Delete Directory	
F I L E S	**B A C K U P / R E S T O R E**
Display Contents of File	Format Floppy Disk
Print a File	Backup Files to Floppy Disk
Copy a File	Restore Files from Floppy Disk
Move a File	List Tape/Floppy Disk Files
Delete a File	Backup Files to Tape
Change File Permissions	Restore Files from Tape

Quit: Q   Help: HELP   Page: First Letter of Name
Available Pages: B_Page AOM_Utilities Sys_Utilities Menu_Manager

Figure 1-8. AOM_Utilities Page

The AOM_Utilities page contains the following menus and commands:

- The DIRECTORIES menu contains commands for managing your directories, such as creating a directory and listing the files in a directory. See Chapter 2, "Using Your Files and Directories," for more details about these commands.

- The FILES menu contains commands for using your files, such as looking at the contents of your files, printing a file, and copying a file. See Chapter 2, "Using Your Files and Directories."

● The BACKUP/RESTORE menu contains the commands for maintaining your files and directories, such as formatting a floppy disk, and backing up and restoring files to floppy disk or tape. See Chapter 3, "Using the System."

● The MESSAGES menu contains the commands for checking to see who is logged in, sending a message to one user, sending a message to all users, and allowing and disallowing a message. See Chapter 3, "Using the System."

The Sys_Utilities page contains system utility commands. It includes two menus, SYSTEM STATS and UTILITIES. If you are a system administrator, this page also includes the menus, SYSTEM ADMIN I and SYSTEM ADMIN II, which contain commands for managing the system status. Figure 1-9 shows the Sys_Utilities page.

● SYSTEM STATS menu contains the commands for displaying the system date and time, the current user and port, and system processes. See Chapter 3, "Using the System."

● UTILITIES menu contains the commands for changing your password, checking the amount of space on the disk, using system commands, and becoming the system administrator. See Chapter 3, "Using the System."

Altos Office Manager	Sys_Utilities
S Y S T E M S T A T S	**U T I L I T I E S**
Get System Date/Time	Change Password
Display Current User	Amount of Space on Disk
Display Current Port	Execute System Command
Display Processes	Run a Shell
	Become System Admin
S Y S T E M A D M I N I	**S Y S T E M A D M I N II**
Display Processes	Change File Permissions
Stop Process	Change File Ownership
Shutdown System	Change File Group
Go to Single User Mode	Check File System
Add/Change User	Back Up File System to Tape
Set Up Ports	Restore File System to Tape

Quit: Q   Help: HELP   Page: First Letter of Name
Available Pages: B_Page AOM_Utilities Sys_Utilities Menu_Manager

Figure 1-9. Sys_Utilities Page

- SYSTEM ADMIN I menu contains the commands for managing system processes, setting up the system, and adding or changing users.   See Chapter 5, "Managing the System," for more details about these commands.

- SYSTEM ADMIN II menu contains the commands for managing file permissions and ownerships, and maintaining the file system.   See Chapter 5, "Managing the System."

There is another page that looks similar to these pages. It is called the Menu Manager page.   The Menu Manager

page shows you all the menus available and the page on which each menu is located. Figure 1-10 shows the Menu Manager page.

This page will look different for the system administrator (see Chapter 6, "Using the Menu Manager"). The system administrator can also use the commands on the Menu Manager page to change the location of a menu on a page, change permissions of a menu, install a new menu (such as an application), update or add a menu, and rename a page. See Chapter 6, "Using the Menu Manager" for more details about this page.
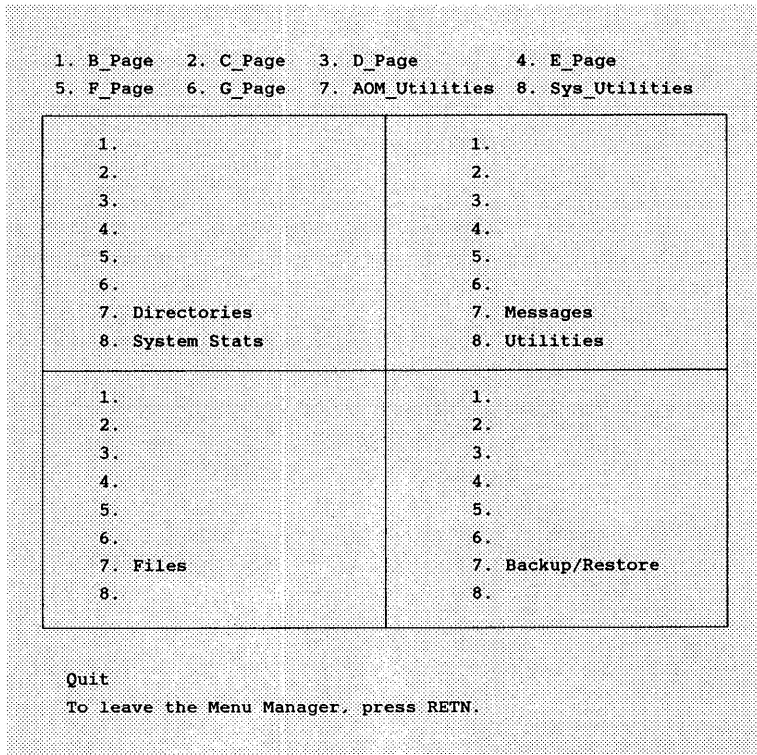
```
1. B_Page    2. C_Page    3. D_Page       4. E_Page
5. F_Page    6. G_Page    7. AOM_Utilities 8. Sys_Utilities

┌───────────────────────────┬───────────────────────────┐
│ 1.                        │ 1.                        │
│ 2.                        │ 2.                        │
│ 3.                        │ 3.                        │
│ 4.                        │ 4.                        │
│ 5.                        │ 5.                        │
│ 6.                        │ 6.                        │
│ 7. Directories            │ 7. Messages               │
│ 8. System Stats           │ 8. Utilities              │
├───────────────────────────┼───────────────────────────┤
│ 1.                        │ 1.                        │
│ 2.                        │ 2.                        │
│ 3.                        │ 3.                        │
│ 4.                        │ 4.                        │
│ 5.                        │ 5.                        │
│ 6.                        │ 6.                        │
│ 7. Files                  │ 7. Backup/Restore         │
│ 8.                        │ 8.                        │
└───────────────────────────┴───────────────────────────┘

Quit
To leave the Menu Manager, press RETN.
```

Figure 1-10. Menu Manager Page

Moving the Cursor

The highlighted area surrounding a command is called the cursor. You can move the cursor to any other menu or command on the screen by pressing the Arrow keys. For example, try the following steps to learn how to move the cursor around the AOM_Utilities page:

1. Press the **Right** Arrow key.

    The cursor moves from the **Create Directory** command in the DIRECTORIES menu to the **Who is on the System?** command in the MESSAGES menu.

2. Press the **Down** Arrow key several times to move the cursor to the **Format Floppy Disk** command in the BACKUP/RESTORE menu.

3. Press the **Left** Arrow to move to the **Display Contents of File** command in the FILES menu.

4. Press the **Down** Arrow until the **Change File Permissions** command is highlighted. Press the **Down** Arrow once more.

    The cursor wraps around the top of the screen to highlight the **Create Directory** command in the DIRECTORIES menu.

5. Press the **Up** Arrow.

    The cursor wraps around to the **Change File Permissions** command in the FILES menu. You can wrap the cursor around either from top to bottom (with the Up Arrow) or bottom to top (with the **Down** Arrow) as shown in Figure 1-11.

6. Press the **Home** key to quickly move the cursor to the top-most command in the upper-left menu.
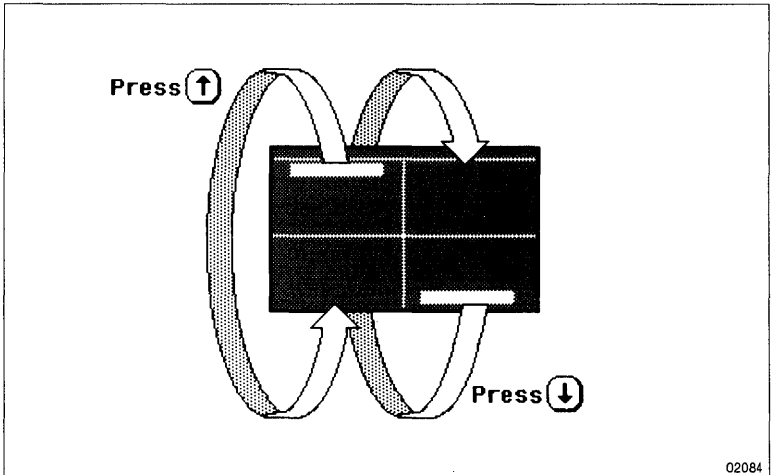
1-18

Figure 1-11. Cursor Wraparound

NOTE

If you are using an Altos III terminal and
the cursor is dimly highlighted, you may want
to change the display to be in reverse video.

To change your terminal display, do the following:

1. Press the ▮Reset/SetUp▮ key.

2. Press the **Right** Arrow to move the cursor to the
    Attribute field.

3. Press the ▮Retn▮ key until this field is set to
    REVERSE.

4. Press the ▮Reset/SetUp▮ key.

5. Type **y** to save the changes when you turn on your ter-
    minal again.

Selecting File(s) or Directory(ies)

For many AOM commands, you are asked to type a file or
directory name. Figure 1-12 shows an example of the
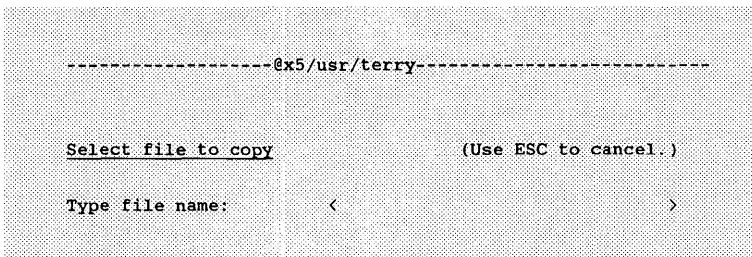prompt for the **Copy a File** command.

```
-------------------@x5/usr/terry------------------------


Select file to copy                    (Use ESC to cancel.)


Type file name:           <                              >
```

Figure 1-12. Typing a File Name

You can enter a name by using one of the following
methods:

*   Type the file or directory name and press [Retn].

*   Press the **Down** Arrow key. Move the cursor to the
    name and press [Retn].

*   Press [Esc] and select the **Select_File** command from
    the command line displayed at the bottom of the
    screen. Move the cursor to the file you want and
    press [Retn].

The first method allows you to type a file name at the
prompt (after the words "Type file name:" as shown in
Figure 1-12).

The second and third methods (using the **Down** Arrow or the
[Esc] key) allow you to select multiple files from a list of
files in the current directory. (Figure 1-13 shows an
example of a list of files). The following paragraphs
explain how to do this.

You must use the ▮Esc▮ key to select multiple files when you are using a form, such as with the **Check a File System** command. You know you are using a form when you see the message "Press Esc to execute this command, cancel, or select a file."

```
--------------------@x5/usr/laurie--------------------------

Select a file to display (Use ESC to cancel.)

     Pick a file below:

     addr.ad              budget.yr
     gett                 sales.qtr4
     xyz.corp             sales.qtr3
     abc.corp
     budget.qtr
```

Figure 1-13. Point-and-Pick List

If you use the ▮Esc▮ key, you see the command line shown in Figure 1-14.

```
Execute  Cancel  New_Directory  Select_File
To select a file, press RETN; press ESC to continue with
menu.
```

Figure 1-14. Esc Command Line

To select any of the commands in the ▮Esc▮ command line, type the first letter of the command (or move the cursor to the command and press ▮Retn▮). For example, to select the **Select_File** command, type **s.**

After you press the **Down** Arrow key or the **Esc** key and
the **Select_File** command, you can select multiple files.
Move the cursor to the first name and press the **Spacebar** .
You will see a right and left caret (<>) around the name
(as shown in Figure 1-15). Move the cursor to the second
name you want and press the **Spacebar** . Do this for every
file name you need.

When you are done selecting, press the **Retn** key, or press
the **Esc** key and then select the **Execute** command. The
next paragraph explains when you use the **Retn** key or the
Esc key and the **Execute** command.

```
-----------------------@x5/usr/laurie-------------------------

    Select a file to display          (Use ESC to cancel.)

    Pick a file below:

       addr.ad                budget.yr
     > gett <                 sales.qtr4
       xyz.corp               sales.qtr3
     > abc.corp <
       budget.qtr
```

Figure 1-15.   Selecting More Than One File

If the cursor is not on the last file you want to select,
press **Esc** and select the **Execute** command (instead of
Retn) to finish your file selection. For example, if
you select a few files on one page, then look through the
next two pages for other names you might want to select,
but do not choose any, the cursor is now on a file you may
not want. Rather than going back to the last file you
need, just select the **Execute** command.

To select file(s) in a different directory from the cur-
rent one, you can use the **Move to New Directory** command
(see "Move into a New Directory" in Chapter 2). Or, you
can use the command line shown in Figure 1-14. Press
Esc and select the New_Directory command. The current
directory is displayed at the top of the screen
(@x5/usr/laurie in Figure 1-15). Type the name of the
directory you want and press **Retn**. You can then select
the file(s) from this new directory using any of the
methods just described.

To cancel a command, press **Esc**, then select the **Cancel**
command. It returns you to the AOM menus.

GETTING HELP

To find out how to use a command in any menu, press
Help. The top of the screen describes how to select a
command. Below that, there is a description of the
command you have selected.

When you have finished reading the Help description, you
can press any key to return to the AOM menus.

LOGGING OUT OR QUITTING

Type **q** when you want to leave AOM. The program returns
you to whatever you were doing when you started AOM:

- If you entered AOM automatically when you logged in,
  you will be logged out after you type **q**.

- If you typed **aom** from your system prompt to access
  AOM, you will be returned to the system prompt after
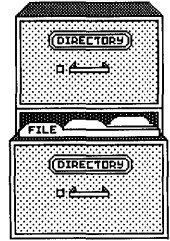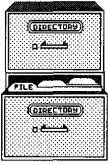 you type **q**. To log out of the system, type **Ctrl-d**.

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Chapter 2
Using Your Files
and Directories

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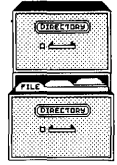This chapter explains how to use directories and manage files. It describes tasks such as creating a directory, listing details about files in a directory, and changing file permissions.

NAMING A FILE OR DIRECTORY

Figure 2-1 shows an example of the directory and file structure of your operating system. Directories and files are arranged in a hierarchical structure, with root as the top directory. A single slash (/) indicates you are in the root directory.

The full pathname of any directory or file begins at the root directory. This directory is always specified with a slash (/). A full pathname consists of a series of one or more directories and may contain a single file name. When specifying a full pathname of a file, be sure to include the initial slash (/) and a slash after each directory along the path.

When you first start AOM, you are in your home directory. Your directories and files are typically located in /usr/*username*, where *username* is the name you use when you log in. For example, the user Laurie might have all her files and directories in /usr/laurie. The name of the directory is a complete specification of where that directory is in relation to the total file system. For example, Terry has a file named "document" (see Figure 2-1). The full pathname of that file is /usr/terry/smith /document.
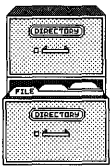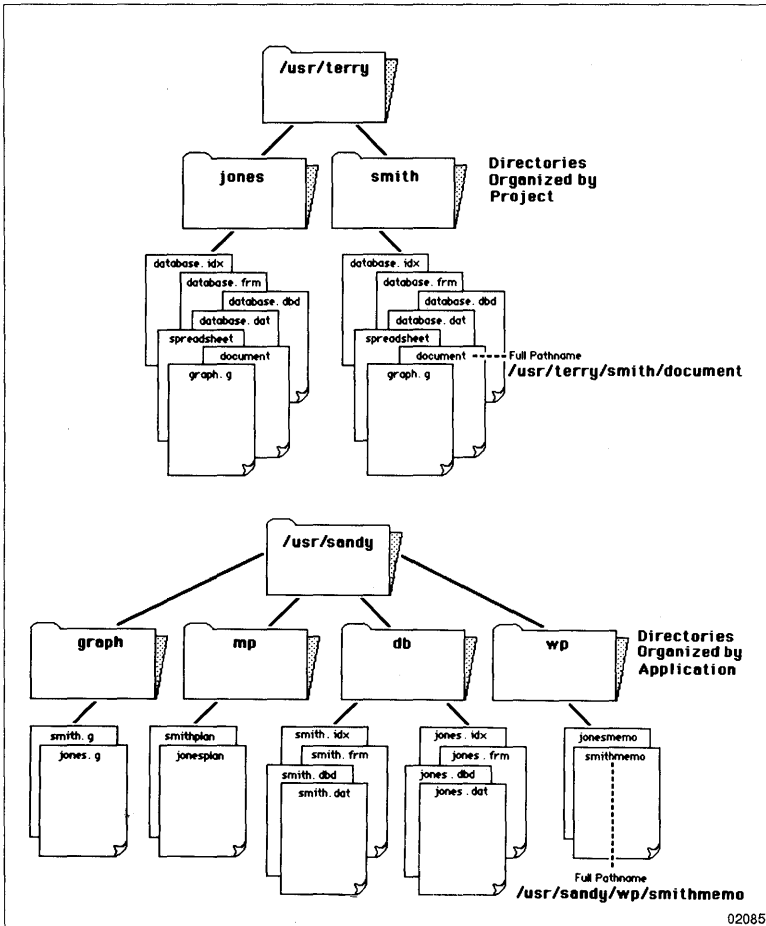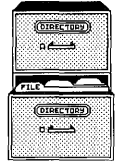
**Figure 2-1.   Directory Structure**

Usually, a directory contains files on the same subject. Each directory and file must have a name that you assign (except your home directory, which is assigned by the system administrator). A file name must be unique. A directory name or a file name can have up to 14 characters. Because the following characters have special functions, do not use them in file names:

ampersand	@	left single quote	`
asterisk	*	left square bracket	[
backslash	/	less than	<
caret	^	question mark	?
colon	:	right curly bracket	}
comma	,	right parenthesis	)
dollar sign	$	right single quote	'
double quote	"	right square bracket	]
exclamation point	!	semicolon	;
greater than	>	slash	\
left curly bracket	{	space	
left parenthesis	(	vertical bar	|

When you first create files, you may wish to place all of them in one directory, such as /usr/terry in Figure 2-1. However, as you become more adept, you can have directories and files that are many levels below this directory (e.g., jones and smith in Figure 2-1).

When you are working in a directory or file, it is called the "current" directory or file. To create or access a directory or file in your current directory, type the file name. To create or access a directory or file not in the current directory, you can use two methods.

For example, when you select an AOM command, such as **Print a File,** you will be prompted for a name. If you want to print the file "smithmemo" in directory /usr/sandy/wp (see Figure 2-1), and you are currently in directory /usr/sandy/db, you can first change to /usr/sandy/wp (see sections "Selecting File(s) or Directory(ies)" in Chapter 1, or "Move Into a New Directory" in this chapter).
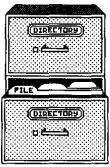
Another way is to type the complete pathname when
prompted for the file name. In this example, type
/usr/sandy/wp/smithmemo.

USING DIRECTORIES

A directory is just like a file folder; the directory can
be used to separate a group of files from your other
files. A directory can also contain other directories,
which in turn can contain files or more directories.

Create a Directory

You'll find the commands for using directories in the
DIRECTORIES menu, shown in Figure 2-2. Refer to this
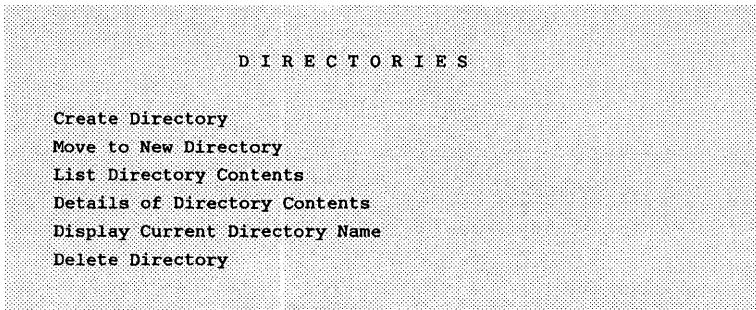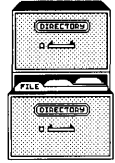figure for the explanation of the individual commands in
this section.

```
                    D I R E C T O R I E S


     Create Directory
     Move to New Directory
     List Directory Contents
     Details of Directory Contents
     Display Current Directory Name
     Delete Directory
```

Figure 2-2. DIRECTORIES Menu

To create a directory:

1. Select the **Create Directory** command. Chapter 1, "Using the AOM Menu System," explains how to select commands.

   You will be prompted to enter the name of the directory you want to create.

2. Type the name for the directory you want to create, and press ▮Retn▮.

   See the section at the beginning of this chapter "Naming a File or Directory" for naming criteria.

   To use the directory, you need to move into it.

Move Into a New Directory

There are several ways to move into a new directory. Step 2 in the following procedure explains the different methods you can use.

1. Select the **Move to New Directory** command.

   The current directory name is displayed at the top center of the screen and you are prompted to enter the directory name.

2. Then, use one of the following methods to move to a new directory:

   • To move to a directory contained by the current directory (one directory down), press the **Down** Arrow; then pick the directory from the list by moving the cursor to the directory name and pressing ▮Retn▮.
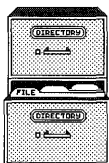
- To move more than one directory down, type the portion of the directory's pathname beginning from the current directory. For example, if the jones directory in Figure 2-1 contains a directory named phase1 and if you are in /usr/terry and want to move into directory phase1, you can use the pathname jones/phase1 to move two directories down.

- To move one directory up, type .. (two periods).

- To move two directories up, type ../.. (two periods, a slash, and two periods).

- To move up and over to another directory, type ../ followed by the directory name. For example, to move from /usr/terry/jones to the /usr/terry/smith directory you could type **../smith.**

If you prefer, type the full pathname of any directory to move to it.

3. End your entry by pressing **Retn**. A message displays the name of the directory you moved to.

List the File Names in a Directory

To see a list of the directory and file names in a directory:

1. Select **List Directory Contents.**

   You will be prompted for the directory name.

2. Type . and **Retn** to see the current directory list. To see the contents of any other directory, specify the directory the same way you would with the **Move to New Directory** command (see previous section).
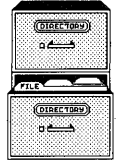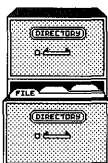
3. Press ■Retn■ to complete your entry. After a few
    seconds, the screen displays a list of names. These
    names can be directories and/or files.

    To see which are directories and which are files,
    select the **Details of Directory Contents** from the
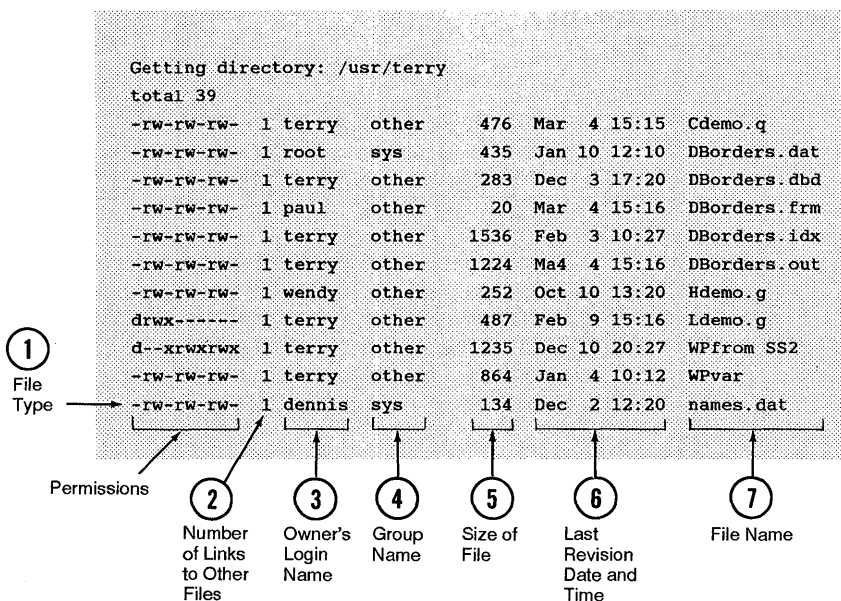   DIRECTORIES menu (see next section).

If the list of names is too long to fit on one screen, a
message tells you to press the ■Spacebar■ to display more
of the list, or to press the ■Esc■ key to stop the listing
and return to the AOM menus.

List Details About the Files in a Directory

The **Details of Directory Contents** command displays more
information about the files in a directory. Select the
directory by the same methods as those described for the
List Directory Contents command. Figure 2-3 is an example
of showing details of files in a directory.

```
Getting directory: /usr/terry
total 39
-rw-rw-rw-  1 terry    other      476 Mar  4 15:15  Cdemo.q
-rw-rw-rw-  1 root     sys        435 Jan 10 12:10  DBorders.dat
-rw-rw-rw-  1 terry    other      283 Dec  3 17:20  DBorders.dbd
-rw-rw-rw-  1 paul     other       20 Mar  4 15:16  DBorders.frm
-rw-rw-rw-  1 terry    other     1536 Feb  3 10:27  DBorders.idx
-rw-rw-rw-  1 terry    other     1224 Ma4  4 15:16  DBorders.out
-rw-rw-rw-  1 wendy    other      252 Oct 10 13:20  Hdemo.g
drwx------  1 terry    other      487 Feb  9 15:16  Ldemo.g
d--xrwxrwx  1 terry    other     1235 Dec 10 20:27  WPfrom SS2
-rw-rw-rw-  1 terry    other      864 Jan  4 10:12  WPvar
-rw-rw-rw-  1 dennis   sys        134 Dec  2 12:20  names.dat
```

(1) File Type

Permissions (2)

(3) Number of Links to Other Files

(4) Owner's Login Name

(5) Group Name

(6) Size of File

(7) Last Revision Date and Time

File Name

Figure 2-3. Detailed Directory Listing

You will see 10 characters in the first column. They have the following meaning:

- First character (the left-most in the line) - If it is a dash, the item is a file. If it is a "d," the item is a directory.

- Second through tenth characters (called permission characters) - The permission characters include:

  r (read) -   being able to look at the contents of the file or directory.

  w (write) -   being able to change the file or directory contents.

2-10
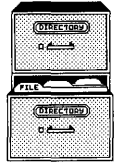
x (execute) -   being able to run the program
(if this is a file) or move to
the directory (if this is a
directory).

- (no permission) -   not able to read, write, or
execute the file or directory.

The permissions characters are arranged in three sets of
three.   Each of the nine character positions answers a
question:

• The first three characters (rwx) indicate that the
owner of this item can read, write, or execute it
respectively.   When all three letters are present,
the owner can perform all the functions, but a dash
in any position means no permission for that capa-
bility.   For example, r-x means you can read and ex-
ecute a file, but you can't write to it.

• The second three characters apply to users who are
in the owner's group.   User groups are set up by the
system administrator.

• The third three characters are the permissions for
any other user.

You can change the permissions for any file or directory
that belongs to you with the **Change File Permissions** com-
mand, which is explained later in this chapter.

The remaining columns show the following information:

Column 2 shows the number of links.   The number of links
for a file are important mainly for programmers.   If
you're interested in linking files, refer to your Altos
operating system documentation for a description of the ln
command.

Column 3 shows the owner's name or ID number.   The
owner's name (or ID number) is the name of the user who
created the file.   You create a file within one of the
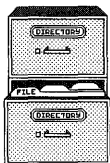
application programs or by copying the file from another user.

Column 4 shows the group name. The group name of the owner of this file is displayed in the fourth column. The group name is "other" unless the system administrator changes it.

Column 5 shows the size of the file in bytes. Each byte is roughly equivalent to a character.

Column 6 shows the last revision date and time of a file, which are determined by the system time when the file was last changed. The time is shown in 24-hour time.

Column 7 shows the file name (or directory name).

Display the Name of the Current Directory

If you ever forget where you are, select **Display Current Directory Name.** A message displays the full pathname of the current directory.

Delete a Directory

Before you delete a directory, you must delete all of the files or directories it contains by using the **Delete File** command (explained later in this chapter) and the **Delete Directory** command. When the directory is cleared of files and directories, do the following:

1. Select the **Delete Directory** command.

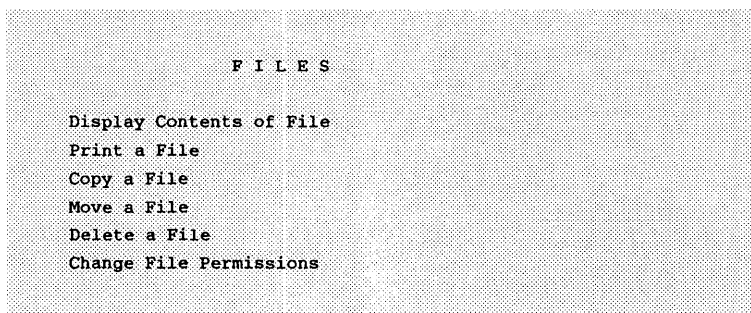2. Type or pick the directory name from the list.

   If a message appears saying that the directory isn't empty, the directory wasn't cleared.
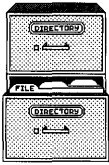
MANAGING FILES

You can move files regardless of their origin. You can
display, print, or copy the files that you own or those
that someone else has authorized you to read. You can
delete a file only if you have permission to change it.
If you get the message "no file found" when you try to use
one of the commands in the FILES menu, it may mean one
of the following:

• You don't own the file.

• You don't have permission to read it.

• It doesn't exist.

• You haven't specified the correct directory name; try
  using the full path name.

```
                    F I L E S

     Display Contents of File
     Print a File
     Copy a File
     Move a File
     Delete a File
     Change File Permissions
```

Figure 2-4. FILES Menu

Display the Contents of a File

If you have forgotten what a file contains, you can scan
it quickly with the **Display Contents of File** command.

After you select the **Display Contents of File** command,
type the name of the file or pick the name(s). You can
look at a file in another directory by typing the file's
pathname. For how to select multiple files from another
directory, see "Selecting File(s) or Directory(ies)" in
Chapter 1.

Some files contain special characters if they are created
by specific applications, so you might see some strange
characters when the file is displayed on the screen or
printed. If this occurs, refer to the specific applica-
tion manual for how to print the file.

Print a File

To print file(s), do the following:

1. Select the **Print a File** command.

    You will be prompted to type the file name.

2. Type the file name and press **Retn**.

    Or, use the point-and-pick method to select one or
    more files (see "Selecting File(s) or Directory(ies)
    in Chapter 1).

    If your system has more than one printer, a message
    asks you to type the name of the printer you want to
    use. Type the name and press **Retn**.

    A few seconds later, the file(s) begin printing.

If you want to see how a file will look when it is
printed, display the file with the **Display Contents of
File** command (explained earlier in this chapter) before
you print it.
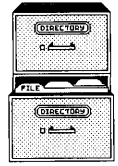
Copy a File

You can copy file(s) from the current directory or from any other directory. You can also copy file(s) from other users, as long as you have read permission for the other users' file(s).

Use the **Details of Directory Contents** command (explained earlier in this chapter) to see what the permissions are for a file. Use the **Change File Permissions** command (explained later in this chapter) to change the permissions for any of your own files.

To copy file(s), do the following:

1. Select the **Copy a File** command.

   You will be prompted to type the file name.

2. If the file(s) is in the current directory, type the file name(s) and press **Retn** (or use the point-and-pick method). If the file is in another directory, type the file's pathname or change to a new directory with the **New Directory** command.

   You are prompted for the new file or directory name into which you want to copy the selected file. If you select more than one file, copy them into a directory.

3. Type just the file name(s) to place the file in the current directory. Type a pathname to put the file in another directory, or just the directory name if you want to use the same file name(s) in a different directory.

4. Press **Retn**.
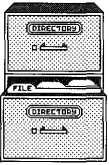
You will see a message that says the file you sel-
ected was "copied to" the new file name you typed in.
If you do not see this message, the copy wasn't made.
You should try the command again, being sure to type
or select the correct name of the file from which you
are copying. If you type a pathname for the name to
copy to, make sure the directory exists. If you
still have trouble, see your system administrator for
help.

Move a File

You can move file(s) from one directory to another, or you
can rename a file by moving it to a new name. You must
have write permission for the directories you use.

To move file(s), do the following:

1.   Select the **Move a File** command.

     You will be prompted for the file name.

2.   Type the name of the file and press ■Retn■.

     Or, use the point-and-pick method to select one or
     more file names. If you move more than one file,
     they must be moved into a directory, not a file. You
     will be prompted for the new file or directory name.

3.   Type the new file or directory name and press ■Retn■.

     If you want to rename the file, just type the new
     name. If you want to move a file(s) to a different
     directory, type the directory name.

     If you type just the directory name, the file(s) you
     are moving will keep the same name. If you move
     just one file and you want it to have a different
     name in the new directory, type the directory name
     and the file name.
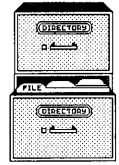
Delete a File

You must have write permission for a file and the directory containing the file to delete a file.

To delete a file, do the following:

1. Select the **Delete a File** command.

    You will be prompted for the file name.

2. Type the name of the file and press ▮Retn▮.

    Or, use the point-and-pick method.

    A message asks you to confirm that you want to delete the file(s). If you are deleting more than one file, a message is displayed for each file.

4. Type **y** to continue with the deletion, or type **n** to cancel it.

5. Press ▮Retn▮.

    If you get a message other than a deletion message, the file(s) wasn't deleted. Either you mistyped the name of the file(s), or you aren't authorized to delete it.

Change File Permissions

You must own a file or directory (or be the system administrator) to change who is permitted to use a file.

There are three categories of permissions for a file:

*   Read (look at its contents)

*   Write (change its contents)

*   Execute (use the file as a command) or search (move into the directory)
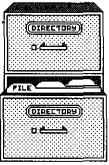
To change the permissions on a file:

1.   Select the **Change File Permissions** command.

     You will be prompted to type the file name.

2.   Type the file name and press ███Retn███.

     Or, use the point-and-pick method to select one or
     more files (see "Selecting File(s) or Directory(ies)"
     in Chapter 1).

     If you own the file, the screen looks much like
     Figure 2-5.

```
Function ---- >  Change File Permissions of mymail


Use left and right arrow keys to move to the permission you wish to
change.

Press SPACE BAR to change permissions.

To make the changes and quit, type 'q'.


Owner's Permissions:   Group's Permissions:   All Others' Permissions:
Read   Write  Execute  Read   Write  Execute  Read   Write   Execute
yes    yes    yes      yes    no     yes      yes    no      no
```

Figure 2-5. Changing File Permissions
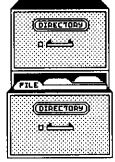
The permissions are grouped into three categories:

- Owner's Permissions

- Group's Permissions

- All Others' Permissions

The person who created or copied the file is the owner. If there are other users in your group, your system administrator can tell you who they are. All other users means anyone who logs in to the system.

Change the permissions of the file by pressing the

Spacebar until you see "yes" or "no" under the type of permission you wish to change. For example, if you want the group permission for a file to be "yes" for read, move the cursor under "Read" for the Group's Permissions category and press the Spacebar until you see "yes."

BACKING UP AND RESTORING FILES

As a precaution against losing files, you can copy (back up) your files onto a floppy disk or tape. You can use a backup copy of a file to transfer the file onto another system. You can back up entire directories, or just a few files.

If you want to back up a large quantity of files, you'll find it's much quicker to back up on tape. If you want to copy a few files from your system to load onto another system, it's usually easier to back up on a floppy disk.

The commands for copying files to and from tape or disk are in the BACK UP/RESTORE menu, shown in Figure 2-6. Refer to this figure when you read about the commands in this section.
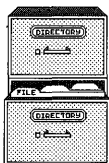
BACKUP/RESTORE

Format Floppy Disk
Back Up Files to Floppy Disk
Restore Files from Floppy Disk
List Tape/Floppy Disk Files
Back Up Files to Tape
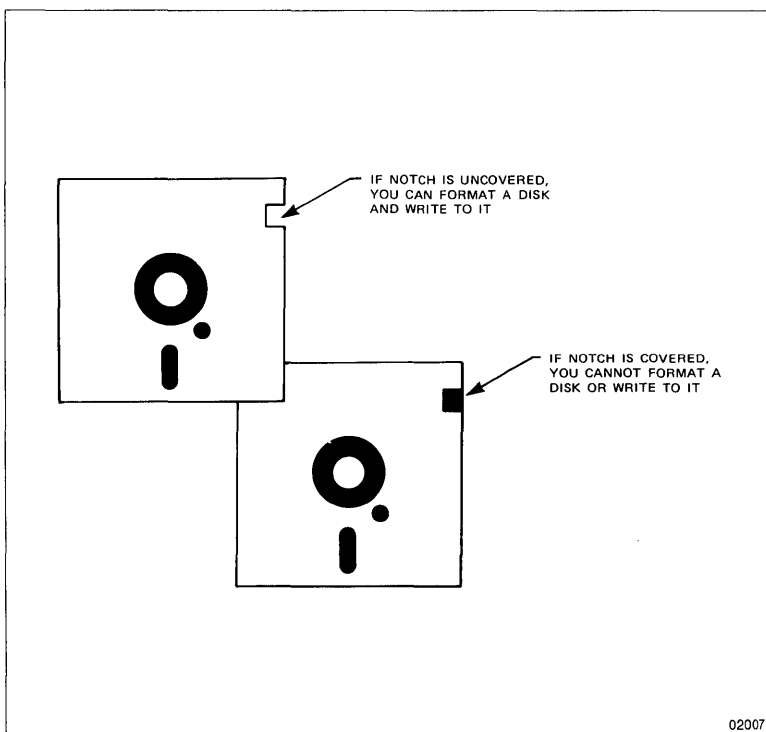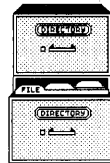Restore Files from Tape
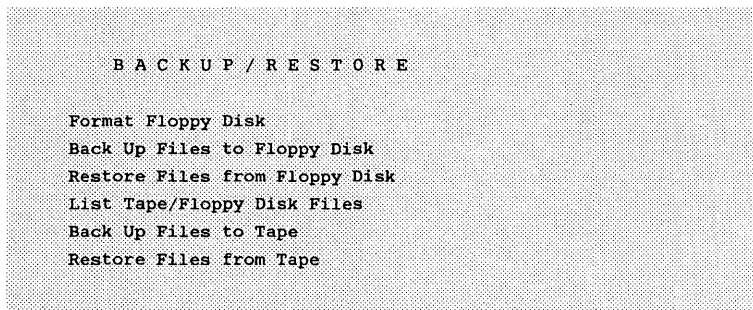
Figure 2-6. BACKUP/RESTORE Menu

Floppy Disks

This section explains how to format a disk, back up to and
restore files from a floppy disk, and how to list the
files on the floppy. It explains how to use wildcard
characters to simplify the process of backing up several
files. This section explains how to format (prepare the
disk) before you back up files.

Formatting a Floppy Disk

Before you can back up files to a floppy disk, you must
format the disk. The formatting process prepares a disk
to receive data and deletes any information currently
recorded on the disk.

Before you begin, make sure there is no write-protect tab
on the disk. Figure 2-7 shows the write-protect tab.

IF NOTCH IS UNCOVERED,
YOU CAN FORMAT A DISK
AND WRITE TO IT

IF NOTCH IS COVERED,
YOU CANNOT FORMAT A
DISK OR WRITE TO IT

02007

Figure 2-7.   Remove Write-Protect Tab to Format a Disk

2-21
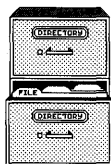
1.   Select the **Format Floppy Disk** command.

```
XENIX FLOPPY DISK FORMAT       rev 1.7

Choose one :

        1 - Altos format                    /dev/fd096ds9
        2 - IBM-AT (slow) format     XENIX /dev/fd048ds9
        3 - IBM-AT (fast) format     XENIX /dev/fd096ds15
        4 - Quit


Command:[default Altos]
```

Figure 2-8. Screen for Format Floppy Disk Option (XENIX)

2.   Choose the appropriate number to format the disk you
      are using (usually you will choose 1) and press ▓Retn▓,
      or just press ▓Retn▓.   Figure 2-8 shows the disk
      format screen for XENIX.

3.   Make sure the disk contains no information you value.
      Then, insert the floppy disk in the drive and press
      ▓Retn▓.

      The formatting process takes a few minutes.   When
      the process is finished, the formatting choices are
      displayed again.

4.   If you want to format another disk, repeat Steps 2
      through 4.   If you don't, type the number for Quit,
      and press ▓Retn▓ to quit this command.   Make sure
      you format enough disks before you start backing up
      files.
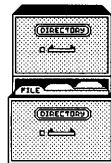
Backing Up Files to Floppy Disk

Before you begin backing up, think about how you want to restore the files:

• If you want to restore files into another directory either on your own system or another, move into the directory containing the files. This way you can restore the files into any directory you choose.

• If you want to make sure the files retain their full pathnames when restored, move into the root (/) directory.

To move into another directory, select the **Move to New Directory** command in the DIRECTORIES menu.

To back up files, do the following:

1.   Make sure you format enough floppy disks to contain the files. If you run out, you'll have to cancel the **Back Up** command to format more disks and begin the back up again. A floppy disk holds approximately 245 (8 1/2 x 11) printed pages or 720K bytes.

    You can see the number of bytes in a file by using the **Details of Directory Contents** command (see "Using Directories" in this chapter for more details about this command).

2.   Move into the appropriate directory, as explained above.

3.   Select the **Back Up Files to Floppy Disk** command.

    You are prompted for the file or directory name(s) you want to back up.

4.   Type the file or directory name(s), then press ▐ Retn ▌.
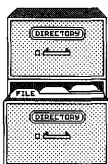
You can enter the names of the files to back up in several ways:

- To back up the current directory and the contents of all its files and directories, type * (an asterisk) and press **Retn**.

- To back up one file, type its name and press **Retn**.

- To back up several files at a time, use wildcard characters. Refer to "Using Wildcard Characters" in this chapter for instructions.

- Type the full pathname if you aren't in the directory you want to back up or if you want to retain the same pathname.

5. Insert a formatted disk in the drive. Make sure the write protect tab is removed (see Figure 2-7).

A list of backup types is displayed.

6. Type **a, b,** or **c,** depending on the type of backup you're making:

a. Appends files if you want to add any file(s) to the end of the disk. The existing files on the disk aren't disturbed. If one of the files you're appending has the same name as an existing file, the latest appended version will be the one restored.

b. Updates files if you want to copy any new files or updates any files that have changed since you last backed up to this disk.

c. Creates a new backup on a disk if you want to erase the contents of the disk and start over with the current files you chose.
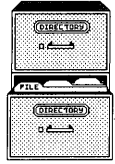
The files are listed on the screen as they are
copied. If you copy so many files that you fill up
the disk, a message tells you to take out the disk
and insert another formatted disk.

If there is a problem with the floppy, you will see
an error message.

7.   Type **y** and press ▇▇Retn▇▇ to continue.

If you need more than one disk to back up a series of
files or directories, record the sequence of the
backup on the disk label with a felt-tip pen. For
example, if you back up three disks, mark the disks 1
of 3, 2 of 3, and 3 of 3. When you restore the
files, you must restore them in the order you backed
them up.

8.   When the backup is finished, press any key to con-
tinue.

Using Wildcard Characters

When you back up files, you may not want to use only the
asterisk (*) character because it copies all the files
from the current directory and from all directories below.
However, if you want to copy several files, typing the
file names may take a long time. Wildcard characters can
speed up this process.

There are three kinds of wildcard characters you can use:

●   * (the asterisk), which stands for any number of any
characters and also no characters in a set position.
For instance, entering ***out** copies all files whose
names end with the characters "out".

●   ? (the question mark), which stands for any one
character. For instance, entering **???out** copies all
file names with six characters that have the last
three characters as "out".
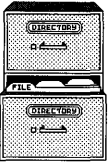
- [] (left and right brackets), which enclose a list or range of single characters. Entering **[abc]out** copies files named "aout", "bout", and "cout". Entering **[d-g]out** copies files named "dout", "eout", "fout", and "gout". Entering single characters between the brackets is a list, and entering two characters separated by a hyphen is a range.

You can use the wildcard characters in combination:

???out*2 copies the following files (among others):

    135outjkjkjk2
    jkjoutj2
    abcout2

*[1-5]out copies these files (among others):

    jkjkj2out
    r4out
    13244out

out[s4c]? copies these files (among others):

    outs3
    out4u
    outc9

An asterisk at the end copies files from subdirectories. For instance, **out*** copies these files (among others):

    out.dbd
    out.dat
    outside/more
    outside/sheet
    outside/document/jones
    out
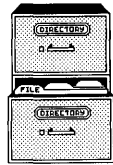
Listing Files on Disk

To list the contents of a disk or tape, follow these steps:

1.   Select the **List Tape/Floppy Disk Files** command.

2.   Type **b** for a floppy disk.

3.   Insert the tape or disk in the drive.

4.   Press any key to continue.

The contents of the tape or disk are displayed.

Restoring Files from Floppy Disk

Before you restore files from a disk, list the contents of the disk with the **List Tape/Floppy Disk Files** command.

If the names in the list begin with / (a slash), they will be restored with their full pathnames from the root directory.   Be careful which files you restore because any files with the same pathnames will be overwritten by the restored files.

If the names don't begin with a / (a slash), decide into which directory you want to copy the files.   If files with the same names already exist in the directory you choose, they will be overwritten.   If the disk you're restoring from contains files with partial or full pathnames, new directories will be created if they don't already exist.

To restore files, do the following:

1.   Move to the directory into which you want to copy the files.

2.   Select the **Restore Files from Floppy Disk** command.

You are prompted to enter the file or directory name(s).
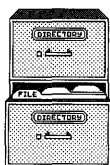
3. Type the name(s), then press █Retn█.

   You can type four types of entries:

   - * (an asterisk) to restore all of the files from the disk

   - A file name to restore just one file

   - A directory name to restore all files in a directory

   - Several file names separated by spaces to restore two or more files

   You cannot use wildcard characters (other than *) for restoring files.

4. Insert the disk you want to restore from, if it isn't already inserted. If you are restoring from a series of backup disks, begin with the first disk. A message will tell you when to insert the next disk.

5. Then, press any key.

   After a few seconds, the names of the files being restored are listed on the screen.

   If there is a problem with the disk from which you are restoring, you will see an error message.

Cartridge Tapes

This section explains how to back up and restore files to tape and how to list the files on the tape. If you need to back up and restore files in other ways, refer to your operating system manuals.
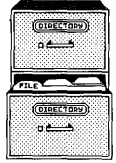
Backing Up Files to Tape

The procedure to back up to tape is a little different than to back up to floppy disk.

To back up to tape, do the following:

1. Make sure the tape is blank; it does not need to be formatted.

2. Move into the appropriate directory, as explained in the section "Backing Up Files to Floppy Disk" in this chapter.

3. Select the **Back Up Files to Tape** command.

    You will be prompted for the file or directory name(s) you want to back up.

4. Enter the names of the files to back up.

    You can do this in several ways:

    *   To back up the current directory and the contents of all its files and directories, type * (an asterisk) and press **Retn**.

    *   To back up one file, type its name and press **Retn**.

    *   To back up several files at a time, use wildcard characters.

    *   Type the full pathname if you aren't in the directory you want to back up.
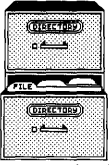
5. Insert a tape in the drive. Make sure the arrow is Not set to SAFE so writing is allowed (see Figure 2-9).
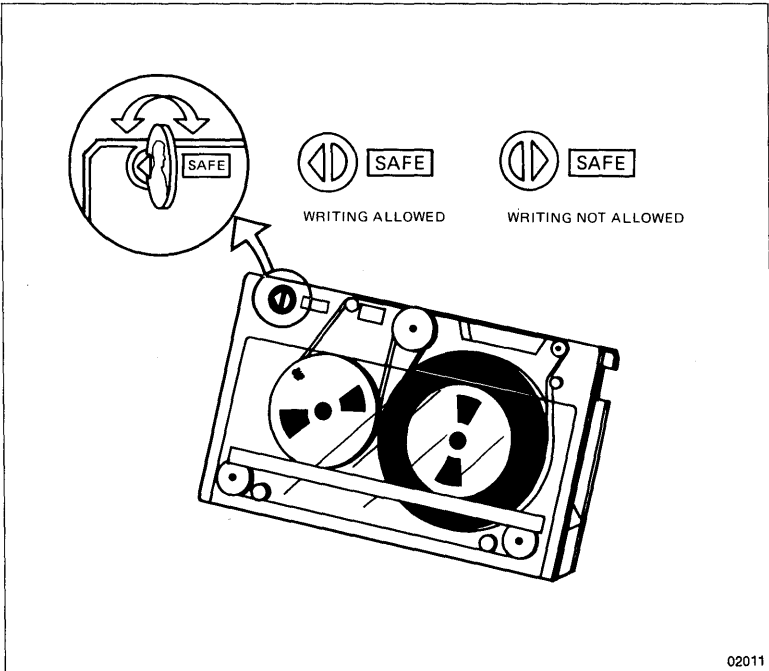
Figure 2-9. Arrow on Tape Drive is Not Set to SAFE

A new back up tape is automatically created. The files are listed on the screen as they are copied. If you copy so many files that you fill up the tape, a message tells you to take out the tape and insert another one.
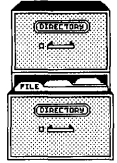
CAUTION

This new procedure writes over all data that is currently on the tape so be sure there is nothing on the tape you need.

6.   Type **y** and press ▮**Retn**▮ to continue.

If you need more than one tape to back up a series of files or directories, record the sequence of the backup on the tape. For example, if you back up three tapes, mark the tapes 1 of 3, 2 of 3, and 3 of 3. When you restore the files, you must restore them in the order you backed them up.

When the backup is finished, a message tells you to press any key to continue.

Listing Files on Tape

To list the contents of a tape, follow these steps:

1.   Select the **List Tape/Floppy Disk Files** command.

2.   Type **a** for a tape.

3.   Then, insert the tape in the drive.

4.   Press any key to continue.

The contents of the tape are displayed.

Restoring Files from Tape

The procedure for restoring files from tape is a little different from restoring files from floppy disk.
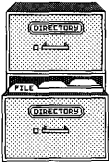
To restore files, do the following:

1. Move to the directory into which you want to copy
    the files. See the previous section in this chapter
    "Restoring Files From Floppy Disk" for general infor-
    mation about being in the correct directory.

2. Select the **Restore Files from Tape** command.

    You are prompted for the file or directory name(s)
    you want to restore.

3. Type the name(s), then press ▮Retn▮.

    You can type three types of entries:

    •   * (an asterisk) to restore all of the files from
        the tape.

    •   A file name to restore just one file.

    •   Several file names separated by spaces to
        restore two or more files.

    You cannot use wildcard characters (other than *) for
    restoring files.

4. Insert the tape from which you want to restore. If
    you are restoring from a series of backup tapes,
    begin with the first tape. A message will tell you
    when to insert the next tape.

5. ·Then, press any key.

    After a few seconds, the names of the files being
    restored are listed on the screen.
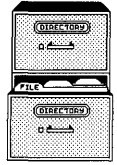
Backing Up an Entire Hard Disk to Tape

A system administrator can back up an entire hard disk to
tape (see "Back Up a File System to Tape" in Chapter 5).
To restore a file system from tape, see section, "Restore
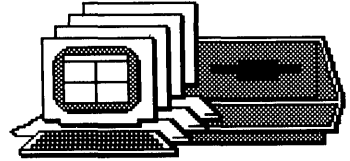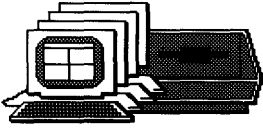a File System from Tape" in Chapter 5.
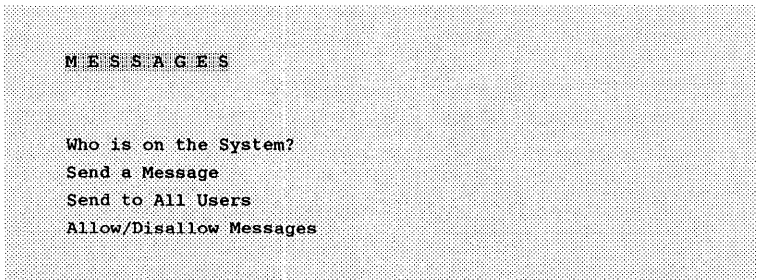
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Chapter 3
Using the System

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SENDING MESSAGES

The commands for sending and receiving messages are in-
cluded in the MESSAGES menu, shown in Figure 3-1.
Refer to this figure when you read the description for
each command in this menu.

```
M E S S A G E S


Who is on the System?
Send a Message
Send to All Users
Allow/Disallow Messages
```

Figure 3-1. MESSAGES Menu

When you send a message, the system displays it on the
recipient's screen at the cursor location.

If you have an urgent message to send, use the **Send a
Message** or **Send to All Users** commands in the MESSAGES
menu. If the message is not urgent, you may want to use
another mail system if one is installed on your system.

Check to See Who is Logged In

You cannot send a message to a user who isn't logged in.
To see who is logged in, select the **Who is on the System?**
command.
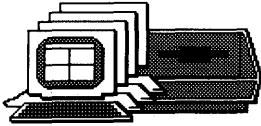
After a few seconds, the list of users appears on your screen as shown in Figure 3-2. The categories tell you each user's log-in name, the terminal they are using, and the date and time they logged in.

```
        Function -----> List users on the system

   NAME        TERMINAL        LOGIN TIME
   ---------------------------------------------
   kim         console         Jun 26 09:36
   terry       tty2            Jun 26 08:40
   chris       tty4            Jun 26 10:20
```

Figure 3-2. List of Users on the System

Press any key to return to the MESSAGES menu.

Send a Message to One User

You can send a message to just one user. The user must be logged in at the time you send the message (see the previous section).
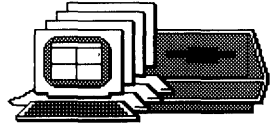
1.   Select the **Send a Message** command.

     You are prompted for the user name.

2.   Type the name of the user to whom you want to send a message.

     The user name is displayed when you select the **Who is on the System?** command.

     Be prepared to type your message immediately after the next step.

3. Press [Retn].

    The user's terminal beeps and lets the user know
    that a message will be arriving from you.

    Whatever the user was doing is interrupted, but not
    canceled.

4. Type your message.

    Press [Retn] before you reach the end of each line,
    or the text may wrap to the next line in the middle
    of a word.   Each time you press [Retn], that portion
    of your message is displayed on the other user's
    terminal.

5. When you are finished with your message, press [Retn]
    to move the cursor to the beginning of the next line,
    then press [Ctrl-d], and then press any key.

    The other user can then continue at his terminal with
    whatever he was doing.   To learn how to clear the
    message from the screen, read "Clear a Message From
    Your Screen" later in this chapter.

    NOTE

    If "Permission denied" is displayed after you
    enter the user's name, that user has disal-
    lowed messages.   To send a message to that
    person, he or she must allow messages (see
    "Allow or Disallow Messages").

Send a Message to All Users

You can send a message to all users who are currently log-
ged in.   With this command, you have as much time as you
need to compose your message.

1. Select the **Send to All Users** command.

3-5

2.   Type the message you want to send. When you are finished, press ██Retn██ , then press ██Ctrl-d██ .

     After you press ██Ctrl-d██ , all users are notified that a broadcast message is arriving. Then your message is displayed.

Clear a Message from Your Screen

A message that you receive has no effect on the contents of the file you're using or on the command you're using; however, to clear the message from your screen:

•   If you're using an AOM command, press ██Esc██ to get out of it. Then, reselect the command.

•   If you have the AOM menus displayed, select ██Help██ , then type **q** to return to the menus.

Allow or Disallow Messages

If you don't want to be interrupted by any messages, you can disallow them. You are initially set to have messages allowed.

To disallow messages, do the following:

1.   Select the **Allow/Disallow Messages** command.

2.   Type **a.**

     A message tells you that messages are disallowed.

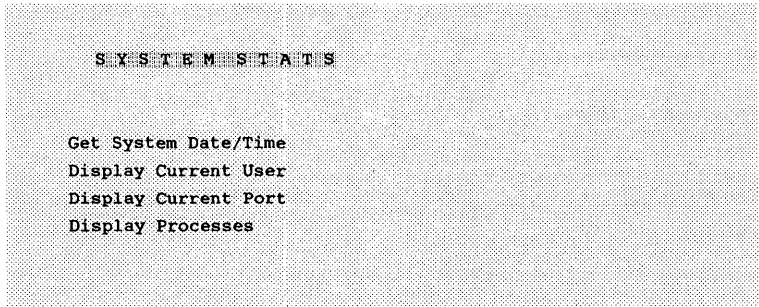3.   Press any key to return to the MESSAGES menu.

     To allow messages again, just type **b** in step 2.

DISPLAYING SYSTEM STATISTICS

The SYSTEM STATS menu contains commands for checking in formation about the system, such as displaying who is logged into the system. Figure 3-3 shows the commands in the SYSTEM STATS menu. Refer to this figure when you read the description for each command in this menu.


```
SYSTEM STATS


Get System Date/Time
Display Current User
Display Current Port
Display Processes
```

Figure 3-3. SYSTEM STATS Menu

Get the System Date and Time

The latest file revision date and time for each of your files is set according to the system time. To check the system time, do the following:

1. Select the **Get System Date/Time** command.

   The date and time are displayed on your screen, as shown in Figure 3-4.
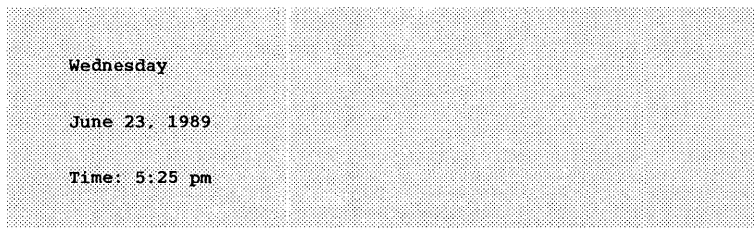
```
Wednesday

June 23, 1989

Time: 5:25 pm
```

Figure 3-4. Displaying the Date and Time

2. Press any key to return to the SYSTEM STATS menu.

    If you are system administrator, you can change the
    date and time (see the **date** command in your operat-
    in system manual).

Display a User's Log-in

You may want to check who is logged in at a particular
terminal. For example, you may want to use someone
else's terminal, or someone may be logged in at your
terminal.

1. Select the **Display Current User** command.

    The current user log-in name is displayed.

2. Press any key to return to the SYSTEM STATS menu.

Display a User's Port

You may want to display what port you are currently logged
into. The **Display Current Port** command displays port
names, such as /dev/tty02 and /dev/console.

1. Select the **Display Current Port** command.

    Your port name is displayed.
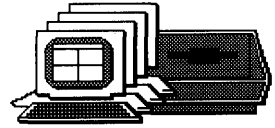
2.   Press any key to return to the menus.

Display Processes

You may occasionally find a problem with a process running
on your system, such as a program running continuously
(looping) or a program that has locked up your terminal.

All processes on the system are assigned a process identi-
fication (PID) number.   To identify the process causing
the problem, select the **Display Processes** command.

For an explanation of what is displayed, refer to "Display
Processes" in Chapter 5.

USING SYSTEM UTILITIES

The commands in the UTILITIES menu let you change a
password, check the amount of free space on disk, use a
system command, become a system administrator, or run a
shell.   Figure 3-5 shows the commands in the UTILITIES
menu.   Refer to this figure when you read the description
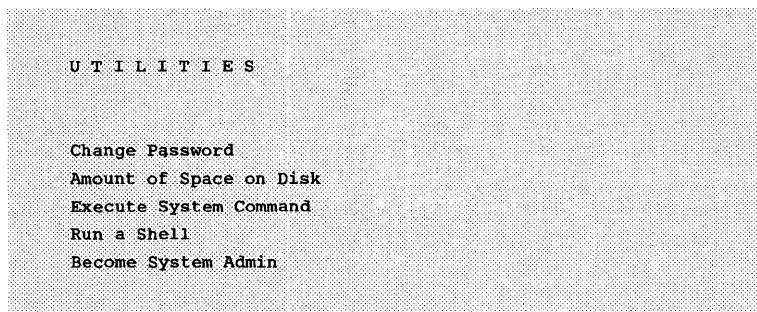for each command in this menu.

```
UTILITIES


Change Password
Amount of Space on Disk
Execute System Command
Run a Shell
Become System Admin
```

Figure 3-5. UTILITIES Menu

Set and Change Your Password

The only way the computer knows who you are is with a
log-in name.   Everyone in your company could know this
log-in name and could log in and use your files.   To avoid
this, set up a log-in password for yourself.

To create or change a password, do the following:

1.   Select the **Change Password** command.

     The prompt "Old password:" is displayed if you are
     changing a password.   The prompt "New password:" is
     displayed if you are creating a password.   Skip to
     Step 3 if you are creating a new password.

2.   Type the old password, then press **Retn**.   The char-
     acters you type will not be displayed.

     The prompt "New password:" is displayed.

3.   Type a new password, then press **Retn**.

The password must be at least six characters long. For XENIX, you can use any keys on the keyboard. Choose a sequence of keys that are easy for you to remember, but difficult for someone else to guess.

A message asks you to retype your new password.

4. Type your password again exactly as you did in step 2. Press **Retn**.

5. Press any key to return to the Sys_Utilities menu.

Display the Amount of Space on the Hard Disk

To see how much free space is available on the system's hard disk, select the **Amount of Space on Disk** command. After several seconds, a message displays your device name, the directory you are in, and the number of available blocks and inodes. For some systems, the total number of blocks, the number used, and the percent available are displayed.

Each block contains 512 bytes. Every character is equivalent to a byte, including special characters that don't display on the screen (e.g., carriage returns). If the figure is below 1000 blocks or 15%, it's time to get more space by backing up files (if you want to save them) and deleting files you don't need. Your system administrator can change the block size (see the manuals for your operating system).

Execute a System Command

To use any system command that would ordinarily be typed from the system prompt ($ or #), use the **Execute System Command.** You can select this command in two ways:
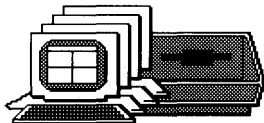
- Select **Execute System Command.**

- Type **!** from any of the AOM menus.

You can type one command at a time. If you want to execute more than one command, type them on the same line, separated by semicolons.

Run a Shell

This command enables you to work in the Bourne shell.

To go to the Bourne shell, do the following:

1. Select the **Run a Shell** command.

   You will see the system prompt for the shell.

2. To return to the AOM Menu, press **Ctrl-d** at the shell prompt.

Become a System Administrator

Some system commands can be used only by the system administrator, such as **Become System Admin.** Select this command if you want to enter system maintenance or administration commands at the prompt.

Note that this command takes you to the system prompt where you cannot use certain AOM commands (e.g., commands that manage the Menu Manager). For information on how to enter commands as a system administrator, see Chapter 4.

1. Select the **Become System Admin** command.

   You will be prompted for the system administrator password, if one has been established.

2.   Type the password.

If you are on WorkNet, type the password for each system you will be using.

You will see the prompt #, which indicates that you can now use system commands.

3.   Type system commands.

4.   When you are finished with system administration, type **Ctrl-d** at the system prompt to return to the UTILITIES menu.

You are no longer the system administrator and cannot give system administration commands.

MOVING BETWEEN SHELLS

You can move from within AOM to your operating system to use system commands. You can then easily move back into AOM. You can also move between AOM and AOM Windows (if installed). This section explains how to accomplish these moves.

Access the Operating System from the AOM Shell

If you are working in AOM and decide you want to use a command at the system prompt, you can access the operating system by doing the following:

1.   Type ! (exclamation mark) or select **Execute System Command** or **Run a Shell** command.

You will see a message telling you to type a command.

2.   You can now type the system command(s) you want to use.
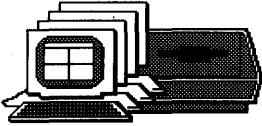
If you select **Run a Shell,** you can give more than one
command before returning to AOM. However, for the
other commands, you can enter several commands by
typing a ; (semicolon) between them.

For example, assume that the cursor is at the **Change
Directory** command in AOM, but you want to first check
the files in the current directory and then display
the time. You can go to the system prompt by typing
an ! (exclamation mark). Then, type the command **ls**
(to list the files in the current directory), a semi-
colon (;), and then **date.**

The contents will be listed, then the date and time,
and then you will be prompted to press any key, which
will return you to the AOM Menu System (see Figure
3-6).

```
Function ------> Execute System Command


Enter System command: ls /usr/terry;


2docs           augweek1        newdoc
names.out       mycalendar      dailynov1
standrdltr      ssexample       meetings
Wed  Feb 25    10:45:11  PST  1987



Press any key to continue.
```

Figure 3-6. Accessing an Operating System From AOM

Return to the AOM Shell from the Operating System

If you are in the operating system and want to return to the AOM shell, type Ctrl-d.

You will be returned to the AOM shell. You can now continue selecting AOM commands.

Move Between Shells

You can move between the following shells if they are installed on your system.

- AOM Windows Shell
- AOM Shell

To move from one shell to another, first type ! (exclamation mark) and then type the command for the Shell you want to access. The commands are:

Command	Shell
waom	AOM Windows Shell
aom	AOM Shell

NOTE

The more shells you open, the slower your system will run. Be sure to exit from any shell you are not using.

When you want to return to the last shell you were using, quit from the shell (usually by typing **q**), then press any key to return to the shell you were in previously.
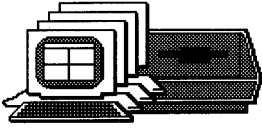
(BLANK)
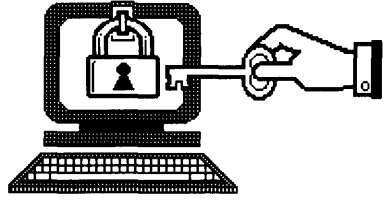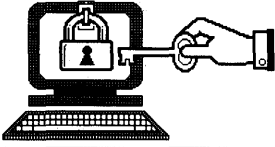
Chapter 4
The System
Administrator

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RESPONSIBILITIES
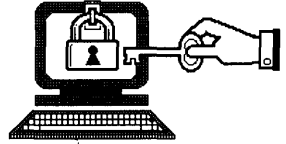
The system administrator needs to periodically check and maintain the operating system to keep it running smoothly.

The responsibilities for managing the system include such procedures as:

• Adding or changing user accounts

• Setting up (configuring) ports and printers

• Checking and cleaning up files

• Backing up the file system

• Managing disk space

• Stopping a process or the system

• Changing file permissions when necessary

The responsibilities for organizing and maintaining the AOM Menu System include such procedures as:

• Installing and updating applications

• Moving a menu to a different page

• Renaming a page

To perform system administration procedures, you must log in as System Administrator (admin) or as root. The next section explains these two log-in procedures.
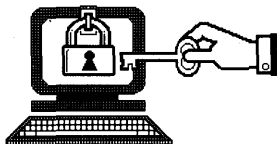
BECOMING THE SYSTEM ADMINISTRATOR

To become a system administrator and perform system administration procedures, you must follow a specific procedure when you log in.

To log in as system administrator, do the following:

1. Type **admin** at the log-in prompt.

    You will be prompted for a password if one has been set up.

2. Type the password for your system.

    If the system is set up to automatically put you in the AOM Menu System, you will see the first page. If you are not automatically put in AOM, type **aom**, then **Retn**. You can then go to the System Utilities page or the Menu Manager page and access the commands you need to use. Refer to Chapters 5 and 6 for information on how to use these commands.

    NOTE

    You can also become a system administrator after you log in by selecting the **Become System Admin** command in the AOM_UTILITIES menu. However, you will only be able to use commands at the system prompt and not in the AOM Menu System because this command takes you out of AOM until you press the key to return to the menus.
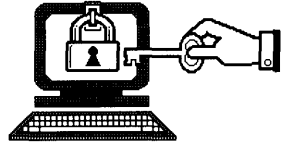
SETTING UP SYSTEM ADMINISTRATOR PASSWORD

For system security, you will want to set passwords for
the admin and root log-in accounts. The following pro-
cedure explains how to change or set a password for admin
and root.

1. Log in as admin.

    You will be put in AOM (if this is your default
    shell).

    If you are already in AOM, type ! and at the sys-
    tem prompt, type **su.**

2. Select the **Change Password** command in the
    AOM_UTILITIES menu.

    The message "New password:" is displayed on the
    screen.

3. Type a new password, then press ▇ Retn ▇.

    You will not see the characters you type.

    The password must be at least six characters long.
    You can use any keys on the keyboard. Choose a
    sequence of keys that are easy for you to remember,
    but difficult for someone else to guess.

    A message asks you to retype your new password.

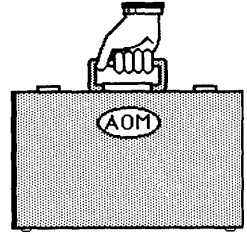4. Type your password again, exactly as you did in Step
    3, then press ▇ Retn ▇.

(BLANK)

Chapter 5
Managing the System
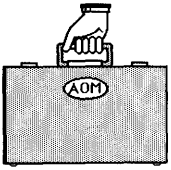
(BLANK)

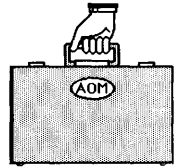# USING THE SYSTEM ADMIN I MENU

Commands for maintaining the system are included in the SYSTEM ADMIN I menu, shown in Figure 5-1. Refer to this figure when you read about the individual commands in this section.

```
SYSTEM   ADMIN   I


      Display Processes
      Stop Process
      Shutdown System
      Go to Single User Mode
      Add/Change User
      Set Up Ports
```

Figure 5-1. The SYSTEM ADMIN I Menu

Display Processes

At times you'll want to look at information about the processes (programs) running on your system. For instance, there may be a process that is taking too long to complete or is causing a terminal to hang (not operate). If this happens, you can identify the process causing the problem and then stop it.

To display information about active processes, select the **Display Processes** command. Figure 5-2 shows an example of a Process Status screen. Note that there are different column headings displayed. The column headings are explained in Table 5-1. These headings might be different, depending on your operating system. For specific information about the **Display Process** command in your operating system, see the **ps** command in your operating system manual.
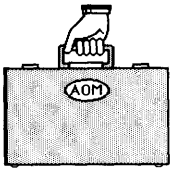
```
    Function ----- > Display Processes

 F  S  UID   PID  PPID  C  PRI  NI  ADDR  SZ  WCHAN  STIME      TTY
 1  S terry 1822     1  0   30  20    4C  24  9d40   09:07:12 co/0
 1  S root  1978     1  0   40  20    37  16  f000   09:30:20  3
```

Figure 5-2.   A Process Status Screen

Table 5-1. Explanation of a Process Status Screen

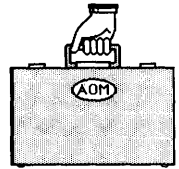| Column Heading	Meaning

F	Flags associated with the process:
	  01: in core
	  02: system process
	  04: locked in core (physical I/O)
	  10: being swapped
	  20: being traced by another process
	Other numbers indicate combinations of these flags.

S	State of the process
	  O: nonexistent
	  S: sleeping
	  W: waiting
	  R: running
	  I: intermediate
	  Z: terminated
	  T: stopped

UID	The log-in name of the process initiator.
PID	The process identification (PID) number.

Table 5-1. Explanation of a Process Status Screen (Cont.)

Column Heading	Meaning
PPID	The process identification number for the parent process.
C	Process utilization for scheduling.
PRI	Priority of the process; high numbers are low priority.
NI	Number used in priority computation.
ADDR	If resident in memory, the core address. Otherwise, the disk address.
SZ	The size in blocks of the data area.
WCHAN	The event for which the process is waiting (sleeping). If blank, the process is running.
STIME	The starting time of the process.
TTY	The number of the tty (terminal or printer) controlling the process. If you have AOM Windows, this column also displays a slash and the number of the Window in which the process is running (see Figure 5-2).
TIME	The cumulative execution time for the process.
CMD (or) COMMAND	The name of the command.
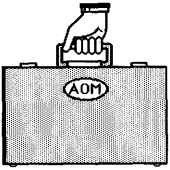
Stop a Process

To stop a process that is causing a problem, do the following:

1. Display all the processes as described above.

2. Write down the process identification (PID) number of the process you want to stop; you'll find this number in the fourth column.

3. Select the **Stop Process** command in the SYSTEM ADMIN I menu.

   You will be prompted to enter the process ID number (PID).

4. Type the PID number of the process you want to stop and press **Retn**.

                          CAUTION

   **Don't stop the init, swapper, setmode pro-
   cesses for your system. Also, don't stop the
   update process (if on your system). Stopping
   these processes will cause system problems.**

Stop and Start the Operating System

If you have to turn off the power or reset the system, first make sure there are no users on the system, and you must log in as root or admin.

The procedures for stopping the operating system depend on the system you are using. The following procedures explain how to stop and start your operating system.

Before starting these procedures, select the **Who is on the System?** command in the AOM_Utilities menu to see if anyone is logged in. Then, select the **Send to All Users** command in the same menu to send a message to all users that
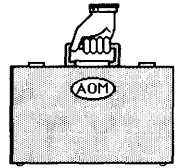
you are going to shut down the system (see "Send a Message to All Users" in Chapter 3).

Now, follow the steps below. If anything is unique for your system, it will be indicated with brackets, such as [Intel-based Altos System V].

1.   Select the **Shutdown System** command on the Sys_Utilities menu.

[XENIX only] A prompt on the screen asks you to specify the number of minutes until shutdown (0-15). Type the number of minutes. The system will send a message to all users to finish and log out because the system will shut down in the number of minutes you specified.

[XENIX System V only] A prompt asks you if you want to continue. If you do, type **y**; if you do not, type **n.**

[Intel-based Altos System V only] There is no prompt; system shutdown begins automatically.

You'll know the system has shut down when you see the following message on the console:

```
** Normal System Shutdown **
```

To start the system after stopping it, you can either turn the system off, then on, or reset the system.

If your system was not shut down properly, a file checking program will begin. You may first receive a message that the system was not shut down properly and the root file system will be cleaned.

After you reset the system, you are asked if you want to check the file system. Type **n** if you don't; type **y** (or nothing) if you do.
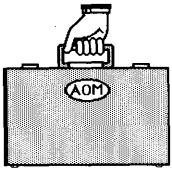
For XENIX System V, you may see a message telling you
the system is "dirty" before you see the file check
message. If you are warned that the system is dirty, type
y for checking the file system. If there is no warning,
you can type **n** (to not check the system) or you don't have
to type anything and the system will be checked auto-
matically.

The system validates the consistency of the disk file sys-
tem, which may have been damaged, and automatically re-
pairs it. If there is no damage to the system, you will
see a screen similar to the following:

```
/dev/root

** Phase 1 - Check Blocks and Sizes
** Phase 2 - Check Pathnames
** Phase 3 - Check Connectivity
** Phase 4 - Check Reference Counts
** Phase 5 - Check Free List
nn files nnn blocks nnn free
```

If the file system is okay, you are asked to type **Ctrl-d**
to proceed with normal start up.

If the file system was damaged, it is automatically re-
paired, then the system displays a log of the corrections
that were made.

After the file system has been repaired, the system re-
boots automatically and asks you to enter the time and
date.

If you have any doubt whether the file system has been
repaired satisfactorily, you can restore the hard disk
from backup files.
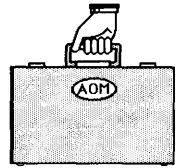
Go To Single User Mode

When you need to become the only user on the system (for
example, to stop the system), use the Single User Mode.
You must be logged in as root to work in this mode.

Always go into Single User Mode before using the check
file system program because open files might be removed
and the system might be shut down (see "Check the File
System" in this chapter). To go to Single User Mode, do
the following:

1.   Select the **Go To Single User Mode** command.

    INIT: SINGLE USER MODE

For XENIX System V and Altos System V, you are asked if
you want to continue. If you do, type **y**; if not, type **n**.
The system automatically goes to single user mode after
one minute.

For XENIX, you see a prompt asking you to specify the
number of minutes before shutdown. The screen displays
the following:

    Minutes until shutdown? (0-15)

Type the number of minutes and press **Retn** . After the
specified time, the system shuts down, reboots, then dis-
plays a message on the screen. Follow the instructions
for your system.

At this point, you can work in the shell as the system
administrator. To bring the system back up for other
users (multiuser mode), at the prompt press **Ctrl-d** [for
XENIX and Intel-based Altos System V] and type **multiuser**
[for XENIX System V].
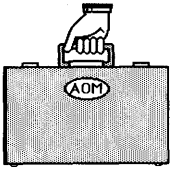
Add and Change User Accounts

The system administrator can set up and change a user log-in account for each person using the system. To do this, select the **Add** User or **Change** User command.

```
Commands:  show, add, delete, change, user, Users, group,
Groups, help, !, quit




Command?
```
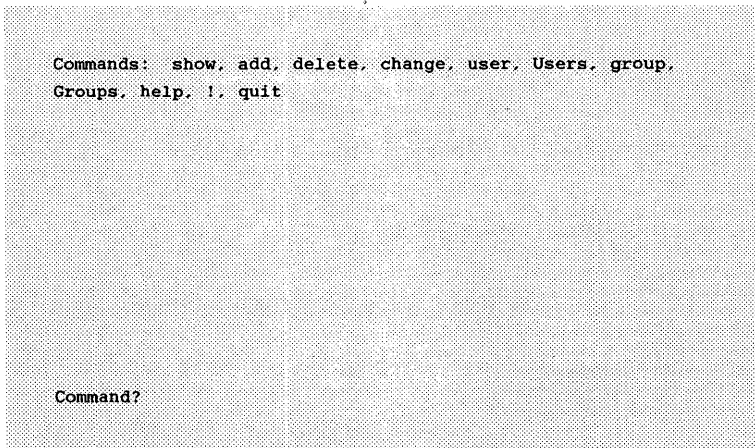
Figure 5-3.   Initial Screen

When you first select the **Add/Change User** command, you will see just the top row of commands shown in Figure 5-3 and the prompt "Command?" at the bottom of the screen. For some systems, your terminal type is displayed and you are asked if the type is correct. If it is, type **y** and press **Retn**; if not, type **n** and press **Retn**, then enter the correct type and press **Retn**.

Descriptions of each command and how to select a command are in the following sections of this chapter. When you select the **add** or **change** command and type a user name, you will see the log-in account information for that user (as shown in Figure 5-4).
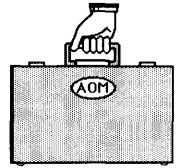
```
                    User Administration

Commands: show, add, delete, change, user, Users, group,
Groups, help!, quit


            a. User:           terry
            b. User Id:        119
            c. Group:          Other
            d. Group Id:       1
            e. Password:       <SET>
            f. Full Name:      terry
            g. Directory:      /usr/terry
            h. Shell:          /bin/aomlogin



            q. (quit -- return to top level)


      Which field?
```

Figure 5-4. User Log-in Account

User Administration Commands

Command words appear at the top of the User Administration screen. To set up a user account, use a combination of two command words, typing the first letter of each word. Table 5-2 shows the commands and a description of each command.
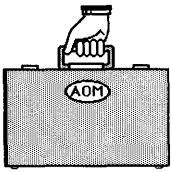
Table 5-2. User Administration Commands

Command	Description
add user	Adds a new user to the system
add group	Adds a new group to the system
delete user	Deletes a user from the system
delete group	Deletes a group from the system
show user	Displays a user's attributes
show group	Displays a group's attributes
change user	Changes a user's attributes
change group	Changes a group's attributes
show Users	Shows all current users
show Groups	Shows all current groups
! shell command	Takes you to the operating system shell; commands
help	Displays the help screen
quit	Returns to AOM or your operating system shell.

Adding a User Account

When you create or change a user account, use the following guidelines:

1. Make the user name short (the user will enter it often). A user name can have up to eight letters or numbers, but it cannot contain a space.

    The user enters the name exactly as created. Use only lower-case letters.
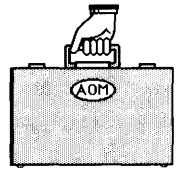
2.   Do not use a name with upper-case letters unless that person has a terminal with only upper-case letters, such as a Teletype terminal. If a name is created with upper-case letters, the system assumes that the terminal does not have lower-case letters, and the the use of the system is thereby constrained.

3.   To remove a password, change the password to <NOT SET> by typing **e** and pressing **Retn**.

4.   Choose the shell the user will log in to. The default log-in Shell for new users is AOM.

The shells are:

●   /bin/waomlogin -- AOM Windows Shell (with menus)

●   /bin/aomlogin -- Altos Office Manager Shell (with menus)

●   /bin/sh -- Operating System Shell

●   /bin/csh -- C Shell

To create a user account, do the following:

1.   Type **a.**

The word "add" appears at the bottom of the screen.

2.   Type **u.**

The word "user" appears next to add. At this point, you can get out of the command by pressing **Del**.

3.   Type a user name, and press **Retn**.

You can only enter one user or group at a time.

The system automatically assigns user ID, group ID, full name, directory, and shell. Shells can be one
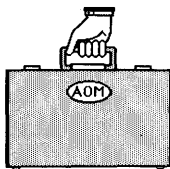
of the following: AOM Windows shell, Altos Office
Manager shell, or the operating system shell.

NOTE

If your system is on a network, make sure the
user ID and account name are the same on all
machines in the network.

For example, to add a user named kim, type the following:

a(dd) **u**(ser) **kim** **Retn**

A message on the screen tells you that the system is up-
dating the new user kim. The screen then displays the
system settings for kim (see Figure 5-5). To change a
setting, type the single letter that is to the left of
each line.

Initially, the password is not set. New users should set
their own password by using the Change Password command
in the AOM UTILITIES menu, described in Chapter 3, "Using
the System."

The text ⟨SET⟩ in the password line means a password has
been assigned for that account. If you want to unset a
password, type **e** and press **Retn**. The password line dis-
plays ⟨NOT SET⟩.

If AOM is not displayed on the screen after a user logs
in, you can set the account so AOM is the default log-in
shell by changing the shell to /bin/aomlogin.
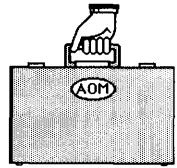
```
                    User Administration


   Commands: show, add, delete, change, user, Users, group,
   Groups, help!, quit



                   a. User:      kim
                   b. User ID:   28
                   c. Group:     other
                   d. Group Id:  1
                   e. Password:  <NOT SET>
                   f. Full Name: kim
                   g. Directory: /usr/kim
                   h. Shell:     /bin/aomlogin


                   q. (quit -- return to top level)



   Command: add user kim
```

Figure 5-5. Example of Creating a New User Account

4.   Type **q** when you are finished. A message on the
      screen tells you the system is installing files for
      the new user. You can then enter another User Admin-
      istration command, or type **q** to return to AOM.

Set Up the Ports for Terminals and Printers: Configure a Port

Your system is already set up so you can connect Altos
terminals and standard printers to the ports on your sys-
tem. See your installation manual for the settings for
your system.

You may want to change these settings when you first in-
stall your system or at some later time. Altos provides a
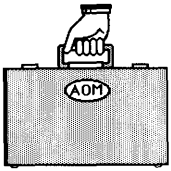
utility that enables you to add, change, display, and re-
move port assignments.

The following sections explain how to use this utility in
AOM. Read the section that pertains to your operating
System (XENIX, XENIX System V, and Intel-based Altos
System V).

XENIX

This section explains how to set up or change a port for
XENIX. To use this utility, select the **Set Up Ports** com-
mand from the System Admin I menu. The current ter-
minal and printer assignments for the ports on your system
are displayed. Figure 5-6 shows an example of an
eight-user system.
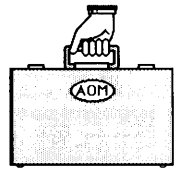
```
                    PORT CONFIGURATION UTILITY


Now loading the port configuration information ... loaded!


Hardware  Software  Device   Terminal  Printer  Baud  Parity  Word  Modem?
 Name      Name     Type      Type     Number   Rate          Len


PORT00    console   terminal  altos3            9600
PORT01    tty01     printer             default        none   8 bits
PORT02    tty02     terminal  altos3            9600
PORT03    tty03     terminal  altos3            9600
PORT04    tty04     terminal  altos3            9600
PORT05    tty05     terminal  altos3            9600
PORT06    tty06     terminal  altos3            9600
PORT07    tty07     terminal  altos3            9600
PORT08    tty08     terminal  altos3            9600


Commands:   (c)hange port,    (d)isplay,   (h)elp,    (q)uit
            (r)emove port,    (t)est printer


Type a command (c, d, h, q, r, or t) and press RETURN:
```

Figure 5-6. Set Up a Port Screen

Port configuration commands are:

```
c = change a port assignment
d = display all port assignments
h = display the port configuration help message
q = exit from the port configuration program
r = remove a port assignment
t = test a printer
```

Once you are in the port configuration program, select a command by typing the first letter of the command and pressing the ▮Retn key. To set up or change a port, start with Step 1 below.
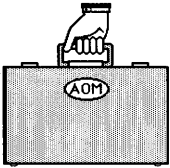
1. Type **c** and press ▉Retn▉ to set up or to change a port assignment.

   A message on the screen prompts you to type a port name.

2. Type the port hardware or software name.

   For example, type **port 02** and press ▉Retn▉ for the terminal connected to port 2.

   The system displays the current settings for that port.

3. You are prompted for the type of device connected to that port; valid device types are terminal, printer, and none (no device connected). Specify a new type of **device** and press ▉Retn▉, or just press ▉Retn▉ to leave this setting unchanged.

4. For terminals, the system displays the terminal type, for example, altos3 for the Altos III terminal.

   Type **?** and press ▉Retn▉ to scroll through the screens of terminal names. Press any key and ▉Retn▉ to return to the terminal selection screen.

   Type the terminal name that corresponds to your terminal type, or press ▉Retn▉ to leave this setting unchanged.

5. The system displays the current speed (baud rate) for that port. It asks if you want a new speed.

   Type a new speed and press ▉Retn▉. Press only ▉Retn▉ to leave this setting unchanged. If you type an incorrect speed, the system shows the possible speeds.

6. A message tells you that there is no auxiliary (transparent) printer on that port. That is, there is no printer connected to the terminal that is connected to that port.
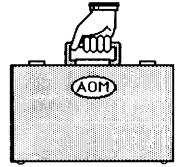
If you want to connect an auxiliary printer, type **y** and press █Retn█. During printing, all other input and output to your terminal is disabled. You can stop printing and use your terminal again by pressing the █Break/Del█ key. If you do not want to connect an auxiliary printer, press only █Retn█ (instead of **y** and █Retn█).

7. A message tells you there is no modem on that port.

   Type **y** and press █Retn█ if you wish to connect a modem, or press █Retn█ to leave this setting unchanged.

   The system displays the final settings for that port, and the command line reappears on the screen. If you are finished changing the settings and want to resume installation, type **q** and press █Retn█.

   The system asks for confirmation that the port assignments are correct. If they are correct, type **y** and press █Retn█. If you want to redo a setting, type **n**. Whether you type **y** or **n**, you will be asked if you want to exit. Type **y** to exit and save your changes; type **n** and press █Retn█ to return to the command line to redo a setting.
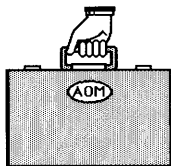
Setting Up a Printer

Your system is already set up for either a serial or parallel printer.

To add a printer or change a printer port, do the following:

1. Specify **"printer"** when you are prompted for the device type (see Step 3 in the previous section).

   A message tells you whether there is a printer number assigned to the port.

2. Specify a printer number for the port and press
   `Retn`. Valid numbers are 0 through 9. The default
   printer is printer 0.

   If you are setting up a parallel printer, do not con-
   tinue with Steps 3 through 5; they do not apply

3. The screen displays the current speed (baud rate) for
   that port. Possible speeds are 110, 150, 300, 300c,
   1200, 1200P, 2400, 2400Q, 4800, 9600, 9600i, or
   19200. Specify a new speed, or press `Retn` to leave
   this setting unchanged.

4. Next, the screen displays the current parity setting
   (odd, even, or none). Specify a new parity, or press
   `Retn` to leave this setting unchanged.

   If you change the parity setting, the word length (in
   bits) is automatically adjusted for you. For no
   parity, the word length is 8, for odd or even parity,
   the word length is 7.

5. Finally, a message tells you there is no modem on
   that port. Type **y** and press `Retn` if you wish to
   connect a modem, or press `Retn` to leave this setting
   unchanged.

   The screen displays the final settings for that port.
   Then the command line reappears on the screen. At
   this point, you should test the printer port. See
   the next section.

Testing a Printer

After you set up a port for a printer, test it by
selecting t, test a printer.

1. Type a printer number or port name. For example, if
   you just set up port 7 for printer 1 (the second
   printer on your system), you can type either port 07
   or 01.
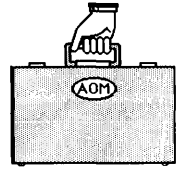
A message tells you the system is testing the printer
you specified, and the screen displays the settings
for that port.

Then the following display appears on the screen:

```
ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdefghijklmnopqrstuvwxyz

0123456789!@#$%^&*()[]{};':",../<>?
```

The printer should print this display and advance to
the top of the next page.

If the display prints correctly, the printer is set
up correctly.

2. However, if the serial printer does not print cor-
    rectly, check one or more of the following:

•   Baud rate on the printer

•   Parity setting on the printer

•   Printer setting for linefeed or carriage return

•   Printer setting for X-ON/X-OFF protocol

•   Word length setting

•   Printer cable

If the parallel printer does not print correctly, check
the printer manual and one or all of the following:

•   Paper or ribbon

•   ON LINE setting
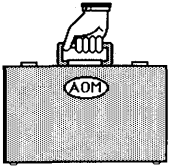
• Printer cable

When you finish setting up the ports, type **q** and press
▮Retn▮ to quit. The following messages appear:

```
Are you certain the port assignments are now correct?
(y/n)
```

Type **y** and press ▮Retn▮ to confirm.

After you type **y,** a message on the screen tells you that
the port configuration program has concluded. You will be
asked if you want to exit. Type **y** and press ▮Retn▮ to
exit.

XENIX System V and Intel-based Altos System V

Select the **Set Up Ports** command. The system tells you
what your terminal type is (as shown in Step 1).

1. Your terminal type is "xxxxx", where on both systems
    xxxxx is the terminal type. If correct, press ▮Retn▮.
    If not, enter the correct terminal type and press
    ▮Retn▮.

    The Port Configuration screen appears (see the
    example shown in Figure 5-7).
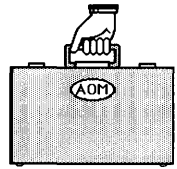
```
Feb 23  15:20:17   1987                          Press ^W for Help


                    PORT CONFIGURATION UTILITY


Port      Device   Terminal Printer Printer No. Baud Action Modem?
Name      Type     Type     Name    or Runstate Rate (On/Off)

console   terminal altos3                        9600 On     no
parallel  printer                                     off
tty01     printer  laser    default               9600 off    no
tty02     terminal altos3            2            9600 On     no
tty03     terminal altos3            2            9600 On     no
tty04     terminal altos3            2            9600 On     no
tty05     terminal altos3            2            9600 On     no
tty06     terminal altos3            2            9600 On     no
tty07     terminal altos3            2            9600 On     no
tty08     terminal altos3            2            9600 On     no
tty09     terminal altos3            2            9600 On     no


To add a new port to the list.
MAIN-MENU:  Add    Change   Delete   Remote-printer   Quit
```

Figure 5-7. Port Configuration Screen

Use this screen to add a new port to the list, change a
port's settings, or remove a port from use. You can set
up a port for use with a terminal, printer, or modem.

The top line of the screen displays the current date and
tells you to press **Ctrl-w** to get Help.

The center part of the screen lists the following for the
ports on your system:

•   Port name (e.g., console, parallel, tty01)

•   Type of device (terminal or printer)

•   Type of terminal
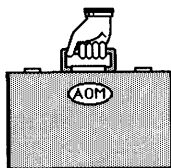
- Printer number (or run state)

- Baud rate

- Action -- on or off

- Modem connection

The bottom of the screen contains a Message line and Command line. The Command line currently contains the Main menu. From this menu, you can add, change, or delete a port, set up a remote printer, or quit the program. (Other menus also appear on the Command line.)

Note that the cursor is on the Add option, and the Message line explains, "To add a new port to the list." The Message line displays a description of a command. When necessary, this line also displays an error or warning message.

As you use the Port Configuration program, you will be selecting commands or items from two types of menus:

- Command line menu

- Center screen menu

The following tables explain how to select a command or item from each of these menus.
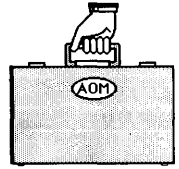
Table 5-3.   Command Line Menu

Action	Key to Press
Select a command	First letter of a command
Right (move forward)	▮ Spacebar ▮ or Right Arrow key
Left (move backward)	▮ Backspace ▮ or Left Arrow key
Select highlighted command (current setting or default)	▮ Retn ▮

Table 5-4.   Center Screen Menu

Action	Key(s) to Press
Select highlighted option (current setting or default)	▮ Retn ▮
Move down in a column	Down Arrow, ▮ Ctrl-d ▮, or ▮ Spacebar ▮
Move up in a column	Up Arrow or ▮ Ctrl-u ▮
Move right in a row	Right Arrow or ▮ Ctrl-r ▮
Move left in a row	Left Arrow or ▮ Ctrl-l ▮
Go to next screen	▮ Next Scrn ▮ or ▮ Ctrl-n ▮
Go to previous screen	▮ Prev Scrn ▮ or ▮ Ctrl-p ▮
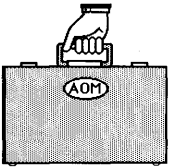
There are Help screens to guide you through this program. If you need an explanation of a particular option, press **Ctrl-w**, which will display help for the current screen.

Adding a Port

To add (enable) a new port, do the following:

1. Select **Add** from the Command line. The screen displays a list of valid port names.

2. Type the name of the new port (**tty16**, for example). The default settings for that port are displayed. You can press **Retn** to select the default settings or type a new setting then press **Retn**. The message line displays the following:

    [for XENIX and XENIX System V only]

    ```
    A video display unit with a screen and keyboard.
    DEVICE-TYPE:  Terminal Printer Other
    ```

    [for Intel-based Altos System V only]

    ```
    A video display unit with a screen and keyboard.
    DEVICE-TYPE:  Terminal Printer Modem Other
    ```

3. Specify a new device type (**t, p,** or **o**) for XENIX and XENIX System V and (**t, p, m,** or **o**) for Altos System V. Or, press **Retn** to leave this setting unchanged.
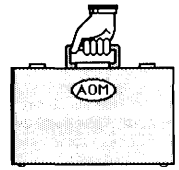
4. For terminals, the screen displays a list of all
    valid terminals. Select the terminal type (or type
    its name), and press ▮Retn▮.

    For printers, see "Setting Up a Printer," later in
    this chapter.

   Next, you are asked if you want to set up a modem
    on the port.

5. Select **Yes** or **No** and press ▮Retn▮.

6. The screen displays the available baud rates
    (speeds). Select a new baud rate and press ▮Retn▮.

7. Then you are asked to select an action: Active (on)
    or Inactive (off). Select the action for that port
    and press ▮Retn▮.

8. A message then asks if you want an auxiliary printer
    on the port. Select **Yes** or **No.**

    If you select **No,** the final settings for the port
    appear on the screen. If you select **Yes,** a list of
    printers appears on the screen.

                            NOTE

        If you print from an auxiliary printer the
        system will redirect data to the printer using
        the terminal's transparent print mode. All
        echoed output to the terminal will be dis-
        abled; however, you can stop printing and
        regain control of the terminal by pressing
        ▮Del▮.

9. Select a printer from the list and press ▮Retn▮. You
    are prompted to type a printer name and printer num-
    ber. (Valid numbers are 0 to 255 and valid names
    are up to 14 alphanumeric characters.)
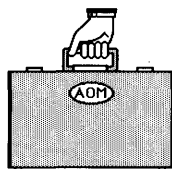
10. Next, you are asked to supply the mode flags for the auxiliary printer. These flags set the protocol for the printer (for example, odd or even parity). Your printer manual explains these flags. Press **Retn** for the default, or enter the flags for your printer.

11. The Port Configuration screen reappears, displaying the ports (including the changes you've just made).

    The final settings are displayed for that port. If you are finished changing the settings and want to resume installation, select **Quit** and press **Retn**.

12. You are asked for confirmation that the port assignments are correct. If they are correct, select **Yes** and press **Retn**. The system updates the port configuration information.

    If the changes are not correct, select **No.** You are asked if you want to continue in pconfig. If you want to make other changes or corrections, select **Yes.**

Changing a Port

1. To change the settings for a port, select **Change** from the Main menu Command line.

2. Select the port you wish to change by moving the cursor to that port (or typing its name) and pressing **Retn**.

    You are asked questions about the device attached to that port.

    The screen displays the type of device connected to that port; valid types are terminal, printer, or other (for example, a modem).
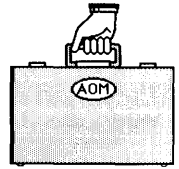
3. Specify a new type of device (**t, p,** or **o**) for XENIX and XENIX System V and (**t, p, m,** or **o**) for Intel-based Altos System V. Or just press **Retn** to leave this setting unchanged.

    The default settings for the port are displayed. You can press **Retn** to select the default settings or enter information about the port. Select a new type of device or press **Retn** to leave the setting unchanged.

    If you select Printer, see "Setting Up a Printer."

4. For terminals, the screen displays a list of the valid terminals. The cursor is on the current terminal type (if the device on this port was previously a terminal).

    Select the terminal type (or type its name) and press **Retn**, or press **Retn** to leave this setting unchanged.

5. Next, you are asked if you want to set up a modem on that port. Select **y** or **n** and press **Retn**, or press **Retn** to leave this setting unchanged.

6. The screen displays the available baud rates (speeds). Select a baud rate and press **Retn**.

7. Then you are asked to select an action: **Active** (on) or **Inactive** (off). Select the action for that port and press **Retn**.

8. A message then asks if you want an auxiliary printer on the port. Select **y** or **n.**

    If you select **n,** the final settings for the port appear on the screen. If you select **y,** a list of printers appears on the screen.
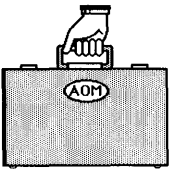
NOTE

> If you set up an auxiliary printer and select
> it for printing, the system will redirect data
> to the printer using the terminal's trans-
> parent print mode. During printing, all other
> input and output to the terminal will be dis-
> abled; however, you can stop the printing and
> regain control of the terminal by pressing
> **Del** .

9. Select a printer from the list and press **Retn** . You
    are then prompted to type a printer name and number.
    (Valid numbers are 0 to 255, and valid names are up
    to 14 alphanumeric characters.)

10. Next, you are asked to supply the mode flags for the
    auxiliary printer. These flags set the protocol for
    the printer (for example, odd or even parity). Your
    printer manual explains these flags. Press **Retn** for
    the default, or enter the flags for your printer.

11. The Port Configuration screen reappears, displaying
    the ports (including the changes you've just made).

    The final settings are displayed for that port. If
    you are finished changing the settings and want to
    resume installation, select **Quit** and press **Retn** .

12. You are asked for confirmation that the port assign-
    ments are correct. If they are correct, select **y** and
    press **Retn** . The system updates the port configur-
    ation information.

    If the changes are not correct, select **N**. You are
    asked if you want to continue in **pconfig**. If you
   want to make other changes or corrections, select **y**.
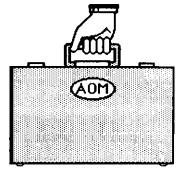
Setting Up a Printer

Your system is already set up for a serial and parallel printer. Using the Port Configuration program, you can do the following:

• Change the existing serial printer

• Add another serial printer

• Change the printer device assigned to the parallel port

• Set up a remote printer

Serial Printer

To add or change a serial printer port, do the following:

1. Select **Add** or **Change** from the Main menu Command line.

2. Select the port you want to change.

3. Select **Printer** when you are prompted for a device type. A list of valid printer types appears on the screen.

4. Select a printer type from the list, or if you are adding a printer, enter the type (e.g., laser) and press **Retn**. You are then asked to supply a name for the printer.

5. Type a name for the printer and press **Retn**. Valid names can be up to 14 alphanumeric characters. The next prompt asks for a printer number.

6. Type a number for the printer and press **Retn**. Valid numbers are 0 through 255. The first (default) printer is printer 0, the second printer is 1, and so on.
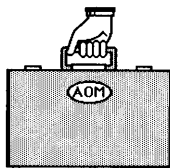
7. The screen displays valid baud rates (speeds) for the printer; the cursor highlights the current baud rate. Select a rate and press � Retn ▮, or press ▮ Retn ▮ to leave this setting unchanged.

8. Next, a message asks you to enter the printer mode flags and displays the default values for these flags. These flags set the protocol for the printer (e.g., odd or even parity). Your printer manual explains these flags. For example,

    cs8 -parity opost -nl -tabs

    Press ▮ Retn ▮ to select the displayed flags or enter new flags as you are prompted.

    The Port Configuration screen reappears and displays the settings for the ports, including the changes you've just made.

Parallel Printer

To change the printer device assigned to the parallel printer port, follow the previous instructions for setting up a Serial Printer. Press ▮ Retn ▮ at every step, except Step 4, so you retain the same values for all settings but the printer type. For Step 4, enter the printer type.

NOTE

Use a Centronics interface on the parallel port.

Remote Printer

A remote printer is one that is attached to a port on a computer that is connected to your system. To set up a remote printer, do the following:

1. Select **Remote-printer** from the Command line. You are prompted for a printer name.

2. Select or type a name for the printer and press **Retn**. Then you are asked to enter a number for the printer.

3. Type a number for the printer and press **Retn**. Valid numbers are 0 through 255. The first (default) printer is printer 0, the second printer is 1, and so on. Then you are asked for a printer type.

4. Select or enter the printer type (e.g., laser) and press **Retn**. The next prompt asks for the name of the remote machine to which the printer is connected.

5. Type the name of the remote machine and press **Retn**. Then the screen displays valid baud rates (speeds) for the printer; the cursor highlights the current baud rate.

6. Select a baud rate and press **Retn**, or press **Retn** to leave this setting unchanged.

7. Next, a message asks you to enter the printer mode flags and displays the default values for these flags. These flags set the protocol for the printer (e.g., odd or even parity). Your printer manual explains these flags. For example,

        cs8 -parity opost -nl -tabs

8. Press **Retn** to select the displayed flags, or enter new flags as you are prompted.

   The Port Configuration screen reappears and displays the settings for the ports, including the changes you've just made.
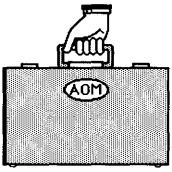
Testing a Printer

After you set up a port for a printer, it's a good idea to test it using the **lp** or **lpr** programs. Do this after you finish the installation procedure. For example, type

lpr *filename* and press ███Retn███

where *filename* is the name of a file (e.g., /etc/passwd). If the printer does not print correctly, refer to your printer manual and check one or more of the following:

●   The printer is connected to the correct port and is switched to "ON."

●   You have the correct printer cable.

●   The following settings for the printer are correct:

-   baud rate

-   parity setting

-   linefeed or carriage return settings

-   X-ON/X-OFF protocol

-   word length setting

If you are finished changing the settings, type **q**. The system askes if you want to save these new settings.

If you do, type **y** and press ███Retn███. The system updates the port configuration information.

If you don't want to save the changes, type **n**. You are asked if you want to continue. Type **n** to return to the command line; type **y** to return to the Sys_Utilities menu without saving the changes.
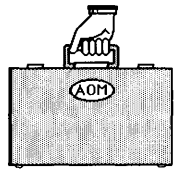
Removing a Port

To remove a port from use, do the following:

1. To delete a port, type **d.**

2. Press the **Down** Arrow or **Up** Arrow key to move to the port you want to remove.

3. Select **Remove** from the Command line. A message asks if you are sure you want to delete the port from use.

4. To confirm the deletion, select **y.** If you don't want to remove the port, select **n.** At this point, you can remove another port from use.

5. To return to the Port Configuration Main menu, select **Quit.**

Leaving the Port Configuration Program

When you are finished making changes to the port, do the following:

1. Select **Quit** from the Command line. A message asks if you want to save the changes.

2. Select **y** to save the changes; select **n** if you don't want to save any changes.

   You are asked if you want to continue in **pconfig.** If you select **y,** the **pconfig** screen reappears. If you select **n,** installation continues.

3. To save the changes you have made, select **y.** The ports are reconfigured and installation resumes (see the next section).
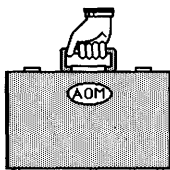
USING THE SYSTEM ADMIN II MENU

Other commands for maintaining the system are in the SYS-
TEM ADMIN II menu shown in Figure 5-8. You must be
the system administrator to use the commands on this menu.
Refer to this figure when you read about the commands in
this section.

```
S Y S T E M   A D M I N   II


    Change File Permissions
    Change File Ownership
    Change File Group
    Check File System
    Back Up File System to Tape
    Restore File System to Tape
```
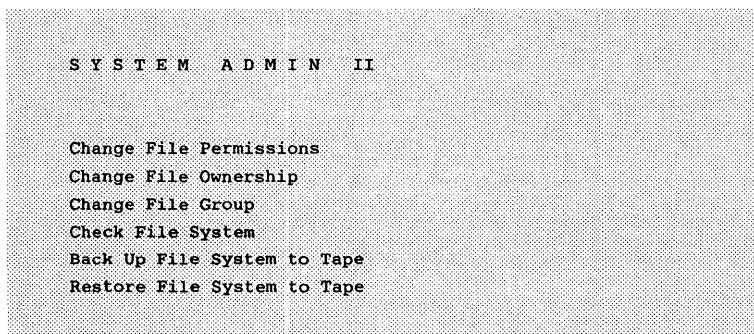
Figure 5-8. The SYSTEM ADMIN II Menu

Change File Permissions

From time to time, you may need to change who is permit-
ted to use a file or directory. For a description of the
Change File Permissions command, refer to "Change File
Permissions" in Chapter 2.

Change File Ownership

When you create a file or directory, it belongs to you.
You can change the file ownership so it belongs to someone
else.

To change ownership, you would do the following:
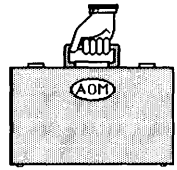
1.   Select the **Change File Ownership** command.

     You are prompted to type the name of the file.

2.   Type the name of the file and press **Retn**.

     You can also select one or more files with the point-and-pick method (see "Selecting File(s) or Directory(ies)" in Chapter 1).

     You are prompted for the log-in name of the new owner.

     If you type a file name that AOM doesn't recognize, you will see a list of valid file names. Use the point-and-pick method to select one.

3.   Type the log-in name of the new owner and press **Retn**.

4.   Press any key to return to the SYSTEM ADMIN I menu.

     If you can't change the ownership, the file may not belong to you. Only the system administrator can change the ownership of files belonging to others on the system.

Change File Group

When you create a file or directory, it is usually assigned to the group named "other." To view the group name, select the **List Details of Directory Contents** command in the DIRECTORIES menu (see Chapter 2). This

command is useful if there is more than one group on a system, and you don't want a particular group to read, write, or execute another group's files. The system administrator can create a new group by using the **Add/Change User** command.
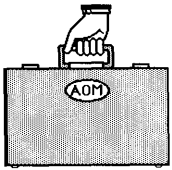
NOTE

For this command, you do not have to be a system administrator to change the group name of a file that belongs to you.

To change the group, do the following:

1. Select the **Change File Group** command.

    You are prompted for the name of the file.

2. Type the name of the file and press **Retn**.

    You are prompted for the name of the group to which you want to change.

3. Type the name of the group and press **Retn**.

    If you pick a group name that AOM doesn't recognize, you see a message telling you that the group name is unknown.

Check a File System

If you think there is a problem with your file system, you can check it with this command. You can use this command to check and/or repair your file system.

To check a file system, do the following:

1. Select the **Check File System** command.

    You will see three file checking options.

    r   Repair the file system non-interactively. Tells you if there are any problems; corrects them automatically.

i   Repair the file system interactively. Tells you
if there are any problems; prompts you for **y** or
n to correct the problems.

c   Check file system integrity only. Tells you if
there are problems, but doesn't correct them.

2.   Type **r, i,** or **c** for the procedure you want. (The
cursor is located in the brackets where you type one
of these choices). Then, press **Retn**.

3.   Type or select the file system you want to check.

If you type the name, press **Retn**. If you want to
select the name, press **Esc** and select **Select_File**.
You will see the file systems displayed, such as hd0b
or root. Move the cursor to the name you want and
press **Retn**.

Back Up a File System to Tape

It is always a good idea to back up your file system at
least once a week in case there is a system problem and
your files are lost.

To back up your file system, do the following:

1.   Select the **Backup File System to Tape** command.

You will be asked to enter the file system you want
to backup.

2.   Type the name of the disk that has the file system
you want to back up.

You can also select the file system name. Press the
Esc key, then choose the **Select_File** command.
The names of the partitions on the hard disk are dis-
played. Move the cursor to the file system you want
to back up and press **Retn**. Not all partitions con-
tain file systems.

CAUTION

> The root file system is usually on rhd0b. If you are backing up the root system, you must go to the system prompt. Type !, then type **dump.hd**.

3. Then you are asked to type a label for the tape. Type any text you want. For example, type

    This is tape #1, created on 4/8/88

4. Press **Esc** to execute, cancel, or select a file system from a menu.

5. Select the **Execute** command.

    You will see information about the tape.

6. Press any key to return to AOM menus.

NOTE

> AOM stores data on the cartridge tape using a block factor of 62. Tapes created using this blocking factor can be read on any Altos operating system. If you want to use a different blocking factor, for example 126, edit the file /usr/aom/aom.msgs and change line 449 so it reads "*126" instead of "*62".

Restore a File System to Tape

You may want to restore a file system after there has been a problem or if you want to return some files to your system after deleting them.
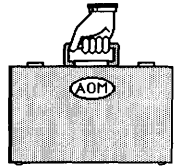
To restore your file system, do the following:

1. Select the **Restore File System to Tape** command.

    You will see two options displayed:

    > **i**   Displays information about a tape.

    > **r**   Restores a file system.

    If you type **i**, information about the tape is displayed, including the label you typed in the **Backup File System to Tape** program. Next, you will see a message telling you to press any key to redisplay the AOM menus.

    If you type **r**, information about the tape is displayed as it is being restored. Next, you will see a message that says to press any key to redisplay the AOM menus.

2. Type the letter of the option you want and press **Retn**.

<div align="center">

CAUTION

</div>

> The Back Up File System to Tape and Restore File System to Tape commands are not designed to work on file systems stored on floppy disks. You can use the operating system command, fcopy, to back up floppy disks. (See fcopy in your Altos operating system documentation.)
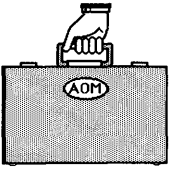
(BLANK)
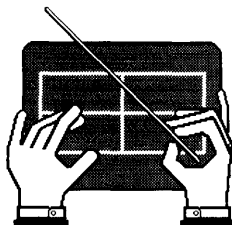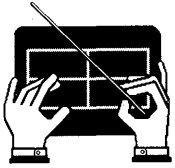
Chapter 6
Using the Menu
Manager

(BLANK)
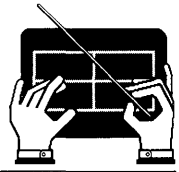
This chapter explains how to use the Menu Manager. You can use the Menu Manager to see what utilities and applications are installed on your AOM system and to see the location of a menu on a page.

To get to the Menu Manager from any page, type **m.** The Menu Manager will look similar to the one shown in Figure 6-1.

```
1. B_Page    2. C_Page    3. D_Page           4. E_Page
5. F_Page    6. G_Page    7. AOM_Utilities    8. Sys_Utilities

┌─────────────────────────────┬─────────────────────────────┐
│ 1.                          │ 1.                          │
│ 2.                          │ 2.                          │
│ 3.                          │ 3.                          │
│ 4.                          │ 4.                          │
│ 5.                          │ 5.                          │
│ 6.                          │ 6.                          │
│ 7. Directories              │ 7. Messages                 │
│ 8. System Stats             │ 8. Utilities                │
├─────────────────────────────┼─────────────────────────────┤
│ 1.                          │ 1.                          │
│ 2.                          │ 2.                          │
│ 3.                          │ 3.                          │
│ 4.                          │ 4.                          │
│ 5.                          │ 5.                          │
│ 6.                          │ 6.                          │
│ 7. Files                    │ 7. Backup/Restore           │
│ 8.                          │ 8.                          │
└─────────────────────────────┴─────────────────────────────┘

Quit
To leave the Menu Manager, press RETN.
```
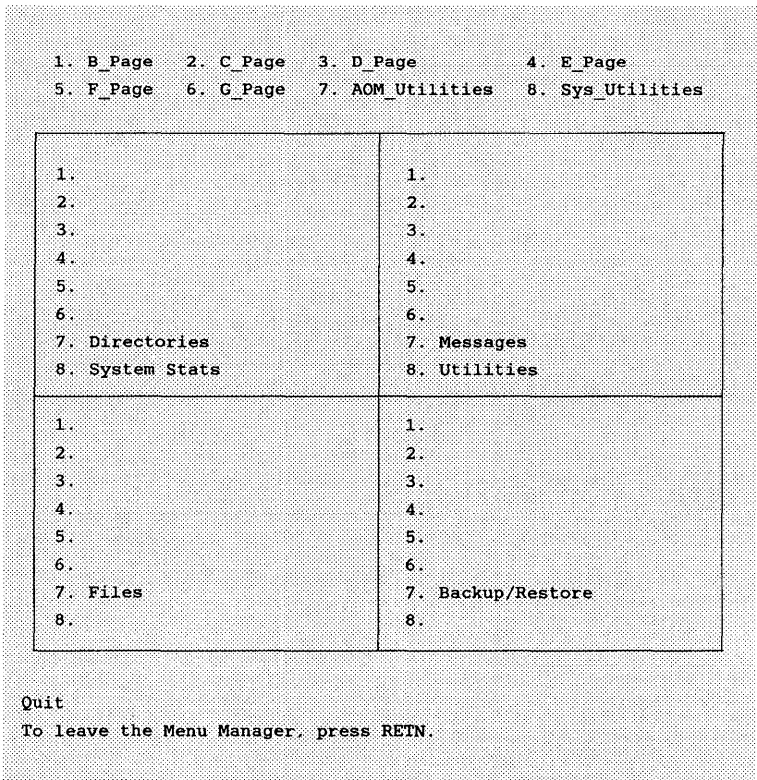
Figure 6-1.   Menu Manager for Everyone
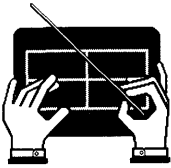
If you log in as admin or root, you can also use the Menu
Manager to manage applications. AOM displays a row of
commands at the bottom of the screen. The system admin-
istrator can use these commands to:

● Install, update, add, and remove applications.

● Move menus from one page to a different page.

● Change the permission on a menu so only the system
administrator has access to it.

● Change the name of a page.

Figure 6-2 shows the Menu Manager for the system
administrator.

NOTE

The Menu Manager commands **To_Menu** and
From_Menu (see Figure 6-2) are to be used with
AOM Windows. You will not need to use these
commands if AOM Windows is not installed on
your system.

```
  1. B_Page   2. C_Page   3. D_Page        4. E_Page
  5. F_Page   6. G_Page   7. AOM_Utilities  8. Sys_Utilities

  ┌──────────────────────────┬──────────────────────────┐
  │ 1.                       │ 1.                       │
  │ 2.                       │ 2.                       │
  │ 3.                       │ 3.                       │
  │ 4.                       │ 4.                       │
  │ 5.                       │ 5.                       │
  │ 6.                       │ 6.                       │
  │ 7. Directories           │ 7. Messages              │
  │ 8. System Stats          │ 8. Utilities             │
  ├──────────────────────────┼──────────────────────────┤
  │ 1.                       │ 1.                       │
  │ 2.                       │ 2.                       │
  │ 3.                       │ 3.                       │
  │ 4.                       │ 4.                       │
  │ 5.                       │ 5.                       │
  │ 6.                       │ 6.                       │
  │ 7. Files                 │ 7. Backup/Restore        │
  │ *8. System Admin I       │ *8. System Admin II      │
  └──────────────────────────┴──────────────────────────┘

  Install  Update  Remove  Add  Move  Perm  Name  To_Menu  From_Menu  Quit
  To install an application from floppy disk, press RETN.
```

Figure 6-2. Menu Manager for the System Administrator.
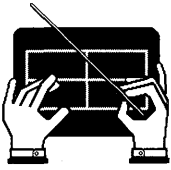
VIEWING THE MENU MANAGER PAGE

The Menu Manager page looks similar to an AOM page; it is also divided into four areas. These four areas, called menu blocks, contain lists of the available AOM menus.

The lists of AOM menus are numbered; these numbers indicate the page on which the menu is located. For example, the number 7 in front of the DIRECTORIES menu in Figure 6-2 means the menu DIRECTORIES is located on page 7.

To access this page, you need the page name. The page names are listed above the menu blocks in two rows, numbered one through eight (e.g., "7. AOM Utilities"). The DIRECTORIES menu is on page 7, so to access the DIRECTORIES menu you must select the AOM Utilities page.

To select the page, type **a,** which is the first letter of the AOM Utilities page. For a more detailed description of how to select a page, see "Selecting a Page" in Chapter 1.

If there are no menus on a page, nothing is shown for that page number.

An asterisk (*) in front of a menu indicates that only a system administrator has access to that menu. For more information about the asterisk, refer to "Changing Permission on a Menu" in this chapter.

The menu blocks also show you where on a page the menu is located. For example, "7. Files" in the lower-left menu block (see Figure 6-2) means the FILES menu is located at the lower-left corner of page 7. (Files might not be at 7 if your system administrator has set up your menus differently.)
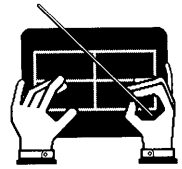
LEAVING THE MENU MANAGER

To leave the Menu Manager, press q for Quit. You will
return to the menu displayed last on your screen.

INSTALLING AN APPLICATION

To install an application into AOM, use the **Install** com-
mand to copy the application from floppy disk or tape.

To install an application, do the following:

1. Select the **Install** command by moving the cursor to
    the command and pressing **Retn** or by typing **i** (see
    Figure 6-3).

Install Update Remove Add Move Perm Name To_Menu From_Menu Quit
To install an application from floppy disk, press RETN.
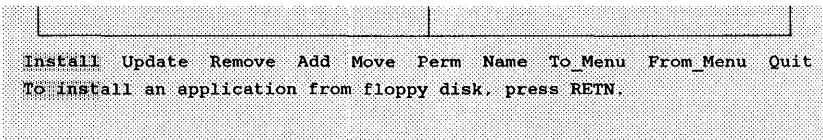
Figure 6-3. Install Command

You are asked if you want to install from disk or
tape.

2. Type **a**(tape) or **b**(floppy disk).

3. Insert the floppy disk or tape that contains the
    application you want to install into the disk drive.
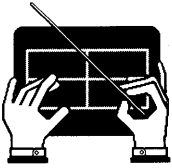
4.   Press any key to continue with the installation.

You will see the names of the files being installed
and information about the number of bytes and blocks
for each file. (Figure 6-4 shows an example of the
CALENDAR menu being installed.) The installation
instructions for the application are displayed.

```
x Calendar.hlp, 24832 bytes, 49 tape blocks
x Calendar.msg, 6700 bytes, 14 tape blocks
                         .
                         .
                         .
update linked to install

        Installation Procedure for The Altos Calendar Manager

This installation procedure must be run by root (super-user)
Press RETURN to continue, or DELETE to abort.

Moving programs to usr/bin ...

Moving library to /usr/lib/CM ...


Installation of The Altos Calendar Manager completed
Press any key to continue.
```

Figure 6-4.   Application Being Installed

5.   Follow the instructions on the screen, or refer to
the application manual to complete the installation.

When installation is complete, a message tells you to
press any key to continue.
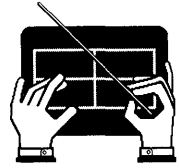
6.   Press any key.

      The menu is displayed, showing the name of the appli-
      cation in the first available page. There is a short
      delay while the files are being installed, then the
      cursor returns to the Menu Manager commands. To
      learn how to move the application to another page,
      see "Moving a Menu to a Different Location" in this
      chapter.

UPDATING AN APPLICATION

If an application is already installed in AOM, you can
update the installed version by using the **Update** command
to copy the new version from a floppy disk.

To update an already installed application, do the
following:

1.   Select the **Update** command by moving the cursor to
      it and pressing **Retn**, or typing **u** (see Figure 6-5).


```
Install  Update  Remove  Add  Move  Perm  Name  To_Menu  From_Menu  Quit
To update an application from floppy disk, press RETN.
```
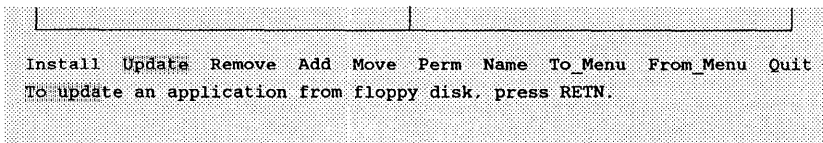
Figure 6-5.   Update Command

      You are asked if you want to update from tape or
      floppy disk.

2.   Type **a**(tape) or **b**(floppy disk).

3.   Insert the floppy disk with the application you want
      to update into the disk drive.
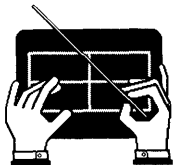
4. Press any key to continue the update. You will see the names of the files being updated and information about the number of bytes and blocks for each file (Figure 6-6 shows an example of the CALENDAR menu being updated).

    The update instructions for the application are displayed.

```
x Calendar.hlp, 24832 bytes, 49 tape blocks
x Calendar.msg, 6700 bytes, 14 tape blocks
                        .
                        .
                        .


   update linked to install

          Installation Procedure for The Altos Calendar Manager

   This installation procedure must be run by root (super-user)
   Press RETURN to continue, or DELETE to abort.

   Moving programs to usr/bin ...

   Moving library to /usr/lib/CM ...



   Installation of The Altos Calendar Manager completed
   Press any key to continue.
```

Figure 6-6.   Example Applications Update

5. Follow the instructions on the screen, or refer to the application manual to complete the update.

    When the update is complete, a message tells you to press any key to continue.
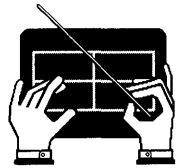
6.   Press any key.

The menu is displayed, showing the name of the application on the first available page. There is a short delay while the files are being updated, then the cursor returns to the Menu Manager commands. The old menus for the application you are updating are removed before the new one(s) are added.

To learn how to move the application to another page, see "Moving a Menu to a Different Location" in this chapter.

REMOVING A MENU

If you no longer want a menu in AOM, you can remove it from AOM, but still keep it on your system in case you want to add it later.

To remove a menu from AOM, do the following:

1.   Select the **Remove** command by moving the cursor to the command and pressing **Retn** or by typing **r** (see Figure 6-7).

The cursor moves to the menu in the upper-left menu block.

```
Install  Update  Remove  Add  Move  Perm  Name To_Menu  From_Menu  Quit
To remove a menu, press RETN.
```
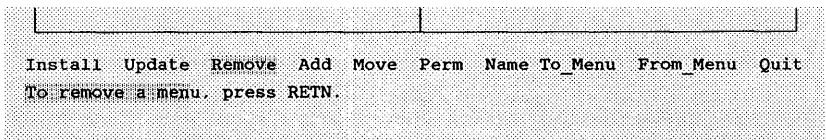
Figure 6-7.   Remove Command

2.   Move the cursor to the menu you want to remove.
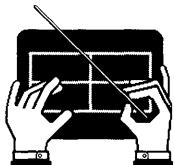
3. Press ███Retn███.

    The menu is removed from the screen and the cursor
    returns to the **Remove** command.

    The menu is removed from AOM, but not from the
    system. Later, if you want to use this menu, you
    can add it back into AOM. To learn how to add the
    menu into AOM from the system, refer to the next
    section in this chapter.

ADDING A MENU

You can add an application or utility that is on your sys-
tem to AOM by using the **Add** command. This command
creates a menu item on the Menu Manager screen for the
application to be added. Remember that a menu is simply
an interface or a way to access an application or utility.

To add a menu, do the following:

1. Select the **Add** command by moving the cursor to it
    and pressing ███Retn███, or by typing **a** (see Figure 6-8).

    You are prompted for the menu name.

```
Install  Update  Remove  Add  Move  Perm  Name  To_Menu  From_Menu  Quit
To add a menu from a file, press RETN.
```
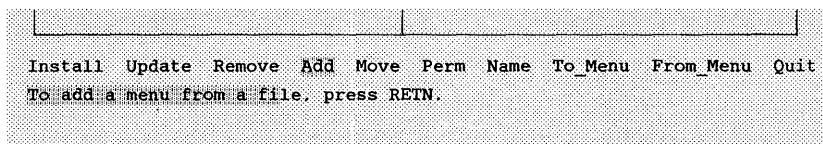
Figure 6-8. Add Command
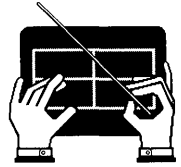
2.   Type or select the name of the file that contains the
     application you want to add, then press ▐ Retn ▌.

Menus for the applications you have installed are in the
/usr/aom/menu directory.   To see which AOM applications
you can add, list the contents of the /usr/aom/menu direc-
tory by using the point-and-pick method.   The section
"Selecting File(s) or Directory(ies)" in Chapter 1 ex-
plains how to change a new directory, list its contents,
and select a file.

The Menu Manager is displayed, showing the application
name in the first available page number.

For example, the Menu Manager might look like Figure 6-2.
Then, if you type /usr/aom/menu/fileit and press ▐ Retn ▌,
the Menu Manager will then show the File-it! menu name
in the upper-left menu block at page number 1 (see
Figure 6-9).
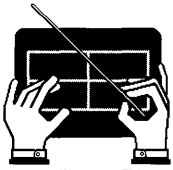
```
1. B_Page    2. C_Page    3. D_Page          4. E_Page
5. F_Page    6. G_Page    7. AOM_Utilities   8. Sys_Utilities

1. File-it                    1.
2.                            2.
3.                            3.
4.                            4.
5.                            5.
6.                            6.
7. Directories                7. Messages
8. System Stats               8. Utilities

1.                            1.
2.                            2.
3.                            3.
4.                            4.
5.                            5.
6.                            6.
7. Files                      7. Backup/Restore
*8.                           *8. System Admin II

Install  Update  Remove  Add  Move  Perm  Name  To_Menu  From_Menu  Quit
To add a menu from a file.
```

Figure 6-9. Adding a Menu

MOVING A MENU TO A DIFFERENT LOCATION

You may want to move a menu from one location to another
by using the **Move** command. To move a menu from one
location to another:

1. Select the **Move** command by moving the cursor to it
    and pressing **Retn**, or by typing **m** (see Figure 6-10).

6-14
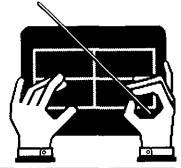
The cursor moves to the first menu in the upper-left menu block, and a message tells you to press Retn to choose a menu or press Esc to cancel this command.

Install Update Remove Add Move Perm Name To_Menu From_Menu Quit
To move a menu from one location to another, press RETN.
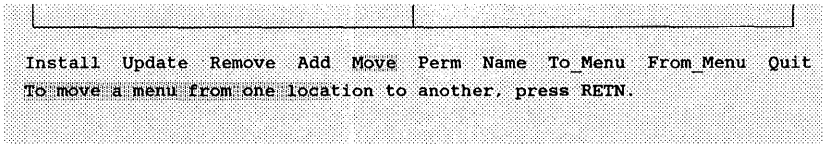
Figure 6-10.   Move Command

3.   Move the cursor to the menu that you want to move, then press Retn .

The cursor moves back to the first menu in the upper-left menu block, and you will again see the message about pressing Retn to choose a menu or pressing Esc to cancel the command.

4.   Move the cursor to the page number where you want the menu to be located, then press Retn .

The menu name is moved to the new location.   The cursor is returned to the **Move** command.

When you leave the Menu Manager, select the page to which you moved the menu; on the that page, you will see the menu.   You can move a menu to any available page.
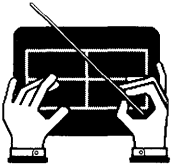
CHANGING PERMISSIONS ON A MENU

As a system administrator, you can change the permission
on any of the menus installed in AOM so that only you have
access to that menu.

To change the permissions on menus, do the following:

1. Select the **Perm** command by moving the cursor to the
    command and pressing **Retn**, or by typing **p** (see Figure
    6-11).

    The cursor moves to the first menu in the upperleft
    menu block. A message tells you to press the
    Spacebar to change the permission on the menu, or to
    press **Esc** to cancel the command.

```
Install  Update  Remove  Add  Move  Perm  Name  To Menu  From Menu  Quit
Press SPACE BAR to change permissions: type q to quit: press ESC to cancel.
```

Figure 6-11. Perm Command

2. Move the cursor to the menu you want to change, then
    press the **Spacebar** .

    An asterisk (*) is displayed to the left of the page
    number and the menu name. You can continue changing
    permission on other menus by moving the cursor to the
    menu, then pressing the **Spacebar** .

    To change the permission back so anyone can use the
    menu, move the cursor to the menu you want to change,
    then press the **Spacebar** . The asterisk is removed.

3. When you are done, press **q** to quit, or **Esc** to cancel
    the command.
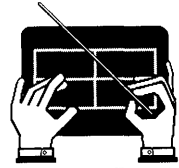
CHANGING THE NAME OF AN AOM PAGE

You can change the name of an AOM page by using the
Name command.

All the AOM page names are numbered and listed across the
top of the Menu Manager.   There are eight pages as Figure
6-12 shows.

```
    1. B_Page    2. C_Page    3. D_Page           4. E_Page
    5. F_Page    6. G_Page    7. AOM_Utilities    8. Sys_Utilities
```
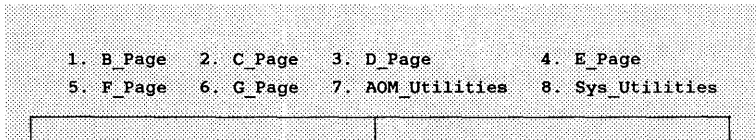
Figure 6-12.   Page Names

To change the name of an AOM page:

1.   Select the **Name** command by moving the cursor to it
     and pressing **Retn**, or by typing **n** (see Figure 6-13).

     The cursor moves to the first AOM page name in the
     rows of names at the top of the Menu Manager.   A mes-
     sage tells you to press **Retn** to select the page you
     want to rename, or press **Esc** to cancel the command.
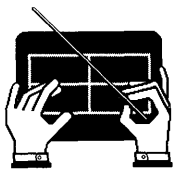
```
Install  Update  Remove  Add  Move  Perm  Name  To_Menu  From_Menu  Quit
To change the name of a page, press RETN.
```

Figure 6-13. Name Command

2.   Move the cursor to the page you want to name, then
     press Retn .

     The existing name is removed.

3.   Type the name of the page. The name can contain up
     to 15 characters and must start with a letter that
     is different from the existing page names.

4.   Press Retn .

     The name is inserted and the cursor returns to the
     Name command.

Appendix A
AOM Error Messages
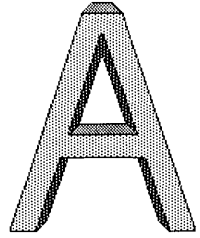
If a message appears on your screen that you don't understand, consult the following alphabetical list. Each message is followed by a description that tells you why the message appeared and what to do about it. Terms in parenthesis, such as (file name) means a specific name or text will be substituted when the message is displayed.
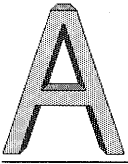
(BLANK)
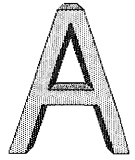
If you see a message that is not on this list, it may be a system or application message. For these messages, consult the individual application manuals and the revelant manual for your operating system.

Can't change directory to (directory name).

> You tried to move to a directory name for which you do not have permission or that directory does not exist.

Cannot access file (file name).

> You tried to access a file that does not exist or that you do not have permission to read. Type another file name or ask the owner of the file to change the permissions so you can access it.

Cannot open directory (directory name).

> You tried to access files in a directory that you do not have permission to search. Ask the owner of the directory to change the permissions so you can search it.

Cannot open file (file name).

> You tried to access a file that does not exist or that you do not have permission to read. Type another file name or ask the owner of the file to change the permissions so you can access it.

Cannot read directory (directory name).

> You tried to look at the contents of a directory you don't have permission to read. If you need to see the contents ask the owner to change the directory's permissions.
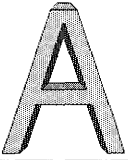
Error while copying files from (tape or floppy disk).

> You tried to install an application and there was a problem reading the disk or tape.

Error while installing application.

> You tried to install an application when the install program failed. A message might inform you as to why it failed.

Error while reading from file.

> You entered a file name that contained invalid file name characters.

File already exists.

> You tried to create a new file that already exists. Select the **Create File** command again and type another name.

File (file name) not found.

> You typed the name of a file that doesn't exist. Select a name from the list below.

Invalid (file) given -- pick a file name below:

> You typed the name of a file that does not exist, or you typed the name incorrectly. Move the cursor to the file name that you do want in the list below, and press ■Retn■. If you do not see the file you want, you may be in the wrong directory. Type the full pathname.
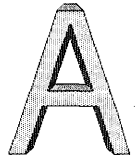
Invalid (directory) given -- pick a file name below:

> You typed the name of a directory that does not
> exist, or you typed the name incorrectly. Move the
> cursor to the directory name that you do want in the
> list below, and press ■Retn■. If you do not see the
> directory you want, you may be in the wrong direc-
> tory. Type the full pathname.

Invalid file or directory name entered.

> You typed the name of a directory or file that does
> not exist, or you typed the name incorrectly. Move
> the cursor to the file or directory name that you do
> want in the list below, and press ■Retn■. If you do
> not see the file or directory you want, you may be in
> the wrong directory. Type the full pathname.

Mismatch -- password unchanged.

> You didn't type your password exactly the same way
> twice while using the **Change Password** command.
> Select the command again and type the password again.

No (directory) found.

> You tried to pick a directory from the list. There
> are no directories contained in the current direc-
> tory. Move to the directory that contains the direc-
> tory you want.

No (file) found.

> You tried to pick a file from the list. There are no
> files in this directory. Move to the directory that
> contains the file you want.
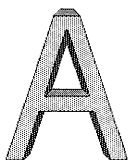
No help available.

> You asked for help on a menu and no help menu exists.
> Notify your system administrator.

Non-optional field is empty.

> You did not complete information for a field in a
> form.

No space on any page to install this application.

> You have used all available space for installing.
> The Menu Manager page will show all menus as filled.
> Remove an existing menu or install it from the shell
> (it will not appear in the menus).

No valid files/directories in current directory.

> You tried to pick a file from the list.   There are no
> files in this directory.   Move to the directory that
> contains the file you want.

> Page name cannot begin with the same letter as an
> existing page.

> You tried to name a page using a name that starts
> with the same letter as a name that already exists or
> that starts with M (reserved for Menu Manager) or Q
> (reserved for Quit).   Select the **Name** command again,
> and type another name.

Please use a longer password.

> You typed a new password that is shorter than six
> characters.   Type a new password of at least six
> characters.

Please use at least one non-numeric character.

> You typed a new password with only numbers in it.
> Type a new password with at least one letter in it.
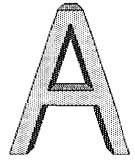
Sorry.

> You became system administrator and typed the wrong password. Select the **Become System Admin** command, and type the password again.

Too few page names found.

> The file /usr/aom/aomnames has a problem. Notify your system administrator.

Too few pages defined in file /usr/aom/aomplanes.

> The file /usr/aom/aomplanes has a problem. Notify your system administrator.

Too many files.

> You used a wildcard character to search for one name for an application that can only accept one name. The search finds more than one name. For example, you want to back up one file system called acb0. You search with ac*, but the system finds acb0 and act0.

Too many lines in menu (menu name).

> The file /usr/aom/aomtext has a problem. Notify your system administrator.

Too many lines in SCREEN section.

> There is a problem in the form you are using. Notify your system administrator or the creator of the form if not done by Altos.

Unable to copy (file name).

> You tried to copy a file that does not have permission for you to copy. If you are not the owner, ask the owner to change the permissions.
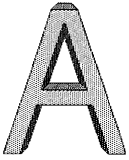
Unable to copy (directory name).

> You tried to copy a directory that does not have per-
> mission for you to copy. If you are not the owner,
> ask the owner to change the permissions.

Unable to delete (file name).

> You tried to delete a file. You typed a file name
> incorrectly or one that doesn't exist. Select the
> **Delete a File** command again, and type another file
> name.

Unable to initialize graphics.

> AOM could not read the /usr/aom/AOMcap file. Change
> the permissions on this file so that AOM can read it.

Unable to initialize menu text.

> AOM could not read the /usr/aom/aomtext file. Change
> the permissions on this file so that AOM can read it.

Unable to initialize page names.

> You cannot read the file /usr/aom/aomnames. See your
> system administrator for help.

Unable to initialize terminal: (terminal type)

> AOM could not find your terminal type in the
> /etc/termcap file. Select the **Set Up Ports** command
> and check the list to see if your terminal is set to
> the correct terminal type. If it is not, type the
> correct terminal type.

Unable to move (file name).

> You tried to rename or move a file and you did not
> have write permission in the current directory or the
> directory to which you tried to move the file.
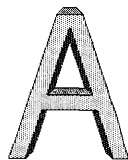
Unable to move to directory: (directory name)

> You tried to move a directory that doesn't exist, or
> you may be in the wrong directory.   Select the **Move
> to New Directory** command again, and type in another
> directory name, or type the full pathname.

Unterminated function in menu.

> There is a problem with the file /usr/aom/aomtext.
> Notify your system administrator.

Warning ---- STRING AREA OVERFLOW

> AOM ran out of memory.   Leave AOM and log in again.
> If it continues, notify your system administrator.

You cannot change permissions on this file.

> You tried to change the permissions on a file you
> don't own.   Ask the owner to change the permissions
> on the file.

You cannot open this file.

> Someone changed the permissions for the help files.
> See your system administrator for help.
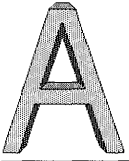
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Appendix B
Installing Multiple AOM
Menu Systems

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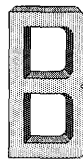
INTRODUCTION

You can set up different menus for different users on the same system. For example, you can set up one menu for personnel and one for accounting. This reduces the number of menus each user sees and provides a degree of data security and privacy.

For example, you might set up a menu for personnel that includes database, word processing, and utilities pro-grams. You might also set up a different menu for accounting that includes spreadsheet, graphics, word pro-cessing, and utilities programs.

The following procedures explain how to set up individual AOM menu systems and how to tailor them for specific groups of users.

SETTING UP MENU DIRECTORIES

First, determine how many different sets of menus you need to set up. If you want to set up one for four users in accounting and another one for three users in personnel, then you need to set up two directories to hold the tailored menus.

1. Log in as root.

2. Create a directory (that will contain the menus) for each different type of user. The directory can be located in any /usr directory or sub-directory.

For example, you might create the directories, /usr/acctg/aom and /usr/inven/aom, for accounting and inventory users respectively.

3. Copy the following AOM menu files from the /usr/aom directory to each of the directories that you created in step 2:

- aom.msgs
- aomnames
- aomtext
- aomplanes

If you install AOM Windows, you will want to copy the following files (includes form files):

- creatext
- msgs.aom
- msgs.lfi
- form.archive
- form.recover
- form.fsck

CHANGING THE USER'S ENVIRONMENT

Next, you need to add the AOMDIR environment variable to each user's .profile file.

Use the Uniplex, **vi**, or **ed** editor to modify each user's .profile file. Add commands to set the AOMDIR variable and to export it.

For example, using the accounting directory you set above, enter the statements below in the .profile files for each user in the accounting group:

AOMDIR = /usr/acctg/aom `Retn`
export AOMDIR `Retn`
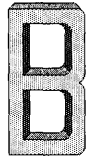
You must be a system administrator to change .profile files that are not your own. For more information about the .profile file, refer to your operating system manuals.

TAILORING AOM MENUS

This section explains how to create the different AOM Menu Systems that each user will see.

At this point, you should have already created and tested any application menus to be used.

NOTE

When you install an application, the menu will be moved into the directory /usr/aom/menu. When you list this directory, you will see the application installed no matter what directory AOMDIR was set to when you did the installation. You can add the menu to any menu system with the **add** command; there is no need to install it again. (See Chapter 6, "Using the Menu Manager").

To tailor the menus for each user, make sure you're logged in as root and perform these steps:

1. Set the AOMDIR environment variable and export it for the directory that you created in the first section in this appendix.
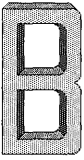
For example, to set AOMDIR variable and export it for the accounting directory, type the following at the system prompt:

.AOMDIR = /usr/acctg/aom � Retn
export AOMDIR ▰Retn▰

Make a note of the type of user (for example, accounting) indicated by the directory in the AOMDIR command. In steps 2-7 below, you will be tailoring menus for that group.

2. Start AOM by typing **aom** and pressing ▰Retn▰.

3. Select the Menu Manager by typing **m**.

4. Rearrange or delete the menus that come with AOM (if necessary). Use the instructions in Chapter 6, "Using the Menu Manager."

5. For any application already installed on your system, use the **add** command on the AOM Menu Manager page. Otherwise, use the **install** command. To put the menu into different menu systems, install the menu into one menu system then add it to the others.

    Place the menus in the appropriate locations on the menu displays using the instructions in Chapter 6, "Using the Menu Manager."

6. Leave AOM by typing **q** and pressing ▰Retn▰ on the Altos Office Manager screen.

    Repeat steps 1-6 for the remaining directories that you created in "Setting Up Menu Directories."

7. When you're finished tailoring each group's menus, log out.

Appendix C
Troubleshooting
the System
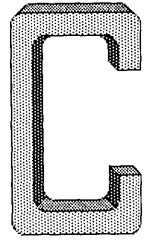
If you perform daily preventive maintenance procedures, such as checking and cleaning up files, saving and backing up files, managing disk space on the system, and monitoring processes, your operating system should run smoothly.

However, emergencies do occur. The system may be shut down improperly due to a power failure or someone accidently resetting it.

AOM displays error messages on your terminal. Additional error messages can also come from the operating system and individual application programs that you have installed.

Some errors, such as the entering of illegal commands, are simple errors that an individual user can solve. Others, such as bad sectors on the hard disk, may require Altos diagnostics.

If the problem persists, and you have tried all of the available maintenance tools listed in this chapter, try checking and cleaning up files by selecting the **Check File System** command in the SYSTEM ADMIN II menu in AOM. If you still cannot fix the problem, use the system Diagnostics.

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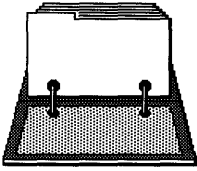serial printer, 5-32
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Change Information

This is a summary of the changes that have been made to the previous version of this manual. The chapters, page numbers, and/or paragraphs mentioned in this summary refer to the previous manual.

Title: *Using the AOM Menu System*

Revised Part Number: 690-18055-006

Previous Part Number: 690-18055-005

Date: May 1989

Changes:

Page	Description
	Updated the Acknowledgements page.
2-33--2-37	Removed the section "Sending Messages" and added it to the beginning of Chapter 3.
3-3--3-12	Reorganized Chapter 3 to better reflect how AOM is used.
A-3--A-48	Appendix A has been removed because the Business Shell no longer ships with AOM. Appendix B is now A; Appendix C is now B; Appendix D is now C.
IN1-IN10	The index has been updated.

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READER'S COMMENTS

Manual Title: Using the AOM Menu System

Part Number: 690-18055-006

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Completeness of information
Organization of manual
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Overall manual

Do you find any of the chapters confusing or difficult to use? If so, which ones and why?

_____

_____

What could we do to improve the manual for you?

_____

_____

If you find errors or other problems when using this manual, please write them below. Do include page numbers or section titles.

_____

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Phone: (_____) _____ - _____ ext. _____

Fold Here