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1 2 3 4 5 6 7 8 9 0

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Order Number: 1000778-01
Please do not order products from the address shown below. Consult an authorized Fortune Systems dealer for copies of manuals and technical information.

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How to Use This Guide

You can use this guide in two ways, either by itself, or as a quick information guide to supplement Meet Your Fortune System and Understand Your Fortune System.

If you are an experienced computer user and just want to know how to set up and use your Fortune 32:16, you'll find in this guide brief step-by-step procedures for everything you'll need. For further information about the operating system and how to use it, consult the Fortune Operating System Guide.

If you've read and used Meet Your Fortune System and Understand Your Fortune System, you'll find here brief explanations for all the procedures covered in both of those guides.

This guide assumes that you're familiar with such terms as operating system, flexible disk, permissions, group, directory, and file. A glossary with the definitions of these terms is included in Meet Your Fortune System, and other terms are defined in full with examples in Understand Your Fortune System.
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Single User System

You'll soon be using your basic Fortune 32:16 with the procedures in this part. Be sure to follow the instructions exactly to install your system correctly. The following procedures are covered in this part.

- Unpacking, setting up, and installing the basic Fortune 32:16
- Operating the basic units
- Setting up and operating a printer
1 Basic Units Setup

Once you perform the basic system setup you won't have to do it again unless you move the system. Setting up a basic Fortune system involves unpacking the central processing unit (CPU), monitor and keyboard--this is called the master workstation--from their shipping containers and connecting the units to one another and to a power supply. The system is shipped to you with the single user operating system already on the hard disk.

Unpacking

To prevent damage to your Fortune system, unpack it following the guidelines below.

1. Remove the CPU from its carton and from the insulating foam. Set the warranty card and cables aside. Remove the plastic wrapping and put the unit where you want it to be.

2. Remove the keyboard and monitor from their carton and insulating foam. Set the warranty cards and cables aside. Remove the plastic wrapping and put both units next to the CPU.

3. Make sure the warranty cards are filled out and that one copy is returned to Fortune Systems Corporation. Keep your part of the cards in a safe place to take with you when you need warranty service.

4. Save all the boxes and packing material for shipping or moving the system.

Connecting

Two kinds of cables are supplied with your system. One is the power cable that has a three-prong plug on one end. The other is a coiled cable with a special connector on each end.

1. Put the plug end of the power cable into the receptacle at the back of the CPU. Don't plug the cable into an outlet yet.
2 Using one of the coiled cables, connect the keyboard to the FRONT of the CPU.

3 With the remaining coiled cable, connect the monitor to the BACK of the CPU.

4 Make sure the on/off switch at the back of the CPU is in the off position. Plug the power cable into a wall outlet.
2 Basic Units Operation

Operating the basic Fortune 32:16 requires knowing how to start up and shutdown the system as well as familiarity with the basic functions and features of the system.

Starting Up

You should follow the starting up procedure each time you turn your Fortune system on.

1. Make sure the system is plugged in and turned on.

2. Set the date and time on the screen by typing over the current information with new information and then pressing the Return key.

3. The system checks your files for errors and then shows you the login screen. Follow the directions on the screen to type in your account name and password. If you don't have an account name, see the information on page 00 to learn about what account name means and how to use it.

4. You'll now see the global menu. Choose the activity you want by typing the code for your selection and pressing the Return key. Refer to the manual for that selection for detailed operating instructions.

Backing Up the Operating System

Your Fortune 32:16 is delivered to you with the operating system already on the hard disk. You should make a backup copy of it as soon as you have your Fortune system up and running. You'll need two blank flexible disks. Label them as Cold boot disk #1, and Cold boot disk #2. You don't need a formatted flexible disk. During this procedure, the computer formats the blank flexible disk.
1 Log in as "manager."

2 From the global menu, type S5 for the product maintenance menu and press the Return key.

3 Type b for backup existing product and press Return.

4 From the product selection menu, type c for cold boot.

5 Follow all the instructions you'll see on the screen from this point on. If you see something that looks like an error message, you may have done something wrong or have a bad flexible disk. Try following the procedure again before you contact your Fortun Systems dealer for assistance.

6 When the process is complete, do not put a write-protect tab on the disk labeled "Cold boot disk #1." Do put a write-protect tab on the disk labeled "Cold boot disk #2."

For additional information on this procedure refer to Meet Your Fortune System.

Disk Usage

Each time you turn on your Fortune 32:16 and log in, you'll be shown how much of the space on your hard disk is available for use. The message is: "__ % of the available space is in use." If the amount is 90% or more, you should make backup copies of files or programs and then remove them from the system.

If your system is turned on continuously, or if you want to know the disk usage without logging in again, use the procedure below.

USING THE DISK USAGE SELECTION

1 From the global menu type s2 for system management and press the Return key. Type 33 for disk usage and press the Return key.

2 A flashing message says "__ % of the available space is in use."

3 Press Return to go back to the system management menu, and press the Cancel key to return to the global menu.
The Keyboard

The keyboard of the Fortune 32:16, shown in the illustration below, contains all the keys needed to use any Fortune Systems application or the Fortune Operating System.

**TYPEWRITER-LIKE KEYS**

The keys in the middle portion of the keyboard are identical in placement and function to those of a standard typewriter.

**ADDITIONAL SYMBOL KEYS**

The vertical row of keys to the left of the typewriter-like keys provides additional characters you can use with some applications. You can see these additional characters on the screen and print them, if your printer element includes them.

**HELP**

The Help key is the blue key at the upper left-hand corner of the keyboard. You can use the Help key with most Fortune Systems applications, as well as with the system utilities or system management menus. HELP gives you additional information about what you're doing.

**CURSOR CONTROL KEYS**

The four keys with arrows in different directions show the ways you can move the cursor. They are located to the right of the typewriter-like keys and are most often used with FOR:WORD word processing and Multiplan spreadsheet applications.
SCREEN CONTROL KEYS

These keys are used in FOR:WORD word processing for moving the cursor from one screen display to another. They are located above the cursor control keys.

INSERT AND DELETE

The Insert and Delete keys are located to the right of the screen control keys. They are used with FOR:WORD word processing to add and remove text from a document.

CANCEL DEL

This key interrupts whatever you're doing and brings back the previous menu. It also has special functions in various applications. It is located to the right of the function keys at the top of the keyboard.

LF GL

In applications that distinguish between a carriage return and line feed operation, this key is used for line feed. In FOR:WORD word processing, this key means "glossary." The LF GL key is located next to the Return key grouped with the typewriter-like keys.

CTRL

CTRL stands for "control." This key can be used to select special graphics characters and has other special uses in other applications. The CTRL key is located above the shift key at the left side of the typewriter-like keys.

RETURN

The Return key is located in two positions on the keyboard, with the typewriter-like keys and beside the numeric keypad. You can press either Return key to tell the computer that you've finished typing. It is also equivalent to a carriage return/line feed operation.

DEC TAB

This key is used with the FOR:WORD word processing application for making decimal tabs. It is located at the top of the numeric keypad.
NUMERIC KEYPAD

This group of keys to the right of the typewriter-like keys duplicates a calculator keypad for use in Fortune Systems applications that require many numeric entries.

FUNCTION KEYS

The 16 keys at the top of the keyboard labelled F1 through F16 are the function keys. All Fortune Systems applications that use the function keys are supplied with a template that fits in a channel below the keys and identifies their use for that application.

Menu Structure

The Fortune 32:16 has a set of menus used to select various functions for total operation of the Fortune system. The starting point is the global menu, the first menu after the login screen. In addition, every application has a menu that defines the structure of the application and lists the procedures or functions you can perform. Most applications also have submenus that further break down the application features into separate procedures.

The keys most often used to make choices on a menu are Return and Execute. On menus that require other choices, information is given about the alternatives and how to select them.

The illustration below shows how the menus relate to each other.
Operating System

The Fortune Operating System is the master software program on the Fortune 32:16. It controls the hardware and keeps track of where information is stored. You use the operating system indirectly when you use an application. To work directly with the operating system at the system command level, refer to the Fortune Operating System guide for detailed information.

There are two kinds of operating systems available for the Fortune system, single user and multiuser. The single user operating system operates a basic Fortune system that is described in this part. The multiuser operating system allows a maximum of 15 satellite workstations to be connected to a CPU with added hardware inside. The installation, configuration, and use of a multiuser system are described in the Part 2.

File System Structure

Directories and files are the basic units of the file system. The parent directory has other directories listed in it. These directories are called subdirectories. Files are then listed under their appropriate directories or subdirectories.

Three kinds of files are recognized by the operating system: ordinary files created by applications, special files used by the operating system for handling devices like disks and printers, and directories which are lists of files. You can create and change files using a Fortune Systems application or by using the text editor at the command level of the operating system. Refer to Understand Your Fortune System or Fortune Operating System for information on the command level.

Directories, subdirectories, and files are organized in a hierarchy resembling an upside down tree. At the top is the root directory which is designated with simply a /. All directory names are preceded with a /, for example /usr. This root directory is the parent of all files and directories on the hard disk.

There are five major directories branching down from the root directory. Operating system programs are contained in /bin, /etc, /usr, and /dev. The /u directory is the parent user directory. When an account is created for someone the operating system creates a directory for that user under the /u parent directory. This is called the user's home directory.

More detailed information on the file system structure can be found in Understand Your Fortune System and the Fortune Operating System guides.
Applications

Applications programs such as General Ledger, Multiplan, and Fortune Systems word processing can perform tasks such as accounting, financial planning, and word processing. Some people use applications software more than the operating system software.

The manual supplied with every Fortune Systems application package describes in detail how to use the application, including installing the application on your system. Part 6 of this guide describes the product maintenance features for installing, deleting, and backing up any application.

Help

You can get additional information at certain points in your use of the Fortune 32:16 by pressing the Help key. The information you see might indicate how to perform a procedure, what a command does, how a key works, or what information is required. The kind of information you see and when you can see it depend upon the application you're using. Generally, all applications provide some sort of help. In addition, the global menu, system utilities menu, and system management menu provide help.

Shutting Down

When you are finished using your Fortune system, you MUST follow the shutdown procedure before you turn off the power. There are two ways to shut down the system; using the shutdown selection on the system management menu, or using the shutdown account at the login screen.

USING THE SHUTDOWN SELECTION

1. From the global menu choose system management, S2.
2. Type 30 for shutdown computer.
3. Type yes to continue. Eventually you'll see the message "Please turn the Fortune 32:16 off". It is now safe to turn off the power.
USING THE SHUTDOWN ACCOUNT

1 From the global menu press the Cancel key and then the Return key. You'll see the login screen again.

2 Type `shutdown` and press Return.

3 Type `yes` to continue. Eventually you'll see the message "Please turn the Fortune 32:16 off". It is now safe to turn off the power.
3 Printer Setup and Operation

A printer can be connected to a basic Fortune system with one cable and a change to the operating system information using the system management menu.

The cable that came with your printer may not be suitable for connecting it to the Fortune system. Check with your Fortune Systems dealer to see if you need a different cable. Connecting a printer to your Fortune system without the correct cable can damage your system.

Installing

Use these steps to connect the printer and tell the system that a printer is connected.

1. Connect the printer to the SIO port at the back of the CPU with the appropriate cable from your Fortune Systems dealer.

2. From the global menu choose 52, system management, and press the Return key. Then type 39 for change device connection and press Return.

3. From the change device connection menu, type p and press Return.

4. For device type, type 1 for letter quality printer, or 2 for dot matrix printer and press Return.

5. Press the Cancel key twice to return to the global menu.

Testing

Before you begin using the printer with an application, follow instructions in your printer manual to load some paper and test the printer. Most printers have a self-test switch that, when turned on, prints a character test pattern.
Using

Follow the instructions in your printer manual for loading your printer with paper and operating it. Before you use the printing function of an application, make sure that your printer is turned on and the paper is properly loaded.

If you have problems with your printer, check the basic troubleshooting section in Part 7 for information on correcting simple problems. Otherwise, check your printer manual for instructions.
Multiuser System

A multiuser system is defined as a basic Fortune system with additional units attached and a multiuser operating system installed. The additional units include a satellite workstation, that consists of an ASCII terminal and keyboard. This allows more than one person to use the Fortune system at a time.
4 Setting Up Additional Units

Additional units must be unpacked, added to the operating system list on the configuration menu, and tested. Additional units also require that you have a suitable COM/A board installed in your Fortune 32:16, depending upon the number of additional units you want to add to your Fortune system. You must also have an RS-232 cable of the appropriate length for each satellite workstation you want to connect. The COM/A board and cables are available from your Fortune Systems dealer.

When additional satellite workstations are added to a system, the original terminal and monitor become the master workstation. Shutting down a multiuser system can be done only from the master workstation.

Unpacking the ASCII Terminal

Follow the guidelines below to unpack the ASCII terminal.

1. Remove the keyboard and monitor from their carton and insulating foam. Set the warranty cards and cables aside. Remove the plastic wrapping and put both units where you want them to be.

2. Make sure the warranty cards are filled out and that one copy is returned to Fortune Systems Corporation. Keep your part of the cards in a safe place to take with you when you need warranty service.

3. Save all the boxes and packing material for shipping or moving the system.

ASCII Terminal Switch Settings

Use a pencil tip to change the switches on the back of your ASCII terminal. The standard settings for use with your Fortune 32:16, and the way it is shipped to you, are switches 2, 3, and 4 in the down or OFF position.

Use the chart on the next page to change the settings if you need to.
Switch Settings for the ASCII Terminal

<table>
<thead>
<tr>
<th>Switch Number</th>
<th>D</th>
<th>U</th>
<th>50 Hz power source (U.S.)</th>
<th>60 Hz power source (other)</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>D</td>
<td>U</td>
<td>No-parity (always space)</td>
<td>No parity (always mark)</td>
</tr>
<tr>
<td>2</td>
<td>D</td>
<td>U</td>
<td>Odd parity</td>
<td>Even parity</td>
</tr>
<tr>
<td>3</td>
<td>U</td>
<td>D</td>
<td>1 stop bit</td>
<td>2 stop bits</td>
</tr>
</tbody>
</table>

<table>
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<th>D</th>
<th>D</th>
<th>D</th>
</tr>
</thead>
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<tr>
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<td>U</td>
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<td>D</td>
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<td>D</td>
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<tr>
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<tr>
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<td>1200 baud</td>
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<tr>
<td>1800 baud</td>
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<td>2000 baud</td>
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<tr>
<td>2400 baud</td>
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<tr>
<td>3600 baud</td>
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<td>D</td>
<td>D</td>
<td>D</td>
</tr>
<tr>
<td>19200 baud</td>
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<td>D</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>D</td>
</tr>
</tbody>
</table>

Installing the Satellite Workstation

Before you can begin multiuser operation, follow the guidelines below for correctly installing the satellite workstation.

1. Install the COM/A board in the CPU, following the instructions you'll find packed with it.

2. Connect an RS-232-C cable between the back of the terminal and a port of the COM/A board. Write down which port each satellite workstation is connected to.

3. Connect the additional units to a wall outlet with the power cord that is supplied with the unit.
5 Multiuser Configuration

Before the satellite workstations can be used, the configuration of the system must be changed from single user to multiuser and then the operating system can be updated to accommodate the additional workstations. This process involves installing the multiuser operating system. You will need the two Fortune operating system master disks that were shipped with your basic Fortune system, or a cold boot set made when you first installed your basic system, and an additional disk containing the multiuser operating system.

Loading the Multiuser Operating System

Before you begin, you must have the following items.

• Fortune operating system (Part number 1000841, two disks), or the cold boot set you made when you backed up the operating system of your single user system.

• Fortune multiuser application (Part number 1000868, one disk)

And you need the following information.

• How much main memory do you have? You need at least 512K bytes of memory to support the multiuser system.

• What type of hard disk do you have? If you are not sure, ask your Fortune Systems dealer.

• How many users are there on your system? The number of users is one more than the number of satellite workstations. If you have three satellite workstations, you have a four-user system.
Load the multiuser operating system as follows:

1. Make sure all satellite workstations are connected.

2. Turn on the system and make backup copies of all files.

3. Turn the system off.

4. Insert Master Disk 1 in the flexible disk drive.

5. Hold down the Cancel Del key, and set the power switch to On. When the maintenance screen is displayed, release the Cancel Del key.

6. Press function key F4, then press the space bar until the entry in the third column is "Floppy, Drive #0".

7. Press function key F7. The third column is blank. Type `fd02/sa/reconf` and press the Return key.

8. Verify that the entries for line F4 and line F7 are as specified, then press the Execute key.

9. When the configuration menu is displayed, use the Return key to move the cursor through the menu. Make the following change:

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appx. # of users = 1</td>
<td>Appx. # of users = (3 or 5)</td>
</tr>
</tbody>
</table>

10. Note the number of times the EAROM has been changed, as indicated by the message near the bottom of the configuration menu.

11. Press function key F1 (to select F1 = STORE), and note that the number of the times the EAROM has been changed is increased by one.
12 Use the Return key to move the cursor through the menu. Make the following changes:

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Root device = hd02</td>
<td>Root device = fd02</td>
</tr>
<tr>
<td>Swap device = hd01</td>
<td>Swap device = fd01</td>
</tr>
</tbody>
</table>

13 Verify that the changes are as specified, then press function key F3 (to select F3 = GO).

14 When the boot prompt appears, type `fd02/unix` and press the Return key.

The system displays the normal power on message

15 When the sequence select screen appears, press function key F1 so that you can specify the kind of hard disk drive you have.

16 When the hard disk drive select screen appears, press function key F1, F2, or F3. The sequence select screen appears again. This time, your selection of hard disk drive is indicated on the screen.

17 Press function key F2 to specify the maximum number of users in your system.

18 Select either function key F2 (for a maximum of 3 users) or function key F3 (for a maximum of 5 users). The sequence select screen appears again. This time, your selection of number of users is indicated on the screen.

19 Press function key F3. When the message "Do you really want to erase your hard disk (y or n)?" appears, type in y and press the Return key.

20 From this point, follow instructions as the appear on the screen. You will see the message: "You must now power the system off and on again (or reset)". Set the power switch to Off for a few seconds, then set the power switch to On again. (Do not remove the flexible disk!).

21 When the message "Finished with floppy #1" appears, you can replace Master Disk 1 with Master Disk 2 while other messages are being displayed.

20 Reference
When the message "Is floppy #1 replaced with #2 yet (y or n)?" is shown, make sure that the flexible disk has been replaced, then type y and press the Return key. The procedure continues from this point to the normal starting-up sequence.

After the starting-up sequence is complete, the date and time screen is displayed. From this point, follow normal procedures for typing in the date and time, and log in as manager.

From the global menu, select the product maintenance option by typing in s5 and pressing the Return key.

Type 1 and press the Return key to install the Fortune multiuser application from the flexible disk.

Follow screen instructions to install the product.

When the installation is complete, press the Return key, and remove the flexible disk.

Install any applications that you have at this time. Use the product maintenance option, as you did for installing the multiuser application.

You must reconfigure your system. From the global menu, type in g2 and press the Return key to select the system management option.

When the system management menu is displayed, type in 39 and press the Return key to select change device connections.

Follow instructions on the screens to connect the printer and each satellite workstation of your system.

You must shutdown the system to complete the logical connection of satellite workstations. From the system management menu, type in 30 and press the Return key to select the shutdown procedure.

Follow instructions on the screens to shutdown the system and turn the power Off.

After the system is off for a few seconds, set the power switch to On again. You must now establish an account in the usual manner, using the "newuser" utility.
Using the Multiuser System

There are some additional procedures you must follow when you use a multiuser system to make sure that it operates properly.

STARTING UP ADDITIONAL UNITS

1 Make sure the basic system is turned on and the file system check is done on the master workstation. Turn on the satellite workstation(s), which will only show a blinking cursor until the login screen appears.

2 You'll see the date and time screen at the master workstation only. Complete the information and press Return.

3 You'll see the login screen on both the master workstation and satellite workstations. Have each user log in at his or her workstation and proceed with the work.

SHUTTING DOWN ADDITIONAL UNITS

1 Make sure everyone is logged off satellite workstations. If you're not sure, use selection 31, who is using the computer, from the system management menu.

2 Turn off the printer and satellite workstations.

3 Go to the master workstation and return to the global menu. Select system management, S2, and type 30 for the shutdown the computer selection.

4 Answer yes to the continuation message and you'll eventually see a "Please turn the Fortune 32:16 off" message. It is now safe to turn off the power for the CPU.

Or, use the shutdown account to turn off the system:

1 Go to the master workstation and return to the global menu. Press the Cancel key and you'll see the login screen again. For account name type in shutdown and press Return.

2 Answer yes to the continuation message and you'll eventually see a "Please turn the Fortune 32:16 off" message. Turn off the power at the CPU.
With a multiuser system, you may need to know who's using it, send messages to a terminal, or send messages to the users. All the following procedures use the system management menu, selection S2 on the global menu.

Who's Using the System

This process tells you who's currently logged into the system.

1. On the system management menu type 31 and press the Return key.
2. You'll see a message for each user on the system.
3. Press Return to go back to the system management menu.

Writing Messages

This process allows you to send a message to a specific user, regardless of the terminal that person is using.

1. On the system management menu, type 37 and press the Return key.
2. Type in the account name and press Return.
3. Type in the message you want to send, and end it with a Return. Then hold down the control key and type a d.
4. You're returned to the system management menu. Your message will appear on the screen of the terminal where the account is logged in.
Sending Messages

This process sends the same message to all operators.

1. On the system management menu, type 38 and press the Return key.

2. Type the message to be sent, and end it with a Return. Then hold down the control key and press d.

3. You'll return to the system management menu. Your message is immediately displayed on all terminals.
Screen Definitions

When you're working with your Fortune system you may want to know what you can do with the, global, system utilities, system management, and product maintenance menus. This part is arranged by menu, with a short explanation of all the selections on the menus.
The global menu is the starting point for use of the Fortune system. It is divided into six sections: Business Applications, Professional Tools, Office Automation Tools, Communication, Training/Education, and System Tools.

When you install an application a selection will be highlighted on the global menu. Every Fortune system is shipped with three selections already highlighted in the System Tools category: system utilities, system management, and product maintenance.

To make a choice from the global menu, type the code preceding the selection and press the Return key.

The categories on the global menu are listed below.

- Business Applications
- Professional Tools
- Electronic Office Tools
- Communications
- Training/Education
- System Tools
The system utilities menu shown below contains functions for managing files, directories, and flexible disks.

The list below shows each selection including its number on the menu and a description of how you use it. Complete instructions for using the each selection are included in Part 4, System Utilities Procedures.

10 APPEND ONE FILE TO ANOTHER creates a new file by combining the contents of two or more other files.

11 COPY A FILE copies one or more files and places them into directories of your choice.

12 CREATE A FILE creates an empty file or files.

13 DELETE A FILE removes files from the hard disk.

Reference 27
14 GROUP ID CHANGE OF A FILE changes the ownership of a file from one group to another. You must be logged in as manager to do this.

15 LIST FILE CONTENTS ON SCREEN shows you the contents of a file on the screen.

16 MOVE OR RENAME A FILE puts a file in the location of your choice or gives a file whatever name you choose.

17 OWNER CHANGE FILE OWNERSHIP moves the owner's access rights from one account to another.

18 PRINT FILE CONTENTS ON PRINTER prints files created for or by programs. Use an application to print files created by the application.

19 PERMISSION CHANGE OF A FILE changes access rights to a file for its owner, the group owning it, and all other users. You must be logged in as manager to change file permissions.

20 COPY A DIRECTORY copies a directory and all its files.

21 CREATE A DIRECTORy makes a new, empty directory.

22 DELETE A DIRECTORY removes a directory and all its files.

23 GO TO ANOTHER DIRECTORY changes your current directory to another one.

24 GROUP ID CHANGE OF A DIRECTORY changes the group owning the directory.

25 LIST DIRECTORY INFORMATION shows the names of subdirectories and files that are part of the directory.

26 MOVE OR RENAME A DIRECTORY moves the directory and all its files to a new location or gives a directory a new name of your choice.

27 NAME CURRENT DIRECTORY shows the name of the current directory.

28 OWNER CHANGE DIRECTORY OWNER moves the owner's access rights to a directory from one account to another.
29 PERMISSION CHANGE OF DIRECTORY changes access to the directory for its owner, the group owning the directory, and the public. You must log in as manager to change directory permissions.

30 BACKUP FILES TO FLEXIBLE DISK places a copy of the file or files on a formatted flexible disk.

31 RELOAD FILES FROM FLEXIBLE DISK moves files from a flexible disk back onto the hard disk.

32 FORMAT FLEXIBLE DISK prepares a disk for use in backing up files.

33 CLEAR FILES ON FLEXIBLE DISK removes ALL the files from a disk.
9 System Management Menu

Functions for managing accounts, groups, and the Fortune system are part of the system management menu. Following the menu is a brief description of each selection. Further information on the selections and details about using each one are listed in Part 5, System Management Procedures.

<table>
<thead>
<tr>
<th>ACCOUNTS</th>
<th>GROUPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Add new account</td>
<td>20 Add new group</td>
</tr>
<tr>
<td>11 Modify existing account</td>
<td>21 Modify existing group</td>
</tr>
<tr>
<td>12 Delete existing account</td>
<td>22 Delete existing group</td>
</tr>
<tr>
<td>13 List accounts</td>
<td>23 List groups</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OTHER TOOLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 Shutdown computer</td>
</tr>
<tr>
<td>31 Who is using the computer</td>
</tr>
<tr>
<td>32 Disk usage</td>
</tr>
<tr>
<td>33 Number of free blocks</td>
</tr>
<tr>
<td>34 Change your password</td>
</tr>
</tbody>
</table>

Press <HELP> For More Information Press <CANCEL> For Global Menu
Enter Selection Number & Press <RETURN>:

10 ADD NEW ACCOUNT allows a new user to use the system.

11 MODIFY EXISTING ACCOUNT is a separate menu of procedures that alter accounts.

12 DELETE EXISTING ACCOUNT removes an account from the computer so that no one can use it.

13 LIST ACCOUNTS shows the account information for some or all accounts on the system.
20 ADD NEW GROUP creates a new group or groups.

21 MODIFY EXISTING GROUP has a menu of options for modifying groups.

22 DELETE EXISTING GROUP returns the files owned by the group to the public domain.

23 LIST GROUPS shows the group identification chart for a group or for all groups.

30 SHUTDOWN COMPUTER is used to close the files before the system is turned off.

31 WHO IS USING THE COMPUTER tells you who's currently logged into the system.

32 DISK USAGE shows the amount of disk space used by an account, the current directory, or any directory.

33 PERCENT OF DISK USED is a repeat of the percent of disk used message you see when you first start up the system.

34 CHANGE YOUR PASSWORD allows you to change your password for login.

35 DISPLAY CURRENT DATE AND TIME shows you the date and time you used to set the computer.

36 SET DATE AND TIME resets the date and time.

37 WRITE MESSAGE TO A TERMINAL sends a message to a specific user regardless of the terminal they're using.

38 SEND MESSAGE TO ALL TERMINALS sends the same message to all users.

39 CHANGE DEVICE CONNECTIONS is used to tell the operating system about a satellite workstation or other additional units.
This menu contains functions for installing, deleting, and backing up applications or any other kind of Fortune Systems software. Following the menu is a brief description of each selection. Complete information about the selections and how to use them are listed in Part 6, Product Maintenance Procedures. You must log in as manager to use the product maintenance selections.

**INSTALL A PRODUCT** moves the software from the application master disk to the hard disk and updates the global menu.

**DELETE EXISTING PRODUCT** is used to remove an application from the hard disk when the application is no longer needed, or when a revised version needs to be installed.

**BACKUP EXISTING PRODUCT** is used to back up a software product after it is installed to have an additional copy of it.
System Utilities Procedures

System utilities procedures listed on the system utilities menu include functions for working with files, directories, and flexible disks. This part is divided into four sections: files, directories, ownership and permissions, and backing up files. Within each section you will find the menu selections listed in the same order in which they appear on the menu. You'll also find instructions for using each procedure. All of these functions are available through S1 on the global menu.

Reference 33
Below are procedures for working with all the files on your Fortune system except those created with an application. In word processing a file is called a document, and in Multiplan it is called a spreadsheet. If you are creating these kinds of files you should use their respective applications to work with the files.

On the other hand, program files created with the operating system editor can be manipulated using all the procedures listed below.

Pathnames

The pathname of a file is a description of its location in the file system structure. This includes all directories above it on the file system. A pathname always starts with a slash, indicating the root directory, for example /u/sullivan/report/contents.

Appending Files

Append one file to another creates a new file by combining the contents of two or more other files.

1  On the system utilities menu, type 10 to select append one file to another, and press the Return key.

2  Type the names of the files to be appended, separating each file name with a space. Include the pathnames if necessary. Press Return.

3  A new screen shows the name of the appended file. Press Return to return to the append a file menu.

4  Press Cancel to return to the system utilities menu.
Copying a File

The copy a file utility copies one or more files and places them into directories of your choice.

1. On the system utilities menu, type 11 for copy a file and press the Return key.

2. Type the name of the original file, a space, and the name for the copy, using pathnames if necessary. Press Return.

3. When the copy is complete, you are returned to the system utilities menu.

Creating a File

The utility create a file creates an empty file or files.

1. On the system utilities menu, type 12 for create a file and press the Return key.

2. Type the new file name or names separated by a space, including their current pathnames, if necessary. Press Return.

3. A new screen shows the names of the new files you have created. Press Return to return to the create a file menu.

4. Press the Cancel key to return to the system utilities menu.

Deleting a File

The delete a file utility removes files from the hard disk.

1. On the system utilities menu, type 13 and press the Return key.

2. Type the file name or names separated by a space, with the complete pathnames if necessary, and press Return.

3. When the process is complete you'll see the system utilities menu again.
Changing the Group ID of a File

Group ID change of a file changes ownership of a file to a different group. You must be logged in as manager to do this.

1 From the system utilities menu, type 14 and press the Return key.

2 Type the group name followed by a space and the file name. Press Return.

3 When the process is complete, you'll be returned to the system utilities menu.

Listing File Contents on Screen

List file contents on screen shows you the contents of a file on the screen.

1 From the system utilities menu, type 15 to select list file contents and press the Return key.

2 Type in the name of the file or files, including the pathname if necessary, and press Return.

3 Files that take up more than one screenfull can be seen by using the space bar to see the next screen, or by using Return or the cursor keys to see another line.

4 If you have specified more than one file, the files will appear in the order you listed them. When you have seen all the files you requested, press the Cancel key to return to the system utilities menu.

Moving a File

Use the move or rename a file utility to put a file in the location of your choice.

1 From the system utilities menu, type 16 for move or rename a file and press the Return key.
2 Type the present file location, including its pathname if necessary, followed by a space and then its new location name with pathname if necessary. Press Return.

3 When the move is complete you'll see the system utilities menu.

Renaming a File

You can also use the move or rename a file utility to give a file whatever name you choose.

1 From the system utilities menu, type 16 and press the Return key.

2 Type the present file name, including its pathname if necessary, followed by a space and then its new name and pathname if necessary. Press Return.

3 When the process is complete you'll see the system utilities menu again.

Printing File Contents on Printer

Use print file content on printer to print files created for or by programs. Use an application to print files created by the application.

1 Make sure your printer is turned on and set online.

2 From the system utilities menu, type 18 and press the Return key.

3 Type the first letter of the print option you want:
   c for condense prints the file with blank lines removed
   p for print prints the file as it is

   Press Return.

4 Type the name of the file, including the pathname if necessary, and press Return.

5 When the printing is finished you'll be returned to the system utilities menu.
The following pages are procedures for working with the directories on your Fortune system. Some of these functions can also be performed by the applications on directories created by them. For instance, you can also use Fortune Systems word processing to create or remove a library which is word processing's name for a directory.

Copying a Directory

The copy a directory utility copies one or more files and places them into directories of your choice.

1. On the system utilities menu, type 20 for copy a directory and press the Return key.

2. Type the name of the original directory, a space, and the name for the copy, using pathnames if necessary. Press Return.

3. When the copy is complete you'll be returned to the system utilities menu.

Creating a Directory

The create a directory utility makes a new, empty directory.

1. On the system utilities menu, type 21 and press the Return key.

2. Type the directory name or names and pathname if necessary, and press Return.

3. When the process is complete you are returned to the system utilities menu.
Deleting a Directory

Delete a directory removes a directory and all its files.

1 From the system utilities menu, type 22 for the delete a directory utility and press the Return key.

2 There are two options:
   - empty for an empty directory
   - all for a directory and all its contents

   Type the letter for the option and press Return.

3 Type the directory name, including its pathname if necessary, and press Return.

4 When the process is complete you are returned to the system utilities menu.

Going to Another Directory

Go to another directory changes your current directory to another one.

1 On the system utilities menu, type 23 for the go to another directory utility and press the Return key.

2 Type y to continue and press Return.

3 There are three ways to type the directory name:
   - ..Return  Up one level in the file hierarchy
   - (directory name)  When it is a subdirectory of the current directory
   - (directory pathname)  When it is not above or below the current directory

   Type the directory name and press Return.

4 You are returned to the system utilities menu. The current directory is the one you specified.

Reference 39
Changing the Group ID of a Directory

Group ID change of a directory changes the ownership of a directory from one group to another.

1. From the system utilities menu, type 24 and press the Return key.

2. Type the group name followed by a space and the directory name. Press Return.

3. When the process is complete, you're returned to the system utilities menu.

Listing Directory Information

The list directory information utility shows the names of subdirectories and files that are part of the directory.

1. On the system utilities menu, type 25 and press the Return key.

2. There are two choices for directory display:
   - list the names of files and subdirectories
   - display a detailed list of directory contents

   Type the first letter of your choice and press Return.

3. Type in the directory name or names, separated by a space, and the pathname, if necessary. Press Return. To list the current directory just press Return.

4. Press Return to go back to the system utilities menu after viewing the directory listing.
Moving a Directory

Moving a directory with the move or rename directory utility moves the directory and all its files to a new location.

1  On the system utilities menu, type 26 and press the Return key.

2  Type the present directory location, including its pathname if necessary, followed by a space and then its new location with the pathname if necessary. Press Return.

3  When the process is complete, you'll be returned to the system utilities menu.

Renaming a Directory

The rename a directory utility gives a directory a new name of your choice.

1  On the system utilities menu, type 26 and press the Return key.

2  Type the present directory name, including its pathname if necessary, followed by a space and then its new name and pathname if necessary. Press Return.

3  When the process is complete you'll be returned to the system utilities menu.

Naming the Current Directory

Use the name current directory utility to find out the name of the current directory.

1  From the system utilities menu, type 27 and press the Return key.

2  Type y and press Return to continue. The directory name and its pathname are shown in the top left corner of the screen.

3  Press the Cancel key to return to the system utilities menu.
Ownership and Permissions

Ownership and permissions assigned to files and directories determine who can work with, look at, and use them. Changing the ownership and permissions with the system utilities menu is a way of maintaining system security. Only the system manager can change ownership and permissions.

Changing File Ownership

Owner change file ownership moves the owner's access rights from one account to another.

1. From the system utilities menu, type 17 and press the Return key.

2. Type the account name of the new owner, a space, and the name of the file with its full pathname if necessary. Press Return.

3. When the change is complete, press the Cancel key to return to the system utilities menu.

Changing Directory Ownership

Owner change directory owner moves the owner's access rights to a directory from one account to another.

1. From the system utilities menu, type 28 and press the Return key.

2. Type the account name of the new owner, a space, and the name of the directory with its pathname if necessary. Press Return.

3. When the change is complete, press the Cancel key to return to the system utilities menu.
Changing File Permissions

Permission change of a file changes access rights to a file for its owner, the group owning it, and/or all other users. You must be logged in as manager to change file permissions.

1 From the system utilities menu, type 19 and press the Return key.

2 There are four options on the permission change of a file menu:

- all to change permissions for the owner, group, and public
- owner to change owner permissions only
- group to change group permissions only
- public to change permissions other than the owner and group (public) only

Type the letter for the option and press Return.

3 Type the name of the file and press Return.

4 There are four options for permissions on the next menu:

- read to read a file
- write to edit a file
- execute to execute a file
- denied to deny a permission

Type the appropriate letter(s) and press Return.

5 The permission line shows how the permissions have been changed.

6 Press Return to return to the system utilities menu.

Changing Directory Permissions

Permission change of directory changes access to the directory for its owner, the group owning the directory, and the public. You must log in as manager to change directory permissions.

1 From the system utilities menu type 29 and press the Return key.

Reference 43
2 The permission change of a directory gives you four options:

- all to have the following permissions set for everyone
- owner to change owner permissions
- group to change group permissions
- public to change permissions for those outside the owner and group (public)

Type the of the option you want and press Return.

3 There are four permissions on the change directory permissions menu:

- read to read and list a directory
- write to change or add files to a directory
- execute to search a directory
- denied to deny a permission

Type the appropriate letter(s) and press Return.

4 The permission line shows how the permissions have been changed.

5 Press Return to return to the system utilities menu.
14  Backing Up Files

Backing up files preserves copies of the files on a flexible disk for future use. The processes involved in this are all part of the system utilities menu. Some applications, like Fortune Systems word processing and Multiplan, contain their own similar processes for backing up files. If you want to back up files created with an application, check the application manuals first for instructions.

Inserting and Removing Flexible Disks

1  Remove the disk from its protective envelope. Hold the disk at the top with the write-protect notch on the left side. There should not be a tab over the notch.

2  Open the flexible disk drive door, insert the disk, and close the door.

3  To remove a disk, open the disk drive door all the way and pull the disk out gently toward you. Put the disk back in its protective envelope.

Backing Up Files to a Flexible Disk

The backup files to flexible disk utility places a copy of the file or files on a formatted flexible disk.

1  On the system utilities menu, type 30 and press the Return key.

2  Insert the flexible disk for the files and shut the drive door.

3  Type the name of the file or files to be copied, separated by a space, and including the pathnames if necessary. Press Return.

4  When the process is complete, remove the flexible disk.

5  Press the Cancel key to return to the system utilities menu.

Reference 45
Reloading Files from a Flexible Disk

Before reloading the files, use the go to another directory utility to move to the directory where the files are to be placed. Then use the reload files from flexible disk utility.

1. On the system utilities menu, type 31 and press the Return key.
2. Insert the flexible disk containing the files and shut the door.
3. Type the names of the files you want to reload, separating them with a space. Press Return.
4. When all files have been reloaded, remove the disk.
5. Press the Cancel key to return to the system utilities menu.

Formatting a Flexible Disk

The formatting process prepares a disk for use in backing up files. Use the format flexible disk utility for this process.

1. On the system utilities menu, type 32 and press the Return key.
2. Insert the disk to be formatted and shut the door.
3. Type y for yes to continue the process and press Return.
4. When the process is complete, remove the disk. Press the Cancel key to return to the system utilities menu.

Clearing Files on a Flexible Disk

Clearing a flexible disk removes ALL the files from a disk.

1. On the system utilities menu, type 33 to select clear files on flexible disk, and press the Return key.
2. Insert the disk to be cleared and shut the door.
3 Type a y for yes to continue and press Return.

4 When the process is finished, remove the disk.

5 Press the Cancel key to return to the system utilities menu.
System Management Procedures

System management procedures should be carried out by the system manager since the procedures alter accounts, groups, permissions, and ownership. Whether you have a single or multiuser system you should attach a password to the manager account with the assign a password to an account selection to prevent others from using it.

Most of the procedures in the following pages require that you use the manager account.
15 Accounts

Having an account name allows a user to gain access to and use the system. The following pages show how to work with accounts and passwords as well as give some special assignments to accounts. These processes are done through the system utilities and system management menus.

Account Information Chart

Many account activities show the account information chart after the additions or changes have been made. The parts of the chart are identified below.

<table>
<thead>
<tr>
<th>NAME</th>
<th>FLAGS</th>
<th>UID</th>
<th>GROUP</th>
<th>COMMENT</th>
<th>HOME</th>
<th>SHELL</th>
</tr>
</thead>
<tbody>
<tr>
<td>one</td>
<td>y</td>
<td>105</td>
<td>users</td>
<td>test account</td>
<td>u/cat</td>
<td>/bin/menu</td>
</tr>
<tr>
<td>two</td>
<td>n</td>
<td>106</td>
<td>users</td>
<td>test account</td>
<td>u/dog</td>
<td>/bin/menu</td>
</tr>
</tbody>
</table>

Adding a New Account

A new account can be created either by typing in newuser when asked for the account name at login, or by using the add new account selection on the system management menu.

USING NEWUSER TO CREATE AN ACCOUNT

1 Start up the system, type newuser for the account name on the login screen, and press the Return key.

2 Type in your new account name and press Return. You will be asked if you want a password. Type a y for yes or n for no and press Return.

3 If you decided to have a password, you'll be asked to type it twice.
Press the Return key to try out the account name and password and gain access to the system.

USING SYSTEM MANAGEMENT TO CREATE A NEW ACCOUNT

1. From the system management menu, type 10 for add new account and press the Return key.
2. Type the account name or names, separating them with a space. Press Return.
3. The account information chart shows the name, flags, user ID, group, comment, home directory, and login shell.
4. Press Return to go back to the system management menu.

Modifying Existing Accounts

Modify existing account is used to gain access to a menu of procedures that alter accounts. The individual procedures are listed below.

ASSIGNING A NEW ACCOUNT NAME

Assigning a new account name changes the name of an account.

1. From the system management menu, type 11 for the modify existing account menu and press the Return key.
2. Type the old account name and press Return.
3. Type n for assign new account name and press Return.
4. Type in the new account name and press Return.
5. The account information chart shows the new account name under the name column.
6. Press Return to return to the modify existing account menu.
7. Press the Cancel key to return to the system management menu.
ASSIGNING A NEW PASSWORD

Assigning a password to an account requires the user to type in a password to use the system. The manager account should ALWAYS have a password.

1. From the system management menu, type 11 for the modify existing account menu and press the Return key.

2. Type the account name and press Return.

3. Type the password and press Return. The FLAGS column of the account information chart shows a p for password.

4. Press Return to return to the modify account menu, and then press the Cancel key to go back to the system management menu.

REMOVING A PASSWORD

When a password is removed, a user can log in and use the system without a password.

1. From the system management menu, type 11 for the modify existing account menu and press the Return key.

2. Type in the account name and press Return.

3. Type an ~ to remove the password and press Return.

4. Press the Return key to return to the modify existing account menu, and then press the Cancel key to go back to the system management menu.

ASSIGNING A USER ID NUMBER

Adding a new user ID number allows more than one person to use the same account name.

1. From the system management menu, type 11 for modify existing account and press the Return key.

2. Type in the account name or names separated by a space and press Return.
3 Type a u to change the user ID and press Return.

4 Type the user ID number and press Return.

5 The account information chart shows the new user ID under the UID column.

6 Press the Return key to return to the modify existing account menu, and then press Cancel to go back to the system management menu.

ASSIGNING A GROUP ID NUMBER

Assigning a group number changes the group the account is connected with. This must be done for all new accounts added to a group.

1 From the system management menu, type 11 for modify existing account and press the Return key.

2 Type the account name or names, separated by a space, and press Return.

3 Type g to change group ID of the account(s) and press Return.

4 Type the group ID number and press Return.

5 The account line information shows the new group ID under the GID column.

6 Press the Return key to return to the modify account menu, and then press the Cancel key to go back to the system management menu.

ASSIGNING A HOME DIRECTORY

Assigning a new home directory allows the user to have access to a different directory at login time.

1 From the system management menu, type 11 and press the Return key.

2 Type in the account name or names separated by a space and press Return.
1 From the system management menu, type 11 for modify existing account and press the Return key.

2 Type in the account name or names, separated by a space, and press Return.

3 Type a to ignore system standards and press Return.

4 The account information chart shows on the screen. Press the Return key to return to the modify existing accounts menu and then press the Cancel key to return to the system management menu.

TURNING ON AN ACCOUNT

Turning an account on allows an account name to be used until it is turned off. All new accounts are automatically turned on.

1 From the system management menu, type 11 for modify existing account and press the Return key.

2 Type in the account name or names, separated by a space and press Return.
3 Type on to turn the account on and press Return. The FLAGS column of the account information chart shows a y for the account.

4 Press the Return key to return to the modify existing account menu, and then press the Cancel key to go back to the system management menu.

TURNING OFF AN ACCOUNT

Turning off an account will not allow anyone to use it until it is turned back on again.

1 From the system management menu, type 11 for modify existing account and press the Return key.

2 Type in the account name or names, separated by a space, and press Return.

3 Type off to turn the account off and press Return. The FLAGS column of the account information chart shows an n for the account.

4 Press the Return key to return to the modify existing account menu, and then press the Cancel key to go back to the system management menu.

ADDING AN ACCOUNT TO A GROUP

Adding an account to a group can be done only for those users working at the user command level of the operating system. After adding the account, use the change group ID of an account utility so that the account can use the group's files.

1 From the system management menu, type 11 for modify existing accounts and press the Return key.

2 Type an a to add the account and press Return.

3 Type in the group name and press Return.

4 The account information chart shows the new group name listed in the GROUP column.
5 Press the Return key to return to the modify existing accounts menu, and then Cancel to go back to the system management menu.

DELETING AN ACCOUNT FROM A GROUP

Deleting an account from a group prevents the user with that account from using the group.

1 From the system management menu, type 11 for modify existing account and press the Return key.

2 Type a d to delete the account and press Return.

3 Type in the group name and press Return.

4 The account information line is displayed. The deleted group name no longer appears in the GROUP column.

5 Press the Return key to return to the modify existing accounts menu, and then Cancel to go back to the system management menu.

ASSIGNING A SHELL SCRIPT

Assigning a new shell script allows the user to change the area of the operating system at login time. To use the menu system, type /bin/menu. To use the user command level, type /bin/sh.

1 From the system management menu, type 11 for modify existing account and press the Return key.

2 Type in the account name or names separated by a space and press Return.

3 Type an s to change the shell (login procedure) and press Return.

4 Type the new login procedure (either /bin/menu or /bin/sh) and press Return.

5 The account information chart shows the new login procedure under the SHELL column.

6 Press the Return key to return to the modify existing account menu, and then press the Cancel key to go back to the system management menu.
DISPLAYING A NEW COMMENT

A 15-character comment can be attached to an account for information about the account using the display a new comment selection.

1. From the system management menu, type 11 for modify existing account and press the Return key.
2. Type in the account name or names, separated by a space, and press Return.
3. Type c to choose display comment and press Return.
4. Type the comment, which must be only one word long but can be several words separated by an underline or dash. Press Return.
5. The account information chart shows the new comment in the COMMENT column.
6. Press Return to return to the modify existing accounts menu, and then press the Cancel key to return to the system management menu.

Deleting an Existing Account

Delete an existing account removes it from the computer so that no one can use it.

1. From the system utilities menu, type 12 and press the Return key.
2. Type the name of the account to be deleted and press Return.
3. When the process is complete, press Return to return to the system utilities menu.

Listing Accounts

The list accounts utility shows the account information for some or all accounts on the system.

1. From the system management menu, type 13 and press the Return key.
2 There are two options:

- printer to list accounts on the printer
- screen to list accounts on the screen

Type the letter of the option you want and press Return. If you choose the printer option, make sure the printer is On.

3 Type the name of every account you want to list, or type all to list all the accounts. Press Return.

4 Press the Return key to return to the list account information menu, and then press the Cancel key to go back to the system management menu.
Every user with an account can belong to only one group. The following pages contain procedures for working with groups, including adding and deleting groups, adding and deleting passwords, and changing group IDs.

Adding a New Group

The add new group utility creates a new group or groups.

1. From the system management menu, type 20 and press the Return key.

2. Type in the name of the new group(s) and press Return.

3. The group information chart shows the new group name, group ID, and membership.

4. Press Return to go back to the system management menu.

5. Type 11 for the modify existing account menu. Use the add new users to a group option to assign members to the new group.

Modifying an Existing Group

This selection leads to a separate screen that shows selections for modifying groups.

ENTERING A NEW GROUP NAME

This selection alters a group name while leaving the accounts associated with it unchanged.

1. From the system management menu, type 21 for modify existing group and press the Return key.
2 Type the group name to be changed and press Return.

3 From the modify existing group menu, type n and press Return.

4 Type in the new name for the group and press Return.

5 The group information chart shows the group's new name, group ID, and membership.

6 Press the Return key to go back to the modify existing group menu, and then press the Cancel key to go back to the system management menu.

ASSIGNING A NEW GROUP ID NUMBER

A new group ID number changes the way in which the operating system identifies a group.

1 From the system management menu, type 21 for modify existing group and press the Return key.

2 Type the group name and press Return.

3 From the modify existing groups menu type g and press Return.

4 Type in the new group ID number and press Return.

5 The group information chart is displayed. The new group ID number is listed in the GID column.

6 Press the Return key to return to the modify existing group screen, and then press the Cancel key to go back to the system management menu.

ACCEPTING INFORMATION LITERALLY AND IGNORING THE OPERATING SYSTEM STANDARDS

Changing the operating system standards for a group permits use of a group name of one character or a group password of less than five characters.

1 From the system management menu, type 21 for modify existing group and press the Return key.
2 Type in the group name or names separated by a space and press Return.

3 Type an ~ and press Return.

4 The group information chart shows the current standards.

5 Press the Return key to return to the modify existing group menu, and then press the Cancel key to go back to the system management menu.

Deleting an Existing Group

When a group is deleted, its members must be added to a different group. All the files owned by the group will return to the public domain.

1 From the system management, menu type 22 for delete existing group and press the Return key.

2 Type in the group name or names separated by a space and press Return.

3 When the process is complete, you'll see the system management menu again.

Listing Groups

List groups shows the group identification chart for a group or for all groups. You do not have to be logged in as manager to list a group.

1 From the system management menu, type 23 and press the Return key.

2 There are two options:
   - print to print the list
   - screen to see the list on the screen

Type the code for the option and press the Return key. Make
sure your printer is turned On and ready if you choose to print the list.

3 Type the group name or all to see all the groups. Press Return.

4 The group information chart is displayed or printed. Press the Space Bar if the information you need to see fills more than one screen.

5 Press the Return key to return to the list group information screen, and then press the Cancel key to go back to the system management menu.
17 Other Tools

The additional tools on the system management menu are used to get and change information on the Fortune system.

Shutting Down the Computer

Shutting down the computer is the process used to close all files and prepare the system to be turned off.

1 On the system management menu, type 30 for shutdown computer and press the Return key.

2 You'll see information about notifying other users of the shutdown before you continue.

3 Type yes to continue and you will see the shutdown messages. After the last message, "Turn your Fortune 32:16 off," you can turn off the system.

Who Is Using the Computer

This process tells you who's currently logged into the system.

1 On the system management menu, type 31 and press the Return key.

2 You'll see a message for each user on the system.

3 Press Return to go back to the system management menu.

Disk Usage

You can see the amount of disk space used by an account, the current directory, or any directory with the disk usage function.

1 On the system management menu, type 32 for disk usage and press the Return key.
2 There are three options:

- account space used
- current directory space used
- other directory space used

Type the letter for the option and press Return.

3 Type the account name, or the directory name and its pathname if applicable. Press Return.

4 The list of files appears on the screen. Hold down the Control key and press g to stop the list and look at it, and then hold down the Control key and press q to see more of the list.

5 When the list is finished you'll be returned to the system management menu.

Percent of Disk Used

With this utility you can see a repeat of the disk usage message that is seen when you first start up the system.

1 On the system management menu, type 33 for percent of disk used and press the Return key.

2 The disk usage message reads "__% of available space is in use."

3 Press Return to return to the system management menu.

Changing Your Password

You can change your password for login this selection.

1 On the system management menu, type 34 for change your password and press the Return key.

2 Press y to confirm that you want to change your password.

3 Type in the new password and press Return. You'll be asked to
retype the password and press Return again.

4 Press Return to return to the system management menu.

Displaying Current Date and Time

Display current date and time shows you the date and time you used to set the computer.

1 On the system management menu, type 35 for display current date and time and press the Return key.

2 You'll see the current date and time on the screen.

3 Press Return to return to the system management menu.

Setting Date and Time

You can reset the date and time with the set date and time selection.

1 On the system management menu, type 36 and press the Return key.

2 You'll see the set date and time screen. Type over the current information with a new date and/or time and press Return.

3 Press Return to return to the system management menu.

Writing a Message to a Terminal

Use this selection to send a message to a specific user, regardless of the terminal that person is using.

1 On the system management menu, type 37 for write message to a terminal and press the Return key.

2 Type in the account name and press Return.

3 Type in the message you want to send, and end it with a Return. Then hold down the Control key and type a d.
4 You'll be returned to the system management menu. Your message will appear on the screen of the terminal where the account is logged in.

Sending a Message to All Terminals

_Send message to all terminals_ sends the same message to all operators.

1 On the system management menu, type 38 and press the Return key.

2 Type the message to be sent, and end it with a Return. Then hold down the Control key and press d.

3 You'll return to the system management menu. Your message is immediately displayed on all terminals.

Changing Device Connections

_Change device connections_ is used to tell the operating system about a satellite workstation.

1 On the system management menu, type 39 and press the Return key.

2 From the _change device connections_ menu, type a number from 1 through 13, corresponding to the interface where the workstation is connected. The number 1 is for the SIO connector, and 2 through 13 are connectors on the COM-A board.

3 For device type, type 3 for the ASCII terminal and press Return.

4 Press the Cancel key twice to go back to the global menu. You must use the _shutdown the computer_ selection from system management to incorporate the changes.
Product Maintenance Procedures

The product maintenance procedures are used to maintain applications on your Fortune system. These processes include installing, deleting, and backing up Fortune Systems software. You must log in as manager to use any of the selections on this menu.
Installing a product is the process of moving a copy of the application or other software from its master disk to the hard disk. This process makes the software available for your use and updates the global menu so that the appropriate selection is highlighted.

In the case of business applications such as General Ledger and Payroll, the Business Applications selection under Business Systems on the global menu is highlighted.

Most applications include a training disk. As part of the installation procedure, you'll be asked if you want to install the training data also. If you don't intend to use the application's Operator's Guide for training, type n for no.

1. From the product maintenance menu type i for install a product and press the Return key.

2. Put the application disk in the flexible disk drive, close the door, and press Return.

3. Type y to proceed with the installation and press Return. You'll see an identification of the product on the screen, and you'll be asked to insert additional disks if necessary. You may also be asked if you want to install the training data.

4. You'll see the message "Product installation is successfully completed" when the process is finished. Remove the flexible disk and press Return to go back to the global menu.
19 Deleting an Existing Product

Use this process to remove a product from your hard disk when you want to install a new version, when your disk has run out of space, or when you no longer want to use the product. You can also use this selection to remove the training data from your disk.

Deleting a Product

1 From the product maintenance menu, type d for delete existing product and press the Return key.

2 Select the application to be deleted. Type Pl, for example, for Multiplan, or move the cursor bar over the application name with the cursor keys, and press Return.

3 Type y to continue the process and press Return. When the process is finished, press the Return key to return to the product maintenance menu.

Deleting the Training Documents

1 From the product maintenance menu type d for delete existing product and press the Return key. You'll see the product selection menu.

2 Type the code that precedes the name of the training data you want to delete, such as PlT for Multiplan, and press Return.

3 Press Return to continue.

4 If you are deleting business applications training data you'll see a separate list of the training data bases. Type the number for the one you want and press Return.

5 When the "Deletion is complete" message appears, press the Return key to return to the global menu.
20 Backing Up an Existing Product

Immediately after you install a product it's a good idea to back it up onto other flexible disks. This gives you a copy of the application besides your original master disks in case you need to re-install the product. Be sure to back up the operating system using the procedure below as soon as you have your single user or multiuser system operating.

1. On the product maintenance menu, type b for backup existing product and press the Return key.

2. Select the application you want to copy by moving the cursor bar to it with the cursor control keys, or by typing its code, for example Pl for Multiplan. Press Return.

3. Type y to continue and press Return. When you see the message about inserting a disk, put a formatted flexible disk into the flexible disk drive, shut the door, and press Return.

4. When the copying process is finished, remove the disk and press the Return key to return to the product maintenance menu.
The following pages contain information about how to recover from system problems. Problems are of three types. The first type is a hardware malfunction or problem, the second type produces error messages on the screen that you must interpret and respond to with an appropriate remedy, and the third type is a system failure of which you may not have any warning and which requires special procedures to overcome.

In all cases, if you follow the instructions on the following pages and the problem is not solved, contact your Fortune Systems dealer or service representative for assistance.
21 Basic Troubleshooting

Before you can resolve your problem you need to know what the problem is. By taking a few minutes to assess the situation, you can simplify the solution.

Determining What the Problem Is

If your system or a part of it doesn't work, check the things below to determine where the problem is. Write down what you do at each step in the troubleshooting so that you can report this information to your dealer or service representative.

1. Make sure that the piece of equipment you wanted to use is connected and turned on.

2. If the equipment is connected and turned on, check the monitor to see if there are any messages for you on the screen.

3. If you see error messages while using an application, first check the application's reference guide for a solution.

4. If the error message isn't there, check the error messages in the next chapter for a solution.

5. If the problem seems to be with the hardware, check the situations and solutions below, depending upon the unit that isn't working properly.

6. If you see an error message that says you should contact your dealer or service representative, do that, and read your list that tells what you were doing when.
Hardware Problems

If your hardware problem is a simple one you may be able to solve it with the guidelines below. If you try a solution and it doesn't work, contact your Fortune Systems dealer or service representative. Be sure to have your list of troubleshooting steps ready.

THE CPU

NEVER open the CPU cabinet. By doing so you'll invalidate your warranty. Check the situations and solutions below to see if you can solve the problem before you call your dealer or service representative.

<table>
<thead>
<tr>
<th>Situation</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexible disk cannot be</td>
<td>Disks can get damaged. Try the same procedure with a new disk.</td>
</tr>
<tr>
<td>formatted.</td>
<td></td>
</tr>
<tr>
<td>The fan is not operating.</td>
<td>Turn off the system immediately. Call your dealer or service representative for repair service.</td>
</tr>
<tr>
<td>No lights are on, and there are no sounds from the system.</td>
<td>Make sure that the system is plugged in.</td>
</tr>
</tbody>
</table>

MONITOR AND KEYBOARD

The monitor and keyboard act as a unit. Use the guidelines below to determine which unit has a problem.

<table>
<thead>
<tr>
<th>Situation</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The monitor doesn't come on.</td>
<td>Make sure the monitor is plugged into the CPU securely. Adjust the brightness knob.</td>
</tr>
<tr>
<td>The display has lines on it, or blinks, squeezes up, or otherwise isn't right.</td>
<td>Check the cable connection between the CPU and the monitor.</td>
</tr>
</tbody>
</table>
What you type on the keyboard doesn't show up correctly on the monitor.

The keyboard doesn't beep when the system is turned on.

Check the connection between the keyboard and the CPU and make sure it is secure.

---

**PRINTERS**

Consult the troubleshooting section of your printer manual for information about correcting printer problems. You may also want to use the list below for some general hints on solving printer problems.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper is feeding crookedly or is bunched up.</td>
<td>Reload the paper.</td>
</tr>
<tr>
<td>The printer won't print.</td>
<td>Make sure you have the correct printer cable.</td>
</tr>
<tr>
<td></td>
<td>Make sure the printer is turned on and is securely connected to the CPU.</td>
</tr>
<tr>
<td></td>
<td>Check the control switches to make sure they're set correctly.</td>
</tr>
<tr>
<td></td>
<td>Make sure you've directed the printing to the correct printer.</td>
</tr>
<tr>
<td>The printer stops printing.</td>
<td>Check the error lights on the printer to see what the problem is.</td>
</tr>
<tr>
<td></td>
<td>Some error lights are self-explanatory. A ribbon light, for example,</td>
</tr>
<tr>
<td></td>
<td>means that the printer needs a new ribbon. Consult your printer manual</td>
</tr>
<tr>
<td></td>
<td>for more information.</td>
</tr>
<tr>
<td>The printer operates, but does not print correctly.</td>
<td>Check you application software to see if you have selected the printer correctly.</td>
</tr>
<tr>
<td></td>
<td>Check the operation switches and configuration switches to make sure they're set properly.</td>
</tr>
<tr>
<td></td>
<td>Check your printer manual for more information.</td>
</tr>
</tbody>
</table>
Software Problems

Software problems usually show up as an error message on the screen. Some error messages indicate that you have done something wrong in your use of an application. Review the procedures you followed before you saw the error message to see if you can determine what your mistake was. Also, check the error messages section of your application's Reference Guide to see if you can correct the error. If you don't find the error message listed, the problem may be in the operating system. Check the error messages in the next chapter for operating system problems.
Error Messages

Error messages appear on the screen to tell you when there is a problem. They are produced either by the operating system or by the application you're using. The troubleshooting guidelines below will help you determine which kind you're seeing.

1 First try to find the error message in the charts on the next few pages. If you don't find it there, and if you were using an application, check the error messages listed in the application guide for a solution. Follow the instructions in the guide for solving the problem.

2 If the error message solution has no effect, turn off the system and try again from the beginning.

3 If this doesn't work, write down a description of what happened, including the error message you saw, and call your Fortune Systems dealer or service representative for help immediately.

---

<table>
<thead>
<tr>
<th>Message Format</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware problem (number)</td>
<td>Note the number in the parentheses that follow &quot;Hardware problem&quot;. Look for that number in the tables on the following pages. Follow the action described for that error message.</td>
</tr>
<tr>
<td>Solution: See system manual section on &quot;Problem Recover&quot;</td>
<td></td>
</tr>
<tr>
<td>Notes: Refer to the &quot;Problem Check List&quot; before you continue with recovery. Call service only after you have tried recovery.</td>
<td></td>
</tr>
</tbody>
</table>

(Possible additional messages)
The error has been logged onto the computer
The system has now been halted
<table>
<thead>
<tr>
<th>Message Format</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software problem (number)</td>
<td>Note the number in the parentheses that follow &quot;Software problem&quot;. Look for that number in the tables on the following pages. Follow the action described for that error message.</td>
</tr>
<tr>
<td>Solution: See system manual section on &quot;Problem Recover&quot;</td>
<td></td>
</tr>
<tr>
<td>Notes: Refer to the &quot;Problem Check List&quot; before you continue with recovery. Call service only after you have tried recovery.</td>
<td></td>
</tr>
</tbody>
</table>

(Possible additional messages)
The error has been logged onto the computer
The system has now been halted

error on dev xx/yy
bn=aaaa er=bbbb,cccc

A disk drive had an error.
xx is a device number.
yy is a partition of the device.
aaaa is a block number.
bbbb and cccc are error codes.

Error Messages from the Operating System

Error messages are listed in numerical order, regardless of whether the message is related to a hardware problem or a software problem. Look for the number in the left-hand column, and follow the instructions in the right-hand (Action) column.

<table>
<thead>
<tr>
<th>No.</th>
<th>Meaning</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Invalid block device</td>
<td>Call your Fortune Systems dealer.</td>
</tr>
<tr>
<td>2</td>
<td>Invalid device table entry</td>
<td>Call your Fortune Systems dealer.</td>
</tr>
<tr>
<td>No.</td>
<td>Meaning</td>
<td>Action</td>
</tr>
<tr>
<td>-----</td>
<td>--------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>3</td>
<td>Error in swap I/O</td>
<td>Call your Fortune Systems dealer.</td>
</tr>
<tr>
<td>4</td>
<td>IOCCOM</td>
<td>Call your Fortune Systems dealer.</td>
</tr>
<tr>
<td>5</td>
<td>No file system</td>
<td>Call your Fortune Systems dealer.</td>
</tr>
<tr>
<td>6</td>
<td>Timeout table overflow</td>
<td>Set power switch to off, wait ten seconds, then set power switch to on. If the same error message is displayed, disconnect some workstations from the system and try again.</td>
</tr>
<tr>
<td>7</td>
<td>No mount table</td>
<td>Call your Fortune Systems dealer.</td>
</tr>
<tr>
<td>8</td>
<td>Error reading in root inode</td>
<td>Call your Fortune Systems dealer.</td>
</tr>
<tr>
<td>9</td>
<td>Running a dead process</td>
<td>Call your Fortune Systems dealer.</td>
</tr>
<tr>
<td>10</td>
<td>No more process table entries</td>
<td>Call your Fortune Systems dealer.</td>
</tr>
<tr>
<td>11</td>
<td>No more swap space</td>
<td>For error 11 or 12, set the power switch to off, wait ten seconds, then set the power switch to on. If the same message is displayed, run fewer applications and try again. If the problem continues, call your Fortune Systems dealer.</td>
</tr>
<tr>
<td>12</td>
<td>No more swap space</td>
<td>For error 11 or 12, set the power switch to off, wait ten seconds, then set the power switch to on. If the same message is displayed, run fewer applications and try again. If the problem continues, call your Fortune Systems dealer.</td>
</tr>
<tr>
<td>13</td>
<td>Unexpected trap</td>
<td>Turn off power for at least ten seconds, then try again. If the same message is displayed, call your Fortune Systems dealer.</td>
</tr>
<tr>
<td>No.</td>
<td>Meaning</td>
<td>Action</td>
</tr>
<tr>
<td>-----</td>
<td>--------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>14</td>
<td>Kernel bus/address error</td>
<td>Record the message number, and as much as you can remember of the events immediately preceding the message. Turn off power for at least ten seconds, then try again. If the same message is displayed, call your Fortune Systems dealer.</td>
</tr>
<tr>
<td>15</td>
<td>Invalid ROM format</td>
<td>A ROM has failed. Call your Fortune Systems dealer.</td>
</tr>
<tr>
<td>16</td>
<td>Double parity error</td>
<td>Turn off power for at least ten seconds, then try again. If the same message is displayed, call your Fortune Systems dealer. Some part of the computer memory has failed.</td>
</tr>
<tr>
<td>17</td>
<td>Refresh timeout</td>
<td>Turn off power for at least ten seconds, then try again. If the same message is displayed, call your Fortune Systems dealer. Some part of the computer memory has failed.</td>
</tr>
<tr>
<td>18</td>
<td>The init file died</td>
<td>Call your Fortune Systems dealer.</td>
</tr>
<tr>
<td>19</td>
<td>Mfree overrun Memory allocation error</td>
<td>Set the power switch to off, wait ten seconds, then set the power switch to on. If that doesn't work, call your Fortune Systems dealer.</td>
</tr>
<tr>
<td>20</td>
<td>Zero wchan Software error</td>
<td>Set the power switch to off, wait ten seconds, then set the power switch to on. If that doesn't work, call your Fortune Systems dealer.</td>
</tr>
<tr>
<td>100</td>
<td>Hardware failure</td>
<td>The system crashes. Another message will follow.</td>
</tr>
<tr>
<td>120</td>
<td>Parity error Memory read error</td>
<td>This is a hardware problem. Set the power switch to off, wait ten seconds, the set the power switch to on. If that doesn't work, call your Fortune Systems dealer.</td>
</tr>
<tr>
<td>No.</td>
<td>Meaning</td>
<td>Action</td>
</tr>
<tr>
<td>-----</td>
<td>---------</td>
<td>--------</td>
</tr>
<tr>
<td>121</td>
<td>Unable to log error</td>
<td>Call your Fortune Systems dealer.</td>
</tr>
<tr>
<td>122</td>
<td>Spare table overflow</td>
<td>Call your Fortune Systems dealer.</td>
</tr>
<tr>
<td></td>
<td>Space unavailable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hard disk and flexible disk overflow.</td>
<td></td>
</tr>
<tr>
<td>123</td>
<td>Spurious interrupt</td>
<td>Call your Fortune Systems dealer.</td>
</tr>
<tr>
<td></td>
<td>Unexpected hardware problems</td>
<td></td>
</tr>
<tr>
<td>124</td>
<td>Can not read configuration block</td>
<td>Set the power switch to off, wait ten seconds, then set the power switch to on. If error persists, call your Fortune Systems dealer.</td>
</tr>
<tr>
<td></td>
<td>Hard or flexible disk problem.</td>
<td></td>
</tr>
<tr>
<td>125</td>
<td>Invalid magic number in configuration block.</td>
<td>Set the power switch to off, wait ten seconds, then set the power switch to on. If hard disk, try cold boot. If error persists, call your Fortune Systems dealer.</td>
</tr>
<tr>
<td></td>
<td>Hard or flexible disk problem.</td>
<td></td>
</tr>
<tr>
<td>128</td>
<td>Physio to an odd address</td>
<td>Set the power switch to off, wait ten seconds, then set the power switch to on. If that doesn't work, call your Fortune Systems dealer.</td>
</tr>
<tr>
<td></td>
<td>Error in a user program. Configuration is inaccurate.</td>
<td></td>
</tr>
<tr>
<td>129</td>
<td>No more file table entries</td>
<td>Set the power switch to off, wait ten seconds, then set the power switch to on. If that doesn't work, go to the configuration menu. Change F7 to hd02/sa/reconf, press the Return key. Increase Appx # of users by one.</td>
</tr>
<tr>
<td>130</td>
<td>No more inode table entries</td>
<td></td>
</tr>
<tr>
<td>132</td>
<td>Address in inode 2 24</td>
<td>Wait 45 seconds, turn power off. Turn on after 10 seconds. Log in again.</td>
</tr>
<tr>
<td></td>
<td>File system error</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Meaning</td>
<td>Action</td>
</tr>
<tr>
<td>-----</td>
<td>----------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>133</td>
<td>Stuff Operating system error</td>
<td>Call your Fortune Systems dealer.</td>
</tr>
<tr>
<td>134</td>
<td>Invalid user access Operating system error</td>
<td>Call your Fortune Systems dealer.</td>
</tr>
<tr>
<td>135</td>
<td>Error doing suiwro Operating system error</td>
<td>Call your Fortune Systems dealer.</td>
</tr>
<tr>
<td>136</td>
<td>Error in process queue</td>
<td>Call your Fortune Systems dealer.</td>
</tr>
<tr>
<td>137</td>
<td>No text table entries</td>
<td>Use the configuration menu to increase the Apprx. # of users by one.</td>
</tr>
<tr>
<td>138</td>
<td>Random interrupt Hardware problem</td>
<td>If this occurs only once, continue working. If more than once, set the power switch to off, wait ten seconds, then set the power switch to on.</td>
</tr>
<tr>
<td>139</td>
<td>Bad free count File system error</td>
<td>Wait 45 seconds, turn power off for ten seconds, then turn power on.</td>
</tr>
<tr>
<td>140</td>
<td>No space The disk is full</td>
<td>Try turning the system off, then on.</td>
</tr>
<tr>
<td>141</td>
<td>Bad block The file system is not properly configured.</td>
<td>Try turning the system off, then on.</td>
</tr>
<tr>
<td>142</td>
<td>No inodes The disk is full</td>
<td>Try turning the system off, then on.</td>
</tr>
<tr>
<td>143</td>
<td>Bad count The filesystem is not consistent.</td>
<td>Set the power switch to off, wait ten seconds, then set the power switch to on.</td>
</tr>
<tr>
<td>No.</td>
<td>Meaning</td>
<td>Action</td>
</tr>
<tr>
<td>-----</td>
<td>----------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>144</td>
<td>Err Hardware</td>
<td>A message will follow giving more information.</td>
</tr>
<tr>
<td></td>
<td>error</td>
<td></td>
</tr>
<tr>
<td>200</td>
<td>Hardware error</td>
<td>&quot;</td>
</tr>
<tr>
<td>400</td>
<td>Software failure</td>
<td>&quot;</td>
</tr>
<tr>
<td>800</td>
<td>Software error</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

Application Error Messages

Most application software can detect an improper response from you. Whenever you hear a beep, check the screen to see what's happening. If you request something that can be a problem if it is a mistake, like typing letters when you should be typing numbers, some application software checks your response and lets you know that what you've typed is unacceptable.

If you see an error message while you're using an application that doesn't appear on the system errors list, check the error messages section of your application's reference guide for information on what to do.
Even the most carefully maintained computers will involuntarily power down, or crash, due to a power failure or other system problem. Some symptoms are that the screen will freeze, the keyboard will be inoperative, or you may see the message "Something's Wrong...Start Over." If you are sure that this is the cause of your system problems, you recover your system.

Recovering a system is a complex process which requires a detailed explanation and your complete attention for every step in the process. The procedures to use depend on whether you have a single or multiuser system and the extent that the system has failed. These procedures are provided in detail in Part 3 of Understand Your Fortune System.