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Fortune Systems Corporation 1501 Industrial Road San Carlos, CA 94070

MEET YOUR FORTUNE SYSTEM

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Ordering Meet Your Fortune System

Order Numbers: 100793-01 for the complete binder with disks 100794-01 for the complete binder without disks

Consult an authorized Fortune Systems dealer for copies of manuals and technical information.

This equipment generates, uses, and can radiate radio frequency energy. If it is not installed and used in accordance with the instructions in this guide, it may cause interference to radio communications. It has been tested and found to comply with the limits for a class A computing device pursuant to FCC rules, Part 15, Subpart J, which is designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference; in that case the user, at his own expense, will be required to take whatever measures may be required to correct the interference. Welcome, Fortune System User

This package contains everything you need to learn how to use your Fortune 32:16. Before you begin, use the checklist below to determine if your package is complete.

- Meet Your Fortune System
- Fortune 32:16 Reference Guide
- Understand Your Fortune System

In the back is a plastic sheet with three pockets that contain:

- Two master disks
- Training disk
- Fortune Systems software registration card .

If any item is missing from your binder, contact your Fortune Systems dealer for a replacement before you proceed with your training. --

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How to Use This Package

It's important that you know how to use each item in this package before you begin.

- <u>Meet Your Fortune System</u>. Use this guide with your training disk to learn how to connect and use your Fortune 32:16.
- Fortune 32:16 Reference Guide. After you are familiar with the operation of your Fortune system, you'll use this guide as a quick reference for details you can't be expected to remember. If you are already very familiar with computers and computer terminology, you may want to use this guide immediately.
- Understand Your Fortune System. This guide explains how to manage the Fortune 32:16 and all the information created on it. It assumes that you have computer experience or have read <u>Meet</u> Your Fortune System.
- <u>Master disks</u>. These disks contain the software that operates your Fortune system.
 - Training disk. This disk contains some training programs, a vocabulary list, and some information about Fortune Systems applications.
 - Fortune Systems software registration card. This postpaid card registers and warrantees your disks. Be sure to fill it out and mail it to Fortune Systems Corporation.

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THE FORTUNE 32:16 MUST BE SHUT DOWN IN AN ORDERLY MANNER TO PREVENT LOSS OF INFORMATION. DO NOT SIMPLY TURN OFF POWER. FOLLOW THE DETAILED SHUTDOWN PROCEDURE IN THIS GUIDE. (SEE PAGE 3-45.)

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Meet Your Fortune System

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Printed in U.S.A. 3 4 5 6 7 8 9 0

Ordering Meet Your Fortune System

Order Number: 1000795-01 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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For full details of the terms and conditions for using Fortune Systems software, please refer to the Fortune Systems Corporation Customer Software License Agreement. This guide tells a person who has no previous computer experience how to unpack, install, connect, and operate a Fortune 32:16. If you are new to computers, you should read the guide from the first page. If you have lots of experience with computers, you'll want to skip through this guide, looking only for features unique to the Fortune 32:16. The chart on the next page outlines the steps to set-up the Fortune 32:16 for experienced users.

If you classify yourself in a category somewhere between a novice and an experienced user, you may want to be selective. Be conservative in your judgments. When in doubt, read.

Part 1 of this guide introduces you to each unit of the Fortune system and to some fundamental computer concepts, and tells you about the environment needed for the Fortune system.

Part 2 provides step-by-step procedures for unpacking the basic units, and connecting them for use.

Part 3 tells you how to turn on the system, get it operating, and shut it down. It also contains step-by-step instructions for some of the most common procedures you'll need to know. You also use the training disk in this package. The programs on the training disk will help you become comfortable with routine operations.

Part 4 tells you how to connect additional units to the basic units of the Fortune system.

Part 5 provides additional information about some features of the Fortune system. You may want to refer to the information here to understand the relations between what you do and what the computer does.

When you're unsure about the meaning of a word you find in the guide, look it up in the glossary, which also contains terms you'll learn about in <u>Understand Your Fortune System</u>.

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 the <u>Fortune</u> <u>32:16 Reference Guide</u> brief step-by-step procedures for everything you'll need.

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Glossary

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Throughout history, people have sought to develop faster ways of doing mathematical calculations.

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From Mathematics, Rathbone Publishing Ltd.



The Fortune 32:16 is a desktop microcomputer that combines the power and computing capability of a larger computer with the ease of use and convenience of a small computer. The basic Fortune system includes a central processing unit, a monitor, and a keyboard. With the basic units, one person can work on one application at a time. If you add more monitors with keyboards to your system, other people can work at the same time on other applications. This guide will also help you set up a multiple user system.

As with any new piece of equipment, the more you know and understand about the basics of how it works and what it's used for, the more comfortable you'll be when you use it.

This part of the guide will introduce you to the following:

What the basic units are How the hardware relates to the software What documentation is provided What is involved in learning how to use the system All computer systems are made up of two main parts: hardware and software. One cannot work without the other. The <u>hardware</u> includes the equipment you'll unpack soon: a central processing unit, a monitor, and a keyboard. <u>Software</u> consists of the instructions that tell the computer what to do.

The two major categories of software are the <u>operating system</u> and <u>application programs</u>. The operating system is the master program that controls the hardware and keeps track of where information is stored. Application programs can perform tasks such as word processing, financial planning, and accounting. Depending on the combination of hardware and software in your system, more than one person can use the system at a time. Both the single user and <u>multiuser</u> systems can do <u>multitasking</u>, running more than one application at a time.



Basic Units

The hardware of the computer system takes the place of pens, pencils, typewriters, and paper. Three units make up the basic hardware of the Fortune 32:16: the central processing unit, the monitor, and the keyboard. There are other important pieces of hardware, such as the printer, which you will learn more about later.

KEYBOARD

The keyboard (which replaces the pens, pencils, and typewriters) is the <u>input device</u>, the device used to put information into the computer. You communicate with the computer through the keyboard. To give you control of the computer, the keyboard has all the keys you see on the common office typewriter, and others that perform additional functions.



The keyboard looks like part of a typewriter.

THE MONITOR

The <u>monitor</u> looks very much like a television set. On the screen of the monitor you see the display that is the result of what you type at the keyboard. The <u>display</u> is green on a black background, which is easy on the eyes. You watch the monitor to make sure that the computer is doing what you told it to do through the keyboard. It's easy to correct any mistakes you make if you see them as they appear on the screen. The monitor is usually thought of as an <u>output</u> <u>device</u>, because it is most often used to display what is inside the computer to people outside the computer.



The monitor looks like a TV set.

CENTRAL PROCESSING UNIT

The central processing unit (CPU) does most of the work that makes a computer compute. Among its many tasks is the transfer of your input at the keyboard to the output on the screen, so that you can keep track of what is happening.

Inside the CPU are all the electronic circuits and devices that hold the results of the work you do. One of these devices is the <u>hard disk drive</u>, which stores information you need everyday. The <u>flexible disk drive</u> is a device that reads information from disks, that look like small phonograph records. The flexible disk drive is also able to write information on these disks. You'll use these disks to store information you previously kept on paper. Flexible disks are a convenient way to store information you are not currently using. Once the information is on the flexible disk, it can be read and displayed on the screen at any time. Any device used with the computer is connected in some way to the CPU.



The CPU looks like a small piece of luggage without the handle.

BASIC SYSTEM

When the three basic units are put together, the computer is ready for work. All it needs is software. If you know how to speak its language, you can instruct it yourself. Otherwise, you need application software to make the system work for you right away. At its lowest level, the language of the computer is a collection of electrical signals that it responds to at millions of times a second. At the next level up, the language of the computer is a code that one part of the computer uses to generate the electrical signals required to control another part of the computer. This code is called the machine language of the computer, and there are many different machine languages. Some people can write instructions in these languges. These people write sets of instructions so that other people can write instructions in a still higher level language. At the next level of computer languages, instructions to the computer are written in a code consisting of groups of letters. The computer translates these letters, which are in an assembly language, into machine language. As the level of a language gets higher and higher, it eventually gets closer and closer to the languages that most people use. Any set of instructions for a computer written in any of these languages is called software. No matter what the language of the software may be, it must eventually be translated into the language of the computer at its lowest level -- a collection of electrical signals.

OPERATING SYSTEM

The operating system is the master program of any computer. The operating system keeps track of what is happening inside the computer; and it responds to input at the keyboard, doing such things as transferring inputs from the keyboard to the screen. In addition, when you give instructions at the keyboard, the system can search through information stored on a disk and display it on the screen, or write it on a disk. The operating system also passes your instructions to other parts of the computer. You can give your instructions directly to the operating system, or you can use application programs which send specific, predefined sets of instructions to the operating system.

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APPLICATION SOFTWARE

Application software acts as a translator for people who want to work with computers but have no need to learn a computer language. People who write application software must have some knowledge of computers and some knowledge of the field in which the application is used so that they can translate from either language to the other. Users of application software often work from a menu on a screen. A <u>menu</u> is a display of choices available to the computer user in the vocabulary of the user, who may be an accountant, or an engineer, or a typist. Application software makes a specific type of work easy to do on a computer, but the software is dedicated to that specific job. Fortune Systems provides a full range of applications software for the Fortune 32:16.

OTHER KINDS OF SOFTWARE

There's much more to software than operating systems and application software. As you become more involved, you'll hear many more terms, such as assembly language, compilers, interpreters, and utilities.



Software is available in many forms and at many levels.

The better computer systems are capable of expansion by connecting additional units. With your Fortune system, additional units are optional; by adding units, you can put together a system that fits your needs. For example, if one use of your Fortune 32:16 is word processing, you can add an additional unit for each operator. When you need the additional features, your Fortune system can be expanded by connecting additional units to <u>controllers</u> in the CPU. A controller contains electronic circuits designed to be connected with a specific type of device, usually outside the CPU. One controller in the CPU is used for the monitor, and one is used for the hard disk drive.

ASCII TERMINAL

An ASCII terminal is a display unit that looks very much like the monitor. (The name ASCII comes from American Standard Code for Information Interchange; it is pronounced to rhyme with "passkey.") Each ASCII terminal makes it possible for an additional operator to



An ASCII terminal looks similar to a monitor.

work on the Fortune system. A standard keyboard is used with the ASCII terminal.

The main difference between a monitor and an ASCII terminal is that the ASCII terminal is connected to the CPU through a cable, and can operate at distances up to 50 feet from the CPU.

If your system has an ASCII terminal, you'll be unpacking and installing it after the basic units are connected and operating.

PRINTERS

A computer operator can see the information in the computer by looking at the display on the screen, but many people want to see it in printed form. A printer is needed so that selected information in the computer can be printed for <u>hard copy</u> distribution. Fortune Systems Corporation can provide a letter quality printer or a dot matrix printer.

The output of a letter quality printer looks like the ouput of a typewriter; it is printed in the same way a typewriter prints, by striking a solid print character against a ribbon. A dot matrix printer forms letters by striking a set of closely spaced dots in the shape of letters, numbers, and other characters. The dot matrix printer produces the text faster than a letter quality printer can, but the solid type produced by a letter quality printer is what most people are accustomed to reading. The Fortune dot matrix printer operates at 110 to 200 characters per second; the Fortune letter quality printer can be connected to the CPU with the cable provided and requires no other equipment or software.



A letter quality printer is used for most business documents because the output is like a typewriter.

FORTUNE SYSTEMS

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A matrix printer can print three times faster than a letter quality printer.

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The best computer equipment is useless if people don't know how to operate it. The Fortune system is supported at every level by manuals, which are referred to in the computer industry as <u>documentation</u>. Fortune Systems documentation is packaged in binders that contain everything you need to use an application. For example, the product Multiplan includes an operator's guide, reference guide, a master diskette and a training diskette, a reference card, and a keyboard <u>template</u>, which is an attachment to the keyboard that identifies the use of keys.

Documentation for the Fortune system is divided into six categories, which are identical to the six boxes on the global menu that you'll soon see. These series and the types of manuals provided with each are listed below. Note also that each category has a color. This color is printed as a stripe on every manual that is grouped with software in that category.

BUSINESS APPLICATIONS (Red)

Applications such as General Ledger, Payroll, and other business functions are included in this category.

PROFESSIONAL TOOLS (Yellow)

Applications in this group include Multiplan, an electronic spreadsheet program.

OFFICE AUTOMATION TOOLS (Green)

These applications, which include the FOR:WORD word processor, assist with office work.

COMMUNICATIONS (Orange)

This category includes applications that permit a Fortune system to exchange information with other computers or with other Fortune systems. TRAINING AND EDUCATION (Blue)

Introductory training for the applications, as well as the computer-aided training included in <u>Meet Your Fortune System</u>, is in this category.

SYSTEM TOOLS (Purple)

Applications for programmers, such as programming languages, the operating system, and special system functions, are in this category.

2 Your System Training

Before you unpack your Fortune system and get going, you need to know more about it. The training that you need is provided in this manual, with easy, step-by-step directions for doing everything. In this section you'll learn about hard disks and flexible disks, and how to use both kinds. Then you'll learn what's involved in the training and how you can stop and start it when you need to.



Much of the information used by the Fortune system is stored on disks. The CPU contains a flexible disk drive behind the door on the right-hand side of the CPU and a hard disk drive behind the cover on the left-hand side of the CPU.

Flexible disks store information offline; that is, the information is available to the computer only when you insert the flexible disk into the flexible disk drive. The flexible disk drive rotates the disk so that the CPU can read information from it and write information on it.

The hard disk drive rotates hard disks to perform the same function as the flexible disk. The hard disk stores more information than a flexible disk and transfers information faster than a flexible disk.

IDENTIFICATION OF FLEXIBLE DISKS

Flexible disks provided with Fortune applications software include master disks with the application software, and one disk with the operator training. The flexible disks are stored in a plastic pocket at the back of each application package. In this binder you'll find a training disk with some information that you can experiment with to learn more about the Fortune 32:16.

As an application is used, new information is generated and can be stored on blank flexible disks. To keep track of what kind of information is stored on a particular flexible disk, each new disk should be labeled at the time the information is stored. The application program packages include suggestions for proper marking of flexible disks.



The CPU contains a hard disk drive and a flexible disk drive.

By taking proper care of your flexible disks you can ensure accurate files and proper performance from your Fortune 32:16. When you take good care of a flexible disk, it should last approximately 200 hours. Since you'll use flexible disks primarily for storage, your disks should last a long time.

HELPFUL HINTS

Never touch or scratch the exposed magnetic surface of the disk. This is the portion exposed by the cutouts on the disk covering. Keep the disk away from magnetic fields produced by devices such as magnetic paper-clip holders, electric pencil sharpeners, TV sets, display screens, and air conditioners. Never write on the disk labels after they're attached to the flexible disks. Avoid extremes of temperature where your flexible disks are stored. Don't leave them in direct sunlight. Protect the disks against excessive humidity. Try to keep them within a range of 20 to 50 percent humidity. When you're not using a disk, return it to the protective envelope it came in and store it in a container with other disks. Do not bend, fold, staple, or otherwise mutilate your disk. Avoid spilling any liquids or cigarette ashes on the disk.

Remember, disks are fragile, and they do require a certain amount of tender loving care.



The training disk contains information about your Fortune system as well as quizzes and games to help you learn how to use the system. It's designed so that you'll be working on the computer instead of just reading about it.

After you've unpacked, connected, and checked out your Fortune system, you'll copy the information from the disk onto your Fortune system. Then you'll be ready to go. If there is more than one person who needs to learn how to use the computer, you can take turns. There's no need to make additional copies of the disk to train additional operators.

This training disk is typical of the training disks supplied with Fortune Systems applications. Each application training disk helps you to learn the most efficient use of the application by providing prerecorded information which you can experiment with. The operator's guide that comes with the application tells you how to best use the training disk for that application.

STOPPING AND STARTING

Now you need to know how to use the training disk; that is, when and for how long. Although this depends on your own time restrictions, some guidelines will help.

Once your Fortune system is set up you can begin the training. Go through the training at your own pace. You may want to start your training as soon as you unpack your system, or you may want to read more of this guide before you begin. Either way, choose a time when you won't be interrupted constantly so that you can get the greatest benefit from your efforts.

You can stop the training contained in this manual at certain points, such as at the end of each part. If you have the time, you should work through at least Chapter 5 so that your system is unpacked, connected, and ready to use. Better yet, work through Part 3 to get a clear idea of how to use the system through some hands-on exercises. Even though you may have additional units to set up, you can use the basic units to learn something about the system before you finish setting up. Schott's engraving represents an apparatus of uncertain use, which dimly foreshadows the programming of movements by means of a perforated cylinder.

From Gaspar Schott, Magia Universalis, Bamberg, 1677.



Now that you know about the components of your Fortune system, it's time to unpack everything and set it up for your training. One thing to remember about the following pages is that the directions are very specific about the order in which to do things. They're designed that way to make it easy for you and to make sure that everything's connected correctly for optimum performance from the Fortune system.

In the following pages you'll learn how to set up your computer, including:

Making a place for your system Unpacking everything and checking to make sure everything's there Filling out some forms and storing the cartons Setting up the units for use 3 Setup Cycle

It's important that you follow the setup cycle presented in the next few pages to ensure that your system is properly unpacked and situated for your use. The setup cycle shown in the following pages contains these steps:

- 1 Finding a place for your Fortune system that has the proper environment, enough space available, and ample electrical outlets.
- 2 Checking to make sure you received everything. This can be easily and quickly done, and ensures you have everything you need.
- 3 Unpacking the Fortune system. The order and process of unpacking each unit is described here in detail.

Once you've finished setting up, spend some time looking at the basic units. Each is described in detail in this chapter to give you more of an understanding of your system. You'll also learn what supplies you need to have on hand.
Finding a Place for the Computer

Be sure you consider all the issues when selecting a place to set up your Fortune system.

ENVIRONMENT

Your Fortune system is designed for general use and doesn't require the special air conditioning needed by the giants of the past. An environment that is good for you is good for your computer. It is as sensitive to smoke, dust, heat, and humidity as people are, so keep it in a clean, well-ventilated environment.

SPACE

When the basic units of a Fortune system are in place on the averagesized office desk, the operator will still have enough work space and storage space for the reference material needed for work. There probably won't be much room for other equipment. You may want to reserve a disk or table just for your computer.

Even if you don't have additional equipment, consider the question of extra space now. Once you become accustomed to the computer, you'll probably think of other work it can do for you and other equipment to add. Reserve enough space in a room to allow for expansion.

It is especially important to allow the CPU as much space as possible on all sides, because the internal power supply generates heat. A fan in the CPU draws air across the power supply to keep it from overheating. Don't put the CPU flush against a wall.

Your system probably has a printer. Leave space around the printer so that either single sheet or continuous sheet paper can easily be used. Allow standing room around the printer so you can add paper. Continuous paper requires paper storage space behind the printer and a location, such as a catch basket, to feed printed paper to. It's convenient to have paper stored nearby, so that a refill is a quick task when needed.

The cable that connects an ASCII terminal to the CPU may be up to 50 feet in length. Any additional terminals require the same environment and the same considerations of work space and storage space as the master workstation (the monitor and keyboard).

OUTLETS AND CABLES

Make sure that you locate your system in a place with plenty of electrical outlets. Otherwise, every time you add a new piece of equipment, you'll find yourself looking for a place to plug it in. Even if your system doesn't have satellite workstations, consider what would be involved if you decided to add them and had to route control cables to the location you have selected for the basic units.

A six-foot power cable with a grounded three-pronged connector is provided with the computer.

ELECTRICAL INTERFERENCE

The computer should not share an electrical outlet with equipment such as a large office copier or machine tools. Installing the computer very close to electrical machinery may cause problems for the computer. Don't have your Fortune system share an electrical power circuit with heavy machinery.



You'll need adequate space, ventilation, and electrical outlets for your Fortune system.

Now is the time to make sure that you have everything you expected and need. One way is to check the items on the invoice.

BASIC SYSTEM

If you have only the three basic units, you should be able to tell at a glance that you have one box for each unit.

The long, shallow box contains the CPU.

The tall box contains the master workstation, consisting of a monitor and a keyboard.

Those two boxes are the only ones you need to open until you have the basic system up and running.

ADDITIONAL UNITS

If you have additional units, such as a printer or an ASCII terminal, you have boxes that you don't need to open now. Find out which box contains which unit, and open only the boxes containing the basic units.

The box that contains the master workstation (the monitor and keyboard) and the box that contains a satellite workstation (an ASCII terminal and a keyboard) look alike from the outside. To identify the box containing the master workstation, look on the side to find the place with the following markings:

> Master 1001011-01 ASCII 1000091-01

Open only the one that is marked as the master.

CABLE CONNECTIONS

If your system has satellite workstations, cables must be installed from the CPU to each satellite workstation. Standard cables available from your dealer are 10, 20, and 50 feet long, If you need a cable longer than 50 feet, it will have to be made to order. Be sure you get your cable before you begin the installation.

ELECTRICAL CONNECTIONS

Depending on the type of electrical outlets you have, you may need to puchase one or more three-pronged adapters. The power cables for your Fortune system have three-pronged plugs. If your outlet accommodates only two-pronged plugs, the adapter will allow you to plug the computer into your outlets. If you must use extension cables, they should be industrial quality. Your Fortune system comes surrounded by heavy shock-absorbing material and packed in heavy cardboard cartons to protect it during shipping. Although the units are small and easy to move around once they're unpacked, they seem much larger with packing material around them. You'll need help to unpack so that your system isn't dropped or damaged in the process. Be sure to have the cartons on the floor, preferably close to the place where you'll be using the system. Unpack the CPU first, since it contains some important papers about your system.

CENTRAL PROCESSING UNIT

The CPU comes in a long, shallow carton. There's some information on one end about the type of unit it contains.

- 1 Remove the tape from the top of the box and open the flaps.
- 2 Take out the papers at the top of the packaging and read the one marked "Important Notice." This tells you to inspect your equipment carefully and report any evidence of damage. You'll also find the limited product warranty, software license agreement, maintenance agreement, and return envelope for your papers. Put the papers aside in a safe place, because you'll need to fill them out to register the warranty for your system.
- 3 Remove the foam-wrapped package that contains the power cord.
- 4 Fold the carton flaps down and as much out of the way as possible. This will give you room to maneuver when you've taken the unit out of the box.
- 5 With one person at each short end of the carton, have each person place one hand along the top of the box and the other hand underneath the CPU and lift the CPU out of the carton. When the unit is almost out of the box, let go of the carton and put both hands underneath the CPU.
- 6 While holding onto the unit, tilt it and put one insulated side back down in the box, with the other side up.



Warranty information under flaps



The CPU is unpacked from its carton like this.

- 7 Lift up and remove the insulation from the side of the CPU that's standing up. Place the insulation back in the box next to the CPU. You'll need to keep it for repacking in the future.
- 8 Take the unit completely out of the carton and put it on a table with the remaining insulation hanging off the table. Have one person hold the unit down on the table while the other one removes the last piece of insulation.
- 9 Take off the plastic wrapping.
- 10 Turn the unit around, if necessary, to have the front facing where the operator will sit. The front of the CPU has the Fortune name on a panel at the left-hand edge. Place it where you'll be using your Fortune system.
- 11 Remove the cardboard from the flexible disk drive by opening the door (on the right-hand side) and lifting it out. Put this cardboard back in the box for future use.
- 12 Place the power cord on the work area next to the unit so that you can plug it in later.

MONITOR AND KEYBOARD

The monitor, also called a terminal, comes packed with the keyboard in a tall carton.

- 1 Remove the tape and open the top of the box.
- 2 Read the important shipping notice on the top and be sure to report any damage to your dealer.
- 3 There are two warranty cards beneath this notice, one for the monitor and one for the keyboard. Put these cards with the ones from the CPU.
- 4 Remove the long box in the top center of the carton. This box contains the keyboard.
- 5 Carefully cut the tape along the cardboard sleeve. The keyboard is inside, enclosed in foam-backed cardboard. Remove the keyboard and place it next to the CPU.





The monitor and keyboard are unpacked from their carton like this.

- 6 The cords for the monitor and keyboard are wrapped in a light styrofoam sheet and packed at the back of the monitor. Unpack the cords and put them aside.
- 7 Two people will be needed to remove the monitor from the carton. Have one person hold the box while the other person reaches into the box, grasps the terminal near its base, and lifts it upward. When the monitor is almost out of the box, the second person should let go of the carton and help the first person gently place the monitor on the floor.
- 8 Have one person hold the monitor while the other person removes the insulating foam from both sides. Then remove the plastic wrapping and place the monitor next to the CPU and keyboard.
- 9 Put the insulation and the wrapping for the cables back in the box.

SAVING THE BOXES

Keep the boxes and the shock-absorbing material. If you need to ship the system somewhere or need to go some distance for service, you should repack the system in the cartons.

WARRANTY CARDS AND INFORMATION

Make sure the warranty cards are filled out and that the appropriate copies are returned to Fortune Systems Corporation in the envelope provided. Keep your copies in a safe place, because you'll need them later if your system needs repairs during the warranty period.

You have a warranty card for each unit: CPU, monitor, and keyboard. Each unit also has an identification label with a serial number on it. You'll need to take the correct warranty card with you when you need service on a unit. To help you tell the difference between one card and another, the serial number is preceded by a code:

Code	Unit
СР	CPU
MT	Master terminal
KB	Keyboard
AT	ASCII terminal

Looking at the Basic Units

Now that everything is unpacked, take some time to look at the illustrations and locate the connector places you'll need to connect and start up the system.

CENTRAL PROCESSING UNIT

At the front of the central processing unit (CPU) are two horizontal slots. The slot at the right has a door that can be opened by pressing the top half with your finger. Behind the door is the flexible disk drive. Whenever you insert or remove a flexible disk, you'll open this door. The slot at the left has a cover that cannot be moved. Below and to the left of each slot is an indicator light that is red whenever the disk is being used. (The indicator may either flash on and off very rapidly or stay on.) Near the bottom of the CPU, on the right-hand side, you can see the place for connecting the keyboard to the CPU, and near the bottom on the left-hand side is the slot for the reset switch which you'll use to restart the computer.



From the front of the CPU, you can see horizontal slots for insertion of flexible disks.

At the back of the CPU are the power on/off switch and the power receptacle where you connect the power cable. Next to the on/off switch is a fan and vent to remove heat from the CPU. At the far left-hand side are five places for connecting additional units to the CPU. One of these places holds the controller for the monitor; another holds the controller for the hard disk.



At the back of the CPU, you can see the all the places for connecting additional units.

MONITOR

The part of the monitor that contains the screen can be tilted up or down or swiveled from side to side. With these adjustments, you can set the screen to any position convenient for viewing. At the top of the monitor is a knob that allows you to change the screen brightness. After you get the system operating, you can adjust this to whatever brightness level you prefer.



The position of the monitor and the brightness of the screen can be adjusted to suit your preference.

KEYBOARD

You will be using the keys to get your Fortune system operating, so you should become familiar with their names and locations. The keyboard has many more keys than the conventional typewriter.



The keyboard has keys for all uses.

Standard Keys	The keys that are similar to the ones you
	find on a conventional typewriter are in
	the usual places.
Special Application Keys	On the left-hand side of the keyboard are
	three additional keys for special
	applications.
Cursor Control Keys	To the right of the standard keys are the
	cursor control keys, which have arrows on
	them.
Screen Control Keys	Just above the cursor control keys are
	the screen control keys.
Numeric Keypad	On the far right-hand side of the
	keyboard is the numeric keypad.
Function Keys	At the top row of the keyboard are 16
	function keys, which will have different
	meanings in different applications.
Help Key, Cancel Del	Three important keys to find now are the
Key, and Return Key	Help key, the Cancel Del key, and the
•	Return key. You will be using the Return
	key often.

If much of the keyboard seems unfamiliar, read the "Keyboard" section in Part 5.

THE KEYBOARD HAS MORE THAN KEYS

The keyboard must be connected to other units through a cable. The connector is at the back left-hand side of the keyboard.

Just beneath the upper right-hand corner of the keyboard is a knurled knob. This knob controls the sound you'll hear as you press the keys during operation. At one extreme position you won't hear anything; at the other extreme position, the sound is at its loudest. While you're using the system, it's very easy to find the knob without looking. You can adjust it for the level you prefer.

Also at the right-hand side of the keyboard is a place for storing templates that you get with each Fortune Systems software product. The function keys have different meanings for each application. The template is a long strip that tells you what each function key means in a particular application. When you are working with an application, you put the template for that application under the function keys. Other templates may be left in this storage location.



The keyboard has a place to store templates as well as a connector and a control.

There's more to installing a computer than putting some electronic equipment on a desk and plugging it in. You must also consider the materials you'll be using and where to store them. Your supply requirements depend on the applications you are using.

Paper, ribbons, and printwheels used by the printers Blank flexible disks for storing the results of daily work Labels for flexible disks A storage container for flexible disks

Most of these supplies are readily available, but you may need to order others. Be sure to check the manual for your application to determine if you need additional supplies. Right now you'll need:

Several blank flexible disks Disk labels

The flexible disks you use must meet the following requirements.

5 1/4 inch Certified at 96 tracks per inch Dual sided

Qualified vendors include Verbatim, Maxell, and Dysan.

As a result of each day's work on the computer, you'll create two kinds of output, information on the hard disk and information printed on paper. You'll need to find a place to store each kind.

It's a good idea to store a copy of your data on a flexible disk. This is called <u>making a backup</u>. Each application manual you have includes information on what data should be backed up and when. In addition, you need to store the disks in a place where they won't get lost or damaged. If you have confidential information, you may want to store the disks in a locked desk or filing cabinet.

Printed results of your work usually can be stored in regular binders available at stationery stores. If you use a wide print format (132 characters), you'll need special binders for the pages that come from your printer.



These are the supplies you'll need with your Fortune system.

4 Connecting the Basic Units

Now that your Fortune system is unpacked, you're ready to connect all the units. The Fortune 32:16 should operate with no problems if the basic units are connected according to the instructions.

First, you'll place the CPU in position and connect the power cable to the CPU. Second, you'll connect the keyboard to the CPU. Third, you'll connect the monitor to the CPU.

Instructions for connecting additional units are provided later.



Setting Up the Basic Units

You'll set up the basic units only once, but it requires careful attention. The coiled cables that connect the keyboard to the CPU and the monitor to the CPU are identical, but each of the connectors on the CPU has a special purpose.

PUT THE CPU IN PLACE

- 1 Be sure that the front of the CPU faces the operator's chair. You can attend to details of placement later, after the keyboard and monitor have been connected.
- 2 Insert the plug end of the power cable into the receptacle at the back of the CPU. Do not connect the other end of the cable to an electrical outlet now. Wait until all units are connected and ready.



Insert the plug of the power cable into the CPU receptacle.

ATTACH THE KEYBOARD

- 1 Put the keyboard on the desk in front of the CPU.
- 2 The two coiled cables are identical, and the connectors at each end are identical. Connect one of the coiled cables to the connector at the back of the keyboard. Push the cable in to make sure it is firmly seated.

This cable also fits a connector at the back of the CPU. In step 3, be sure that you connect the keyboard to the connector at the <u>front</u> of the CPU.

3 Insert the other end of the the coiled cable into the connector at the front of the CPU on the lower right-hand side. It is labeled KBD. Push the cable in to make sure it is firmly seated.



Connect the cable to the CPU.

ATTACH THE MONITOR

- 1 Put the monitor on the desk to the right of the CPU.
- 2 Connect the second coiled cable to the connector at the back of the monitor. Push the cable in to make sure it is firmly seated.
- 3 Look at the back of the CPU to find the controller for the monitor. It has a connector that fits the connector on the coiled cable; it is labeled CRT.

This cable also fits a connector at the front of the CPU. In step 4, be sure that you connect the cable from the monitor to the connector at the <u>back</u> of the CPU.

4 Insert the other end of the coiled cable from the monitor into the controller for the monitor. Push the cable in to make sure it is firmly seated. Now that you have the basic units connected, sit in the operator's chair and adjust things to suit yourself.

ADJUST THE POSITIONS OF THE THREE BASIC UNITS

The CPU should be within easy reach, because you'll be inserting and removing flexible disks when you use the system.

The keyboard can be put anywhere that's comfortable for you. The length of the coiled cable is the only limit on placement.

The monitor can be placed on top of the CPU, if you wish. If you decide on this location, put the monitor on the right side of the CPU, over the keyboard connector. That way, heat from the CPU can pass to the air rather than to the monitor.

The top part of the monitor can be swiveled from side to side or up and down. Use these adjustments to eliminate any reflected glare from room lighting and to adjust the screen to your eye level.

GET READY FOR POWER ON

You won't see the effect of the brightness knob until you connect the system to an electrical outlet and turn on the power. If you have the level set too low, the screen will be so dark you won't realize that the system is working.

Set the brightness knob to midrange now. First rotate it fully counterclockwise and notice its position. Then rotate it fully clockwise and notice its position. Set the knob in the middle for now.



Your basic Fortune system.

Steiger's mechanical calculator used one turn of the crank for each figure in the multiplier.

Courtesy of the U.S. Patent Office.



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Many of the topics covered in this part are procedures you'll do often, such as turning the system on and off. If you forget how to do this, or if you need to show someone else what to do, have them read this part.

In the following pages you'll learn these things about your Fortune system:

Plugging it in, starting it up, and getting going Inserting, removing, and formatting flexible disks Copying information from disks onto your system Loading and using the training disk Right now your Fortune system doesn't have any information in it about what day it is, who you are, and whether or not you can use the system. You have to give it this information. In addition, you need to know how to turn the system on, become familiar with what you'll see when you turn the system on, and how to turn the system off.

Before you can use your Fortune 32:16, you must turn the power on and set up an account for yourself. The first step seems logical; all electrical equipment needs to be turned on before it can work. The next step, establishing an account, is similar to telling the computer who you are. You must have an account on your system before you can use it.

Once you have an account, the computer will set up a place on the hard disk where you can store information. You can store information using application software or by communicating directly with the operating system, if you know how.



You'll follow these steps to set up the system, log in the system, use it, and log off again.

Many of the instructions you'll encounter in the rest of this guide are written in the form of procedure charts. Procedure charts outline the sequence of steps you follow to learn how to use the software available in the Fortune system. The charts are always presented in the same format and are designed to be easy to read and follow.

ORGANIZATION

The procedure chart contains three columns: Screen Says, You Type, and Comments. Check the sample chart and locate the three columns. Any time you use a procedure chart, start by reading the Screen Says column. This column shows what should be displayed on the screen at this point.

Next read the text in the You Type column. This shows which keys to press or text to type. Keys are indicated by the name of the key enclosed in a box, for example, (EXECUTE). Here is a guide to the way key operations are shown in the You Type column and how to perform them.

You Type instructions	uctions What you do	
(your last name) (EXECUTE)	Type your last name, then press the Execute key.	
(RETURN)	Press the Return key.	
newuser (RETURN)	Type the word <u>newuser</u> , then press Return.	

The Comments column tells you what has happened, advises you about the functions you have performed, and tells you what will happen next.

THINGS TO REMEMBER

Procedure charts build on one another. Often the instructions in a procedure chart are based on the assumption that you have completed some procedures described earlier in the guide. Be sure that you stop and start at the proper places while using this guide.

You need to follow the procedures exactly. Never use the lowercase letter L for the numeral one.

Getting Help from the Computer

When you can't remember the details of a procedure, or if you are uncertain about what happens when you follow some procedure, you can often get help from the computer. When this kind of help is available, you get it by pressing the blue Help key.

WHEN HELP IS AVAILABLE

Help is not available at every step of a procedure, so you should ask for help as early as possible. The kind of help that is available depends on where you are in the procedure. If you are facing a menu with many items, the help may tell you only about the proper way to make a selection. If you are partway into a procedure, help may tell you what can happen if you continue.

For complicated procedures, help may be available as soon as you make the selection. The screen will be filled with detailed information about the procedure.

IT DOESN'T HURT TO ASK

Help is there because people often need it. Don't be afraid to ask. If you press the Help key at any point you'll get one of three responses from the computer:

You'll get some help. You'll get a message that says help is not available. Nothing will happen.

The impossibility is that you'll get into trouble that you can't get out of. So ask for help when you need it.

Next you'll be entering information to get your system going. There's really no mystery to this. It's like typing on the keyboard of a typewriter. The difference is that you'll see what you've typed immediately on the screen in front of you, and sometimes your system will tell you immediately that:

You've entered information incorrectly. You've entered information and need to go on to another step. There are system problems.

You'll have fewer problems with your computer if you're careful to follow procedures exactly. You can solve most of your problems by examining what you've done or by repeating the procedure.

Procedures in this guide usually describe error-free operation. Typographical errors are easy mistakes to correct if you notice them before you press the Return key. Use the Backspace key or left-cursor key to position the cursor over the error, then type over the mistake.

The computer will detect some errors and display an error message in the lower left corner of the screen. Most error messages tell you exactly what's wrong and what to do.

Don't use the space bar to move the cursor. If you do, the cursor moves but it replaces each character in the text with a space. If you use the space bar, you'll see the characters disappear. That will remind you to use the cursor control keys or the Backspace key.

Most procedures tell you what to do if you make a mistake. If something appears on the screen other than what the procedure tells you about, you should read the instructions to find out what to do and to make sure that you are following the procedure correctly. You can usually recover from an incorrect selection by pressing the Cancel Del key. You'll be able to use this key with the training program. Starting Up the System

Each time you turn on your Fortune system you'll have to type in the date and time. This time, you'll also have to connect the CPU to a power outlet. You won't have to do this often, but even this step requires special considerations.

CONNECT TO POWER

Follow these steps to connect the CPU to a power outlet.

- 1 Make sure that the power on/off switch of the CPU is in the Off position. The switch has a small white dot on one side. When that side of the switch is pushed in, the power is on. Now you should check that the side with the white dot is not pushed in.
- 2 The power cable has a three-pronged connector. You should use an electrical outlet that matches it. If you don't have that kind of outlet, you must use an adapter. For your safety, and for the protection of the system, connect the ground lead of the adapter to a local ground. Use the screw that holds the cover of the electrical outlet to the base plate as the local ground.
- 3 When you have connected the CPU to power, set the power on/off switch at the back of the CPU to On. Push the white dot in to set the power switch to On.
- 4 Check that the fan is operating by testing the airflow with your hand.
- 5 You can follow these indications of proper operation:

Keyboard beeps Red indicator over the hard disk drive is on. Cursor on the screen is blinking. Red indicator over the hard disk begins to blink.



The on/off switch should be off before you plug in to the power outlet.

The first message you see is "Fortune Systems 32:16 Please Wait," with the "Please Wait" blinking.

During the power-on sequence, the numbers 1 through 9 will be displayed at varying intervals. Form the habit of watching the numbers appear. They represent the nine steps the computer requires to prepare itself for use. If something fails, the highest number that you see is good information to have.

When the numbers disappear and you see the heading "Please enter the current date and time," the system is ready for you to type in some information.

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The procedure you're about to learn will soon become as routine as dialing a telephone, but this time it will require your complete attention.

The computer uses date and time to keep a record of when information is created or revised.

When the computer prompts you for an input, the blinking block of light (the cursor) marks the position on the screen where you'll see what you type. As you type, the cursor moves to the position where the next character will be entered.

The date and time displayed on your screen were typed in when the computer was tested. They won't be exactly what is shown in this guide. That doesn't matter, because you'll change them.

You can use the Backspace key to correct errors. If the computer tells you that you've made a mistake, press the Return key until you see a screen message that looks familiar, then start again. Confine your inputs to letters, numerals, and the Return key. HOW TO TYPE THE DATE AND TIME

Type in six digits to represent the month, date, and year. You need not type in the slashes (/). These six digits represent the month (01 for January, 12 for December), the date of the month (01 through 31), and the last two digits of the year. The digits in the sample chart are for July 9, 1982. Notice that when a number is less than 10, you must type in the leading 0, so that numbers between zero and nine are represented by 00 through 09.

If you type in a month out of range (13 or larger) or a date out of range (32 or larger) you'll see this error message:

date format incorrect, please re-enter

If you receive this message, the cursor will be returned to the first character of the date, so you can begin again.

Type in four digits to represent the hours and minutes. You need not type in the colon (:). These four digits represent the time in the usual 12-hour notation. You must type in either an A or a P. If you type in an hour input that is out of range (greater than 12) or a minute input out of range (greater than 59), you'll see this error message:

time format incorrect, please re-enter

If this message is displayed, the cursor will be returned to the first character of the time, so you can begin again.

VARIATIONS

You'll quickly learn that you can skip over any date or time entry by pressing the Return key. If the date is correct, just press Return, and go on to the time. This procedure will not be of any use now, but it will be good to remember later. You'll be typing in the date and time more than once before your system is ready for general use.

THE 24-HOUR DAY

The computer uses a 24-hour notation. You may be familiar with this system. Just add 12 to any time after noon to get the 24-hour notation. For example, if you tell the computer that the time is 3:17 PM, it converts the time to 24-hour notation and displays it as 15:17.

!Step!	Screen Says	!	You Type !	Comments !
!!		!	:	:
1 1 1	Please set the	!	(The date in !	Notice how the !
!!	current date and	!	mm/dd/yy format) !	cursor moves as !
!!	time, then press	!	(RETURN)!	you type, and !
: :	(RETURN).	!	:	skips over the !
!!	Today's date is	!	:	slashes. !
!!		!	!	:
2 !	Current time is	!	(Current time) !	The cursor moves !
!!		!	(RETURN)!	as you type, and !
!!		!	!	skips over the !
!!		!	!	colon. You must !
!!		!	!	type an A (for AM)!
!!		!	!	or a P (for PM). !
!!		!	:	:
: 3 !	Date set to	!	y (RETURN)!	The time is dis-
!!	Is this correct	!	:	played in the 24-
1 1	(yes or no)?	!	:	hour notation.
!!		!	:	If you type <u>n</u>
: :		!	:	(RETURN), you can !
!!		!	:	return to step 1
!!		!	:	and begin again.

`. `.

Here is the procedure for typing in the date and time.

You cannot use the system until you establish an account. After you have established an account, whatever information you put on the system is placed under your control each time you type in your account name.

Now you'll establish yourself as a legitimate user of the Fortune system. You'll name an account that makes a place for your work on the system. You could assign a password to the account, to protect it from use by anyone else. Later you may want to assign yourself a password, but for now don't use one. You'll learn more about passwords in the section entitled "Passwords."

FORTUNE SYSTEMS 32:16
Press (HELP) For Assistance
Type in your name and press (RETURN): newuser
Type in your new account name & press (RETURN); yourname
Do you want a password?
If so, type 'r' and press (RETURN).
If not, type 'n' and press (RETURN).
Do you want a password (y/n)? n
Your new account has been created.
Press (RETURN) to try it out.

A login screen which displays while you are creating your account.

NAME YOUR ACCOUNT

You can use almost any name for an account, but for your own ease, limit it to fewer than 14 lowercase letters. Each user of a system should have a unique account name that is easy to remember. The best name for your account is your family name, typed in small letters. If your family name isn't unique in your company, use one or two initials, but don't use any spaces.
The screen should now be asking you for your name. If you type in your name, the computer won't recognize it because you don't have an account, so type in <u>newuser</u>.

If you make a mistake and don't notice it until you press the Return key you'll eventually get an error message. Just press Return and wait for the cursor to appear. Keep up this sequence until you see the message "Your name." Then begin again at step 1.

Here is the procedure to establish an account.

!Step!	Screen Says	You Type	Comments !
!!		· · ·	!
! 1!	Type in your name	newuser (RETURN)!	Use lowercase. !
!!	and press (RETURN)	! !	:
!!		! !	:
! 2 !	Type in your new	! (account name) !	Use any account !
!!	account name and	(RETURN)!	name you want. !
!!	press (RETURN):	! !	:
!!		: !	:
! 3 !	Do you want a	n (RETURN) !	Don't use a !
!!	password (y/n)?	!!!	password now. !
!!		! !	:
! 4 !	Your new account has	(RETURN)!	:
!!	been created. Press	! !	!
!!	(RETURN) to try it	! !	:
!!	out.	! !	:
!!		! !	:
! 5 !	Type in your name	! (account name) !	You must type the !
!!	and press (RETURN):	(RETURN)!	account name !
!!		! !	exactly as you !
: :		! !	did in step 2. !
: :	1	!!!	!
!!	71% of available	! !	This message may !
!!	space is in use	!!!	be different each !
!!		! !	time you log in. !
!!	:	! !	:
!!	FORTUNE SYSTEMS	!!!	:
!!	GLOBAL MENU	! !	:

WHAT YOU HAVE DONE

You have established yourself as a recognized user of the Fortune system. From now on, each time you turn on the Fortune system, you type in your account name in response to the screen message "Type in your name and press (RETURN):", then press the Return key. Throughout this guide, this procedure is referred to as the login procedure. By the time you have finished reading this explanation, "FORTUNE SYSTEMS GLOBAL MENU" should be on the screen.



4

Now that you have logged in, you can see the <u>global menu</u>, which is the first full-screen display you'll see each time you log in. The global menu is the menu for the entire Fortune system. It lists all application software and <u>utilities</u> available for the Fortune system. Utilities are programs you use to perform system functions such as adding and deleting software.

Many of the utilities and applications that you'll use are selected from menu screens. A menu is a list of activities, available computer software, from which you choose the one you want to use. At the bottom of every menu are some instructions that tell you how to select an item from the menu. Watch for the blinking cursor that shows that the computer is waiting for you to type something.

Examine the global menu for a moment. Notice that it is divided into six areas. Each area contains a list for a category of software available for use on the Fortune system. Some of the items on the list are at the normal level of screen brightness; others are brighter than normal (highlighted). Now is a good time to adjust the screen brightness to your taste. Turn the knob at the top of the monitor and set it to the brightness level you prefer.

> Don't set the brightness knob so high that the background is noticeably green. That's not good for the screen or for your eyes.

The names that are at the normal level of brightness identify software that you can have for your system, or software that you may have purchased but have not installed. The highlighted names identify software that is available on the hard disk for your immediate use. If the phrase "Additional Choices" is highlighted in any of the six areas, additional software is available on hard disk but not named on the screen. If you select "Additional Choices" from the menu, you'll see those choices displayed on another menu.

The six major categories of the global menu are Business Applications, Communications, Professional Tools, Training and Education, Office Automation Tools, and System Tools. These are the same categories you read about in the section on manuals.

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BUSINESS APPLICATIONS	PROFESSIONAL TOOLS	ELECTRONIC OFFICE TOOLS
B1 Business Systems	Pl Multiplan	E1 FOR:WORD
B2 Business Surveys	P2 Color Graphics	E2 Record Processing
B3 Business Graphics	P3	E3 Automated Calendar
B4	P4	E4
B5	P5	E5
B6	P6	E6
COMMUNICATIONS	TRAINING/EDUCATION	SYSTEM TOOLS
Cl Async	Tl Topic Introduction	S1 System Utilities
C2 Bisync	T2 Amusements	S2 System Management
C3 Local Network	T3 Operator Training	S3 Languages
C4 X.25	T4 C.A.I. Training	S4 100L
C5 SNA/SDLC	T5 Demonstrations	S5 Product Maintenance
C6	T6	S6

The global menu lists all available software.

Once in a while you may receive an unexpected message or screen display. If you press some keys in the wrong order, or strike a key by accident, the screen display may be completely unrelated to what you find in this guide. Try the following strategies in the order listed.

- Press the Return key. If the display changes in any way, continue to press the Return key until you see a familiar display, such as the global menu, and use that as the new starting point.
- 2 Press the Cancel Del key. If the display changes in any way, continue to press the Cancel Del key until you see a familiar display, such as the global menu, which you will soon be very familiar with, and use that as the new starting point.
- 3 If the cursor (blinking block of light) is next to a dollar sign (\$) or a pound sign (#), you are in direct communication with the operating system.

While you are in direct communication with the operating system, you can accidentally erase information on the hard disk if you are not careful. Type carefully.

Type in the term <u>sync</u> and press the Return key; then repeat the sequence, so that your inputs on the screen look like:

This	<u>Or this</u>
\$ sync \$ sync	∦ sync ∦ sync
\$	#

Wait at least 30 seconds. After 30 seconds, turn the power switch off for a few seconds, then on again. The system displays the power-on sequence, requests that you enter date and time, and stops. Begin from that point, and return to the global menu. Sync saves any changes you've made on the disk, and waits for your input.

4. If the system does not respond to any keyboard input, push the reset switch. You can reach the reset switch through the hole in the front of the CPU, under the hard disk drive. Use a ballpoint pen or similar object to push the switch. After you push the reset switch, the computer will display the standard login message "Type in your name and press (RETURN)". Begin from that point, and return to the global menu.



To shut down the system you'll work your way through a sequence of screens that have information on them to help you.

This is a good time to remind you that you don't just turn off the power and leave. If you do, you are almost certain to destroy the information you have been working with, and possibly damage the operating system that is on the hard disk.

The screen should now be displaying the global menu. If it is not, press the Cancel key until the global menu is displayed. Here is the shutdown procedure to follow everytime you are finished with the computer.

!Step	Screen Says	!	You Type	Comments !
!	!	!		!
! 1	FORTUNE SYSTEMS GLOBAL	: s 2	(RETURN)	· · · · · ·
1	! MENU	!	:	
!	SYSTEM TOOLS	!	:	. .
!	! S2 System Management	!	1	! !
!	:	!	:	: !
! 2	SYSTEM MANAGEMENT MEN	J ! 30	(RETURN)	: :
!	!30 Shutdown computer	!	:	:
!	!	!	:	! !
!	!Fortune Systems 32:16	:	:	Read the message !
!	!	:	:	on the screen. !
!	! .	!	:	! !
!	! .	!	:	! !
!	Do you want to	!yes	(RETURN)	Type the full !
!	!continue?	!	:	word, yes or no. !
:	!	:		! .

WORDS OF WARNING

If you have the basic system, with only one workstation, the warning messages remind you that you have started the shutdown procedure. You can easily get out of the procedure by answering no to the question "Do You Want to Continue?". If you do, the system management menu will be displayed. If your full system has more than one <u>workstation</u>, this message has another purpose. If power is turned off at the master workstation while somebody is busy at a satellite workstation, one result will be a loss of information -- perhaps a loss of several hours of work. After you have attached an ASCII terminal, you'll learn more about these warning messages.

When the message "Please turn the Fortune 32:16 off" is displayed, set the power switch at the back of the CPU to off.

Fortune Systems 32:16 Shut Down (takes about 30 seconds) You are in the process of shutting down your Fortune 32:16 If you have satellite workstations and continue with this shutdown procedure, you will end everyone else's current use of the Fortune system. Do you want to continue? If so, type 'res' and press (RETURN). If not, type 'no' and press (RETURN). If you need more information, press (HELP). Do you want to continue?

The system gives you a chance to change your mind.



As the shutdown sequence continues, these messages are displayed.

When you first use the system, you need to get comfortable with handling disks. Simple disk operations, such as formatting and copying, are part of the basic, everyday computer maintenance routine you should develop.

In the next pages, you'll learn how to insert and remove flexible disks from the flexible disk drive. You'll also learn how to format flexible disks, to prepare them for use with the computer. Finally, you'll copy some information from the flexible disk to the hard disk, then copy the same information from the hard disk to the flexible disk. Now your system is shut down. The first thing to do is to start up the system and log in again. When you log in this time, respond to the prompt "Type in your name" by typing in the name you gave your account (your own name, if you followed the suggestion). Make sure you spell the account name exactly as you did when you named the account. If you do not, the computer will not recognize you.

First, of course, you must reach to the power on/off switch at the back of the CPU and turn the switch on. Remember to check that the fan is operating. It's a good habit to form.

Here is how you start up the system when you have an account.

! 5	Ster	s!	Screen Says !	!	You Type	!	Comments !
!		!	!	!		!	!
!	1	!	Please set the	!	(The date in	!	If the date is !
!		!	current date and time!	:	mm/dd/yy format)	!	correct, simply !
:		!	:	!	(RETURN)	!	press (RETURN). !
!		!	Today's date is !	!		!	:
!		!	:	:		!	!
!	2	!	Current time is !	!	(Current time)	!	:
!		!	:	!	(RETURN)	!	:
!		!	:	!		:	:
:	3	!	Date set to	!	y (RETURN)	!	If you type <u>n</u> !
:		!	Is this correct (y/n)!	!		!	(RETURN), you can !
!		:	!	!		!	return to step 1 !
!		!	!	!		:	and begin again. !
!		!	:			!	:
:	4	!	Fortune Systems 32:16!	! (your account name)	!s	pell your account !
:		!	Press (HELP) for !	:	(RETURN)	!n	ame exactly as you!
!		!	:	:		!d	id before. !
!		!	:	!		!	:
!		:	73% of available !	!		!	This message may !
!		!	space is in use !	:		!	be different each !
!		!	:	!		!	time you log in. !

Inserting and Removing Flexible Disks

You have learned how to take proper care of flexible disks. Now you can put what you've learned into practice. You'll find yourself continually inserting and removing flexible disks as you load applications from flexible disk to hard disk and write information on flexible disks so that you can store it offline.

Never remove or insert a flexible disk while the red indicator under the slot for the flexible disk drive is lighted. If you hear the keyboard beep when you open the door of the flexible disk drive, do not remove or insert a disk. You may damage and lose part off or all the information on the disk.

Remove the training disk from the back of this binder and hold it label side up, in a horizontal position, to insert it into the flexible disk drive. The large arrow should be pointing into the slot. Notice the notch on the left-hand side for the write-protect tab. You should not be able to write on the training disk, so you should see a write-protect tab there covering the notch. If you don't, check the label on the disk again.

Fingertip force is all you need to open or close the door, or to insert a disk into the drive. Open the door of the flexible disk drive, insert the disk into the drive, and close the door.

The computer is not writing on the disk, or reading from it, so the red indicator over the flexible disk drive is not on, or flashing.

Now take the training disk out of the drive and find a blank flexible disk.

INSERT A BLANK FLEXIBLE DISK

The markings on a blank flexible disk depend on where you got the disk. It probably won't have the large arrow that you saw on the training disk. To be sure that you are inserting the disk properly, check that the write-protect notch is on the left-hand side as you insert the disk, in the same position as the notch for the training disk.

 Hold the disk with the write-protect notch on the left side. The disk should not be write-protected, so there should not be a tab over the notch.

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



A flexible disk is inserted into the flexible disk drive with the write-protect notch on the left side.

Every time you need to copy information from the hard disk, you must use either a blank flexible disk or a disk that has enough space available for the information you want to copy. You'll learn about those considerations when you use an application.

Before you can use a blank flexible disk, it must be formatted. When you format a flexible disk, the computer checks it for errors introduced during manufacture and divides it into parts that it can identify for storing information. These divisions are invisible to you but are easily detected by the flexible disk drive.

Any disk can be formatted unless it's write-protected. Do not reformat a disk unless you are finished with any information stored on it. Formatting erases what is currently on the disk. It is important to keep write-protect labels in place.

The global menu should be on the screen. Here is how you format a flexible disk.

!	Ste	p!	Screen Says !		You Type 🔡	Comments	!
!		!	!		!		!
!	1	:	SYSTEM TOOLS !	s 1	(RETURN)!		!
!		!	Sl System Utilities !		:		!
!		!	!		:		!
!	2	!	SYSTEM UTILITIES MENU!	32	(RETURN)!	Select Format	!
!		!	32 Format !		:	Flexible Disk	!
!		!	:		:		!
!	3	!	FORMAT FLEXIBLE DISK !		:	Read screen text.	!
!		!	Insert flexible disk!		!	Insert a flexible	:
!		!	to be formatted !		:	disk.	!
!		!	:		:		!
!	4	!	Do you want to !	yes	(RETURN)!		!
!		!	continue (yes no)? !		!		!
!		!	:		!		!
!	5	:	Please Wait For !		:	Do not press any	:
!		!	Completion Message !		!	key until the	!
!		:	:		:	operation is	!
!		!	:		:	complete.	!

!s	tep!	Screen Says	!		You Type !	Comments
:	:		!		:	
!	6 !	Please Remove Your	!		(RETURN)!	
!	:	Flexible Disk.	!		:	
!	1	-Press RETURN for	:		:	
!	:	menu or select	!		:	
!	!	ahead	:		:	
!	:		!		:	
!	7 !	FORMAT FLEXIBLE DISK	!		:	You can repeat
!	:		!		:	the formatting
!	:		!		:	procedure from
!	!		!		:	this point. If
!	!		!		:	you need to format
!	!		!		:	more disks, type
!	!		!		:	y in response to
!	!		!		:	the question on
:	!		:		:	the screen.
!	:		!		:	
!	:	Do you want to	!	n	(RETURN)!	
!	:	continue (yes	:		:	
!	!	or no)?	:		:	
!	!		!		:	
!	8 !	SYSTEM UTILITIES MEN	J!		(RETURN)!	



After you request the format utility, you'll see this screen.

Your Fortune 32:16 is delivered to you with the operating system already on the hard disk. You should make a copy of it so that you will be able to load it on hard disk when needed. Make this copy right away so that the operating system is in perfect order when you copy it. You will need two formatted flexible disks. Label them as Master Disk 1 and Master Disk 2.

Use the following procedure to copy your operating system.

!St	:ep	Screen Says	!		Үои Туре	:	Comments	!
!		!	!			:		!
!	1	FORTUNE SYSTEMS GLOBA	L!	s5	(RETURN))!		!
!		! MENU	!			!		!
!		SYSTEM TOOLS	!			!		!
!		!S5 Product Maintenanc	e!			!		!
1		!	!			:		:
!	2	PRODUCT MAINTENANCE	!	Ъ	(RETURN)):	Initial letter is	s !
!		Backup existing	!			:	sufficient.	!
!		!product	!			!		!
:		:	!			!		!
!	3	PRODUCT SELECTION	!	с	(RETURN))!	Initial letter i	s !
:		! MENU	!			!	sufficient.	!
!		Cold boot	!			!		:

From this point, follow the instructions when they appear on the screen. The entire procedure takes about 20 minutes.

If you get messages other than those shown in the figure, you may have made an error, or you may have a faulty flexible disk. Attempt the procedure at least one more time before asking your dealer for help.

```
Insert flexible disk #1, type (RETURN):

Formatting flexible disk . . . .

isize = 464

m/n = 1 10

Installing bootstrap loader . . . .

47+1 records in

47+1 records out

Copying files . . . .

Copy complete, remove flexible disk and label it "Cold boot disk

#1"

Insert flexible disk #2, type (RETURN):

Formatting flexible disk . . .

isize = 496

m/n = 1 10

Copy complete, remove flexible disk and label it "Cold boot disk

#2"
```

The computer gives you instructions about when to insert and remove flexible disks.

One of the best ways to get acquainted with your Fortune system, and one that is certainly the most fun, is with the training programs included in this package. You can play games that teach you about the system and how it works. After you load the program and begin to use it, you'll interact with the screen for a while instead of with this guide.

To use the computer-aided instruction program, you first transfer the program from the training disk to the hard disk.

You should have the global menu on the screen. Here is how you load the training disk program.

!Step	Screen Says	!	Yo	u Ty	уре	Comments	!
!	!	!					!
! 1	FORTUNE SYSTEMS GLOBAL	.:	s5		(RETURN)		!
:	! MENU	!					!
1	SYSTEM TOOLS	!				<u>.</u>	:
!	S5 Product Maintenance	:					!
!	!	!				. .	:
! 2	PRODUCT MAINTENANCE	!	i		(RETURN)	Initial letter is	!
!	! menu	!				sufficient.	!
!	Install a product	!				!	!
!	:	!				!	:
! 3	Please install!	!				Insert the	:
!	flexible disk	!				training disk in	!
!	! volume 1. Press	!				the drive, and	!
!	! (RETURN):	!			(RETURN)	press the Return	!
:	:	!				key.	!
!	:	!				!	!
: 4	This flexible disk is	!				The screen	!
:	! labeled:	!				displays the disk	!
!	:	!				title.	:
!	!	!				!	!
!	Proceed with	1	у		(RETURN)	!	:
!	! installation? (y/n)	!				<u>.</u>	!

From this point, follow instructions on the screen, as you did when you copied the operating system.

Make a copy of the training disk as soon as possible. You should have an extra copy in case you need to reload it at some point. Treat the training disk as application software. You will need a blank formatted disk labeled as your training backup.

You should have the global menu on the screen. Here are the steps for copying the training disk program.

<u>!s</u>	tej	<u>.</u>	Screen Says	!	You Type !	Comments !
:		:		!	!	:
!	1	:	FORTUNE SYSTEMS	s 5	(RETURN)!	:
!		!	GLOBAL MENU	!	:	!
!		!	S5 Product	!	:	:
!		!	Maintenance	!	:	:
:		:		:	:	. !
!	2	!	PRODUCT MAINTENANCE	!ь	(RETURN)!	Initial letter of !
!		!	MENU	!	:	backup is !
:		!	SELECTION :	!	:	sufficient. !
!		!		:	!	!
!	3	!	PRODUCT SELECTION	! tl	(RETURN)!	Select Topic !
!		!	MENU	!	:	Introduction !
!		!	Enter Selection &	:	:	!
!		!	Press (RETURN)	!	:	:
!		!		:	!	:
!	4	!	Do you want to	! y	(RETURN)!	:
!		!	backup Topic	!	:	:
!		!	Introduction? (y/n)	!	:	!
!		!		:	:	:
!	5	!	Please label a blank	:	!	Insert a formatted!
!		!	flexible disk	!	:	flexible disk into!
1		!		!	!	the drive and !
!		!	Insert the disk	!	:	press the Return !
!		!		:	(RETURN)!	key. !
:		!		!	!	!
!	6	!	copy phase	!	:	Messages appear !
:		!	Topic Introduction	!	:	during procedure. !
:		!	-	!	:	!
!		!	-Press RETURN for	! s5	:	Select product !
!		!	menu or Select ahead	!	:	maintenance again.!
!		!		:	:	!

!!	Step	<u>.</u>	Screen Says	:		You Type !	Comments !
!		!		!		1	:
!	7	!	PRODUCT MAINTENANCE	:	Ъ	(RETURN)!	:
!		!	MENU	!		:	:
!		!	SELECTION :	!		:	!
!		:		!		:	:
!	8	!	PRODUCT SELECTION	!	t2	(RETURN)!	!
!		!	MENU	!		:	:
!		:	Enter Selection &	!		:	!
!		!	Press (RETURN)	!		:	!
!		!		!		!	!
!	9	!	Do you want to	!	у	(RETURN)!	!
!		!	backup Amusements?	:		:	:
!		!	(y/n)	!		:	:
!		!		!		:	!
!	10	!	Please label a blank	!		!	Insert a formatted!
!		!	flexible disk	:		:	flexible disk into!
!		!		!		:	the drive and !
!		!	Insert the disk	.!		:	press the Return !
:		!		!		(RETURN)!	key. !
:		!		!		:	I
!	11	!	copy phase	!		!	Messages appear !
!		!	Amusements	!		:	during procedure. !
!		!		!		:	-
!		!	-Press RETURN for	!		(RETURN)!	Return to global !
!		!	menu or Select ahea	d!		!	menu. ·

Some of the things you'll see when using the training programs are an overview of the Fortune system, definitions of the terms <u>hardware</u> and <u>software</u>, the business/computer dictionary, and three games to help you interact with the computer. Follow the instructions in the text to select a program for viewing. Once the program is displayed, prompts will appear on the screen whenever the computer needs you to type or press any key.

The illustration below shows the menus used to access the computer training programs.



The selections listed on these menus are the training programs you just loaded.

Learning More About Your Fortune System

On the global menu, locate the box marked Training and Education. The first entry in the box is Topic Introduction, which contains short narratives telling you a little more about your computer, including some facts not contained in this manual.

HOW TO GET AN OVERVIEW OF YOUR SYSTEM

As you go through the topic introduction, you'll be asked questions about what you've just read. You'll use the space bar and the Execute key to respond to the questions on short quizzes. These questions not only to help you be sure of what you have learned from reading the introductions but also help you get comfortable with the keyboard. When the introduction program is complete, the screen will return to the computer overview menu.

To learn more about the Fortune 32:16, follow these instructions.

:
:
nenu is !
yed. !
!
Introduction!
s displayed.!
!
screen !
ne Fortune !
Introduction!
played. !

The computer overview menu has five selections. Once you've selected the introduction, you'll enter the text.

3-33



Type a number to select a topic.

		-
(
	COMPUTER OVERVIEW	
	1 Introduction	
	2 Hardware	
	3 Software	
	Enter selection & press (HETURN):	
	Press (CANCEL/DEL) to return to prior menu	
l		

Learn more about computers from the computer overview.

.

HARDWARE AND SOFTWARE

Hardware and software are two computer terms you learned earlier in this guide. Selections 2 and 3 on the computer overview menu define these terms and tell you about the hardware and software available for the Fortune system.

Try the hardware introduction first. From the selections under Computer Overview, type 2 and press the Return key. The first display of the hardware introduction should be on your screen. Move through the text just as you did when viewing the introduction. Topics you'll learn about include what hardware is and what types of hardware make up the Fortune system. Characteristics of the screen, keyboard, printers, disks, and memory are provided.

As in the overview, you'll be asked about the information you just learned. If you want to quit the program, press the Cancel Del key. Otherwise, continue until the program ends and you are returned to the computer overview menu.

Go on to the software introduction by typing 3 and pressing Return.

Now that you have viewed overview and hardware, you should be comfortable as you react to the quizzes on the screen by pressing the appropriate key. The introduction tells you about the different types of software you'll probably use: applications, support software, and system software. You'll learn about the different applications you can buy for your system, such as the business applications system, FOR:WORD, and Multiplan. You'll also get an overview of the programming languages available for your system: BASIC, COBOL, FORTRAN, Pascal, and C. As in the previous introductions, you can leave Software at any time by pressing the Cancel Del key.

When you are finished with the software introduction, the screen will display the computer overview menu. To return to the global menu, press Cancel Del. When the message

-Press RETURN for menu or select ahead

appears, press the Return key. You'll see this message frequently.

To acquaint yourself with the Fortune applications packages, you can read the overview programs that are offered on the topic introduction menu. The applications overviews are accessed and controlled in the same way as the computer introductions you just viewed. The applications discussed are the business applications system, Multiplan, and FOR:WORD. Here is how to view the introductions.

- 1 To view an application introduction from the topic introduction menu, type 2 for business applications system, 4 for Multiplan, or 5 for FOR:WORD.
- 2 To complete your selection, press the Return key.
- 3 Read the first screen of the application overview. Press any key to read the next screen. If you need to interrupt the overview, press the Cancel Del key to return to the topic introduction menu.
- 4 When the overview is finished, the screen automatically displays the topic introduction menu.

BUSINESS APPLICATIONS SYSTEM

The business applications system is composed of seven software packages to help perform many functions of an accounting department. Because the system consists of several software packages, it has its own submenu. Select the number of the package you wish to view, and press Return.

The overview tells you the type of individuals and departments that the business applications system is designed for. The other menu selections explain the separate applications: General Ledger, Accounts Payable, Accounts Receivable, Order Processing, Purchase Orders, Payroll, and Fixed Assets.

MULTIPLAN

Multiplan is an automated business planning system that can be used for business and personal financial forecasting. The overview explains the many ways Multiplan can help you. Some of the functions the application can perform include general office management, accounting, finance, sales management, advertising, production, and corporate planning. You'll also learn the steps involved in creating a Multiplan worksheet.

FOR:WORD

FOR:WORD is the word processing package available for the Fortune system. In the overview you'll learn about the document cycle and the many ways FOR:WORD can assist in document production. The special features of the FOR:WORD word processor and how they relate to the document cycle are also discussed in the overview.

When you return to the topic introduction menu, you can select another application overview to read, or press Cancel Del and return to the global menu.

 ······································	
BUSINESS APPLICATIONS SYSTEM	
1 Overview	
2 General Ledger	
3 Accounts Payable	
4 Accounts Receivable	
5 Order Processing & Inventory Control	
6 Fixed Assets	
7 Purchase Orders	
8 Payroll	
Enter Selection & Press (RETURN):	
Press (CANCEL/DEL) to return to prior menu	

From this submenu, select the overview or an application package by number.

As you use your computer and its applications, you'll encounter terms you don't understand. Looking up the terms in a dictionary takes time, and besides, many of the unfamiliar computer and business terms you'll encounter aren't found in a standard English dictionary.

Rather than purchase a special dictionary of business or computer terms, you can use the one on the training disk.

HOW TO USE THE DICTIONARY PROGRAMS

Here are the steps for using the dictionary programs:

- 1 From the global menu, select Tl, Topic Introduction, and press the Return key.
- 2 The topic introduction menu is now on your screen. Type 3 and press Return to access the business/computer dictionary program.
- 3 From the dictionary menu, you can select either the business or computer dictionary. Follow the instructions and move the cursor bar to the dictionary you want. Press the Execute key.
- 4 The screen displays the first page of the dictionary. Read the instructions.
- 5 Look at the list of words and find one you would like defined. Use the cursor keys to move the cursor to that word. If you don't find a word you want displayed on the screen, use the Next Scrn key to display the next screen, or the Prev Scrn key to display the previous screen.
- 6 Use the cursor keys to move the cursor to the word to be defined, and press Execute. A short definition of the word is displayed.
- 7 After reading the definition, press the Cancel Del key to return to the list you were viewing.

Continue going through the dictionary and selecting words that interest you. To leave the dictionary at any time, press Cancel Del and return to the dictionary menu. Press Cancel Del a second time to return to the topic introduction menu. From there, make another selection, or press Cancel Del to return to the global menu. When you viewed the computer introductions, you read some text and used the Return, Cancel Del, Prev Scrn, and Next Scrn keys and the space bar. By playing the training games offered as part of the training program, you'll increase your key knowledge to include the standard typewriter keyboard and additional use of the cursor keys. You'll also respond to the prompts the system gives you on the screen.

The following play activities are included with your training: Worms, Hangman, and Worm. They are available from T2, Amusements, on the global menu. (Worms and Worm are not the same, as you'll soon find out.) Each activity is designed to improve your skill in interacting with the Fortune system. Mistakes are okay. It's all in fun. Take as much time as you want for playing.

To access the computer games, follow these instructions:

- 1 From the global menu, type T2 for Amusements.
- 2 Press the Execute key. The amusements menu is now on your screen.

AMUSEMENTS	
1 Worms 2 Hangman 3 Worm	
Enter selection & press (RETURN):[] Press (CANCEL/DEL) to return to Global Menu	
	I WORMS I Worms 2 Hansman 3 Worm Better selection & press (RETURN): Press (CANCEL/DEL) to return to Global Menu

Use these selections on the amusements menu to become familiar with the keyboard and screen.

Worms is designed to get you accustomed to answering the questions on the screen with a keystroke. Here is how to play Worms.

- 1 From the amusements menu, type 1 and press Return.
- 2 The Worms instructions are displayed on the screen. Read the instructions and respond to them as you are prompted. The illustration below shows the Worms instructions.
- 3 Notice the numbers enclosed inside the cursor. These numbers are called <u>default values</u>. A default value is a standard value the training program offers as a suggested response to a specific question. To accept the default value, press Return; to reject the default value, type a different number and press Return.

HORMS	
Type each answer and press RETURN (Or, press RETURN in response to each question.)	
Press HELP to get information.	
How many worms do you want? 9	
How long should they be? 9	
Do you want to see their trails? Y	
How many minutes should the worms run? 1	

If you accept default values, the screen will look like this.

Hangman is played on the Fortune system in exactly the same fashion as the hangman game you may have played in school. The object of the game is to guess a word selected by the computer. You can make seven mistakes. Each time you make a mistake, the computer draws a part of a stick figure hanging from a gallows. If you guess the complete word before the entire figure is drawn, you beat the computer. But, if you make seven mistakes and hang the figure, you lose.

You can choose from three word lists: general, business, and computer. The general list is the most challenging of the three. The business and computer word lists are easier, especially if you have any knowledge of these fields. (If you encounter a business or computer word you don't know, look for its definition in the business/computer dictionary program.)

INSTRUCTIONS

- 1 Select 2, Hangman, from the amusements menu. Press Return.
- 2 You are given a choice of three word lists. Pick the one you want by typing A for general, B for business, or C for computer.
- 3 The next thing you'll see is the Hangman screen, as shown in the illustration. The formidable gallows is included, as is an area for the word the computer has selected. Tilde signs () show the number of letters that make up the word. Beneath the signs are the letters of the alphabet displayed against a bright bar. This is called reverse video.
- 4 Type a letter. (Hint: start with vowels.) Each time you type a letter, it is transformed from reverse video to normal video so you can keep track of the letters you've used. If the letter is used in the word, it will appear instead of a () following "Word." If the letter is incorrect, a part of the stick figure is drawn on the gallows.
- 5 Continue guessing the word until you win or the figure is hanged. The computer will give you an average score when you are finished.

3-42



The Hangman screen looks much like the hangman games used to teach vocabulary in school.

Worm requires steady fingers and a quick eye. Besides being a lot of fun to play, Worm helps you become accustomed to pressing the cursor keys to move the cursor around the screen. You can even compete with a partner to see who gets the higher score. Here's how to select Worm.

- 1 From the global menu, select T2, Amusements, and press the Return key.
- 2 From the amusements menu, type 3 for Worm and press Return.
- 3 The next thing you'll see are the Worm instructions. Take time to read them. The object of Worm is to score points by having the worm eat the number prize.
- 4 When you have finished reading the instructions, the Worm screen is displayed.
- 5 Move the worm around with the cursor keys until its head touches or "eats," the number displayed on the screen.
- 6 Continue accumulating points until the worm runs into itself, or crashes into the screen boundary.

When the game ends, the system will ask for your name. Type your name and press Return. You'll then see a list of the 10 highest scores. If you are the first one to play Worm, only your scores will be displayed. Shut down the system just as you did before. You may not use this procedure every day, but you should learn it so well that you don't have to use any procedure chart. You should be at the global menu. Here's a summary of the steps.

!St	ер	: Screen Says	!	You Type 🛛 !	Comments
:		!	:		
!	1	FORTUNE SYSTEMS GLOBAL	L! s2	(RETURN)!	:
:		! MENU	!	:	:
!		SYSTEM TOOLS	:	:	:
!		! S2 System Management	!	:	:
!		!	!	!	:
1	2	SYSTEM MANAGEMENT MEN	J! 30	(RETURN)!	:
!		!30 Shutdown Computer	!	!	:
!		!	!	!	:
:		Fortune Systems 32:16	!	!	:
!		! .	!	!	!
:		!.	:	:	!
!		!	!	:	:
1	3	Do you want to	!yes	(RETURN)!	You must type the !
!		! continue?	!	:	full word, yes.
!		!	!	:	!
!		:	!	:	Į

When you see the message "Please turn the Fortune 32:16 off," set the power switch at the back of the CPU to Off.

Babbage's Analytical Engine contained a great many features we now associate with the modern computer, including the use of punch cards and and a memory.

From Charles Babbage, <u>Babbage's</u> <u>Calculating</u> <u>Engines</u>, London, Spon, 1899.



By following the information to this point in the guide you have learned how to operate a basic Fortune system successfully. However, you probably have other units to add to your system, such as printers or more workstations. Just as you gave instructions to the computer about who you were, you need to add information about this additional equipment so that the complete system can operate properly.

In the following pages you'll learn how to complete your Fortune system setup.

The connections you must make What to do to connect a printer What to do to connect a workstation How to load the multi user operating system How to work with the satellite workstations There are two parts to the process of connecting additional units: the physical and the logical. You must connect the units with cables, and perhaps put an additional controller in the CPU. You may have to install additional software. Whatever else you may do, you must inform the operating system that additional equipment has been connected.

Never connect any devices to the Fortune system while the power is on. Always shut down the system and turn off the power before connecting any unit.

It is wise to make a plan on paper of the connections, you will be making. The next section describes in detail what you will need and how to record the changes you make to your system.


If your only additional unit is a printer, you can connect it to the <u>SIO connector</u> at the back of the CPU. The SIO, serial input/output connector, sends and receives data one character at a time. You'll find the connecting cable in the box with the printer. If you have any additional units, you need a controller in the CPU, and cables to connect the additional units to the controller.

THE COM/A CONTROLLER

The COM/A controller (for COMmunications, Type A) is available in two models, one with two connectors, and the other with four connectors. Each connector provides a line into the CPU that is identical to the line provided by the SIO connector. These connectors can be used for printers, ASCII terminals, or for communication lines to the telephone network.

To connect a printer or ASCII terminal to the rest of the system through a COM/A controller, all you need is a cable for each unit. Printers come with the required cable.

ASCII TERMINAL

You can order a cable for each ASCII terminal in one of three standard lengths -- 10 feet, 20 feet, or 50 feet.

If you intend to use the telephone network, you need additional hardware. You can run a communications line between one Fortune 32:16 and another through COM/A controllers in each CPU. Consult with your dealer for detailed requirements of hardware and software.

PHYSICAL CONNECTION

If you are not using the telephone network, physical connection of an additional unit is simply a matter of installing a cable connected to the COM/A controller at one end, and to the additional unit at the other end. If you are using the telephone network, follow the instructions provided with the communications software.

Keep a record in table or diagram form of what unit is connected to which place on the CPU. If you have only one COM/A controller, a record is convenient; with more than one COM/A controller, such a record is essential.

LOGICAL CONNECTION

The physical connection of an additional unit prepares the system for operation. The units will not be able to operate, however, until you provide the operating system with information about the type of equipment connected to each line. This procedure, often called logical connection, cannot be done until you have completed the physical connection, turned on the system, and followed the standard procedures of typing in date and time, and logging on with the account name you have established.

At that time, you need to know the relation between hardware and software. You'll learn the complete procedure in the next few chapters.

CONNECTORS AND LINES

Your system isn't necessarily the same as any other, so you must learn to relate connectors on COM/A controllers to lines. You could have three COM/A controllers in the CPU, each with four connectors. The operating system reserves one line, designated as ttyOl, for the SIO connector. When you insert a COM/A controller, the operating system assigns tty numbers in sequence to each connector. If you have a COM/A controller with two connectors, P2 is assigned to line ttyO2, and P3 is assigned to line ttyO3. When you make the logical connection, you must be ready with information about the physical connection. With your written record you can be sure of correctly telling the system about physical connections.



There are two models of the COM/A controller, one with two connectors and one with four connectors.



A COM/A controller is inserted in the CPU for your additional units.

If your only addition to the three basic units is a printer, go immediately to "Connecting a Printer." If you plan to connect more than one additional unit, you should make a simple diagram or table to show how your units are connected to the CPU.

You'll often need the following information:

What additional unit is attached to what connector on the CPU? (You must have this information to complete the logical connection.)

How quickly is information passing between the additional unit and the CPU? (This is known as the <u>baud rate</u>: the number of bits transmitted per second.)

Where is the unit that is connected to a specific connector on the CPU? (This information is usually needed only for satellite workstations.)

You'll need this information when you are ready to complete the logical connection or when you make any changes to your system, and possibly whenever some problem appears.

Here is a table of such information for a fictitious Fortune system with one printer and two ASCII terminals, and a cable diagram that contains the same information.

Connector	Line	Additional Unit	Baud	Location
SIO	tty01	Printer	2400	Accounting
P2	tty02	ASCII terminal	9600	Engineering
P3	tty03	ASCII terminal	9600	Personnel

This table shows that a printer is connected to the CPU at the SIO connector. The printer is in the Accounting Department (and obviously so is the master workstation). The ASCII terminal connected to P2 of a COM/A controller is in the Engineering Department; the ASCII terminal connected to P3 of a COM/A controller is in the Personnel Department. The first four columns of this table contain information that you'll need when it is time to tell the operating system where these units are connected and what they are. Information in the location column is not absolutely necessary, but there will be times when it is convenient to have it, especially for more elaborate systems.

For a system with more units, and a four-port COM/A controller, the table would be larger and would include entries for connectors P4 and P5.



Draw a diagram of your system for your records.

To connect a printer to the CPU, you must first set all the controls on the printer for proper format, baud rate, print size, and other requirements. Then you insert a cable from the printer into one of the connectors on the CPU. If you have a Fortune letter quality printer or a Fortune dot matrix printer, you'll find everything you need in the box containing the printer and everything you need to know in the guide packed in the box. Be sure to read the guide to become familiar with your printer.

If your system uses a printer from a source other than Fortune systems, look through the manual you got with the printer to find answers to these questions:

How can the printer be set for serial operation?

What are the proper settings and indications for each mode of operation of the printer, such as self-test, offline, form feed, and similar operations?

How do you load paper into the printer?

How do you align paper in the printer so that the type is in the proper location in forms?

How do you change a ribbon in the printer? How often should the ribbon be changed?

What should you do to correct a jam condition?

How do you set baud rate and other system information, such as the use of parity or the number of stop bits?

What are the special features of the printer character set?

You should check with your Fortune Systems dealer about the use of any printer with the Fortune 32:16.

PHYSICAL CONNECTION

You should connect the cable from the printer to the SIO connector of the CPU. If you have decided otherwise, you have prepared a table or diagram that indicates all information about connection of additional units to the CPU.



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Connect the cable to the CPU and the printer.

After you have physically connected the printer to the CPU at the SIO and made the necessary settings, turn the printer on. It should be in <u>online mode</u>. This means that the printer is ready to receive data from the terminal. The last step is to tell the operating system that the printer is connected and what type it is.

The logical connection is usually controlled by the system manager and should be done any time you connect a printer to the system, change the printer's baud rate, or change the connector line. The baud rate setting on the printer <u>must</u> match the baud rate settings you enter or the printer will not operate properly.

Following is the procedure used to make your printer known to the operating system.

<u>!s</u>	ter	<u>.</u>	Screen Says	!		You Type 🛛 🚦	Comments !
!		!		:		:	:
!	1	!	FORTUNE SYSTEMS	!	s 2	(RETURN)!	Select system !
!		!	GLOBAL MENU	!		:	management. !
!		!	Enter Selection &	!		:	:
!		!	Press (RETURN):	!		:	:
!		!		!		:	:
!	2	!	SYSTEM MANAGEMENT	!	39	(RETURN)!	Display shows view!
!		!	39 Change device	:		:	of CPU with three !
!		:	connections	!		:	COM/A controllers.!
!		!		!		:	The printer should!
!		!		!		:	be connected to !
!		!		!		:	the SIO connector !
!		!		!		:	(labeled 1 or !
!		!		!		!	printer on the !
!		!		!		:	screen). !
!		!		!		:	!
!	3	!	CHANGE DEVICE	!	t	(RETURN)!	The illustration !
:		!	CONNECTION	!		:	shows 13 lines. !
!		!	Table	:		:	Mark it to match !
!		!		:		!	your system. !
!		!		!		:	:
!	4	!	These Are Your	!		(RETURN)	Return to change !
!		!	Current Settings	:		:	device connection.!

!!	Step	<u>.</u> !	Screen Says	!		Ŋ	lou	Туре	:	Comments !
!		!		!					:	!
!	5	!	CHANGE DEVICE	!	р			(RETU	RN):	Set connection 1 !
!		!	CONNECTION	!					!	as a printer. !
!		!		!					!	:
!	6	!	DEVICE TYPE	!	1	or	2	(RETU	RN):	Select according !
!		!		!					!	to the type of !
!		!		!					!	printer you have. !
:		!		!					!	Select 1 for a !
!		!		!					:	letter quality !
!		!		:					!	printer, or 2 for !
:		!		!					!	a matrix printer. !
!		:		!					:	:
!	7	!	-Press RETURN for	!				(RETU	JRN)!	t .
!		!	menu or select ahead.	:					!	:
:		!		!					!	:
:	8	:	CHANGE DEVICE	!	t			(RETU	(RN)	Check that the
:		:	CONNECTION	:					:	printer connection!
!		!		!					:	is on the table. !
:		:		:					:	!
!	9	:	These Are Your	:				(RETI	RN):	Press the Return !
:		!	Current Line Settings	s!					!	key after you see !
:		!		!					:	that 'undefined' !
!		!		!					:	has been replaced !
:		!		!					:	by '9600'. !
:		!		:					:	:
:	10	!	CHANGE DEVICE	:				(CANC	EL):	Return to system !
!		!	CONNECTION	!					!	management menu !
:		!		!					!	!
!	11	!	SYSTEM MANAGEMENT	!	30	0		(RETU	JRN):	Start shutdown !
:		!		!					!	procedure. !

When you finish, shut down the system. Shutdown is required to incorporate the changes into the system. After you shut down the system, follow the power up and logon sequence, and test the printer. Now that you have logically connected the printer, test it to make sure that it works with the system.

TEST BY PRINTING

If your printer has a self-test feature, you should have already used it to make sure that the internal operation of the printer is as it should be. The best way to make sure that the printer is connected to the system is to give it a command to print something.

Turn on the system again, and log in. After the global menu is displayed, follow this procedure.

!!	Ster	»:	Screen Says	!	Yc	u	Туре !	Comments !
!		!		!			:	!
!	1	!	FORTUNE SYSTEMS	!	s 1		(RETURN)!	Choose System !
!		!	GLOBAL MENU	!			:	Utilities to !
!		!	SYSTEM TOOLS	!			:	print. !
!		!	sl System Utilities	!			:	!
!		!		!			:	!
!	2	!	SYSTEM UTILITIES MENU	!	18		(RETURN)!	!
!		!	18 Print	!			:	!
!		!		!			:	:
:	3	!	PRINT FILE CONTENTS	!	р		(RETURN)!	:
!		!	ON PRINTER	!			!	:
!		!		!			:	!
!	4	!	ENTER FILENAME(S)	!			!	:
!		!	AND PRESS RETURN	!	date		(RETURN)	If printer is !
!		!		!			:	working, file will!
!		!		!			:	print. !

If your system does not have satellite workstations, you are ready to load an application and begin work. Go to "Using Applications".

IF THE PRINTER FAILS THE TEST

The printer may fail the test for many reasons. The first thing to check is that the cables are firmly seated in the printer and in the CPU, and that the printer is connected to the SIO connector. Next check such possible conditions as that the printer is not online, and that the settings for baud rate are correct (9600 baud). If you must use a baud rate other than 9600, which was set automatically during the procedure, first set the printer switches, then use the following procedure.

:	Ster	<u>.</u>	Screen Says	!	You	Type !	Comments	!
!		!		!		!		!
!	1	!	FORTUNE SYSTEMS	:	s2	(RETURN)!	Select system	!
!		!	GLOBAL MENU	!		:	management.	!
!		!	Enter Selection &	!		:		!
!		!	Press (RETURN):	!		:		!
!		:		!		:		!
!	2	!	SYSTEM MANAGEMENT	!	39	(RETURN)!	Display shows view	1
!		!	39 Change device	:		:	of CPU with three	!
!		!	connections	!		:	COM/A controllers.	!
!		:		!		:		!
!	3	!	CHANGE DEVICE	!	p	(RETURN)!	Set connection 1	!
!		!	CONNECTION	:	•	:	as a printer.	:
!		:		!		:	-	!
!	5	!	DEVICE TYPE	!	5	(RETURN)!	Select the menu	!
1	-	1		1		!	that allows you	!
1		1		!			to set any one of	1
1		!		!		:	15 baud rates.	1
!		1		!		:		!
1	6	!	DEVICE CONNECTION	!	(baud rat	e and !	Type in the baud	!
1	-	!		!	printer)	(RETURN)!	rate and printer	1
1		1		!	P-1,	:	for your system.	1
!		!		!		:		!
!	7	!	CHANGE DEVICE	!	t	(RETURN)!	View table to	!
!	•	1	CONNECTION	!	-	!	verify the change.	!
			001112012011	!		!		1
!	8	!	These Are Your	!		(RETURN)!	Return to change	!
!	•	1	Current Settings	!		!	device connection.	!
			000000000	!		!		!
!	9	1	CHANGE DEVICE	!		(CANCEL)!	Return to system	!
!	-	!	CONNECTION	!		!	management menu.	1
!		!		!		!		1
	10	1	SYSTEM MANAGEMENT	ļ	30	(RETURN)!	Start shutdown	!
•	10	•			~~	1	procedure.	!
•		•		• • •			P10000000	•

As before, you must shutdown the system (and the printer) to set changes you have made.

		DEVIC	E CONNECTI	ON
En	ter Baud Rate	Number &	Device T/P	e & Press (PETURN);
	BAUD	RATES		DEVICE TYPES
	50	1800		
	75	2400	letter	qualit, printer
	110	3600	dot	matrix printer
	134.5	4800	fortune	satellite workstation
	150	7200		
	300	9600		
	600	19200		
	1200			
E	XAMPLE			

You can select any baud rate on this screen.

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A satellite workstation consists of any display unit and a keyboard connected to each other and to the CPU. If you have a satellite workstation that consists of an ASCII terminal and a keyboard, you need to unpack it, connect it to your Fortune system, and get it ready for use. After making the physical connection you will prepare the operating system to support more than one user in "Loading the Multiuser Operating System.'



ASCII TERMINAL AND KEYBOARD

The ASCII terminal comes packed with the keyboard in a tall carton.

- 1 Remove the tape and open the top of the box.
- 2 Read the important shipping notice on the top and be sure to report any damage to your dealer.
- 3 There are two warranty cards beneath this notice, one for the ASCII terminal and one for the keyboard. Put these cards with the warranty cards from the CPU.
- 4 Remove the long box in the top center of the carton. This box contains the keyboard.
- 5 Carefully cut the tape along the cardboard sleeve. The keyboard is inside, enclosed in foam-backed cardboard.
- 6 The cords for the terminal and keyboard are wrapped in a light styrofoam sheet and packed at the back of the terminal. Unpack the cords and put them aside.
- 7 Two people will be needed to remove the ASCII terminal from the carton. Have one person hold onto the box while the other person reaches into the box, grasps the terminal near its base, and lifts it upward. When the ASCII terminal is almost out of the box, the second person should let go of the carton and help the first person gently place the terminal on the floor
- 8 Have one person hold the terminal while the other person removes the insulating foam from both sides. Then remove the plastic wrapping and place the terminal next to the CPU and keyboard.
- 9 Put the insulation and wrapping for the cables back in the box.

SAVE THE BOXES

Keep the boxes and the shock-absorbing material. If you need to ship the system somewhere, or need to go some distance for service, you should repack the system in the cartons.

WARRANTY CARDS AND INFORMATION

Make sure that the warranty cards are filled out and that the appropriate copies are returned to Fortune Systems Corporation in the envelope provided. Keep your copies in a safe place, because you'll need them if your system needs repairs during the warranty period.

There is a warranty card for the ASCII terminal and keyboard. Each unit also has an identification label with a serial number. Take the correct warranty card with you when you need service on a unit. To help you tell the difference between one card and another, the serial number is preceded by a code:

Code Unit

KB	Кеуроа	ard
AT	ASCII	terminal



This is how the ASCII terminal is packaged.

Now that you have the ASCII terminal and the keyboard on the operator's desk, get them connected and ready to use. The control cable from the master workstation should have been installed by this time.

PUT THE ASCII TERMINAL IN ITS PLACE

- 1 Be sure the front of the ASCII terminal faces the operator's chair. You can attend to details of placement later, after the keyboard has been connected.
- 2 Insert the plug end of the power cable into the receptacle at the back of the ASCII terminal. Do not connect the other end of the cable to an electrical outlet now. Wait until the keyboard is connected.
- 3 Insert the plug of the control cable into the connector marked Host at the rear of the ASCII terminal.

ATTACH THE KEYBOARD

- 1 Put the keyboard on the desk in front of the ASCII terminal.
- 2 Connect the coiled cable to the connector at the back of the keyboard. Push the cable in to make sure it is firmly seated.
- 3 Insert the other end of the the coiled cable into the connector at the front of the ASCII terminal on the lower right-hand side. Push the cable in to make sure it is firmly seated.

CHECK THE SWITCHES ON THE ASCII TERMINAL

Be sure the switches on the ASCII terminal are set in the proper positions for operation of the system. You can use the tip of a mechanical pencil to set the switches. (Any tool with a tip that is narrow and strong can be used.)



At the back of the ASCII terminal are the power on/off switch, the cable connectors, and the configuration switches.

Now that all the units are unpacked and set up, you need to turn on the power and make some adjustments.

- 1 Make sure that the power on/off switch of the ASCII terminal is in the off position. The switch has a small white dot on one side. When that side of the switch is out, the power is off. Now you should check that the side with the white dot is out.
- 2 The power cable has a three-pronged connector. You should use an electrical outlet that matches it. If you don't have that kind of outlet, use an adapter. For your safety, and for the protection of the system, connect the ground lead of the adapter to a local ground.
- 3 When you have connected the ASCII terminal to power, set the power switch to On. The screen will be lighted, and the cursor will be in the upper left-hand corner of the screen.

The ASCII terminal is ready, but it will not work until it has been logically connected to the system by typing in information at the master workstation.

4 Reach behind the ASCII terminal and set the power switch to Off until you have completed the logical connection.



A multiuser system set up looks like this.

The term multiuser system refers to a computer that can be used by more than one person at the same time. When a brand new Fortune system is set up, it is a <u>single user</u> system, designed to be used by only one person at a time. To make your computer a multiuser system, you must install the multiuser Fortune Operating System master disk.

Fortune 32:16's are also <u>multitasking</u> systems, meaning they are capable of running more than one program at a time. For example, using FOR:WORD you can send one document to the printer, and then edit another while the first document prints. The computer is running a printer program and a program that helps you edit some text at the same time. Both single user and multiuser systems can run more than one program at the same time. No matter how many users are set up on your Fortune system, it <u>always</u> has multitasking capabilities.

THE LOADING PROCESS

If you are upgrading an existing system, the first step is to backup all data files on the system since when you reload the operating system you may erase some files. Use the Product Maintenance Backup Utilities to back up all your files.

An important aspect of this process is changing the <u>configuration</u>, the internal characteristics, of the software as you add hardware. The available workspace, the memory, must now be divided among more users. This is accomplished when you make a change in the configuration menu.

The procedures for a new system and an existing system are similar. Briefly, the process includes the following steps.

New System

Existing System

- Load operating system as multiuser
- 2. Load multiuser diskette
- 3. Shutdown system
- 4. Change device connection utility
- 5. Shutdown system
- 6. Set configuration menu
- 7. Load applications

- 1. Backup files
- 2. Load operating system as multiuser
- 3. Load multiuser diskette
- 4. Shutdown system
- 5. Change device connection utility
- 6. Shut down system
- 7. Set configuration menu
- 8. Reload applications

Each of these steps is more fully explained in the following pages.

WHAT YOU WILL NEED

To change your system to a multiuser configuration, have the following items on hand.

The two flexible disks of the Fortune Operating System obtained from your dealer, or the two-disk backup set of the operating system (cold boot) which was previously made through the Product Maintenance Backup selection on your system.

The Multiuser Operating System flexible disk

LOADING THE OPERATING SYSTEM

The complete procedure for loading the operating system is contained in Part 5.

The procedure for loading the operating system takes into consideration all of the many reasons for performing the procedure.

If you are changing a new system from the single user operating system to the multiuser operating system, you need answers to only two questions.

- 1. What type of hard disk drive do you have? (Possible answers include Seagate 412, Seagate 406, and Seagate 506. Check with your dealer if you are not sure.)
- 2. How many users will you have on your system? (For each satellite workstation in your system, you have one user in addition to the user at the master workstation. If you have three satellite workstations, your system has four users. The options available are 2 or 3 users, and 4 or 5 users.)

Write the correct answers for your system on a piece of paper, so that they are available when you need them. Then follow the procedure. After you have loaded the operating system for multiuser, return to this point in this guide. The next step is to install the multiuser operating system diskette. To do this procedure you must be logged in as manager.

<u>!s</u>	te	<u>.</u>	Screen Says	!		You	Туре	!	Comments	!
!		!		!				!		:
!	1	:	FORTUNE SYSTEMS	:	s5		(RETURN)!		:
!		!	GLOBAL MENU	!				!		:
!		!	S5 Product	!				!		!
!		:	Maintenance	:				!		:
!		!		:				!		:
:	2	!	PRODUCT MAINTENANCE	!	i		(RETURN)!	Initial letter of	!
!		!	MENU	!				!	install is	:
!		!	SELECTION :	!				!	sufficient.	!
:		:		!				!		:
!	3	!	Please insert	!				!	Insert the multi-	:
!		:	flexible disk	!				!	user application	!
!		!	Volume 1.	!				!	disk into the	!
:		!	Press (RETURN):	!				!	drive and press	!
!		:		!				!	Return.	:
!		!		!				!		:
!	4	!	This flexible disk	!	У		(RETURN)!	The name and date	!
!		!	is labeled:	!				!	of the disk is	:
!		!		!				!	displayed.	!
!		!	Proceed with	!				!		:
!		!	Installation? (y/n)	!				!		!
!		!		!				!		!
_										-

From this point, follow instructions on the screen. After you have completed this procedure, you should make a copy of this application, as you have for previous applications. Use the system utilites option Sl to find the format utility 32. Format a new flexible disk (unless you have one available), then use the backup option of product maintenance S5 to make the copy. Telling the Operating System About Satellite Workstations

The computer now needs information about each workstation. The logical connection must be made. To do this procedure you must be logged in as manager.

STANDARD BAUD RATES

The following procedure tells how to set the standard baud rate (19200) for one satellite workstation. Use this procedure for each satellite workstation. You'll see the same screens you used for logical connection of a printer. You can select lower baud rates if necessary.

:	Ste	p!	Screen Says	!		You Type	Comments !
!		!		!			! !
!	1	!	FORTUNE SYSTEMS	:	s2	(RETURN)	! Select system !
!		!	GLOBAL MENU	:			! management. !
!		!	Enter Selection &	!			!!!
!		!	Press (RETURN):	!			! !
!		!		!			! !
!	2	:	SYSTEM MANAGEMENT	!	39	(RETURN)	! Display shows view!
!		!	39 Change device	!			! of CPU with three !
!		!	connections	:			! COM/A controllers.!
!		!		:			! !
!	3	!	CHANGE DEVICE	!	2	(RETURN)	! Set connection 2. !
!		!	CONNECTION	:			! !
!		:		!			! !
!	4	!	DEVICE TYPE	:	3	(RETURN)	! Choose the baud !
!		:		:			! rate of 19200 !
!		!		:			! for the satellite !
!		!		!			! workstation. !
!		!		!			! !
!	5	:	CHANGE DEVICE	:	t	(RETURN)	! If you have more !
!		!	CONNECTION	!			! than one satellite!
!		!		!			! workstation, type !
!		:		!			! in the line number!
!		!		!			! and repeat the !
!		!		!			! sequence. !

:	Ste	p!	Screen Says	!	You	Туре	Comments !
1		!		!			! !
:	6	:	These Are Your	!		(RETURN)	! Press the Return !
!		!	Current Line Settings	!			! key after you see !
!		!		!			! that 'unknown' has!
!		!		!			! been replaced by !
!		!		!			! 'FT' for each !
!		!		!			! satellite work- !
!		!		!			! station. Verify !
!		!		!			! baud rates also. !
!		!		!			!!!
!	7	!	CHANGE DEVICE	!		(CANCEL)	! Return to system !
!		!	CONNECTION	!			! management menu !
:		!		!			!!!
:	8	!	SYSTEM MANAGEMENT	!	30	(RETURN)	! Start shutdown !
!		!		!			! procedure. !

When you complete this procedure use the shutdown utility to shutdown the system. You'll find details about this procedure in Shutting Down the System in Part 3. All the additional units of your Fortune system have been installed. From the master workstation you can, with a simple procedure, find out who is working at each satellite workstation. All applications on your system can be used at each workstation.

Now you'll need to learn new procedures for logging off at a satellite workstation and for shutting down the system.



Starting Up the Master Workstation

Now that all the units of the full system are physically connected and logically connected, you can turn on the power again. The messages you receive from the system will be exactly as before.

TURN ON THE POWER AT THE MASTER WORKSTATION

Nothing works until you turn on power at the master workstation, and enter the date and time. Do it one more time.

LOAD THE TRAINING PROGRAM

When you changed to multiuser, you lost the training program. While you are at the master workstation, use the copy you made to install the training program again. As you probably remember, select s5 and follow instructions on the screen. At an ASCII terminal, you can log in and do the same kind of things that you can do at the master workstation.

The procedure chart shows all the steps required to log in, use the training program, and test the printer. As with your previous login at the master station, feel free to work without the procedure chart. Use it just as a way to refresh your memory.

POWER ON

Reach behind the ASCII terminal and set the power switch to on. No requests for date and time are made. Those operations have to be done only when power is turned on at the master workstation.

MAKE SOME ADJUSTMENTS

The display unit of the ASCII terminal has adjustments identical to those of the monitor. Put the keyboard anywhere that's comfortable for you, and move the ASCII terminal to eliminate reflected glare from room lighting. Follow the log in procedure to reach the global menu: then adjust the screen brightness if necessary.

> Don't set the brightness so high that the background is noticeably green. That's not good for the screen, and it's not good for your eyes.

USE THE TRAINING PROGRAM

The training program you stored on hard disk is available. Select something from the Training and Education part of the global menu and work with it as before.

!s	ter	»:	Screen Says	!		You	Туре	е	!	Comments	!
!		!		!					!		!
!	1	!	FORTUNE SYSTEMS 32:16	5!(your	acco	ount	name)!	Login to your	!
:		!		!			(RI	ETURN)!	account.	!
!		!	Press (HELP) For	!					!		!
!		!	Assistance	!					!		!
!		:		!					!		!
!		!	Type in your name	!					:		!
!		!	and press (RETURN):	!					!		!
!		!		!					!		!
!		!	21% of the available	!					!	Actual amount of	!
!		!	space is in use	:					!	available space	!
:		!		!					!	varies with your	!
!		!		!					!	system.	!
!		!		:					!		!
!	2	!	FORTUNE SYSTEMS	!	t2		(RI	ETURN):		!
:		!	GLOBAL MENU	!					!		!
!		!	T2 AMUSEMENTS	!					!		!
:		!		!					:		!
!	3	!	AMUSEMENTS	!	1		(R)	ETURN)!	Selects the Worm	!
!		!	1 WORM	!			-		!	game.	!
!		!		!					!	-	!

TEST THE PRINTER

Test the printer as you did from the master workstation. Here's the procedure.

.

!s	ter	<u>.</u>	Screen Says	!	Yo	u Type	!	Comments !
!	_	!		!			!	!
!	1	!	AMUSEMENTS	!	(CANCEL/DEL)	1	Leave the !
:		!		!			!	category. !
!		!		!			!	!
!	2	!	FORTUNE SYSTEMS	!	s 1	(RETURN))!	:
1		!	GLOBAL MENU	!			:	!
!		!	S1 SYSTEM UTILITIES	!			:	!
!		!		!			!	!
!	3	:	SYSTEM UTILITES MENU	!	18	(RETURN))!	:
!		!	18 Print	!			!	!
!		!		!			!	!
!	4	!	ENTER FILENAME(S)	!	date	(RETURN)):	If printer is !
!		:	AND PRESS RETURN	!			!	working, file will!
!		!		!			!	print. !

There is a difference between logging off and shutting down. In this procedure, you'll log off and then log on again.

!Step!		<u></u> ;	Screen Says	!	You Type !	Comments !
!		!		!	!	!
!	1	!	GLOBAL MENU	!	(CANCEL)!	You are now logged!
!		!		!	:	off. !
!		!		!	!	:
!	2	!	FORTUNE SYSTEMS 32:16	!	:	:
!		!		!	:	:
!		!	Type in your name	!	(your account !	:
!		!	and press (RETURN):	!	name) (RETURN)!	:
!		!		!	:	:
:		!		!	!	:
!		!	FORTUNE SYSTEMS	!	!	:
!		!	GLOBAL MENU	!	!	:
!_		!		!		!

You must be at the master workstation to shut down the whole system. As a demonstration, try it while sitting at a satellite workstation. Sometimes, attempting something that can't be done is educational.

ATTEMPTING SHUTDOWN AT A SATELLITE WORKSTATION

If you follow the standard shutdown steps at a satellite workstation, you'll see a new message. The global menu should be displayed on the screen. If it isn't, press the Cancel Del Key until the global menu appears. Here is the procedure to follow.

!Step	Screen Says	!	You Type	Comments	!
!	!	!	!		!
! 1	FORTUNE SYSTEMS GLOB	AL! s2	(RETURN)!	Choose System	!
:	! MENU	!	:	Management.	!
!	SYSTEM TOOLS	!	:		!
:	! S2 System Managemen	t!	:		!
:	!	!	:		!

!St	:ep	Screen Says	!	You	Type !	Comments	!
!		!	:		:		!
!	2	SYSTEM MANAGEMENT MEN	U!	30	(RETURN)!		!
!		!30 Shutdown Computer	!		:		!
:		!	!		:		:
!		Please go to the	!		:	The satellite	!
!		!master workstation	!		:	directs you to	!
!		1.	!		:	the master work-	!
!		:	!		:	station.	!
!		!	!		:		:
!		!	!		:		!
!		!	!		:		!
!		:	!		:		!
!		:	!		!		!
!		ŧ	!		!		!

Go to the master workstation to perform the shutdown procedure. Do not log off the satellite workstation at this time, so that you see how the computer executes the shutdown procedure while a satellite workstation is stilled logged on. When you attempt to shut down a system that has satellite workstations, the screen may display a special message. If you shut down the system while an operator is logged on at a satellite workstation, you may destroy all the work the operator has accomplished.

BEGINNING A SYSTEM SHUTDOWN

The shutdown procedure you used at the satellite workstation is the the right procedure at the wrong place. Now you will be shutting down at what may be the wrong time.

!Ste	p! Screen Says	!	You Type	Comments	!
!	!	!		!	!
! 1	FORTUNE SYSTEMS GLOBAL	! s2	(RETURN)	!	!
!	! MENU	:		:	!
!	SYSTEM TOOLS	!		:	!
!	! S2 System Management	!		!	!
!	!	!		!	!
! 2	SYSTEM MANAGEMENT MENU	1 30	(RETURN)	:	!
:	!30 Shutdown Computer	:		!	!
:	!	!		:	!
!	!	!		:	!
!	!Terminal 02 is active	!		! A warning message	!
!	please have (your	!		! tells you whose	!
!	!account name) sign	!		terminal is still	!
!	!off	!		logged on.	!
:	:	! .		!	!
!	!	!		:	!
!	:	!		!	!
: 3	!Do you want to	! n	(RETURN)	!	!
!	<pre>!continue?</pre>	!		!	!
!	!	!		!	!

MAKING THE DECISION

The system will not prevent you from continuing the shutdown procedure. In a real situation, you should check with the operators at other workstations before you shut down. You can learn about the situation at each satellite workstation without leaving the master workstation.

Try this procedure:

<u>!s</u>	tep	Screen Says	!		You	Туре !	Comments	!
!		! •	!			!	!	
!	1	FORTUNE SYSTEMS GLOBA	L!			:	:	!
!		! MENU	!			:	:	,
!		SYSTEM TOOLS	!			!	:	!
!		S2 System Management	!	s2		(RETURN)!	:	!
:		:	!			!	:	!
:	2	SYSTEM MANAGEMENT	:			!	:	!
!		! 31 Who	!	31		(RETURN)!	All users current-	!
!		1	!			!	ly logged on are	!
!		1	!			!	listed.	!
!		:	!			:	:	!
:	3	:	!			(RETURN)	:	!
!		!	!			!	:	!
!	4	SYSTEM MANAGEMENT	!			(RETURN)	Takes you back to	!
!		!	!			!	the Global Menu.	!

You are logged on at the master workstation and the satellite workstation. The screen will look something like the illustration, only the account name and time will be different. User "accountname" has been Active on console since Sep 28 15:17 User "accountname" has been Active on Terminal 02 since Sep 29 16:20

-Press RETURN for menu or select ahead

The "Who" screen tells you who is on the system.

In a real situation, you may have a line for each of the workstations in your system, or you may have a line only for the console. In this situation, all you need to do is log off at the satellite workstation. Once you have logged off, continue with the shutdown procedure. You have already learned how to install application software. You use the "Install" selection from the Product Maintenance menu, just as you did to install the training program from the training disk. If you want to install an application now, you must

12 you want to instant an application now, yo

- 1 Turn on the Fortune system.
- 2 Type in the date and time.
- 3 Log on to the Fortune system.
- 4 Install the application.

Here's a quick review. First, of course, you must turn on the switch at the back of the CPU.

!Ste	ep!	Screen Says	!	You	Туре !	Comments	!
!	:		!				!
!	!	Fortune Systems 32:16	!		:	Wait for the date	!
!	!	Please Wait	!		:	and time display.	!
!	!	1 2 3 4 5 6 7 8 9	:		:		!
1	!		!		!		!
! 1	L !	Today's date is:	!	(Type in	date in !	Type only digits.	:
:	!	00/00/00	!	mm/dd/yy	format)		!
!	!	mm/dd/yy	!		(RETURN)		!
!	!		:		:		!
! 2	2 !	Current time is:	:	(Type in	hours,	Type four digits,	:
!	!	00:00 AM	!	minutes,	and A	and A or P, if	:
!	!	hh:mm A	!	or P)	(RETURN)	necessary.	!
:	!	Р	!		:		!
!	:		!		1		!
1 3	3 !	Date set to	!	У	(RETURN)	For n, enter date	!
:	!	Is this correct (y/n)	!		1	and time again.	!
!	!		!		:	!	!
: 4	4 !	Your name:	:	(your acco	ount name)		!
!	!		!		(RETURN)	!	!
!	!		!		1	!	:

!!	!Step!		Screen Says	!		You Type	Comments !
!		!		!			
!	5	!	Type in your password	!	your	password	This is requested !
!		!	and press (RETURN)	!		(RETURN)	only if you have a!
!		!		!		:	password assigned.
!		!		!		1	! !
!	6	!	FORTUNE SYSTEMS	!	s5	(RETURN)	! !
!		!	GLOBAL MENU	!		:	: · · · · · · · · · · · · · · · · · · ·
!		!	S5 Product Main-	!		:	! !
!		:	tenance	!		1	: · · · · · · · · · · · · · · · · · · ·
!		!		!		1	! !
:	7	!	PRODUCT MAINTENANCE	!	i	(RETURN)	Initial letter is
!		:	Install a product	!		:	sufficient.
:		!		!		1	! !
!	8	!	Please insert	!		:	Insert the first
:		!	flexible disk	!		1	disk of your
:		!	volume 1. Press	!		:	application in the
!		!	(RETURN)	!		:	flexible disk
!		!		!		1	drive.

From this point, follow the instructions on the screen. If your application has more than one disk, you'll have to load them all.

During this procedure you transfer each part of the application from the flexible disk to the hard disk. Once you have done this, the application is available any time you turn on the system. The name of the application is highlighted on the global menu to remind you that it is available.

Sometimes you may want to remove from the hard disk an application that is not being used. When you do, there is more space on the hard disk for other work. You'll learn details of that procedure in Understand Your Fortune System. Hollerith's electrical tabulating machine, which used punch cards, was developed for use in the 1890 census. It was the first statistical machine to receive widespread use.

Courtesy of the U.S. Patent Office.


You may want more detailed information about how your Fortune system works. You've used the keyboard already in this guide, but there are more things these keys can do, depending upon the applications that you have. You can also learn how to look for and interpret information on the screen.

In the following pages you'll learn:

How to establish accounts and passwords More about the equipment you have More about how the keyboard works How to load the operating system

13 More System Information

Your Fortune system has more to it than you've already learned, although you can operate it successfully without any additional information. This information will be useful to you if you're curious about the system or if you just want more sophisticated information.

Each person using the Fortune 32:16 should have an account. An account acts like a private file cabinet in which all files are organized according to the owner's style. The file cabinet can be protected with a key, a password on a computer system.

You'll learn about establishing accounts with or without passwords in this section.

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Accounts

Each person who is allowed to use the Fortune system is given an account. An account can be given through the procedure described in "Establishing Your Account" or it may be controlled by a person who is designated as the system administrator.

NAMING AN ACCOUNT

An account is usually given the name of the user, all in lowercase letters. Almost any name can be an account name. The general requirement is that the name be unique to an individual. A family name is usually sufficient; initials can be added if needed. A person may be assigned more than one account. Each account can be assigned a personal security code. It is generally best for any person with more than one account to use a distinct password for each account.

Passwords

An account can be protected by a password, also called a personal security code. Although the system administrator can have control of assigning an account, only the operator has control of the password.

SPECIAL FEATURES OF A PASSWORD

Your account can be assigned a password if you respond \underline{y} (for "yes") to the screen message "Do you want a password (y/n)?" When you type in the chosen password, it is not displayed on the screen. This feature helps to keep the password private, because no other person can see the password, even accidentally. However, there is no way for you to know that you made a typing error while you typed in the password. Therefore, you should be careful when you establish a password.

The system requires you to type the password a second time, and it will accept the password only if the two inputs match. If you made the identical typing error each time, the password is known only to the system. Therefore you must be especially careful when typing a new password.

After you establish your password, you must type the password without error during the login procedure. Even if you know that you made a typing error, you won't be able to make corrections very easily because what you typed is not displayed. The easiest response to an error is to press the Return key until the message "Your name" is displayed, and then repeat the procedure from that point.

A password should be changed occasionally. How frequently you change your password depends upon how concerned you are about the ability of other users to have access to your work.

SELECTING A PASSWORD

Your password can be almost anything you can type on the keyboard, with a few restrictions. For now, limit yourself to no more than 14 lowercase letters. Choose something that will be easy for you to remember and not easy for anyone else to guess. The family name of your maternal grandmother is a good choice, if you know what it is.

Establishing a Password

If you decide to use a password, answer y (yes) to the screen prompt "Do you want a password (y/n)?" The screen leads you through the procedure. Once you have a password, you'll be required to type it each time you log in.

ERROR MESSAGES YOU MAY RECEIVE

If what you type in during step 4 does not match what you type in during step 5, the response is:

Mismatch - password unchanged Do you want a password (y/n)

Continue from this point as if you were at Step 3.

If you continue to make mistakes for five times, the response is:

Try again later.

You may have made a typing error while using your account name. Check for that possibility.

This procedure makes it difficult for other operators to guess at your password. If you tend to use passwords that are not very secret, such as the license number of your car, names of other members of your family, or your hometown, people may try to access files. Use a less obvious password.

WHAT YOU HAVE DONE

You have established yourself as a recognized user of the Fortune system. From now on, each time you turn on the Fortune system, use the following login procedure.

!s	ter	»!	Screen Says	!	You Type	!	Comments	:
:		!		!		!		!
!	1	!	Type in your name	!newus	er (RETURN)!		:
!		!	and press (RETURN):	!		!		:
!		!		!		!		!
!	2	!	Type in your new	!(your	account name)!		!
!		!	account name and	:	(RETURN)!		!
!		!	press (RETURN):	:		!		!
!		!		!		!		:
!	3	:	Do you want a	:		:		!
:		:	password (y/n)	: y	(RETURN)!		!
!		:		:		!		!
!	4	!	Type in your new	!(your	password)	!	The password does	!
!		!	password and press	!	(RETURN	1)!	not appear on the	!
!		:	(RETURN)	!		!	screen.	!
!		!		!		:		!
!	5	!	Retype new password	!(your	password)	!	You must type the	!
!		!	and press (RETURN):	!	(RETURN	1)!	password exactly	!
!		!		!		!	as in step 4.	!
!		!		!		!		:
!	6	!	Your new account has	!	(RETURN	i):		!
!		!	been created. Press	!		!		!
!		!	(RETURN) to try it	:		!		!
!		!	out.	!		!		!
!		!		!		!		!
!	7	!	Type in your name	!(your	account name)!		!
!		!	and press (RETURN):	1	(RETURN	n:		!
!		!		!		!		!
!	8	!	Type in your password	l!(your	password)	!		!
!		!	and press (RETURN):	1	(RETURN	i) !		!
!		:	-	:		!		!
!		!	% of space is	1		!	This message tells	1
:		!	in use	!		!	you how much of	!
!		!		!		!	the hard disk is	!
!		!		!		!	filled.	!
!		!		!		!		!
!		!	FORTUNE SYSTEMS	:		:		!
!		!	GLOBAL MENU	!		!		:

TOTAL SYSTEM SPACE USED

An important thing to know about your Fortune system is how much disk space is available for additional storage. With this information you can decide when to <u>archive</u> files in order to make more disk space for your daily work. Archiving is the process of copying files on the hard disk onto diskettes, and removing the file from the hard disk. 5-6 When you start up your Fortune system and log in, always check the message that says "__% of the available space is in use." This is a very important message. ALWAYS check it each time you start up the system. This tells you how much of your total disk capacity is currently being used. When the space in use is 90% or more, either archive or delete some files. If you don't and begin to edit a large file, your system will become totally full and you wont' be able to work on any more files. Refer to <u>Understand Your Fortune</u> <u>System</u> for information on archiving.

14 More About the Equipment

Knowing how to operate the Fortune system is the main thing you need to know. You may, however, want to know some more about the insides of your system, the parts you can't see that make it run. This information may add to your enjoyment and appreciation of the Fortune system.

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What the parts inside the CPU do is important for you to know, but how they do it isn't so important for your purposes. Even so, you should become familiar with the vocabulary related to the CPU, if only to recognize it when you hear it.

When the names of some of the parts inside the CPU appear in the text, they look like words from a foreign language, or some abbreviations for government agencies that you haven't heard of before. Here are some examples:

MPU	microprocesssing unit
RAM	random access memory
ROM	read-only memory
PROM	programmable read-only memory

Of these, the ones you are most likely to hear about are RAM, ROM, and PROM. For one thing, you won't be able to use some applications unless you have enough memory, in this case, enough RAM. Similarly, when you want to add equipment and applications, hardware and software, you may hear about programs in ROM and PROM.

The most visible units in the CPU are the flexible disk drive and the hard disk drive. Flexible disks are magnetic devices used for storing information that can be read by the computer. The flexible disk drive is the part that puts the information on the flexible disk, or takes the information off the flexible disk and passes the information to the computer.

You'll never see the hard disk system, because it's enclosed in a steel case to protect it from damage. It can do the same kind of work as a flexible disk, but can do more of it and faster. The hard disk makes some operations a little easier. To explain the advantages of the hard disk, and the difference in procedure that results, we must first talk about other things, such as software, memory, operating systems, application programs, and flexible disks.

Software, the instruction that makes the computer do what you want it to do, resides in the computer memory. However, every time you turn off the computer, everything in memory is lost. Therefore, every time you turn on the computer you must put the software back into memory somehow. Putting software into memory is usually called "loading the program" or "loading the software."

Software is a separate and complex field of computer technology, but for now, you need to become acquainted with only two terms: operating system and application software.

OPERATING SYSTEM

The operating system is special software that has general control of the computer. Each time you turn on the computer, you must first put the operating system into memory.

Flexible Disk System

If you have flexible disk only, you first load the operating system from a flexible disk. Now the system is ready to go to work on what you want it to do. So you load application software, detailed instructions for word processing, accounting procedures, or whatever you have. You may load the application software from a second flexible disk, then go to work.

Hard Disk System

You load the operating system into memory, then move it from memory to hard disk. When you turn off the computer, the operating system is still in hard disk.

When you turn on the computer the next time, the computer moves the operating system from hard disk to memory. That is, you load the operating system from flexible disk only <u>once</u>.

APPLICATION SOFTWARE

You can follow the same procedure with application software. You load it once from the flexible disk to memory, transfer the software to hard disk, and from then on the application software is available anytime you turn on the computer. Of course, it's really more complicated than that, but those are the basic principles. No matter what application software you're using, what you type at the keyboard has some effect on what you see on the screen. Form the habit of watching the screen to be sure that what you expect to happen does happen.





If you look very closely at characters on the screen, you'll see that they are made up of small dots. We could just as easily say that they're made up of many dots, some of which are lighted, and some of which are dark. You can't see the dark ones.

One of the special symbols is the cursor. The cursor is a block of light made by lighting all the dots. Sometimes the cursor blinks; that is, first all the dots are lighted, then all the dots are dark, then all are lighted, then all are dark, and so on.

SCREEN INFORMATION

The screen is full of information. When you type in character information at the keyboard, each character replaces the cursor on the screen. As you continue to type, the cursor moves to the right along a line.

When you request information, everything on the screen disappears and a new display replaces the previous display.

SOMETIMES THE SCREEN MOVES AT YOUR COMMAND

In some applications, information on the screen moves while you watch it.

When you ask for information, the whole screen seems to be moving upward. As one line disappears at the top of the screen, a new line appears at the bottom. This behavior is called scrolling.

Sometimes, part of the screen stays fixed and part of the screen scrolls upward, with new lines appearing at the bottom.

THE SCREEN ASKS YOU FOR INFORMATION

In many applications, the screen displays questions. A question displayed under control of the software is called a <u>prompt</u>. When a prompt appears on the screen, the computer stops operations until you respond. The questions may be at the bottom of the screen or the top. When you learn to use an application, that's one of the feaures you have to know about.

THE SCREEN TELLS YOU WHAT'S HAPPENING

The screen is the part of the computer you use to know whether the computer is doing what you think it is doing. Not only does it keep you informed about what is happening inside the computer, it may point out your mistakes. Sometimes it asks questions quietly. You have to watch the screen to keep informed.

THE SCREEN LETS YOU CHOOSE WHAT TO DO NEXT

When you get started, and sometimes while you are working, the screen displays a list of possible operations. This list is called a <u>menu</u>. It's like a menu at a restaurant, except that there's no price. You pick what you want the computer to do, and it does it.

ON COMPUTERS, EVEN MENUS CAN HAVE MENUS

Sometimes when you make a selection from one menu, the computer displays another menu. After moving through menus, you eventually reach the place where you do your work.



On computers, even menus have menus.

The Fortune system keyboard design takes into account all the features offered by various software applications. This means most operations can be initiated with one keystroke. Refer to your application operator's manual to learn what an operation does and how to do it. The function of each key is described below.

TYPEWRITERLIKE KEYS



In addition to the keys that you would expect to find on any typewriter, three keys on the left side of the keyboard provide special characters. Each character is displayed on the screen when you press the key. If your printer has those characters, they can also be printed.

CURSOR CONTROL KEYS



Four keys are marked with arrows to show that they control movement of the cursor. The blinking square, or cursor, shows where action is taking place on the screen. When one of these keys is pressed, the cursor moves in one of four directions up, down, right, or left.



HELP

SCREEN CONTROL KEYS

(PREV SCRN) (for PREVious SCReeN) and (NEXT SCRN) allow you to change from one screen display to another in documents of two or more pages. (INSERT) and (DELETE) allow you to insert or delete information on those screens. The (EXECUTE) key tells the computer to (INSERT) or (DELETE) what you have marked for insertion or deletion.

HELP

With some applications you can get help at the touch of a key. Information will come up on the screen to help you decide what to do. CTRL

CTRL

RETURN

CTRL stands for ConTRoL. You can use this key to select special graphics characters. It has many other special uses, depending on what application you are using.

RETURN

Either Return key tells the computer you have finished typing. In most applications, this key is equivalent to the carriage return function on a typewriter; it moves the cursor down one line and over to the left margin.

LF GL

LF GL

In the FOR:WORD word processing application, this key means Glossary; it allows you to save information to be inserted in a document when needed. This key generates a line feed code for use in applications that distinguish between the carriage return operation and the line feed operation. In a line feed operation, the cursor moves down one line but does not change its horizontal position.

CANCEL DEL

CANCEL

You can use the (CANCEL DEL) key to stop whatever you are doing and return you to the menu you were using most recently. Also, this key has special functions in different applications.

NUMERIC KEYPAD



The numeric keypad duplicates a calculator keypad for your convenience in using Fortune Systems applications that require many numeric entries.

FUNCTION KEYS

The 16 keys at the top of the keyboard, labeled Fl through Fl6 are the function keys. In different applications, these keys are used to do different things. For one application, a particular key may mean yes in response to a prompt from the screen. For some other application, the same key may mean something else. For each application, there is a template that fits on the keyboard below the function keys. The meaning of each key is printed on the template.

F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12 F13 F14 F15 F16

The ASCII terminal is one of several possible satellite workstations for the Fortune system. Others include graphics terminals and color terminals.

CONFIGURATIONS

There are three connectors at the back of the ASCII terminal. The connector identified as the Host connector should be used to connect the ASCII terminal to the cable that comes from the CPU. The other end of the cable can be connected to the SIO connector on the CPU, but it is more likely to be attached to a connector of a COM/A controller.

The connectors identified as Printer and Auxiliary should be used only if the ASCII terminal is operating at a remote location and connected to the CPU through the telephone network. Read <u>Understand Your Fortune System</u> for additional information. Ask your dealer about details.

The Printer connector can be used to connect a printer to the ASCII terminal. However, for this configuration the system must have application software that can pass information to the printer. Read <u>Understand Your Fortune System</u> for additional information. Ask your dealer about details.

CONTROLS

The switch on the ASCII terminal is set to the positions most likely to be used on a Fortune system. If your system has special requirements, you'll have to change the settings. Change the settings with the tip of a mechanical pencil, or any other tool with a narrow, firm point. The table summarizes the purpose of each switch.

If your system is in the United States, your electrical power source is at 60 hertz (Hz) and you'll not need to change switch 1. If your system is in Europe, or some other location that uses a 50 Hz power source, set the switch to the up position.

Switches 2, 3, and 4 should all be in the down position when the ASCII terminal is used with the Fortune system. This ensures that information is accurately transmitted between the ASCII terminal and the Fortune system.

Information is passed between the CPU and the ASCII terminal at a rate that depends primarily upon the length of the cable between them. For most operations, the position for 9600 baud is correct (up-up-up-down in the table). If your system will not work at this rate, either because the cable is longer than normal or because a great deal of electrical noise is generated in the area, keep reducing the rate until the system works.

> If you change the baud rate at the ASCII terminal, you must also change the baud rate at the CPU, using the system management 32 selection, and the change device connections 39 selection.

If you are using the ASCII terminal at a remote location and communicating with the CPU through the telephone network, your Fortune system has additional software and a guide to help you with the installation process.

Switch Settings for the ASCII Terminal

Switch Number									
1	2	3	4	5	6	7	8	Function	
D								60 Hz power source	
U								50 Hz power source	
	D	D						No parity (always space)	
	U	D						No parity (always mark)	
	D	U						Odd parity	
	U	U						Even parity	
			D					l stop bit	
			U					2 stop bits	
				D	D	D	D	50 baud	
				D	D	D	U	75 baud	
				D	D	U	D	110 baud	
				D	D	U	U	134.5 baud	
				D	U	D	D	150 baud	
				D	U	D	U	300 baud	
				D	U	U	D	600 baud	
				D	U	U	U	1,200 baud	
				U	D	D	D	1,800 baud	
				U	D	D	U	2,000 baud	
				U	D	U	D	2,400 baud	
				U	D	U	U	3,600 baud	
				U	U	D	D	4,800 baud	
				U	U	D	U	7,200 baud	
				U	U	U	D	9,600 baud	
				U	U	U	U	19,200 baud	

15 Loading the Operating System

Under some circumstances you may have to load the operating system from the flexible disk copies you made from the hard disk.

> Do not attempt to load the operating system because of minor problems encountered during normal operation. Consult first with your Fortune Systems dealer to determine this is necessary.

The operating system should be loaded only if the Fortune system does not respond to any instructions. The operating system may have been damaged during shipment, possibly by exposure to a strong magnetic field. Contact your dealer. He will supply you with a two-diskette set labelled Fortune Operating System. Using the procedures in this chapter you can reload the operating system.

An inexperienced operator who is logged on as manager and working with the operating system can make a serious mistake and damage the operating system. To prevent this from happening, protect the manager account with a password. Read the section about passwords to learn more about assigning passwords.

BACKING UP YOUR FILES

Loading the operating system from flexible disks may erase all application software and files from the hard disk. If you have been keeping backup files on flexible disks, and the problem occurs early in the day, you may decide that the information on the hard disk is not vital.

If you have been using the system for several hours of the day, and the operating system must be loaded due to a severe problem, you may want to recover as much information as possible. You will have to make some decisions as you go through the procedure charts. Each procedure chart will help you make the decisions.

In general, your decision will depend upon your ability to work in direct communication with the operating system, and your knowledge about the information you want to recover, such as file names and directory names associated with the information.

WHAT YOU WILL NEED

To load the operating system you need the following supplies.

A two-diskette set labelled FORTUNE OPERATING SYSTEM or A copy of the two-diskette backup of the operating system made previously through the Product Maintenance Backup selection on your system.

Now follow each procedure in this section carefully.

Changing Information on the Maintenance Screen

The first step in loading the operating system is to display the maintenance screen. The function keys at the top of the keyboard, the Return key, and the space bar, have special uses in this procedure. Follow these steps:

- 1 If the Fortune system is not off, perform the standard shutdown procedure and then press the power switch at the back of the CPU to the off position.
- 2 While holding down the Cancel Del key, press the power switch to the on position. Continue holding the cancel key until the maintenance screen displays.

(Copyright	(c) Fort	une Systems, Rev 0.92 Wed Se	p 15 09:45:27 1982
		F1	Change Front port speed	2400
		F2	Change Back port speed	9600-1200
		F3	Change power-up action	Boot up
		F4	Change boot device	WD boot, drive #0
		F5	Change boot program number	0
		F6	Change floppy drive #0 type	Tandon
		F7	Set boot file name	hd02/unix
		F8	Read settings from EAROM	
		F9	Save settings into EAROM	
		EXECUTE		
		HELP		
			Type any highlighted key	
\backslash	-		EAROM has been changed 4 ti	mes

The maintenance screen as it first appears.

3 Compare the information on the screen with the illustration of the maintenance screen on the previous page. Unless your system has been specially configured, these entries should read as follows:

> <u>Key</u> Fl 2400 F3 Bootup F5 0

F7 hd02/unix

If your screen is inaccurate, correct it by first pressing the appropriate key, then using the space bar to step through the choices until the information is correct. To set F7, press the F7 key, then type hd02/unix, then press the Return key. When the entries are correct, press the F9 key to accept them.

All other information on your screen should match the illustration of the maintenance screen. If you find differences change the entries in your manual. Use ink, preferably in a noticable color such as red. Distinguish between upper and lower case, between the figure zero and the letter 0, and between the figure one, capital I, and lower case L.

Take time now to examine the illustration of the maintenance screen that follows the next procedure. You will be changing the boot device (row F4) and the boot file name (row F7) entries to match that illustration. You should change any other table entries in the illustration to match your screen, as you did for the previous illustration.

4 Insert the flexible disk (you previously labeled Master Disk 1) into the flexible disk drive and close the drive door. At the end of the following procedure, the computer will copy part of the operating system from this disk, and store it on the hard disk.

TYPING IN THE CHANGES

Follow the procedure to change the maintenance screen. Make sure that the changes to row F4 and row F7 are as listed in the illustration before you press the Execute key. Don't press the F9 key to save these settings; they are only temporary.

!s	ter	<u>.</u> !	Screen Says !	You Type !	Comments !
!		!	:	!	:
!	1	!	F4 Change Boot Device!	(F4)!	"Change boot !
!		!	:	:	device" is in !
!		!	:	:	reverse video. !
!		!	:	:	:
!	2	!	WD Boot, Drive #0 !	(space bar)!	Press space bar !
!		!	:	:	until entry in !
!		!	:	:	third column !
!		!	:	:	changes to !
!		!	:	:	Floppy, drive #0. !
!		!	:	:	:
!	3	!	F7 Set boot file name!	(F7)!	"Set boot file !
!		!	:	:	name" is in re- !
!		!	:	:	verse video; third!
!		!	:	:	column is blank. !
!		!	:	:	:
!	4	!	:	fd02/sa/reconf !	Type a zero, not !
!		!	:	(RETURN)!	capital o. !
!		!	!	:	:
!	5	!	:	:	Check that the !
!		!	:	:	screen matches the!
!		!	:	:	following illus- !
!		!	:	:	tration. !
!		!	:	!	:
!	6	!	·	(EXECUTE)!	:
!		!	:	!	:
!	7	!	Fortune Systems 32:16!	:	:
!		!	Please Wait !	!	:
!		!	!	!	:
!	8	!	Fortune Systems !	!	Next you'll work !
!		!	Configuration Menu !	:	with the confi- !
:		!	-	!	guration menu. !
!		!	!	!	- !

Copyright	(c) Fort	une Systems, Rev 1.0 Wed Sep	15 09:45:27 1982				
	Fl	Change Front port speed	2400				
	F2	Change Back port speed	-9600 120C				
	F3	Change power-up action	Boot up				
	F4	Change boot device	Floppy, drive #0				
*	F5	Change boot program number	0				
	F6	Change floppy drive #0 type	Tandon				
	F7	Set boot file name	fd02/sa/reconf				
	F8	Read settings from EAROM					
	F9	Save settings into EAROM					
	EXECUTE						
	HELP						
	Type any highlighted key						
		EAROM has been changed 4 times	mes				

The maintenance screen after you have made changes

.

The configuration menu provides information about operation of the Fortune system. For example, the Appx. # of users entry tells the operating system how many users require workspace. On this menu, you need to change only three entries: root device, swap device, and appx. # of users. In each case, changes are made by moving the cursor to the entry with the Return key, typing in the change, and pressing the Return key. After all changes are made, the F3 key is pressed.



These entries should match your screen. Other items may vary.-

RECORDING THE CONFIGURATION

Record any differences on your screen on the configuration menu illustration above. Notice that changes will be made in root device, swap device, and appx. # of users. The procedure guides you through the changes on the configuration menu.

Ster	<u>.</u>	Screen Says	:	You I	ype !	Comments	!
!	:		:		:		!
! 1	:	Fortune Systems	:		(RETURN)!	Press the Return	!
!	!	Configuration Menu	!		:	key until the	!
!	:	<u> </u>	!		:	cursor is at root	!
1	:		!		!	device.	!
1	!		1		1		1
· ! 2	!	Root device		fd02	(RETURN)!	Type a zero, not	!
!			•	1401	(10110101)1	the letter o.	!
	;		;		•	Cursor moves to	!
•	;		;		•	ourser moves co	,
•	;		•		•	swap device.	•
•	;	Cross david as	;	£401	·	The second sector	•
• J •	;	Swap device	;	1001	(KEIUKN).	type a zero, not	•
•	;		;		•	Che letter 0.	•
•	•		•		•	Cursor moves to	•
•			:			Thus port speed.	•
•	:	mmx/0.0	:		:		:
: 4	:	TTIOU port speed	:			Press the Return	:
:	:		:		:	key until cursor	:
:	:		:			is at Appx. # of	:
:	:		:			users.	:
!	:		!		!		:
! 5	:	Appx. # of users	:	1	(RETURN)!	Cursor moves to	:
!	!		:		!	power up action.	:
!	:		:		:		!
: 6	:		!		:	Check that the	!
!	:		!		:	screen matches	!
!	!		!		!	the following	!
!	:		!		:	illustration.	!
!	:		!		:		!
: 7	!	F3 = GO	:	(F3)	:	Wait for the boot	!
!	:		!		:	prompt.	!
!	:		!		!		!
! 8	!	Boot	:		!		!
!	!	:	!	fd02/unix	(RETURN)!	Type a zero, not	!
!	!		!		:	the letter o.	!
:	!		!		!	Cursor moves to	!
!	!		!		!	next line.	:
:	!		!		:		!



This is how the menu will look after you have changed it.

The boot procedure restores your system. Also known as bootstrap, it begins at the bottom level and builds up until you see the Fortune operating system working on your screen.

Upon completing the previous procedure the system will display the normal power-on messages, with the numbers 1 through 9 appearing in sequence. At the end of the sequence, the following selection screen is displayed.

```
Select a function key: (Help) For More Information
                  F1
                       To specify the kind of hard disk drive you
                       have (required for step F3 )
                  F2
                       To specify the maximum number of users the
                       system will support (required by step F3 )
                  F3
                       To completely erase and reload your hard
                       disk and go on to step F4
                  F4
                       To reload your hard disk without erasing
                       or reformatting, and go on to step F5
                  F5
                       To retry starting up the system as
                       specified in the Maintenance Screen
                 .... (Anything else typed in will be executed as
                        a maintenance mode command.)
Select:
```

Make these selections in sequence.

THE F4 SELECTION

Selection F4 should be used only if you are attempting to recover a system that suddenly refuses to start-up or is no longer accessible, for example, all passwords have been forgotten or the password file has been destroyed.

Selection F4 tries to return your system to normal single user operations. It will not prepare the system for multiuser use. Any specifications you give to F1 and F2 will be ignored when you use F4.

If you are tying to recover a system that won't start up, try the (F4) selection first. Don't use the (F4) selection if the system is being upgraded from single to multiuser or if bad disk blocks have been reported by the operating system.

The (F4) selection also reinstalls the global menu system. To access any files remaining on the system, the original products must be installed. For example, if you select (F4) it would be necessary to reinstall the ORIGINAL FOR:WORD product diskette through Product Maintenance before your FOR:WORD data/document files could be accessed.

USING THE OTHER SELECTIONS

If you do not use the (F4) selection, continue with the steps below.

1 Press (F1)

You must know what kind of hard disk drive you have in your computer to complete this step.

This screen appears.

Type the appropriate key to specify the kind of hard disk you have on your Fortune System (you may need to check with your dealer or the manual for the correct information):

(F1) System 10 - Hard Disk is Seagate 412
(F2) System 5 - Hard Disk is Seagate 406
(F3) System 5 - Hard Disk is Seagate 506 (early systems)
Select:

You must know what type of hard disk you have.

- 2 Type the appropriate key to specify the kind of hard disk you have on your Fortune System.
 - (F1) (System 10) or
 - (F2) (System 5) or
 - (F3) (System 5)
- 3 Select:

Press the appropriate function key. The selection screen for boot specification/procedure will be displayed again. To the left of the (Fl) the disk type selected will also be displayed.

When you press (F2) this screen is displayed.

If you are going to install the multi-user version of the Fortune System Operating system without rebuilding your hard disk (that is, without cold booting again), it is necessary to specify the approximate number of users here so that space for swapping can be reserved on the disk.

Type the appropriate key to specify the approximate number of users you will run:

- (F1) Single-User Only
- (F2) Multi-User 1 to 3 users
- (F3) Multi-User 1 to 5 users

Select:

Select the multiuser option that is large enough for your system.

If you specify single-user (Fl) and later install the multi-user operating system, the system will <u>not</u> function. If you specify multiuser ((F2) or (F3)) a significant amount of disk space is wasted in a single-user system.

- 4 Type the appropriate key to specify the approximate number of users you will run.
 - (F1) (Single user) or
 - (F2) (1 to 3 users) or
 - (F3) (1 to 5 users)

You must know approximately how many users you will have on your computer to complete this step.

5 Select a function key.

Press (F3).

6 Do you really want to erase your hard disk (y or n)? Press y (RETURN).

Functions F4 and F5 are performed automatically.

The Screen Displays

During the process, the following messages will appear in sequence. If you have selected an (F4) reboot, the next screens may differ, depending on what is already on your system.

Do you really want to erase your hard disk (y or n)? y Formatting (disk type) for (# of users) . . . Installing bootstrap loader . . . (# of records) records in (# of records) records out Making filesystem (number of blocks) . . . isize = (# of i-nodes) m/n = (2 numbers) Copying files . . . First pass complete. You must now power the system off and on again (or reset)

Turn off the power after the screen is displayed

Do not remove the flexible disk at this time.

Cold boot floppy Release 1.0 -- Part 2 Making lost and found/ done Checking hard disk . . . /dev/hd02: (# of files, etc.) Copying files from floppy #1 . . . Finished with floppy #1. Remove it and insert floppy #2.

Linking f#1 utilities Making device special-files Finished making special-files. Is floppy #1 replaced with #2 yet (y or n)? y Copying files from floppy #2 . . . Finished with floppy #2. You may remove it

Linking f#2 utilities Installation complete 8 9

The system continues to the global menu automatically.

The procedure continues from this point to the normal power-up sequence.

After the power-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 for establishing an account with a password. Remember, you will have to reload any applications to have access to all your files.
Glossary

Here is a list of words that you have seen in this guide. The list also contains some words you'll hear often and will become familiar with as you learn more about computers.

ACCOUNT

An authorization to use the system. A user may have more than one account.

APPLICATION SOFTWARE

Instructions to the computer that permit a user unfamiliar with computers to use a program designed for use in a specific field, such as accounting, engineering, or word processing.

ARCHIVE

To make a copy on a flexible disk of a file or files on the hard disk.

ASCII

An acronym derived from American Standard Code for Information Interchange, pronounced to rhyme with "passkey."

ASCII CODE

A seven-bit code that is in general use for transferring alphanumeric data from one computer to another. The ASCII alphabet includes letters, numerals, punctuation signs, and control codes.

ASCII TERMINAL

A display unit and keyboard connected to the CPU through a cable so that an operator can work with the system at distances up to 50 feet from the CPU. The ASCII terminal can be used with any computer that accepts standard ASCII code.

BAUD

A unit of measure for signaling speed to terminals printers or in communications. In computer systems, baud is usually equivalent to bits per second.

A contraction for <u>binary</u> <u>digit</u>; the smallest unit of information that a computer can recognize.

CENTRAL PROCESSING UNIT (CPU)

The part of the Fortune system that contains all arithmetic, logic, and control circuits, as well as the hard disk drive, the flexible disk drive, memory, and controllers.

CODE

A general term for the way to represent information. In computers, all codes can be reduced to a pattern of bits. Codes can represent numbers, alphanumeric data, machine language instructions, or any other kind of information. The ASCII code is the most generally known code.

COM/A CONTROLLER

The device in the Fortune system that provides an interface between the CPU and any serial communications device.

CONFIDENCE TEST

A test which, if completed, verifies that the computer, or some part of the computer, is responding properly to a specific set of inputs. If a confidence test is not completed, no indication of the cause of failure is provided.

CONFIGURATION

The kinds of devices in a computer system and the structure of the interconnections among the devices that make up a computer system.

CONTROLLER

In the Fortune system, a device inserted into option slots of the CPU to perform operations related to a specific device or group of devices. A controller is required for the monitor and the hard disk drive. Other controllers are required for equipment external to the CPU.

CONSOLE

The device in a Fortune system that is designated to the operating system as the destination for system error messages.

G-2

BIT

CURSOR

The block of light on a screen to identif the location at which the next display character will be printed.

DIAGNOSTIC PROGRAM

A program executed to test specific parts of a computer and determine, in as much detail as possible, the point in the program at which faulty operation was detected, the possible cause of the fault, and possible means for correction of the fault.

DISK DRIVE

1

A device that is capable of storing information in magnetic form on the surface of a disk, and retrieving the information from the disk surface, under control of a digital computer.

DI SPLAY

Information presented on the surface of a cathode-ray tube as alphanumeric characters, or as a graphic representation of numeric data, or as a picture of some object.

DOCUMENTATION

The manuals and training materials that tell you how to use the many types of hardware and software of your Fortune system.

DOT MATRIX PRINTER

A printer that forms letters by striking closely spaced pins against a ribbon. These pins create dot patterns in the shape of letters, numerals, and other characters. A dot matrix printer usually prints faster than a letter quality printer.

ERROR MESSAGE

The Fortune system may display any of three types of error messages on a display unit. System error messages are displayed only at the console. Errors related to incorrect inputs to the operating system are displayed only if the operator is in direct communication with the operating system. Error messages related to a specific procedure in an application are displayed only if that procedure is being used. The documentation for an application describes the proper response to these messages. This guide describes the responses to system error messages only.

FLEXIBLE DISK

A magnetic disk that can be inserted into the flexible disk drive for use and removed from the flexible disk drive for storage. This type of disk is called flexible to contrast it with hard disks, but flexible disks are not meant to be bent or flexed.

FUNCTION KEYS

On the Fortune system, the 16 keys at the top of the keyboard that execute different software-controllable functions for each type of application software.

GLOBAL MENU

The first menu seen by an operator following the logon procedure. This menu displays the names of application software available for the Fortune system.

HARD DISK

A magnetic disk that, in the Fortune system, is sealed inside the CPU. This type of disk stores application software and utilities that are directly available to the computer.

HARD DISK CONTROLLER

The device in the CPU that controls transfer of data between the hard disk drive and other parts of the CPU.

HARDWARE

Those parts of the computer that can be seen and touched.

INPUT

Information passed to the computer for processing (if the input is data) or execution (if the input is a program).

INSTRUCTION

A code that causes the computer to perform a specific operation or sequence of operations. A code may be written in machine language, assembly language, or any higher-level language such as BASIC, COBOL, FORTRAN, or Pascal.

INTERFACE

The boundary between two parts of a computer, through which control signals and data signals are passed during operation.

KEYBOARD

The device that the operator uses to control operations of the computer.

LETTER QUALITY PRINTER

A printer that forms letters by striking solid formed characters against a ribbon. The print looks similar to the print of a conventional typewriter. A letter quality printer is usually slower than a dot matrix printer.

LOGICAL CONNECTION

Establishing the relation between parts of a computer system by providing information to the operating system or to other parts of the software.

LOGIN

For the Fortune system, all interaction between the operator and the system from the time the message "Your name" is displayed to the time the global menu is displayed.

MEMORY

The part of the computer that stores the information and instructions that are immediately available to the computer. Contrast with storage device.

MASTER DISK

For the Fortune system, the flexible disk that contains the application software.

MASTER WORKSTATION

The workstation that has its keyboard connected directly to the CPU.

MONITOR

The monochrome display unit that is directly connected to the CPU.

MONITOR CONTROLLER

The device in the CPU that controls the transfer of data between the monitor and other parts of the CPU.

MULTITASKING SYSTEM

A system that allows two or more tasks to be under control of the CPU. For example, a document can be printing while the operator is typing at a workstation.

MULTIUSER CONFIGURATION

A Fortune system that can be used by two or more operators at the same time.

NETWORK

A collection of computer equipment and computer systems that communicate with each other.

NUMERIC KEYPAD

A set of keys arranged in a rectangular array to make the entry of numeric data easier than with a typewriterlike keyboard.

OFFLINE

A condition in which a device is not under control of the computer. For example, a printer may be connected to the CPU by a cable, but switches on the printer may be in positions that prevent transfer of data between the printer and the CPU.

ONLINE

A condition in which a device is under control of the computer.

OPERATING SYSTEM

The software that is in control of a computer system; the software that allows a user to interact with the computer without having detailed knowledge of the configuration.

OUTPUT

Information that is the result of computer processing of input. Output is usually presented in a form that the operator is able to interpret, such as output to a printer or a display unit. However, output can be to a flexible disk, which the operator stores for later use but cannot interpret.

PASSWORD

A word, a name, or a random collection of characters used by an operator to allow the operator access to personal files and to deny to any other operator access to those files. A password selected by the operator is typed in during the logon procedure and must be remembered by the operator.

PHYSICAL CONNECTION

A connection between units of a computer system that is established by hardware such as wires, cables, plugs, and receptacles.

PROGRAM

A set of instructions, in the machine language of the computer or in some programming language that the computer system is capable of translating into its machine language, that causes the computer to perform a well-defined sequence of operations on data.

PROM

An acronym derived from Programmable Read-Only Memory. A part of the memory that the computer can read from, but not write into, and that contains instructions that are not lost when the computer is turned off. The contents of PROM can be changed offline under special conditions.

PROTOCOL

A set of rules that define a standard method for exchange of information, including the sequence of events during the exchange and the form of the information.

RAM

An acronym derived from Random Access Memory. A part of the memory that the computer can read from or write into. The RAM contains the instructions and information that are immediately available to the computer. The contents of RAM can be changed by the operating system.

ROM

An acronym derived from Read-Only Memory. A part of the memory that the computer can read from but not write into and that contains instructions that are not lost when the computer is turned off. The contents of ROM cannot be changed.

SATELLITE WORKSTATION

For the Fortune system, any workstation other than the master workstation.

SINGLE-USER CONFIGURATION

A Fortune system that can be used by only one operator at a time.

SOFTWARE

A general term for instructions and information coded in a form that a computer can interpret correctly.

STORAGE DEVICE

A device that is online to a computer and is capable of storing large amounts of information that can be transferred to memory under control of the computer.

UTILITIES

Utilities are computer programs which perform specific functions such as manipulating files or protecting your system.

WORKSTATION

For the Fortune system, any combination of a keyboard and a display unit. The master workstation is connected directly to the CPU; a satellite workstation is connected to the CPU through a cable and a controller.

WRITE-PROTECT NOTCH

A small cut-out notch on one side of a flexible disk. When this is covered by a tab, information on the disk can't be changed.