HEADSTART®

LX

User's Guide

CD ROM

SERIES

- ■ *Getting Started*

- ■ *Operating Environment*

- ■ *Technical Reference Manual*

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HEADSTART®

LX Getting Started

CD ROM SERIES

FCC Notice

This equipment uses and generates radio frequency energy. If not installed and used in strict accordance with the manufacturer's instructions, it may cause interference with radio and television reception.

It has been type tested and found to comply with the limits for a Class B computing device in accordance with specifications in Subpart J of Part 15 of the FCC Rules. These specifications provide reasonable protection against interference in a residential installation, however there is no guarantee that interference will not occur in any particular installation.

Try turning the monitor off and on to determine if it is causing interference. If so, you may be able to correct the situation by using one or more of the following procedures:
- reposition the receiving antenna
- relocate the computer or move it away from the receiver
- use different power outlets for the computer and receiver

If necessary, contact your HeadStart™ Dealer or a radio/television technician for additional suggestions.

NOTE: It is necessary to use a shielded parallel interface cable when connecting a printer to the computer.

It is necessary to use a joystick with a bead. This can be purchased from HeadStart Technologies, Co.

F.C.C. ID: FFOHEADSTART LX

The Federal Communications Commission has prepared a booklet that you may find helpful. Called "How to Identify and Resolve Radio-TV Interference Problems," this booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock No. 044-000-0345-4.

Made in Canada
Philips Electronics, Ltd.

DEPARTMENT OF COMMUNICATIONS (CANADA)

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

MINISTÈRE DES COMMUNICATIONS (CANADA)

Le present appareil numerique n'emet pas de bruits radioelectroniques depassant les limites applicables aux appareils numeriques de la classe B prescrites dans la Reglement sur le brouillage radioelectronique edicte par le Ministere des Communications du Canada.

Warning
To reduce the hazard of fire or electric shock, do not expose this equipment to rain or moisture. Should moisture enter it, unplug it immediately.

Warranty Disclaimer

The software and accompanying manuals are licensed to the purchaser for person use only. Neither may be copied, or used for any commercial purpose without t express written permission of HeadStart Technologies Co.

The above warranties are in lieu of all warranties, express, implied, or statutoi including but not limited to, any implied warranties of merchantability and fitness f a particular purpose and of any waranty obligation. In no event shall HeadSta Technologies Co. be liable for indirect, special, or consequential damages.

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Need Help?

Every effort has been made to make it easy for you to get "up & running" quick Should you need additional technical information, please call our technical suppc line, at 1-800-PC-COACH.

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Chapter 1
Introduction

Your HeadStart to the Future!

Congratulations! You now have more information than you ever dreamed right at your fingertips.

Your HeadStart LX-CD breaks new ground in personal computing. Not only do you have room to store 40 million bytes of your own information, the CD-ROM drive that comes with your computer gives you access to more than 680 million bytes of data at a time — more than many mainframe computers. Imagine — an entire encyclopedia, a catalog of nearly every music CD ever made, a shelf-full of vital reference materials, all small enough to fit into a coat pocket! You can even use your computer as a CD player by plugging in the enclosed headphones or attaching an amplifier and speakers.

What's a CD-ROM?

You've surely heard of audio CDs — Compact Discs — which have revolutionized the electronics and music industry with their ruggedness and pristine digital sound. CD players have been accepted faster than almost any other kind of consumer electronics equipment.

What you may not have heard about is that the same CDs that carry music can also hold data. Lots of data. A standard 3.5-inch floppy disk holds about 720 thousand bytes of data. A 5-inch CD-ROM (as the data CDs are

called) can hold more than 680 million bytes — more than 940 floppies' worth of information. If you wanted to print that data on single-spaced letter-sized paper, you would need 200,000 sheets creating a stack nearly 60 feet tall. In terms of capacity and size, CD-ROM is the most advanced form of computer storage.

A CD-ROM works differently than a floppy disk or a hard disk. A conventional disk relies on magnetic impulses to read and write data, just like a cassette tape. A CD-ROM uses a laser beam to read the information, just like an audio CD. And just as you can record your own cassettes, a conventional disk lets you save your own data on it. A CD-ROM, though, only lets you read the data that's already there. In fact, that's what ROM stands for: Read Only Memory.

System Features

As exciting as the CD-ROM drive is, we haven't forgotten the basics. Your HeadStart LX-CD has been carefully designed to get you up and running fast, letting you start work while users of other PCs are still reading their manuals.

Your HeadStart system saves you time and money two ways. First, we've included thousands of dollars worth of software. We've carefully selected the package to include the programs that do the jobs most computer users need.

A Complete System

The result? You save the time it would take to shop around for programs that will meet your needs. You save the money you would spend on the programs and you spare yourself the frustration and aggravation from possible incompatibilities between programs and between programs and the machine.

Your HeadStart LX-CD system also saves you time and money with its unique *Operating Environment.* The HeadStart *Operating Environment* is a special "master control program" which lets you run programs, perform routine maintenance tasks and change your system specifications without typing in cryptic, hard-to-remember commands. Instead, you simply make selections from a series of menus.

If you can order dinner in a restaurant or use an automatic teller machine, you can use your HeadStart computer right out of the box!

Hardware

Here's a quick look at what's "under the hood" of your HeadStart LX-CD the impressive array of hardware that makes up your computer system.

8088-1 4.77/10.00 MHz Microprocessor.

A supercharged version of the industry-standard PC microprocessor. Using the keyboard or the HeadStart *Operating Environment*, you can switch between the standard PC speed (4.77 megahertz) or the HeadStart "turbo" speed of 10.00 megahertz for dramatically increased performance.

768 Kilobytes of RAM

The HeadStart LX-CD comes with 768 kilobytes of random access memory installed, enough to run any DOS-compatible program.

3.5" 1.44 Megabyte Floppy Disk Drive

Exchanges programs and data with PS/2 machines and laptops *without* an external drive or added software. Formats, reads and writes 3.5" 720 kilobyte and 1.44 megabyte diskettes.

VGA Color Video

The included video card lets you run software on VGA (Video Graphics Array) monitors, as well as those following the MCGA, EGA, CGA, MDA and Hercules standards. It's compatible with PS/2, analog, TTL and multiple-frequency monitors.

Three Available Expansion Slots

Open expansion slots permit easy upgrades with HeadStart and other industry-compatible add-on boards.

Built-in Clock-Calendar Hardware with Lithium Battery

Data files are properly time- and date-stamped without your having to enter the time and date each time you start the computer.

Parallel Port

Hooks up your HeadStart computer to printers with parallel interfaces.

Nine-Pin Serial (RS-232C) Port
Hooks up your computer to external modems and printers with serial interfaces.

Mouse and Mouse Port
The HeadStart Mouse brings "point and shoot" convenience to mouse supported programs.

RCA Jacks
Two RCA-type audio jacks, for audio CD output to an external amplifier.

Headphone and Mini-DIN Headphone Jack
For private listening to audio CDs.

Two CD-ROM Caddies
Two holders for your CD-ROMs, required to insert the discs into your computer.

3" CD Adapter
So you can listen to 3-inch CD "singles."

Software
Your HeadStart LX-CD comes with two different sets of software. One set is copied from a CD-ROM onto your hard disk. The other set is kept entirely on the CD-ROMs, which you can insert and eject more or less like floppy discs.

For your hard disk, you get:

- **The HeadStart Office Manager** is a full suite of programs that can take care of your word processing, spreadsheet and database needs.

- **ATI Training** and **Computer*Ease** help you learn how to use your new computer.

- **XTree**™ helps manage the files on your hard disk.

- **Backup Pro**™ backs up your hard disk onto floppy disks, keeping you protected against data loss or hardware failure.

- **DS OPTIMIZE**™ insures that your hard disk is working at its fastest.

- **DS RECOVER**™ can recover a file (and even a hard disk) that has been erased or otherwise damaged.

- **Twist & Shout**™ prints spreadsheets sideways and creates large banners.

- **Chessmaster 2000**™ challenges your chess-playing skills.

- **Splash!**™ is one of the most powerful yet simplest graphics programs available.

- **Mavis Beacon Teaches Typing!**™ lets you practice one of the most important skills in using your computer: your typing.

- **Publish-It!**™ is a best-selling, simple desktop publishing package.

- **GW-BASIC**™ and **PC LOGO** are the most popular versions of these widely used computer languages.

- And the **HeadStart** *Operating Environment* is the control center for your LX-CD.

Then there's the software on CD-ROM:

- **Microsoft®Bookshelf**™ includes the full text of the World Almanac and Book of Facts®, Roget's II Electronic Thesaurus, The American Heritage Dictionary, the U.S. ZIP Code® Directory, Bartlett's Familiar Quotations, The Chicago Manual of Style, Business Information Sources, Houghton Mifflin Spelling Verifier and Corrector, Houghton Mifflin Usage Alert, and Forms and Letters.

- **Hot Line**™ **Two** and **The National Directory of Addresses and Telephone Numbers**®, which includes 110,000 of the most commonly called businesses and organizations and more than 100,000 verified fax numbers.

- **The CD Guide Optical Edition**™, a guide to almost all the audio CDs released to date, complete with reviews, critiques and audio samples.

- **The New Grolier Electronic Encyclopedia**™, the CD ROM version of the authoriatative 21-volume Academic American Encyclopedia.

- **PC Globe®**, a computerized world atlas and database.

- An audio sampler with some of the most beautiful and hottest music available today.

- Thirty computer games, selected from among the best the industry has to offer.

Conclusion

Your HeadStart LX-CD is state-of-the-art equipment tamed for your every-day use. With an entire library of information and the software to manipulate it, you have one of the most complete personal computers ever sold.

And remember, if you ever have any questions, just call our toll-free support line: 1-800-PC-COACH.

Chapter 2
Setting Up Your System

Unpacking Your System

The complete HeadStart system comes with everything you need to get up and running. There are three smaller cartons inside the large system box. Here is a rundown of what they contain:

In the accessory box you will find:
- •Headphones
- •A mouse
- •Five manuals
- •A 3.5-inch Installation Disk
- •Two CD ROM discs in CD caddies
- •Three CD ROM Discs in "jewel boxes"
- •A 3-inch "CD Single" adapter
- •Two empty "jewel boxes"

In the keyboard box you will find:
- •A keyboard

In the inner carton you will find:
- •The system unit
- •AC power cord
- •Monitor power adapter
- •Five more manuals
- •Quick Reference Guide
- •Quick Start Guide
- •CD Games Quick Reference Guide

If you're missing anything, tell your dealer immediately and call our technical support line at 1-800-PC-COACH.
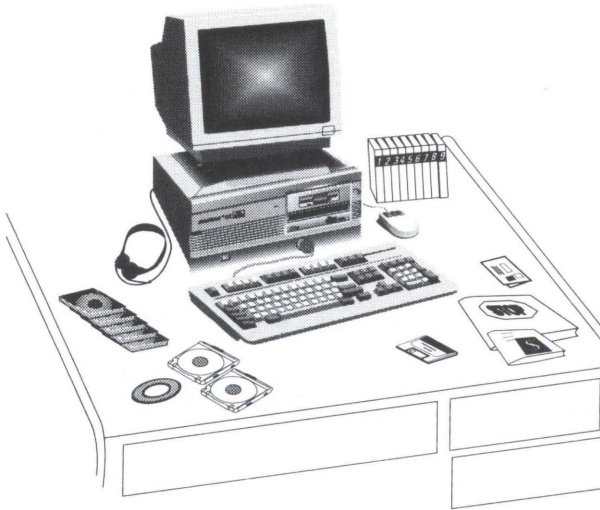
Figure 2-1 What's Included With Your HEADSTART LX-CD System

Creating a Good Working Environment

If you take the time to arrange your work area efficiently, you'll find that using your computer is more enjoyable and productive. Although your HeadStart computer is not especially sensitive to temperature, it works best at the same temperature you do. This means the environment shouldn't be too cold or too hot and you should protect the computer from direct sunlight and excessive dust.

Figure 2-2 A Good Working Environment

Your keyboard should be close to typing height and your monitor should be positioned at a comfortable eye level. Also, leave enough space in back of your system unit to allow for proper air circulation and to allow the cables to hang freely.

Your work area should also include a grounded power outlet that is dedicated to the components of your system. These include your system unit, printer and light source. A grounded electrical outlet has three prongs which match the grounded plug of your HeadStart computer. If the outlets in your work area aren't grounded, buy a three prong to two prong adapter at your local hardware store and install it according to the manufacturer's instructions. Three-pronged plugs provide important protection against electrical shock to both you and your computer.
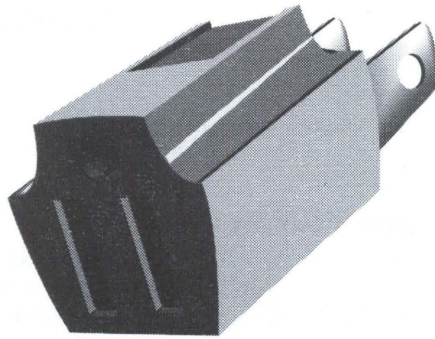
Figure 2-3 A Three Prong to Two Prong Adapter

Another protection device you may want to install is a surge protector. The voltage coming from your electrical outlets varies to a surprising degree. Lightning striking a power line even miles away or the shutting down of a heavy electrical load in your neighborhood (as when a piece of industrial machinery is turned off) can cause sudden surges of voltage in the line which can damage sensitive electronic devices like your computer.

Electronic devices like your computer are also sensitive to line noise, such as when the vacuum cleaner interferes with TV reception. If your power lines are particularly "dirty" you may want to invest in a line filter. Line filter/surge protector combinations are available.

There are many brands and models of surge protectors and line filters available. Your computer dealer can help you choose the one that's right for you.

Figure 2-4 A Surge Protector.
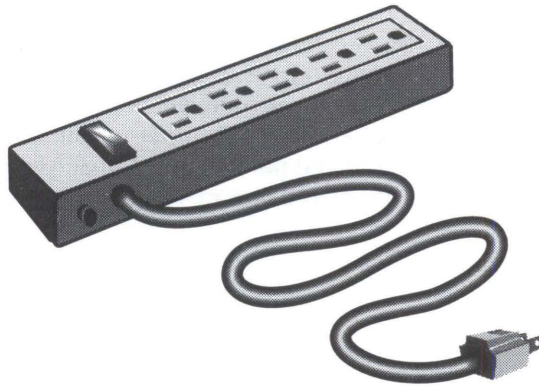
Getting to Know Your System

As you unpack your system, you'll notice that the hardware consists of a few basic components that you'll be connecting together with the included cables. If you have the room, keep the packing boxes in case you need to transport your system. Refer to the illustration below to familiarize yourself with the components.
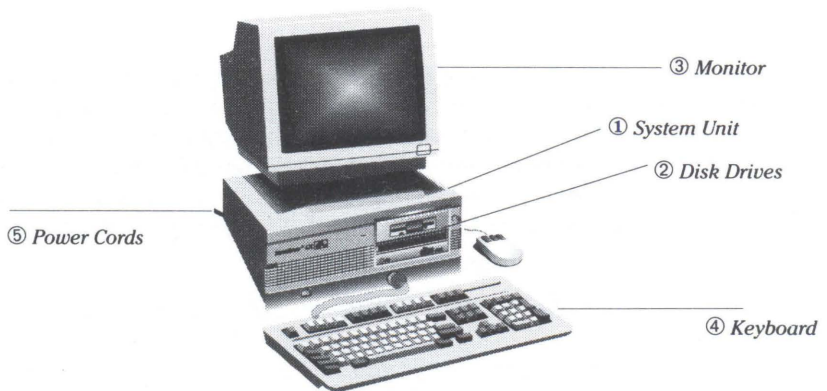

Figure 2-5 Your HeadStart LX-CD

① **System Unit**

This is the main unit. It contains the microprocessor, which does the actual computing, RAM (random access memory), where programs and data are stored during program execution, and ROM (read-only memory), a permanent-memory chip which contains information for the correct operation of your system. The system unit also contains a variety of I/O (input/output) facilities such as the serial and parallel ports, space for expansion boards and the CD and disk drives.

② **Disk Drives**

Programs and data can be stored on diskettes. The 3.5" disk drive reads and writes information to the diskettes. The drive is compatible with the IBM® PS/2® and can handle disks with the capacity of either 720 kilobytes or 1.44 megabytes. The drive on the bottom is a state of the art CD laser disc drive which reads the information which is stored on the compact discs.

③ **Monitor (sold separately)**

You can choose either a colorful VGA video display or a monochrome monitor. The included VGA video card (which drives the display) will support VGA, MCGA, EGA, CGA, MDA, or Hercules software standards.

④ **Keyboard**

This is a 101-key PS/2-style keyboard.

⑤ **Power Cords**

One power cable connects the system unit to the wall outlet. The other one connects the monitor to the system unit.

Connecting the Components

Here's how to assemble the components of your HeadStart system.

1. Place the system unit on a stable work surface. Be sure to allow enough room so you have access to both the front and rear of the unit.

2. Look at the back of your system unit and locate ❶ the nine-pin video connector; ❷ the 15-pin VGA connector; ❸ the nine-pin mouse connector; ❹ the parallel printer connector; ❺ the serial device connector; ❻ the system power connector and ❼ the monitor power connector; and ❽ the audio jacks, ❾ the headphone jack and⑩ the headphone volume control.

Notice the difference between ❻ the power connector that you use to plug the system unit into the electrical outlet and ❼ the power connector that joins the system unit and the monitor.
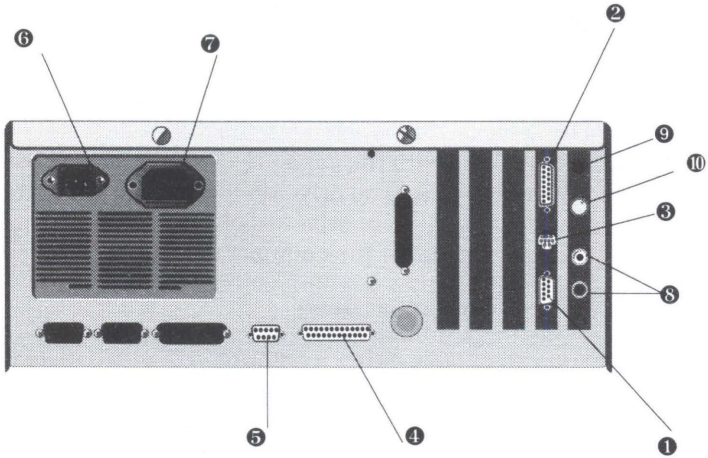
Figure 2-6 Back View of the System Unit

3. Remove the monitor from the box and set it carefully on top of the system unit. Notice that the video connector on the system unit matches the 15-pin connector on the cable from the VGA monitor.

4. Insert the video connector from the monitor into the 15-pin video connector on the back of the system unit.
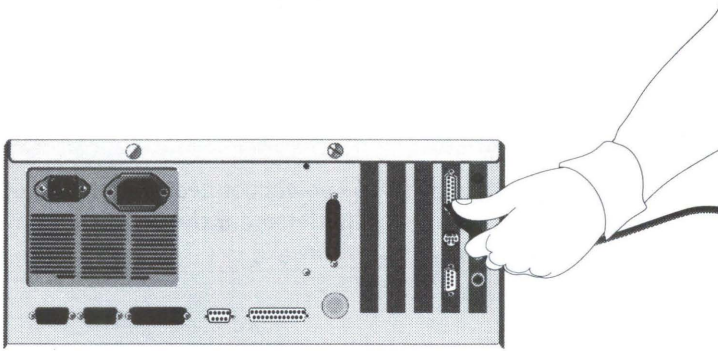
Figure 2-7 Inserting the Video Connector Cable

5. Tighten the two screws on the connector until the connection is tight.

6. Plug the power cord from the monitor into the five-sided end of the monitor adapter cable, then plug the rectangular end of the monitor adapter cable into the rear of the system.

❸ *Reset Button*

❷ *Power Switch*
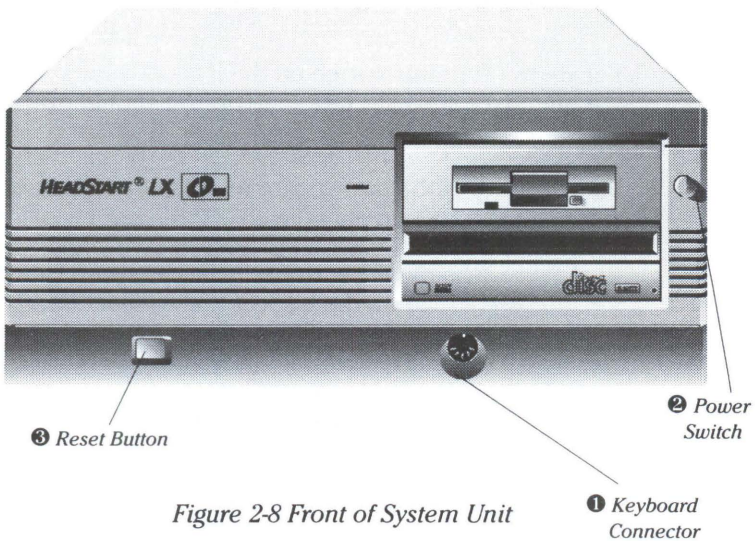
Figure 2-8 Front of System Unit

❶ *Keyboard Connector*

7. Place the keyboard in front of the system unit. Notice that ❶ the keyboard connector is on the front of your system unit.

8. Line up the pins on the keyboard cable connector with the holes in the system connector unit and gently insert it.

9. On the underside of the keyboard, you will find two keyboard supports. Flip up the supports on the bottom of the keyboard to tilt it toward you.
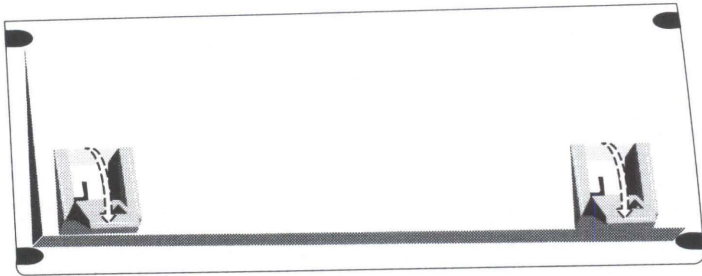

Figure 2-9 Adjusting the keyboard supports

10. Locate the ❷ power switch on the front of your system unit and make sure it is OFF. The button should project out.

11. Slide the end of the power cord into its connection on the system unit. Then plug the cord into your electrical power outlet.

In addition to the ON/OFF power switch, your HeadStart LX-CD comes with ❸ a reset button located on the lower left of the front panel. This button can be used to reboot (restart) the system without turning off the machine. You should only reboot your computer under certain conditions. Until you know more about your HeadStart LX-CD, consider this button off limits.

You're now ready to start up your HeadStart LX-CD and install the software.

Chapter 3
Turning On Your System

Starting Up Your System

Your HeadStart LX-CD computer has been especially designed to be the easiest to use computer found anywhere. Only minutes after taking your HeadStart LX-CD out of the box and putting it together, you will have all the power of an IBM-compatible computer at your fingertips.

One of the reasons that your HeadStart LX-CD is so easy to use is that all the software you may ever need is included with the computer. There is no software to shop for and no custom installation.

Once you have set up your HeadStart hardware, the next step is to install the HeadStart software onto your hard disk.

The process is very simple:

> 1. First make sure the power to the computer is turned off.
>
> 2. Take the 3.5" disk and insert it into the floppy drive.
>
> 3. Turn on the power to the computer.

You will be presented with a menu, similar to the screen shown in Figure 3-1, asking you if this is the first time you installed your hard disk.
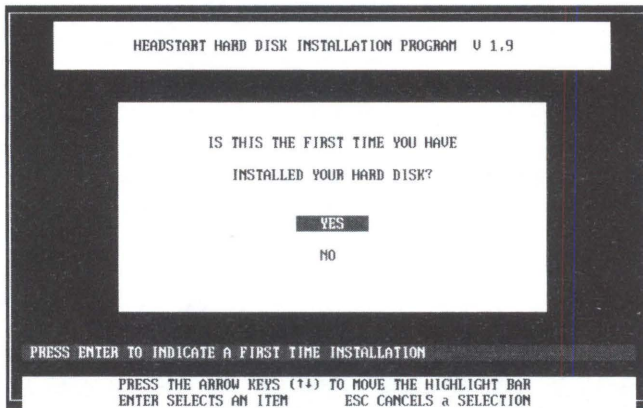
```
┌─────────────────────────────────────────────────────────┐
│ ┌─────────────────────────────────────────────────────┐ │
│ │      HEADSTART HARD DISK INSTALLATION PROGRAM  V 1.9 │ │
│ └─────────────────────────────────────────────────────┘ │
│      ┌───────────────────────────────────────────┐       │
│      │                                           │       │
│      │      IS THIS THE FIRST TIME YOU HAVE       │       │
│      │                                           │       │
│      │        INSTALLED YOUR HARD DISK?           │       │
│      │                                           │       │
│      │              ▐  YES  ▌                     │       │
│      │                 NO                         │       │
│      │                                           │       │
│      └───────────────────────────────────────────┘       │
│                                                           │
│ ┌─────────────────────────────────────────────────────┐ │
│ │ PRESS ENTER TO INDICATE A FIRST TIME INSTALLATION    │ │
│ └─────────────────────────────────────────────────────┘ │
│      PRESS THE ARROW KEYS (↑↓) TO MOVE THE HIGHLIGHT BAR │
│      ENTER SELECTS AN ITEM      ESC CANCELS a SELECTION  │
└─────────────────────────────────────────────────────────┘
```

Figure 3-1 Is This The First Time You Have Installed Your Hard Disk?

Since this is the first time you are installing the software on your hard disk, press Y. You will see another screen warning you that you are about to erase everything already on the hard disk. Don't worry about it since there's nothing on the disk yet. Select "Yes," and you'll be prompted to insert your HeadStart Software Backup CD into the CD drive.

Unwrap the caddy containing the HeadStart Software Backup Disc. Slide the caddy into the CD drive, with the disc facing up and the arrow pointing away from you.

Then follow the directions on screen.

Your HeadStart LX-CD will take a while to copy all of the necessary software to the hard disk. When the software is done copying, the machine will beep and a dialog box will tell you to remove your floppy disk and CD-ROM, then press Enter. The computer will restart, and all your software will be installed.

Store your disks in a safe place. You won't need them unless you need to re-install some of your software.

Inserting the CD-ROM

While CDs represent a huge leap in technology, CD boxes (known in the trade as "jewel boxes") are among the most frustrating inventions of the computer age. While they do a terrific job of holding and protecting your CDs, they have to be held just right or they simply won't open.

To open a CD box, hold it in your right hand with the front of the case facing you. Hold the edge with the hinge by your fingertips. Your thumb should hold the opposite edge. Grasp the sides of the box near your thumb with your left hand and gently pull. The box should open easily.
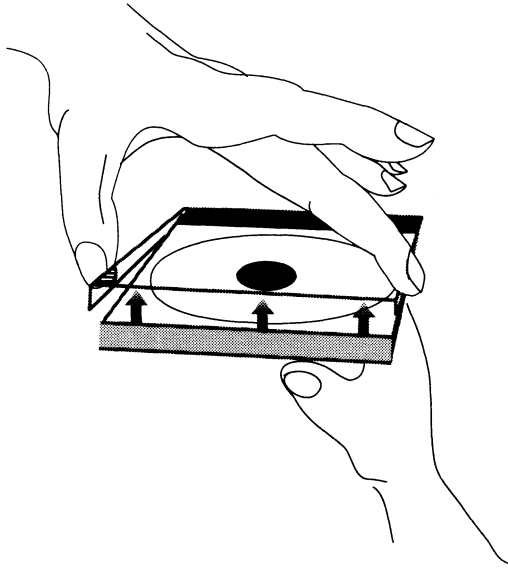

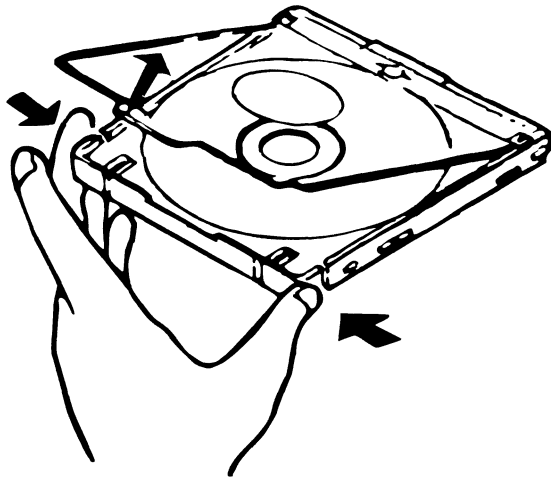*Figure 3-2 Opening a CD-ROM "Jewel Box"*

Figure 3-3 Opening the CD Caddy

The CD caddy opens differently. Hold it in both hands with the clear cover facing up and metal shutter on the right. With your left hand, squeeze the two corners on the left edge toward each other. While you're squeezing, reach across the caddy with your right thumb and lift the clear tab that's halfway between the corners you're squeezing.

Insert the CD-ROM painted side up by slipping one edge under the small lip on the hinge side of the caddy. Then swing the caddy's door shut and slide it into the drive hinge side first and lid on top. (There should also be an arrow and the words "This Side Faces Forward, to guide you.) If the caddy door doesn't close easily or the carry doesn't slide right in, you've done something wrong. Review these instructions and try again.

The 3-inch CD Adapter

While your CD ROM drive can play any of the included CD discs and most music CDs, it needs a bit of help to play 3-inch CD "singles." These 3-inch music CDs won't fit into the CD caddy without rattling around, so you have to use the adapter to play one.

When you unpacked your system, you may have noticed a plastic ring about the size of a CD disc with the middle cut out of it. This is an adapter used for playing 3-inch CD "singles."
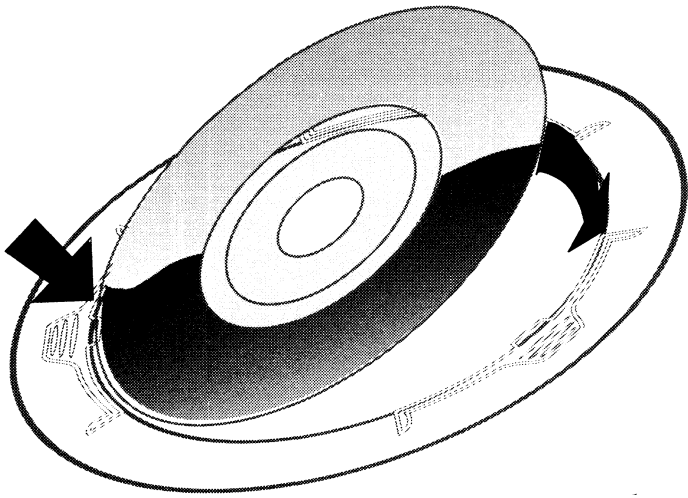
Using the 3" CD Adapter

To use the adapter, fit your CD "single" into the hole in the center of the adapter. It's a lot like putting one of those plastic centers into the middle of a 45-RPM record. You will probably have to wiggle the CD around to get it solidly in place. Don't try to force it in. Be patient—it will fit eventually.

When you have the 3-inch CD firmly fitted into adapter, you can use it as you would an ordinary CD: just slip it into the caddy and play it.

Chapter 4
Important Hardware
Components

In this chapter, we will examine, in detail, some of the important hardware components included with your HeadStart LX-CD and how you can make the most of them.

The Keyboard

The main link between your brain and the computer will be through the keyboard—so it's important to understand the features that make the HeadStart LX-CD keyboard unique.

There's an interactive tutorial in the included *ATI Skill Builder* program which gives you an overview of your system and first-hand experience with some of the important keys on your keyboard.

If you're new to personal computing, you'll want to run *ATI Skill Builder* once you're finished setting up the system. In the meantime, here's a brief description of the keyboard and how the keys are most commonly used.

The keys on your IBM PS/2-style keyboard are divided into four groups. These are:
1. Main Keyboard
2. Function Keys
3. Editing Keys
4. Numeric Keypad

Your main keyboard is similar to a typical typewriter keyboard. You use it to enter letters, punctuation marks and special symbols. You can also use the top row of keys to enter numerals.

Computers always distinguish between the lower case letter "l" and the number 1 and between the upper case letter "O" and the number zero. You can't substitute one for the other like you can on a typewriter.

Other Differences

There are other differences between typewriter and computer keyboards. Holding down the (Shift) key and pressing the comma and period keys produce the < (left angle bracket or less-than sign) and > (right angle bracket or greater-than sign) characters respectively.

Also, there are characters on the computer keyboard which aren't as common on typewriter keyboards, such as the left quote, ` , the tilde, ~ , the bar, I, and the back slash, \ , which shouldn't be confused with the forward slash, / .

Auto-repeating Keys

When you press a key on the keyboard, its corresponding character appears on your monitor. In computer jargon, this is called echoing the key. The keys on your HeadStart LX-CD are *auto-repeating*. When you press and hold down a key, the corresponding character is repeated until you release the key.

Several keys on the main keyboard are of particular interest. Refer to the illustration to familiarize yourself with the keyboard.
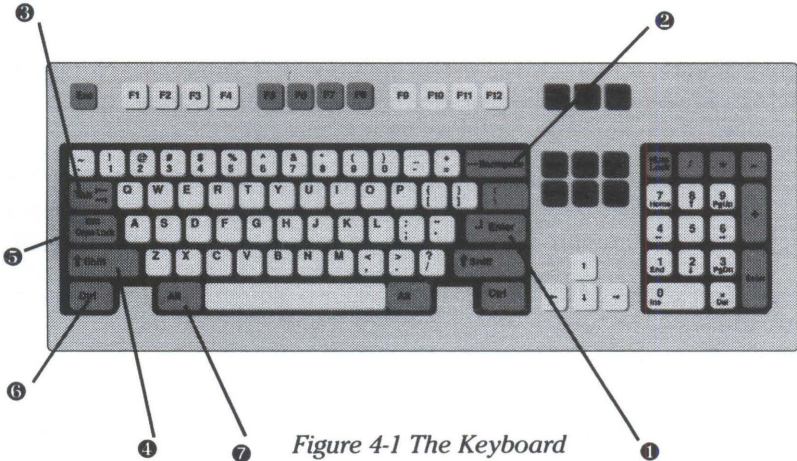

Figure 4-1 The Keyboard

❶ The (Enter) key is generally used to conclude a line of characters and to move the cursor to the beginning of the next line. In a word processing program, however, you usually need to press the (Enter) key only at the end of paragraphs—the program will typically handle moving the cursor down within paragraphs. (The cursor is a flashing line or box which indicates where the next character will be placed on screen.) The (Enter) key is also used to complete a command selection in DOS and some programs.

❷ The (Backspace) key is used to delete the character to the left of the cursor and move the cursor one position to the left of the cursor. This is also called a *destructive backspace*.

❸ The (Tab) key moves the cursor right one tab position. In programs which require onscreen forms to be completed, (Tab) is frequently used to move between *fields* (fill-in blanks). (Shift)(Tab) (pressing (Tab) while holding down the (Shift) key) is similarly used to move back one tab position or field.

Four keys on the main keyboard are used in combination with other keys.

❹ The (Shift) key is used to type upper-case characters. It's also used to access the top character on keys labeled with two characters.

❺ The (Caps Lock) key is used to type a sequence of upper-case letters. (Caps Lock) is a *toggle* —you press it once to turn it on and once again to turn it off. When caps lock is activated, the light on the key will light to show it's active. Unlike the shift lock key on typewriters, the (Caps Lock) key doesn't give you access to the top character on keys labeled with two different characters. Even with (Caps Lock) on, you must use the (Shift) key to type the top character of two-character keys.

❻ The (Ctrl) (control) key is used with other keys to generate commands. Programs use control key sequences in various ways. For instance, in *1 Word* (included in the *Operating Environment*), typing **Ctrl-Right-Arrow** (that is, holding down the (Ctrl) key while pressing the (→) key) moves the cursor one word to the right.

❼ The Alt (alternate) key is used like the Ctrl key—you hold it down while you type another key to generate commands.

The Function Keys

Above the main keyboard are ten function keys, labelled F1 through F10. (F11 and F12 are never used.) The function keys are used to perform the most common operations in programs. Programmers decide what actions pressing these particular keys will perform when they design programs.

This flexibility also creates problems. Because function keys have no set definition, you don't know what a function key does in a particular program until you familiarize yourself with that program's design.
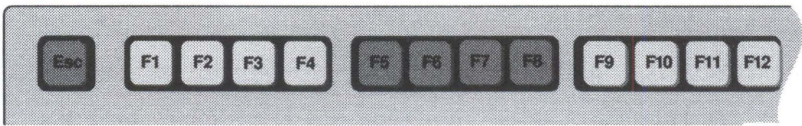

Figure 4-2 The Function Keys

Fortunately, however, standards are emerging. In an increasing number of programs, for instance, F1 means help. Pressing it brings up a screen of text which explains the operation you're about to perform or what options you have. In both the *Operating Environment* and *The HeadStart Office Manager*, F1 brings up a help screen.

To the left of the F1 key is the Esc (escape) key. The Esc key is used in many programs to stop an operation or to back up one or more steps. Esc works this way in the HeadStart *Operating Environment*, for example.

To the right of the F12 key are three more special-purpose keys.

The (Prt Sc) key, when pressed simultaneously with (Shift), prints whatever is on the screen to your printer, if connected. On the front of the (Prt Sc) key is **SysRq**. Holding down the (Alt) key and pressing (Prt Sc) generates the **SysRq** character. However, this is a special character not implemented on IBM PCs and compatibles, only on IBM ATs.

The next key over is (Scroll Lock). This key is used to lock the cursor in position during scrolling (scanning pages of a document). In some programs you use the the key in combination with other keys to pause or stop an operation. When (Scroll Lock) is toggled, the little light on the key is on.

The last key on the top row is the (Esc) key. You can use it to freeze the screen in many programs. Pressing any other key will resume the action. On the front of the (Esc) key is **Break**. Holding down the (Ctrl) key and pressing (Esc) generates a (Ctrl)-**Break** which can be used to stop the execution of many programs.

The Editing Keys
Immediately to the right of the main keyboard are the editing keys.

The (Ins) key toggles between insert and overwrite modes. In insert mode, newly typed characters are inserted, pushing existing text to the right. In overwrite mode newly typed characters replace the existing text.

The (Del) key is used to delete the character which the cursor is on and move the remaining text on the line one position to the left.

The (Home) key usually moves the cursor to the beginning of the line or to the top left corner of the screen, depending on the program in use.

The (End) key usually moves the cursor to the end of a line, page or document, also depending on the program in use.

The (Pg Up) key generally moves the cursor up one page or screen.

The (Pg Dn) key generally moves the cursor down one page or screen.

The remaining four keys, marked with arrows, move the cursor one character in their respective directions. In the case of the (↑) and (↓) keys, this means they move the cursor up and down one line respectively.

The Numeric Keypad

The numeric keypad works much like the keys of a pocket calculator with some important differences. Refer to Figure 4-3 to familiarize yourself with the keypad.

Figure 4-3 The Numeric Keypad

To use the keypad as you would a calculator keypad, the Num Lock light above the [Num Lock] key must be on.

You'll notice that in addition to numbers, the keys are marked with arrows and words. When [Num Lock] is off, the keypad keys move the cursor exactly like the editing keys do, instead of generating numbers.

Like [Caps Lock], [Num Lock] is a toggle. Press it once to turn it on, once again to turn it off. When [Num Lock] is active, the little light on the key is on. The [Shift] key reverses the state of [Num Lock]. For example with [Num Lock] *off* the key marked [8] will cause the cursor to move up a line, but you can type the numeral 8 by pressing [Shift][8].

Just as the [8] key moves the cursor up a line with [Num Lock] off, the [2] key moves it down a line. Similarly, the [4] key moves the cursor left one character (this is also called a *non-destructive backspace*) and the the [6] key moves it one character to the right.

Taking Care of Your Disks

Diskettes store information magnetically on the surface of a ferrous oxide-coated plastic disk which is sealed inside a protective jacket. The terms disk, diskette and floppy disk are used interchangeably

Your computer can use two different kinds of diskettes. The upper drive uses 3.5" high density (HD) diskettes with a capacity of 1.44 megabytes (that is, 1,440,000 characters). It can also read and write 720 kilobyte diskettes (which are popular on many laptop computers).

The lower drive is a state-of-the-art CD-ROM disc drive. Though a CD-ROM can hold more than 680 megabytes of data, you can not write your own data to it. You can only read the data that comes already written on it–just as you can't record music on an audio Compact Disc.

Label Your Diskettes
It's important to label your diskettes properly so you can keep track of what's on each diskette and the use for which it's intended.
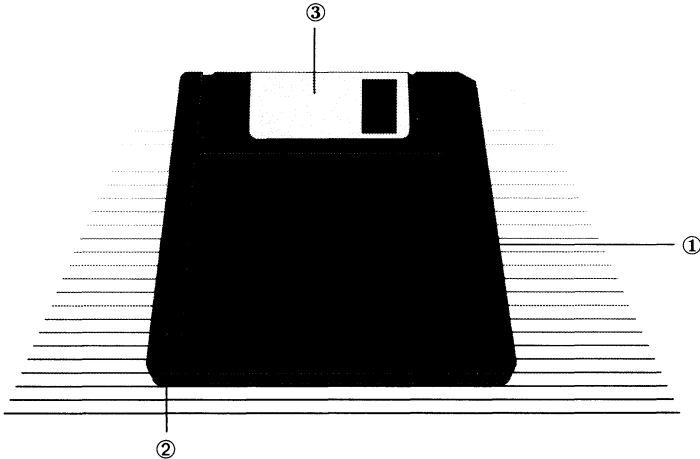
A Tour of 3.5" Diskettes

Figure 4-4 A 3.5" Diskette

The 3.5" diskettes are not only smaller but more durable than the old standard 5.25" diskettes. Refer to the illustration to familiarize yourself with the 3.5" diskette.

The **label area** ① is where you can place a label identifying the contents of the disk. Labels for 3.5" diskettes frequently are folded around the top of the disk.

The **write-protect notch** ② on a 3.5" diskette works like a little sliding door — you don't need separate tabs. When the door is "open" the disk cannot be erased or overwritten. To write to the disk you slide the little door closed.

The **shutter** ③ protects the disk surface when the diskette isn't in use.

Keep these tips in mind when you use disks:

- Always insert a diskette into the drive with the label side up and the write-protect notch on the left.

- Never touch the exposed portion of the diskette.

- Never pull back the shutter.

- Never expose your diskettes to extreme temperatures or humidity and do not leave them exposed to the open air where dust can collect.

- Do not place your diskettes near magnets or devices that create magnetic fields. This includes devices like telephones, VCRs, radios, televisions or even top of your computer and monitor.

There are slight but significant physical differences between 720-kilobyte and 1.44-megabyte diskettes. The higher-capacity floppies have two holes on the edge farthest from the metal shutter, while the lower-capacity disks have only one hole. Also many high-capacity disks have the stylized letters HD printed next to the shutter. (If you look at them upside-down, the letters may look like "CH," but they're really "HD.")

CD-ROMS

The proper handling and use of CD-ROMs is discussed in Chapter 3 of this manual. There are a couple of other details about your CD-ROM drive you should be aware of, though.

When you insert a disc in the caddy, you'll slide it most of the way in before you feel a slight resistance. Keep pressing the caddy in. When the caddy is most of the way in, the drive will grab it and pull it the rest of the way. The process feels very much like inserting a cassette into a VCR. The process is a little disconcerting the first time but it's easy to get used to.

If you feel a great resistance, check to be sure that you don't have another CD-ROM already in the drive.

To eject a disc, press the Eject button on the lower right of the drive's face. Wait a moment, and the caddy will slide out.

If pressing the Eject button doesn't work, take a paper clip, uncurl it, and stick it into the small hole near the eject button. You will feel some resistance, but keep pressing until the caddy rises and ejects.
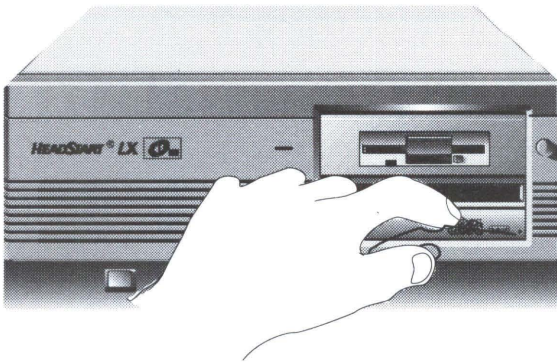
Figure 4-5 Using a Paper Clip to Eject a Stuck CD-ROM

Your Video Adapter

Your HeadStart LX-CD is equipped with a multi-purpose VGA display adapter. A monitor is sold separately.

VGA stands for **Video Graphics Array**. It's the latest standard for color graphics displays, offering a maximum resolution of 1024 by 768 *pixels*, or picture elements.

In addition to offering VGA color graphics, the HeadStart LX-CD VGA adapter is also compatible with these display standards:

- EGA   Enhanced Graphics Adapter

- CGA   Color Graphics Adapter

- HGA   Hercules Graphics Adapter

- MDA   Monochrome Display Adapter

Both your VGA display adapter and your monitor are industry-compatible. If you should ever need to use your monitor with another brand of PC-compatible computer, or hook up another brand of monitor to your HeadStart LX-CD, you'll be able to do it.

HEADSTART®

LX

HeadStart
Operating
Environment

CD ROM

S E R I E S

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Preface

The HeadStart Operating Environment

To make your HeadStart LX-CD as easy to use as possible, we have included a specially designed *operating environment*.

An operating environment is a special program that lets you control your computer withough having to learn a bunch of obscure computer commands. With the HeadStart Environment, you can work with your computer and never have to deal with any of the mundane and difficult details of computing.

Two Versions

The HeadStart operating environment comes in two flavors: The *Beginner's Environment* and the *Advanced Environment*.

The *Beginner's Environment* is the simpler of the two and the one you'll probably want to use first–at least, until you get comfortable with your computer.

On the other hand, the *Advanced Environment* was designed to be intuitive and faster; few functions are more than two or three keystrokes away.

You can switch to the *Advanced Environment* at any time and even switch back to the *Beginner's Environment* if you wish; it's just a simple menu choice. And, in either case, help is just a keystroke away.

We have also designed the manuals to be similar in content and style so you can get started with the *Beginner's Environment* and be on familiar ground when you move on to the *Advanced Environment*.

How This Manual Is Organized

Following this preface, the manual is organized into these sections:

- Guided Tour
- How-To
- Beginner's Environment
- Advanced Environment
- Customizing the Environment
- The Program Launcher
- Hot Pop-ups

Where Do I Go From Here?

What you do next depends on your previous experience with computers and how adventurous you feel.

Both the *Beginner's Environment* and *Advanced Environment* are designed to be used without reading the manual. Feel free to jump right in. Once you get the feel of a particular environment, you might want to explore the manual to find out about all the "bells & whistles" we built into the system.

The rest of the chapters will give you the details about the other components of the Environment, such as the *Pop-Ups* (Notepad, File Finder, Calculator, etc.), the *Program Launcher* (quickly find and run any program on your hard disk by pointing at it) and how to customize the *Advanced Environment's* menus.

Need Help?

If you're stuck in the middle of any program and don't know what to do next, follow these three important steps:

1. Try pressing the F1 key. In most every program included with your HeadStart LX-CD, the F1 key will bring you a screenful of help about the program you're running.

2. Look at the appropriate section in the manual.

3. If you are still stuck and can't seem to figure out the answer, call our technical support line, toll free, at 1-800-PC-COACH.

Enjoy your HeadStart LX-CD!

Chapter 2
Guided Tour &
Quick Start

Getting Acquainted

We at HeadStart pride ourselves on creating the most up-to-date and easiest-to-use personal computers to be found. Nowhere is that more apparent than in your HeadStart LX-CD. Your HeadStart LX-CD combines the cutting-edge technology of CD-ROM with the award-winning HeadStart Environment. The Environment is a special program which acts as a "driver's seat" for your HeadStart LX-CD. From the Environment, you can access CDs, run the included programs, work with disks and in short, perform any task of which your HeadStart LX-CD is capable.

The HeadStart Operating Environment

An operating environment is a special program to get you up and running quickly—allowing you to take control of your computer—without having to learn a lot of complicated computer commands.

Two Versions

The HeadStart operating environment comes in two flavors: The *Beginner's Environment* and the *Advanced Environment*.

The *Beginner's Environment* is the simpler of the two and the one you'll probably want to use first. The *Advanced Environment* was designed to be intuitive and quick, with every function no more than a couple of keystrokes away. You can switch to the *Advanced Environment* at any time and even switch back to the *Beginner's Environment* if you wish; selecting an environment is just a matter of making a simple menu choice.

In either environment, help for any function is just a keystroke away: press F1 and the answer is at hand!.

We have also designed the manuals to be similar in content and style, so you can get started with the *Beginner's Environment* and still be on familiar ground when you move on to the *Advanced Environment*.

The Beginner's Environment

As we said before, the *Environment* has a Beginner's mode and an Advanced mode. Each has its advantages; you will have to decide which makes you the most comfortable.

The *Beginner's Environment* presents you with menus of **easily understood commands in plain English**, so you can be productive as soon as you turn on your machine. There's no need to study manuals, learn programming languages or take engineering courses before you can use your computer. The *Environment* lets you spend more time doing what you want and less time doing what your computer wants.


```
MENU 0            Sun Nov 19, 1989  2:52:27 pm              V.7.4a

      HEADSTART LX OPERATING ENVIRONMENT CREATED WITH HOT (TM)


          1 LEARN HOW TO USE YOUR PC
          2 APPLICATION PROGRAMS
          3 CD ROM APPLICATIONS
          4 POP-UP PROGRAMS
          5 UTILITIES
          6 ACCESS TO DOS
          7 SETUP/CHANGE SYSTEM CONFIGURATION
          8 HELP FOR ALL FUNCTIONS
          9 EXIT THE HEADSTART ENVIRONMENT


    RUN ATI INTERACTIVE TRAINING - COMPUTER EASE - MAVIS BEACON

    PRESS:  ARROW KEYS (↑↓) TO MOVE THE HIGHLIGHT BAR    F1 DISPLAYS HELP
  ENTER SELECTS AN ITEM        ESC CANCELS A SELECTION   F3 STARTS OVER
```

Figure 2-1 HeadStart LX-CD Beginner's Environment Main Menu

You can run programs from the Beginner's Environment just by point-ing to their names with your mouse and pressing a button. It's the same kind of "point and shoot" convenience found in Microsoft Windows, OS/2 Presentation Manager and the Apple Macintosh. You can also press the number which appears next to the choice you want.

System chores are easy to do. Need to format a floppy disk or send printer output to the serial port instead of the parallel port? No problem. Important functions are built in to the *Beginner's Environment*.

Important office tools are always available, too. You can pop up a calendar, a datebook or a full-function calculator at any time.

The Advanced Environment
Once you are familiar with the menus and programs which make up the *Beginner's Environment,* you may want to switch to the Advanced Environ-ment. Instead of the series of menus used by the *Beginner's Environment*, the *Advanced Environment* uses a single screen from which commands and programs are launched. While the *Advanced Environment* may be a little more challenging than the *Beginner's Environment*, it will also save you time. You'll learn more about the *Advanced Environment* later in this chapter.

How to Use this Manual

Both the Environments are designed to be used without reading the manual. Feel free to jump right in. Once you get the feel of a particular environment, you might want to explore the manual to find out about all the "bells & whistles" we built into the system.

The rest of the chapters will give you the details about the other components of the Environment, such as the *Pop-Ups* (Notepad, File Finder, Calculator, etc.), the *Program Launcher* (quickly find and run any program on your hard disk by pointing at it) and how to customize the *Advanced Environment's* menus.

Here's a quick explanation of this manual's major sections.

  • Introduction: Quick Start

   This chapter: a brief overview of the HeadStart Environment. Introduces the Environment features right away.

- How To...

  A quick reference section which explains how to perform common tasks in the Beginner's and Advanced Environments.

- Beginner's Reference

  A complete menu-by-menu guide to each and every choice on the Beginner's Environment menus.

- Advanced Reference

  A complete menu-by-menu guide to each and every choice on the Advanced Environment menus.

- Customizing the Advanced Environment

  A tutorial on how to make the Advanced Environment look just the way you want it.

- Pop-Ups

  How to use the Pop-Up utilities included with your HeadStart LX-CD.

- Error Messages

  A reference guide to what the computer is telling you when something goes wrong.

What is the Beginner's Environment?

Do you have trouble programming your VCR to record a program while you're out? Many people do. Although most people don't read manuals as carefully as they should, the fault lies mostly with the manufacturer, not the consumer. If you find it difficult to figure out how to set your VCR and to tell whether you have done it correctly, it's probably because your VCR has a poorly designed *user interface*.

The user interface is the way you interact with a system, whether the system is a VCR, a microwave oven, an automatic teller machine or a personal computer. On a personal computer, the interface is what you see on the screen and what keys you press to get things done.

In the PC-compatible world, each program has its own user interface. The skills you learn to use one program aren't necessarily applicable to another program. Standard ways of doing things are emerging, however. In most programs now being produced, for instance, pressing the $\boxed{\text{Esc}}$ key lets you "back out" of a menu and return to the previous screen.

The programs included with your HeadStart LX-CD were selected with an eye toward these emerging standards. In some cases, we've had the publishers of the programs we've included make changes to minimize the differences between the programs.

What is DOS?

One of the programs included with your computer is different from all the others. It's the operating system, called **DOS** for short.

Most beginners have a little trouble understanding what DOS is and what exactly it does. DOS is the master control program for your HeadStart LX-CD. As soon as you turn on your machine, DOS starts running.

What Does DOS Do?

First, you should know that at least some part of DOS is always running. Even when you're running *PUBLISH-IT!* or a music CD, DOS is also running. That's because programs are designed to let DOS handle certain commonplace chores like reading and writing data to the disk drives or displaying data on the screen. There are sound technical reasons for this design but you need never concern yourself with this aspect of DOS.

If you want to issue commands to DOS itself (and don't have the HeadStart Environment), you can copy, rename and delete files, format disks, etc. by typing in the appropriate commands.

The DOS Prompt

To tell DOS to do something, you need to type in a command *exactly* as DOS was designed to accept it, at the *command line*. Figure 2-2 shows what the command line looks like on a standard PC-compatible computer.
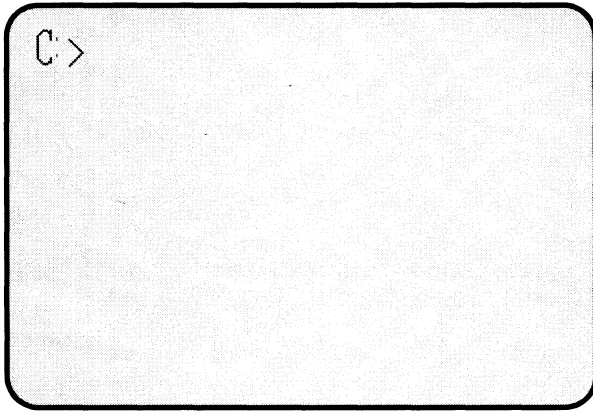
Figure 2-2 The DOS Command Line

The C> is called the *prompt*. The "C" means drive C, which is almost always a hard disk on DOS machines. It indicates that DOS will use the C drive in executing your command. The C> is called a prompt because DOS is prompting you to enter something.

In fact, this "C prompt" is a source of many headaches in the DOS world. What can you do? What are you supposed to type in? While there is a whole world of information at your control, you need to know an entire programming language–the language of DOS–to use it.

If you study the DOS manual included with your computer, you'll find out that you can get a directory of what's on the disk by typing DIR, that you can delete a file with the DEL command, that you can display the contents of files with the TYPE command and that the way you start a program is by typing in its name.

The biggest problem with using DOS is that DOS has no intuition. Every command that you enter has to be EXACTLY what DOS wants. If you misspell a command, or use the wrong file name or extension, DOS will respond with a cryptic message informing you that it doesn't know what you're talking about. Not very helpful.

While anyone who owns a PC should eventually familiarize themselves with DOS commands, you have something which makes using your HeadStart LX-CD much, much easier: the HeadStart Environment.

The Environments take the place of the DOS prompt. They are designed to start running as soon as you power up your HeadStart LX-CD, to let you launch programs, and to reappear automatically whenever you finish using a program. The Environments have handy built-in programs which you can pop up at any time—even in the middle of other programs! They will save you time and get you productive quickly—so let's get started!

The Beginner's Environment Screen

Let's take a look at the *Beginner's Environment* screen. Start up your HeadStart LX-CD so you can follow along with the descriptions below. If you don't have your computer in front of you, you can refer to Figure 2-3, below.

> **Note**: *If your screen doesn't look like Figure 2-3 when you start up your machine, the Beginner's Environment is not installed, and you're probably at the Advanced Environment. If so, press the* [S] *and* [B] *keys in succession and you should see this screen:*
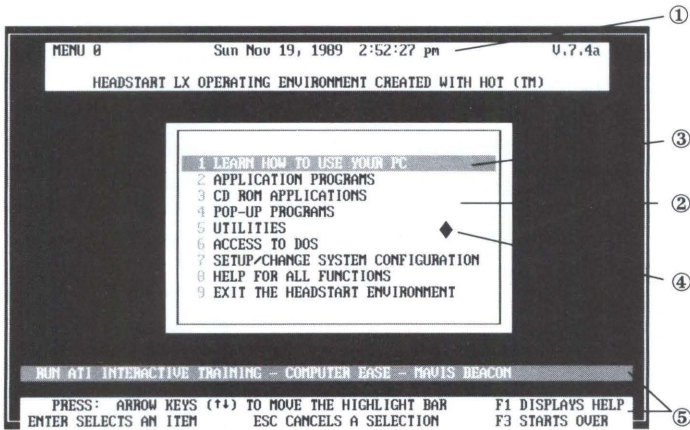
Figure 2-3 The Beginner's Environment

① The Clock Calendar

② The Main Menu

③ The Light Bar

④ The Mouse Cursor

⑤ Mini Help

The Main Menu

At the top center of the screen, is ① the *clock calendar.* It displays today's date and time. (If the date and time displayed aren't correct, see "How to change the date and time" in the "Reference" section of this book.)

In the center of the screen is ② the *main menu*, which consists of a list of choices. Notice two features of the menu. First, each option on the menu is preceded by a number which is in a different color. (If you're using a monochrome monitor, the number should appear in a different shade of grey.) Second, the first choice "LEARN HOW TO USE YOUR PC," is white with a red background (or shade of grey on a monochrome monitor). This different-colored background is called ③ the *light bar.*

Somewhere on your screen, not necessarily in the same position as in the figure, is ④ the diamond-shaped *mouse cursor.* If you have trouble locating it, move the mouse around on your desk. The mouse cursor will roam around your screen in direct proportion to the movement of the mouse on your desk.

If you accidently press the left or center mouse buttons when you're moving the mouse, a menu may pop up. Don't worry. Just press the right-most button on the mouse to make it go away for now.

Moving The Light Bar

Right now, press either the ⬆ or ⬇ key a few times and see what happens.

With each press of the arrow key, the light bar moves to the next option on the menu. Notice, as you move the light bar, the three lines of text at the bottom of the screen.

This is ⑤ *mini help*, three lines of information which offer a brief explanation of what's going on and how to get more help.

For example, when the light bar is over the **UTILITIES** choice on the main menu, the top line of mini help explains that this choice leads to a menu from which you can "RUN IMPORTANT DOS COMMANDS AND UTILITIES."

Move the light bar up to POP-UP Programs, and the top line of mini help explains that this choice accesses "RAM RESIDENT PROGRAMS - FILE FINDER - 1Word(tm)NOTEPAD-PRINTER SETUP-CALENDAR-DATEBOOK - CALCULATOR-CRT SAVER."

Getting Help

The two bottom lines of mini help don't change as you move the light bar. They describe actions that you can always take when in the *Beginner's Environment.*

If from any place in the Environment you need more information, press
[F1] to bring up a more extensive help screen. When you are done using
help, pressing the [Esc] key will return you to what you were doing. If you
ever want to return to the main menu with a single keystroke, pressing
[F3] restarts the *Beginner's Environment*—bringing you back to the begin-
ning, with the light bar over "LEARN HOW TO USE YOUR PC."

Launching Programs

Starting or "launching" a program with the *Beginner's Environment* couldn't
be easier. You just "point and shoot."

Let's say you want to run *Splash!*, the 256-color VGA paint program. Use
the arrow keys to move the light bar over **APPLICATION PROGRAMS** on
the main menu and press [Enter]. If you like, you could move the mouse
cursor over **APPLICATION PROGRAMS** and press the left button on the
mouse.

Most options on the main menu represent *submenus*. Pressing [Enter]
when the light bar is on the word **APPLICATION PROGRAMS** brings up
the **APPLICATION PROGRAMS** submenu.

Alternately, you can just type the number which precedes the menu
option you want. Pressing [2] will bring up the **APPLICATION PRO-
GRAMS** submenu. Your screen should now look like this:


```
MENU 2              Sun Nov 19, 1989  3:36:31 pm           V.7.4a

                   HEADSTART APPLICATION PROGRAMS


              ┌──────────────────────────────────────┐
              │ 1 HEADSTART OFFICE MANAGER            │
              │ 2 WORD PROCESSING                     │
              │ 3 DATABASE MANAGEMENT                 │
              │ 4 SPREADSHEET                         │
              │ 5 PUBLISH-IT!                         │
              │ 6 TWIST                               │
              │ 7 SHOUT                               │
              │ 8 SPLASH                              │
              │ 9 CHESSMASTER 2000                    │
              │ A RUN ANY PROGRAM                     │
              └──────────────────────────────────────┘


   RUN THE 'HEADSTART OFFICE MANAGER' MAIN MENU
 ─────────────────────────────────────────────────────────────
   PRESS:  ARROW KEYS (↑↓) TO MOVE THE HIGHLIGHT BAR   F1 DISPLAYS HELP
  ENTER SELECTS AN ITEM      ESC CANCELS A SELECTION   F3 STARTS OVER
```

Figure 2-4 The APPLICATION PROGRAMS Menu

To run *Splash!*, move the light bar down over the word **SPLASH** with the mouse or the arrow keys. Then press Enter or click the left mouse button.

You don't have to actually start *Splash!* right now. If you do, you can exit Splash! and return to the *Beginner's Environment* by moving the arrow over the letter **Q** on the Splash! menu and pressing the left mouse button.

Point-And-Shoot

That's all there is to it. To recap, there are three ways to pick something off a menu. You move the light bar over your choice and:

- press Enter, or

- press the left mouse button, or

- press the number that appears next to the option on the menu.

This is all you need to know to get started. Try running some programs. If you get stuck somewhere, use the help system (press F1) or try looking in the "Beginner's How to..." section of this manual.

After you've played around a bit, you might want to read the next section containing information on the *Advanced Environment*.

The Advanced Environment Screen

Now let's take a look at the *Advanced Environment*. Start up your HeadStart LX-CD so you can follow along with the descriptions below. If you don't have your computer in front of you, refer to Figure 2-5.

To switch from the *Beginner's Environment* to the *Advanced Environment*, press 7 and 4 sequentially. You should see this screen:

```
┌──────────────────────────────────────────────────────┐
│        Sun Nov 19, 1989  1:58:00 pm V 7.4a            │
├──────────────────────────────────────────────────────┤
│ Applications  CD ROM   Tutorials   Popups   Setup   Utilities   eXit  Help │
│  ┌────────────────────────────────────────────────┐  │
│  │    Arrow keys move the cursor or press the        key │  │
│  │ ┌──────────────────────────────────────────────┐ │  │
│  │ │ C:\                                          │ │  │
│  │ │                                              │ │  │
│  │ │            ♦         Autoexec.Bat  Phase1 .Com│ │  │
│  │ │                      Cdguide .Bat  Pkunzip.Exe│ │  │
│  │ │                      Command .Com  Publish.Bat│ │  │
│  │ │                      Editor  .Exe  Setmode.Bat│ │  │
│  │ │                      Fontwid .Bat  Spawnit.Com│ │  │
│  │ │                      Holdexec.Exe  Sweets .Bat│ │  │
│  │ │                      Hot     .Bat  Timer  .Bat│ │  │
│  │ │                      Main    .Exe  Tm     .Exe│ │  │
│  │ │                      Mouse   .Com  Unpac  .Exe│ │  │
│  │ │                      Mscdex  .Exe            │ │  │
│  │ └──────────────────────────────────────────────┘ │  │
│  │  ook at a disk  earch for file e ecute    cancels      selects │  │
│  └────────────────────────────────────────────────┘  │
│ ░Word Processing, Data Base Management, Spread Sheet and other programs░ │
│  Arrows point  Enter selects  Esc=Cancel  F1=Help  F3=Return to 1st menu │
└──────────────────────────────────────────────────────┘
```

Figure 2-5 The Advanced Environment

① The Clock Calendar

② The Main Menu Bar

③ The Light Bar

④ The Mouse Arrow Cursor

⑤ The Program Launcher

⑥ Mini Help

Exploring The Environment

Notice how the familiar parts of the *Beginner's Environment* are still there. Everything is just moved around to make it more compact. At the top center of the screen, is ① the *clock calendar*. It still works the same way that it did in the *Beginner's Environment* and can be reset the same way.

The biggest difference between the *Advanced Environment* and *Beginner's Environment* is the arrangement of the menus. In the *Advanced Environment*, the main menu appears on a horizontal bar across the top of the screen. You scroll across the menu bar instead of up and down it. When you make a selection, the submenu pops up beneath the menu bar. Simple, isn't it? Once you know what's on each menu, using the *Advanced Environment* can save you lots of time.

Located just below the clock calendar, ② the *main menu bar* consists of a list of words. Notice two features of the menu bar. First, each word on the menu bar starts with a capitalized letter which is in a different color from the rest of the word (except the word "**eXit**", in which it's the "X" that stands out). Second, the word "**Applications**" is white with a red background (or shade of grey on a monochrome monitor). This different-colored background is how the *light bar* is represented in the *Advanced Environment*.

Somewhere on your screen, not necessarily in the same position as in Figure 2-5, is ④ the diamond-shaped *mouse cursor*. If you have trouble locating it, move the mouse around on your desk.

The mouse works the same way in the *Advanced Environment* as it does in the *Beginner's Environment*. You move the cursor just the same way and the buttons have the same functions.

The Program Launcher

Below the main menu bar is a large rectangular box called ⑤ the *program launcher*. All of the programs that are included with your HeadStart LX-CD can be started from the choices on the main menu bar. But what about programs you purchase separately? That's where the program launcher comes in. It brings that same "point-and-shoot" convenience to all of the programs you use. For more information on the program launcher, see "Chapter 5: The Advanced Reference."

Right now, let's get a feel for the way the *Advanced Environment* works. Start by pressing either the ⬅ or ➡ a few times and see what happens.

With each press of the arrow key, the light bar moves to the next word over. Notice the two lines of text at the bottom of the screen. This is ⑥ *mini help*, two lines of information which offer a brief explanation of what's going on and how to get more help. For example, when the light bar is over the **Utilities** choice on the main menu bar, the top line of mini help explains that this choice leads to a menu from which you can **run important DOS commands and utilities**.

Move the light bar over to **Setup**, and the top line of mini help explains that this choice allows you to **set up or change the hardware configuration, modify the menus and programs**.

The bottom line of mini help doesn't change as you move the light bar. It describes actions that you can always take when in the *Advanced Environment*:

- You can use the arrow keys to move around the environment;

- You can select a choice by pressing the [Enter] key;

- Pressing the [Esc] key cancels a choice;

- Pressing [F1] brings up a more extensive help screen; and

- Pressing [F3] cancels a choice and moves the light bar over the **Applications** choice, as it is when you first start the *Advanced Environment*.

Launching Programs

Starting or "launching" a program with the *Advanced Environment* couldn't be easier: you just "point and shoot." Let's say you want to run *Splash!* Use the arrow keys to move the light bar over **Applications** on the main menu bar and press [Enter]. You could also move the mouse cursor over **Applications** and press the left mouse button. Each word on the main menu bar represents a *submenu*. Pressing [Enter] when the light bar is on the word **Applications** reveals the **Applications** submenu. Your screen should now look like Figure 2-6:
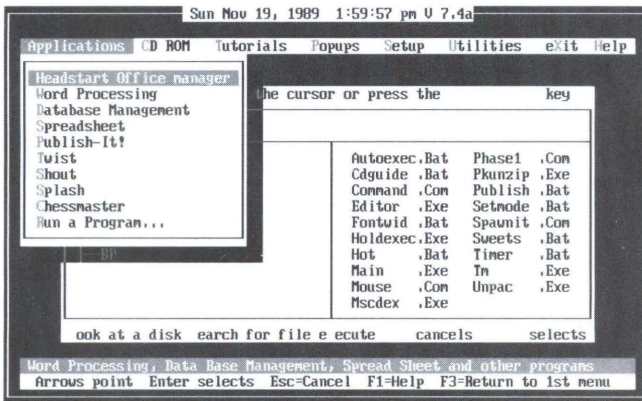
Figure 2-6 The Applications menu

To run *Splash!*, move the light bar down over the word **Splash** with the mouse or the arrow keys.

Then press [Enter] or click the left mouse button. You don't have to actually start *Splash!* right now. If you do, you can exit *Splash!* and return to the *Advanced Environment* by moving the arrow over the letter **Q** on the *Splash!* menu and pressing the left mouse button. That's all there is to it. You move the light bar over your choice and press [Enter] or press the left mouse button.

You are now ready to start using the *Advanced Environment*. Try running some programs. If you get stuck somewhere, use the help system ([F1]) or try looking in the "How to..." section of this manual.

Chapter 3
How To...

Here is a quick list of the most common things which you may want to do with your HeadStart Environment and how to do them.

How do I ...

Get Help?
Pressing (F1) at any time while inside the HeadStart Environment will bring up a topical help menu. You can also access help by selecting **8 HELP FOR ALL FUNCTIONS** from the *Beginner's Environment* Main Menu.

Play a Music CD ?
First, select **CD ROM** from the *Advanced Environment* or **3 CD ROM APPLICATIONS** from the *Beginner's Environment*. Then, Select **PLAY A MUSIC CD** from the CD menu.

Access the Pop-up Services ?
Press the left (Shift) key twice in quick succession. You can also select **4 POP-UP PROGRAMS** from the *Beginner's Environment* Main Menu or select a Pop-Up from the **Popup** menu in the *Advanced Environment*.

Switch from one Environment to the other and back again?

To switch to the *Advanced Environment,* select **7 SETUP/CHANGE SYS-TEM CONFIGURATION** from the *Beginner's Environment* Main Menu. Then select **4 USE THE ADVANCED ENVIRONMENT**. To switch to the *Beginner's Environment,* select **Setup** from the *Advanced Environment* Menu Bar, then press the letter Ⓑ on your keyboard.

Exit the HeadStart Environment?

Select **9 EXIT THE HEADSTART ENVIRONMENT** from the *Beginner's Environment* or **eXit** from the *Advanced Environment* Main Menu.

In the *Beginner's Environment,* you'll have to press Ⓨ and 〔Enter〕. In the *Advanced Environment,* you'll just have to press Ⓨ.

Get back into the Environment after exiting?

Type the word "hot" followed by the 〔Enter〕 key at the DOS prompt.

Run a program which isn't part of the HeadStart Environment?

Pressing 〔F2〕 will bring you to the Program Launcher. Use the arrow keys on your keyboard to move the highlight over the program that you wish to run and press 〔Enter〕.

You can also run a program from the *Beginner's Environment* by selecting **2 APPLICATION PROGRAMS** from the Main Menu then **9 RUN ANY PROGRAM**.

Recover a file which has been accidently deleted?

Select **UTILITIES** from either the *Advanced* or *Beginner's Environment.* When the Utilities Menu comes up, select **RECOVERY UTILITIES** then **UNERASE FILE(S)**.

Change Printers?

From the *Beginner's Environment,* select **7 SETUP/CHANGE SYSTEM CONFIGURATION** from the Main Menu. Select **6 PRINTER AND SERIAL PORTS** then **4 PICK A PRINTER**.

A list of all the printers that your HeadStart computer can support will come up on screen. If your printer isn't on the list select **MORE PRINTERS** from the bottom right-hand side of the list.

If you have gone through the entire list and still haven't found your printer, check your printer documentation to see if your printer emulates another printer. If so, move the highlight over that printer on the list and press (Enter).

From the *Advanced Environment*, select **Setup**, then **Printer driver selection.** Select the type of printer you will be using. A list of all the printers that your HeadStart computer can support will come up on screen. If your printer isn't on the list select **MORE PRINTERS** from the bottom right-hand side of the list. If you have gone through the entire list and still haven't found your printer, check your printer documentation to see if your printer emulates another printer. If so, move the highlight over that printer on the list and press (Enter).

Play A Game?

All of the games, with the exception of Chessmaster 2000, are found on the CD Games Disk. To run any of these games from the *Beginner's Environment,* first select **3 CD-ROM APPLICATIONS** from the Main Menu. Select **7 CD-ROM GAMES**. Insert the disk, as prompted. When the menu appears, use the arrrow keys to move through the list. When the game you want to play is highlighted, press (Enter).

To run one of the CD-ROM games from the *Advanced Environment,* select **CD-ROM** from the Menu Bar, then select **CD Games**. When the CD-ROM Games menu appears, use the arrrow keys to move through the list. When the game you want to play is highlighted, press (Enter).

To play Chessmaster 2000, Select **2 APPLICATIONS PROGRAMS** from the *Beginner's Environment* Main Menu or **Applications** from the *Advanced Environment* Menu Bar. From the Applications Menu, select **Chessmaster 2000.**

Access DOS ?

From the *Beginner's Environment* Main Menu, press **6 ACCESS TO DOS**. From the *Advanced Environment* Menu Bar select **Utilities**, then **Goto DOS**.

Using these methods to access DOS will bring you to the DOS Shell. That allows you to use any of the standard DOS commands and return to the Environment when you are done. To return to the Environment, press the (Esc) key.

Chapter 4
Beginner's Environment
Reference

When you started your computer for the first time, you saw the *Advanced Environment*. If you then selected the simpler *Beginner's Environment,* the first thing your computer shows you after it starts up is shown in Figure 4-1.
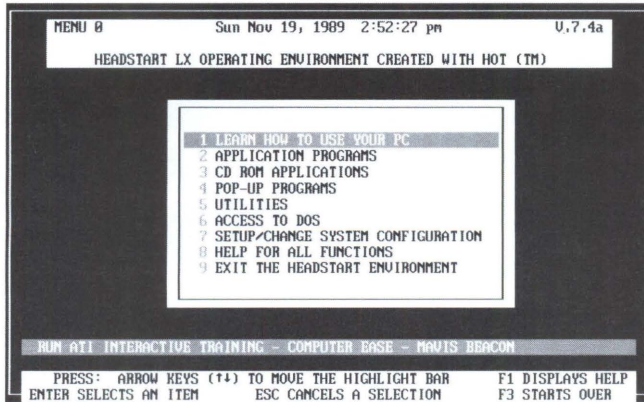
Figure 4-1 The Beginner's Environment Main Menu

Basic Navigation

The top line you see on the *Beginner's Environment* is the date and time. On the line below that, you see the different options you may select. Let's call that the Main Menu.

You can browse through the Main Menu by using the ⬆ and ⬇ keys. Notice that as you move around, an explanation of the highlighted option appears on the second line from the bottom of the screen. The explanation gives you an idea of the different things you can do in each option.

To select something from the Main Menu, just use the ⬆ or ⬇ keys until you highlight the selection that you want. Then just press the [Enter] or [Return] key. A faster way of selecting something is just to type the number of the option you want. The computer automatically puts you in that option, with a sub-listing of choices in that option.

Here's a quick explanation of everything you see on the Main Menu.

> **Learn How To Use Your PC** —A series of tutorial programs to help you learn to use your computer.
>
> **Application Programs**—The applications that are included with your computer, like word processing and database management.
>
> **CD ROM Applications**—Allows you to play a CD audio disc or run a program that is on a CD disk (as opposed to a program that is on your computer's hard drive or on a floppy disk).
>
> **Pop-Up Programs**—Includes the memory-resident portions of the *HeadStart Environment* like Calendar, Datebook and Calculator.
>
> **Utilities**—Includes the different system-oriented functions you need to do with your computer: copy a disk, format a disk, and so on.
>
> **Access To DOS**—Allows you to directly enter DOS commands, and then easily return to the *Beginner's Environment*.
>
> **Setup/Change System Configuration**—Allows you to set or change the different hardware components of your computer, like a hard disk, printer, mouse, modem or clock.

Help For All Functions—Explains how to get help in the
different portions of the *Beginner's Environment.*

Exit The HeadStart Environment—Gets you out of the
Beginner's Environment and into DOS. Unlike the "Ac-
cess to DOS" option, when you use Exit you permanently
leave the Environment.

Now let's take each of these options in order.

Learn How To Use Your PC

Choosing **1 LEARN HOW TO USE YOUR PC** off the Main Menu will bring
you to a sub-menu of the four tutorial programs included with the
HeadStart LX-CD.


```
MENU 1           Sun Nov 19, 1989  3:35:44 pm           V.7.4a
              HEADSTART COMPUTER TRAINING PROGRAMS


           1 ATI SKILL BUILDER
           2 COMPUTER*EASE
           3 MAVIS BEACON TEACHES TYPING
           4 MAVIS BEACON RESUME WRITER
           5 MICROSOFT BOOKSHELF




  RUN THE AWARD WINNING ATI INTERACTIVE TRAINING PROGRAM
  PRESS: ARROW KEYS (↑↓) TO MOVE THE HIGHLIGHT BAR   F1 DISPLAYS HELP
  ENTER SELECTS AN ITEM      ESC CANCELS A SELECTION  F3 STARTS OVER
```
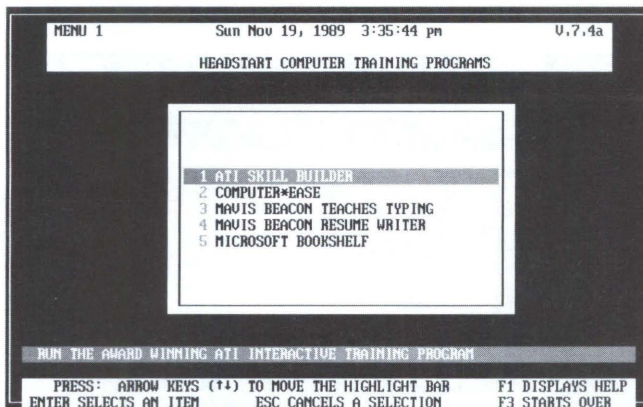
Figure 4-2 HeadStart Computer Training Programs Menu

ATI Skill Builder
Runs the *ATI Skill Builder* tutorial program which teaches you how to use
HeadStart LX-CD's keyboard and screen, and introduces you to some of
HeadStart LX-CD's features.

Computer*Ease
Runs the animated *Computer*Ease* tutorial program. This uses your
computer to teach you how computers work.

Mavis Beacon Teaches Typing

Runs the *Mavis Beacon Teaches Typing* program, which includes drills to help you learn to type.

Mavis Beacon Resume Writer

Runs the *Mavis Beacon Resume* program, which helps you compose your resume.

Application Programs

Choosing **2 APPLICATION PROGRAMS** off the Main Menu brings you to:

```
MENU 2              Sun Nov 19, 1989   3:36:31 pm           U.7.4a

                    HEADSTART APPLICATION PROGRAMS


              ┌─────────────────────────────────────────┐
              │ 1 HEADSTART OFFICE MANAGER               │
              │ 2 WORD PROCESSING                        │
              │ 3 DATABASE MANAGEMENT                    │
              │ 4 SPREADSHEET                            │
              │ 5 PUBLISH-IT!                            │
              │ 6 TWIST                                  │
              │ 7 SHOUT                                  │
              │ 8 SPLASH                                 │
              │ 9 CHESSMASTER 2000                       │
              │ A RUN ANY PROGRAM                        │
              └─────────────────────────────────────────┘

      RUN THE 'HEADSTART OFFICE MANAGER' MAIN MENU

   PRESS:  ARROW KEYS (↑↓) TO MOVE THE HIGHLIGHT BAR     F1 DISPLAYS HELP
 ENTER SELECTS AN ITEM        ESC CANCELS A SELECTION    F3 STARTS OVER
```
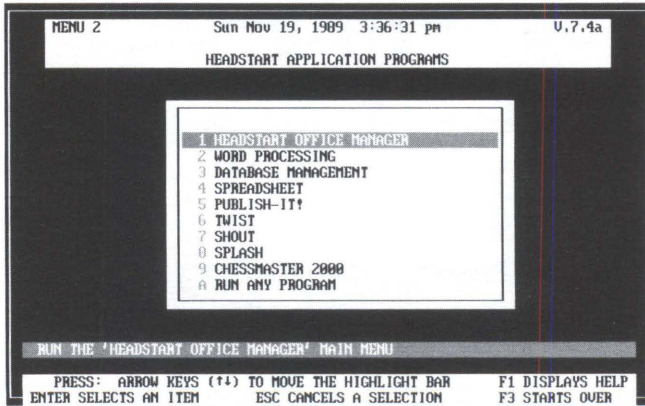
Figure 4-3 Applications Programs Menu

HeadStart Office Manager

Runs *HeadStart Office Manager*, the integrated program.   Picking this option gets you into select either the word processing, spreadsheet or database management modules.

If you want to load Microsoft Bookshelf along with the word processor, choose the "Word Processor" choice off the menu.

Word Processing, Database Management, Spreadsheet

Instead of selecting *HeadStart Office Manager,* you can go directly to the Word Processing, Database Management or Spreadsheet modules by selecting that specific option from the Applications list.

When you start Word Processing, Database Management or Spreadsheet, you'll be offered the opportunity to load Microsoft Bookshelf, the CD-ROM-based reference tool. If you want to use Bookshelf, select the appropriate entry.

Twist

Runs *Twist*, which allows you to print spreadsheets sideways on narrow paper. That comes in handy if you don't want to have to change your printer paper to accommodate the spreadsheet's regular size.

Shout

Runs *Shout!*, the banner-making program. This allows you to make big signs.

Splash!

Starts *Splash!*, the VGA paint program. It's is a kind of computerized box of crayons that allows you to draw, freehand, virtually any kind of picture you wish.

Chessmaster 2000

Runs the *Chessmaster 2000* chess-playing program, one of the most powerful available.

Publish-It!

Begins the desktop publishing program *Publish-It!*

Run Any Program

Allows you to run programs that are not part of the HeadStart LX-CD environment.

CD-ROM Applications

When you select an entry under the CD ROM menus, you'll be asked to insert the appropriate disc. Slip the disc you want to use into the caddy

(See the "Getting Started" manual for more details about that), and put the loaded caddy into the CD-ROM drive. When you've done that, press the (Enter) key, and your program will start.
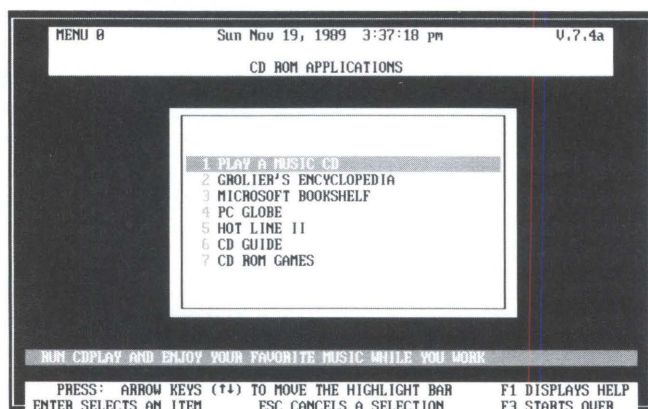

Figure 4-4 CD ROM Applications

Play A Music CD
Allows you to play the music CD of your choice.

Grolier's Encyclopedia
Selects the 21-volume *The New Grolier Electronic Encyclopedia.*

Microsoft Bookshelf
Starts *Microsoft Bookshelf,* a complete reference library, with a dictionary, thesaurus, almanac, style guide, and famous quotations.

PC Globe
Enters *PC Globe,* a computerized atlas with maps and facts about the world.

Hot Line Two
Selects *Hot Line Two,* a directory of 100,000 corporate phone numbers and addresses and 100,000 confirmed fax numbers.

CD Guide
A CD-ROM version of a magazine that reviews audio compact discs; includes graphics and sound samples from some of the titles.

CD Games

Allows you to play any of the included games.

Pop-Up Programs

Pop-Up programs are small, memory-resident utilities that enhance your usage of the computer. They can also be invoked by pressing the left (Shift) key twice rapidly.
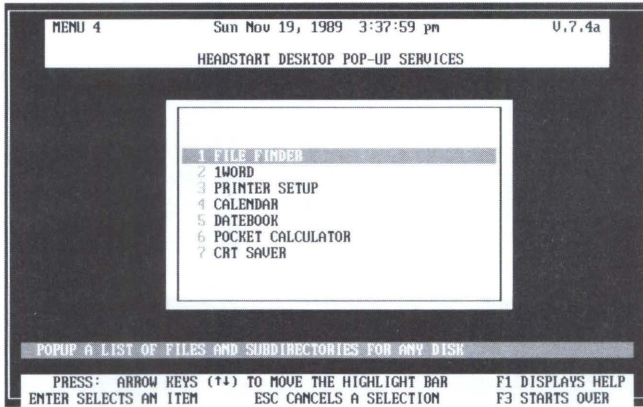


```
MENU 4              Sun Nov 19, 1989  3:37:59 pm              V.7.4a
                 HEADSTART DESKTOP POP-UP SERVICES


                 1 FILE FINDER
                 2 1WORD
                 3 PRINTER SETUP
                 4 CALENDAR
                 5 DATEBOOK
                 6 POCKET CALCULATOR
                 7 CRT SAVER



 POPUP A LIST OF FILES AND SUBDIRECTORIES FOR ANY DISK
   PRESS:  ARROW KEYS (↑↓) TO MOVE THE HIGHLIGHT BAR    F1 DISPLAYS HELP
 ENTER SELECTS AN ITEM        ESC CANCELS A SELECTION   F3 STARTS OVER
```

Figure 4-5 Pop-Up Programs

File Finder
Pops up the File Finder hard disk navigation aide.

1Word
Pops up 1Word, the mini word-processor.

Printer Setup
Permits you to send control codes directly to your printer.

Calendar
Displays a nine-month calendar. With the calendar on the screen, pressing (Enter) starts the Datebook.

Datebook

Pops up the Datebook electronic appointment calendar.

Calculator

Turns the numeric keypad into a four-function calculator.

CRT Saver

Blanks the screen. The screen can also be blanked by pressing Alt 9. Pressing any key restores the screen.

Utilities

There are lots of routine tasks that you need to do with your computer—things like formatting disks, copying disks and backing up files. They're mundane but vital jobs, the sort of jobs you'll need to do every day. To make them more convenient, we've put them on a special Utilities menu.
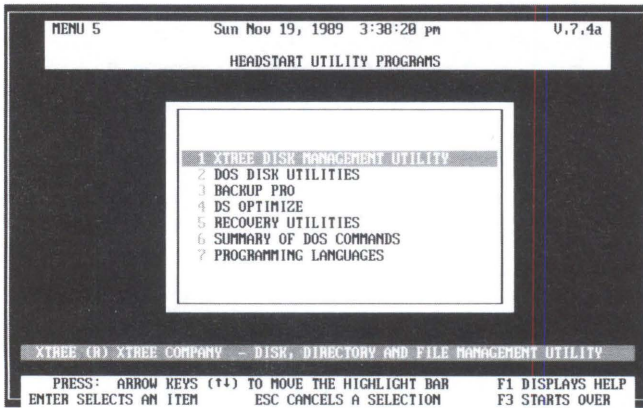
```
 MENU 5             Sun Nov 19, 1989  3:38:20 pm              V.7.4a

                        HEADSTART UTILITY PROGRAMS


              1 XTREE DISK MANAGEMENT UTILITY
              2 DOS DISK UTILITIES
              3 BACKUP PRO
              4 DS OPTIMIZE
              5 RECOVERY UTILITIES
              6 SUMMARY OF DOS COMMANDS
              7 PROGRAMMING LANGUAGES



     XTREE (R) XTREE COMPANY  - DISK, DIRECTORY AND FILE MANAGEMENT UTILITY

    PRESS:   ARROW KEYS (↑↓) TO MOVE THE HIGHLIGHT BAR     F1 DISPLAYS HELP
  ENTER SELECTS AN ITEM          ESC CANCELS A SELECTION   F3 STARTS OVER
```

Figure 4-6 Utility Programs Menu

XTree Disk Management Utilities

Starts the file management program *XTree*. For more information on how to use *XTree*, see the *XTree* manual.

DOS Disk Utilities

Brings you to a menu of handy utilities that let you copy, format and check disks.
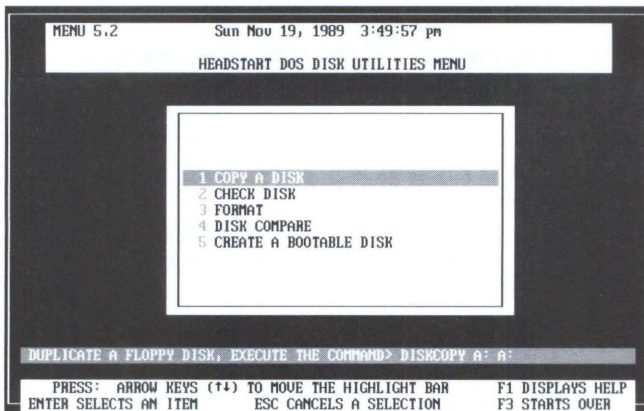

Figure 4-7 DOS Disk Utilities Menu

Copy A Disk

There is a standard DOS command called DISKCOPY which makes exact copies of entire disks (sort of like duplicating an audio cassette). We've included the DISKCOPY command in this portion of the Environment. To use DISKCOPY, however, the disk that you are copying must be the EXACT SAME KIND as the disk you are copying onto. In other words, both must be 3.5" diskettes with the same capacity.
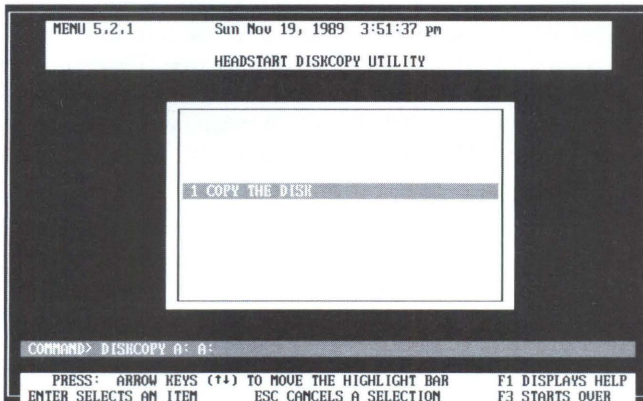

Figure 4-8 Diskcopy Menu

To copy a disk:

1 Select **Copy a disk** and then **Copy the disk** from the window that appears.

2 You will see a message saying: **"Insert SOURCE diskette in drive A. Press any key when ready."** Take the diskette you want to copy FROM and put it into the floppy drive. Press (Enter), and you will see a message, "Copying...." (If you press (Enter) and nothing happens, try pressing (Spacebar).)

3 DO NOTHING until you see the message, **"Insert TARGET diskette in drive A. Press any key when ready."** That means the computer has read the data from the first disk and is ready to write it to the second. Eject the diskette that's in the drive and replace it with the blank diskette you want to copy TO. Press (Enter) and the computer will continue copying. If the source diskette was full, you may be asked to insert swap diskettes in and out of the drive a few times. That's perfectly normal.

4 If there is a problem—such as the target disk being damaged or incompatible with the source diskette—the computer will let you know. If you get a message like that, try another target diskette.

5 If everything is fine, you will be notified when the computer has finished copying the information onto the second diskette. You will see a message **"Diskcopy complete. Copy another diskette (Y/N)?"** If you want to copy another diskette, press (Y). Otherwise press (N), and then the (Enter) key to get back to the Environment.

Check Disk
Runs the DOS command CHKDSK to test the integrity of a disk's file system.

1 **Select the disk to check.** Press the (Enter) key.

2 Set **error correction (on or off)** to indicate whether you want CHKDSK to convert lost chains to files. A lost chain is one or more file storage units which show up as being

used but which can't be associated with any particular file. If you select **Correct on**, each lost chain will be converted to a file named FILEnnnn.CHK (each file recovered is numbered — nnnn represents the number from 0000 to 9999). See the Dos manual for more information on CHKDSK.

3 Set **"Display messages" ON or OFF** to indicate whether you want CHKDSK to display a report of its activity while it is running.

4 **Select "Run CHKDSK."** The system will prompt you. When done (if all is well), the system will say **"Disk checks OK. Check another (Y/N)?"** To check another, press Ⓨ. Otherwise press Ⓝ, and then the ⟨Enter⟩ key, to get back to the *Beginner's Environment.*


```
MENU 5.2.2          Sun Nov 19, 1989  3:52:07 pm
                 HEADSTART CHECK DISK MENU


        ┌─────────────────────────────────────┐
        │ 1 SELECT THE DISK TO CHECK          │
        │ 2 ERROR CORRECTION (ON OR OFF)      │
        │ 3 DISPLAY MESSAGES (ON OR OFF)      │
        │ 4 RUN CHKDSK                        │
        │                                     │
        └─────────────────────────────────────┘

COMMAND> CHKDSK A:
  PRESS:  ARROW KEYS (↑↓) TO MOVE THE HIGHLIGHT BAR   F1 DISPLAYS HELP
  ENTER SELECTS AN ITEM      ESC CANCELS A SELECTION  F3 STARTS OVER
```
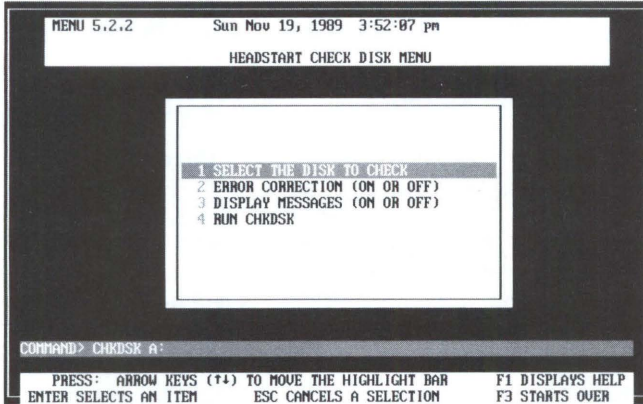
Figure 4-9 Check Disk Menu

Format

Prepares 3.5" floppy disks for use. HeadStart LX-CD can format either a 1.44- megabyte or a 720-kilobyte diskette. But to successfully format a disk at the higher density, the disk must be a high-density disk. Make sure you buy the correct disks for what you want to do.
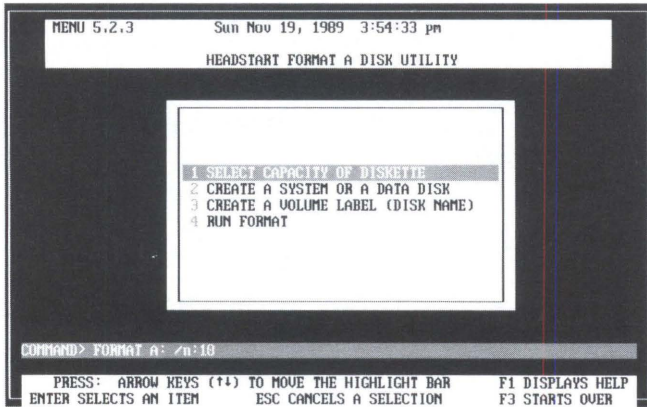
Figure 4-10 Format a Disk Utility Menu

To format a 3.5" diskette, here's what you need to do:

1 First, tell the system the capacity of the disk drive you want to format—1.44 megabytes or 720 kilobytes.

2 Then select which type of disk you want to create — system or data. A system disk means that the diskette will be formatted and a portion of DOS will be copied onto it. You would select "system" if you were, for example, making a working copy of an applications program that does NOT come with the HeadStart LX-CD. The DOS portions that are transferred take up about 60K of space on the disk, so make sure your application won't need that space. A "data"disk means that DOS files won't be copied onto it, and that the entire disk will be used to store information. "Data" is usually the option you select.

3 Next, tell the system whether you wish to create a volume label (a name for the disk). You can enter up to an 11-character volume label. The system will prompt you through this. (Selecting a volume name is strictly optional.)

---

4 Select **Run format**, and then **Format the disk now** from the window that appears. The system will give you a message saying, **"Insert new diskette for drive A: and strike ENTER when ready."** (Press Esc or select **Cancel the format** if you change your mind.) Follow the instructions. You will then see another message saying, "Formatting..." When the job is done, the computer will say, **"Formatting complete. Format another (Y/N)?"** If you want to format another diskette, press Y. Otherwise, press N and you will see a message at the bottom of the screen that says **"Press any key."** Hit the Enter key to get back to the **Format a floppy disk** menu.

5 If you want to make the settings permanent (that is, until you explicitly change them), select **Save these options as the default**. Otherwise, press Esc twice to return to the Menu Bar.

Disk Compare

Determines whether two disks are identical by running the DOS external command DISKCOMP. Note that two disks can contain the exact same files and not be identical because the files may have been copied to the two disks in different orders. That would mean that the files are in different physical locations. Note too that only disks of the exact same physical type can be compared. When you use **Disk Compare** the program will prompt you when to insert and remove the two disks from the drive, like you did above for **Copy a Disk** and **Format a Disk.**
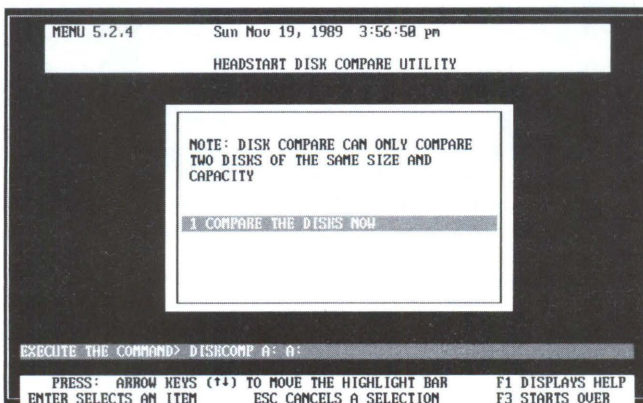


```
MENU 5.2.4          Sun Nov 19, 1989  3:56:50 pm
                 HEADSTART DISK COMPARE UTILITY


         NOTE: DISK COMPARE CAN ONLY COMPARE
         TWO DISKS OF THE SAME SIZE AND
         CAPACITY

         1 COMPARE THE DISKS NOW




 EXECUTE THE COMMAND> DISKCOMP A: A:
    PRESS:  ARROW KEYS (↑↓) TO MOVE THE HIGHLIGHT BAR    F1 DISPLAYS HELP
    ENTER SELECTS AN ITEM        ESC CANCELS A SELECTION  F3 STARTS OVER
```

Figure 4-11 Disk Compare Utility Menu

To compare two disks:

1 Select **Compare the disks now.**

2 Insert into the drive first one disk, and then the other, when prompted.

3 If the two disks compare, the system will say, **"Disks compare OK. Compare another (Y/N)?"** To compare more disks, hit $\boxed{Y}$. To get back into the *Beginner's Environment,* press $\boxed{N}$, the $\boxed{\text{Enter}}$ key, and then the $\boxed{\text{Esc}}$ key.

Create a Bootable Disk

Creates a system disk like you can make with the Format command, but with an important difference: what we call a bootable disk has not only the DOS system files but also the files AUTOEXEC.BAT and CONFIG.SYS. (When the system starts up, DOS always checks these two files for important system settings.) On a bootable disk, the contents of AUTOEXEC.BAT and CONFIG.SYS are the same as on your Headstart LX-CD's hard disk. You can make a bootable disk and then copy a program onto the same disk, so you could still run the program in case of some technical problem with your hard disk.
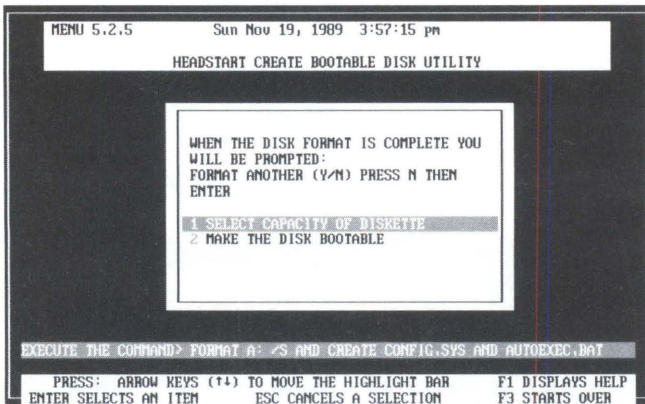


```
MENU 5.2.5          Sun Nov 19, 1989  3:57:15 pm

               HEADSTART CREATE BOOTABLE DISK UTILITY


         WHEN THE DISK FORMAT IS COMPLETE YOU
         WILL BE PROMPTED:
         FORMAT ANOTHER (Y/N) PRESS N THEN
         ENTER

         1 SELECT CAPACITY OF DISKETTE
         2 MAKE THE DISK BOOTABLE




EXECUTE THE COMMAND> FORMAT A: /S AND CREATE CONFIG.SYS AND AUTOEXEC.BAT
     PRESS:  ARROW KEYS (↑↓) TO MOVE THE HIGHLIGHT BAR    F1 DISPLAYS HELP
  ENTER SELECTS AN ITEM      ESC CANCELS A SELECTION      F3 STARTS OVER
```

Figure 4-12 Create Bootable Disk Utility Menu

To make a bootable disk:

1 Select **Make disk bootable now.**

2 You will be prompted, as you were for formatting and copying disks, to enter a new diskette in Drive A. Follow the prompts.

3 When the system is done making the bootable disk, you will be asked, "**Format another (Y/N)?**" Type ⟦N⟧, then press the ⟦Enter⟧ and ⟦Esc⟧ keys to get back to the *Beginner's Environment.*

Backup Pro
Backs up the contents of your hard disk drive onto 3.5" diskettes. This utility is explained elsewhere in the manuals.

DS Optimize
Over time, your hard disk starts to store pieces of a single file in several different places–wherever there's room. This is called "fragmentation." Optimizing the hard disk defragments the disk, putting all the pieces of a file next to each other and in order, so the hard disk can access the file faster. This utility is explained in detail in the manual for the program DS OPTIMIZE.

Recovery Utilities
When you make a mistake, like erasing a file or formatting the hard disk when you didn't really mean to, these utilities can be lifesavers. These utilities also allow you to scan and repair damaged sections of the hard disk. For more information about how to use these utilities, consult the manual for the program DS RECOVER.

Summary of DOS Commands
Leads you to a screenful of frequently used DOS commands, along with a helpful explanation of each.

Programming Languages
Allow you to write your own programs in either GW-Basic or PC Logo. For information about how to use these languages, consult those manuals, included with your computer.

Access to DOS

Allows you to run DOS commands and then return easily into the *Beginner's Environment.* When you select **"Access to DOS"** you're presented with a DOS command line from which you can run DOS internal or external commands. You are, however, limited to the memory available (shown on the top status line).
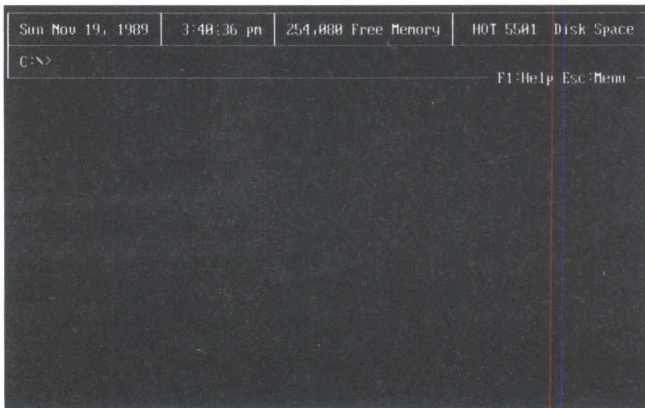

Figure 4-13 The DOS Window

You may find that the program you want to run won't work because it requires more memory than you have available. There's a trick, however, that will free up about 150 kilobytes of RAM.

Instead of entering just the name of the program you want to run, precede the name with two exclamation points, like this: ! ! SPLASH Enter . When it sees the exclamation points, the Environment actually removes itself from your computer's memory until you quit the program you told it to run. With the exclamation points, you can run nearly any DOS program from this screen.

For more information about what the double exclamation points can do, see the "Menu Editor Reference Section" at the end of Chapter 7.

When you're finished with DOS, press Esc to swich back into the *Beginner's Environment.*

Setup/Change System Configuration

Programs under the Setup menu let you customize your HeadStart computer.
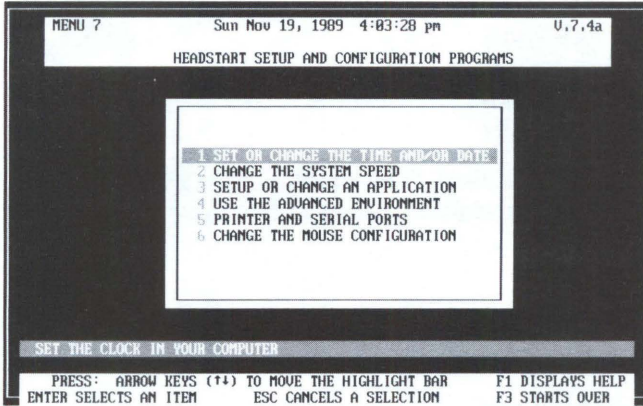


```
MENU 7              Sun Nov 19, 1989  4:03:28 pm              V.7.4a

            HEADSTART SETUP AND CONFIGURATION PROGRAMS


            1 SET OR CHANGE THE TIME AND/OR DATE
            2 CHANGE THE SYSTEM SPEED
            3 SETUP OR CHANGE AN APPLICATION
            4 USE THE ADVANCED ENVIRONMENT
            5 PRINTER AND SERIAL PORTS
            6 CHANGE THE MOUSE CONFIGURATION




     SET THE CLOCK IN YOUR COMPUTER

     PRESS:  ARROW KEYS (↑↓) TO MOVE THE HIGHLIGHT BAR    F1 DISPLAYS HELP
     ENTER SELECTS AN ITEM         ESC CANCELS A SELECTION    F3 STARTS OVER
```

Figure 4-14 Setup and Configuration Programs

Set or Change the Time and/or Date

Checks and resets the clock calendar.

Change the System Speed.

Changes the speed at which the computer runs. Normally, keep the computer at 10 MHz. Some programs, particularly games, may run better at the slower speed, however.

Setup or Change an Application

Allows you to run the setup programs for the various applications included with your HeadStart LX-CD. For details on these setup programs, refer to the manual for each specific application program.

Use the Advanced Environment

Switches you to the *Advanced Environment*, a more sophisticated version of the *Beginner's Environment*.

Printer and Serial Ports

Brings you to another menu, where you can control many aspects of your printer. This is also where you pick the brand of printer you are using.
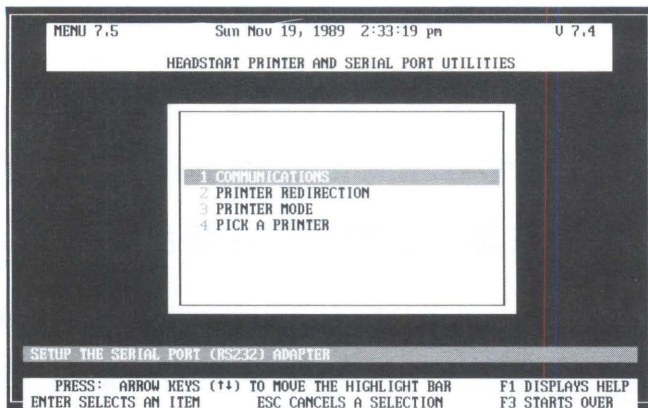
Figure 4-15 Printer and Serial Port Utilities

Communications

The first of these Printer and Serial Port Utilities controls serial port parameters (settings) with the DOS MODE command. You can hook up both modems and printers to the serial ports. If you hook a printer or other device to a serial port you will probably have to use this option to establish communications between the device and the computer.
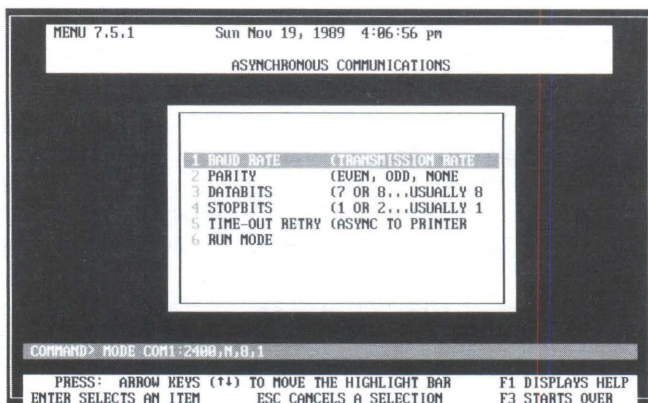

Figure 4-16 Asynchronous Communications Settings Screen

To change the serial port settings, refer to the manual of whatever device you are setting up as you set these parameters:

1 **BAUD RATE** selects the transmission speed of data sent out the serial port, from **300** to **9600** baud. The rule of thumb is to set the speed at the highest the connected device can work with.

2 **PARITY** refers to parity checking, a form of automatic error correction which can be either **Odd** or **Even**. If no parity checking is to be done, you would choose **None**. Again, refer to the manual which came with your device.

3 Each character is represented by either **7** or **8 DATABITS**. Your device's manual should tell you how many your device expects.

4 The computer sends either **1** or **2 STOPBITS** after each character. Your device's manual should tell you how many your device expects.

5 With **Time-out retry... ON**, the computer will keep trying to send characters to the device until the device responds or you turn off the computer. It's best to keep it **OFF**.

6 After you've made the above changes, select **RUN MODE**.

Printer Redirection
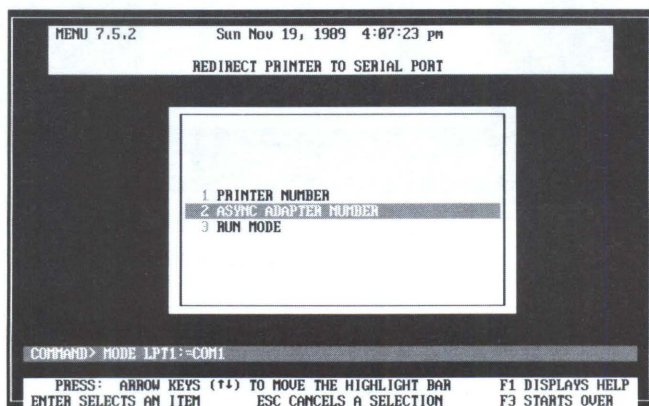
Figure 4-17 Redirect Printer to Serial Port Screen

DOS and application programs always send printer output to the parallel port unless you indicate otherwise. If you hook up a printer with a serial interface to your computer, you must use this option to route output to the appropriate serial port. This is how you do it:

1 Select **PRINTER NUMBER.** If you have one printer simply accept the default choice of printer 1. Otherwise select the number of the printer you wish to control.

2 Select **ASYNCH ADAPTER NUMBER.** If your printer is hooked up to serial 1 (the smaller of the two serial ports), select **Adapter Number 1.** Otherwise, select **Adapter Number 2.**

3 Select **RUN MODE.**

Printer Mode

Uses the DOS command MODE to send control sequences to the printer which determine the number of lines per inch and the number of characters per line.
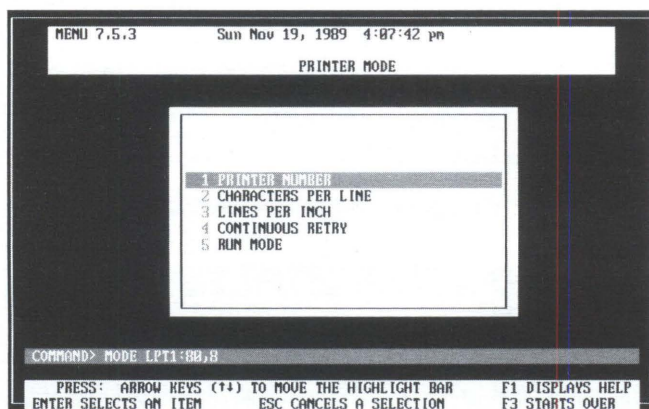
Figure 4-18 Printer Mode

This is how it works:

1 Select the **PRINTER NUMBER**. If you have one printer, simply accept the default choice of printer number **1**. Otherwise select the number of the printer you wish to control.

2 Select **CHARACTERS PER LINE**. For business-sized paper, select **80**; for wide, computer-printout paper, select **132.**

3 Select **LINES PER INCH**. Select **6** to print 66 lines per page on business-sized paper. Select **8** to print 88 lines per page.

4 Select **CONTINUOUS RETRY**.   If you choose **ON**, the system will keep trying to send characters to the printer, even if you try to print and the printer is turned off or is not on line or otherwise isn't responding. When continuous retry is on, the system can't recover from such a condition if there is no printer; if you accidently go to print and you don't have a printer, you'll have to restart the machine to recover. For this reason, it's best to keep continuous retry **OFF**.

5 To send the commands to the printer, select **RUN MODE**.

Pick a Printer

Used to tell the environment and all of the included programs what kind of printer you have.
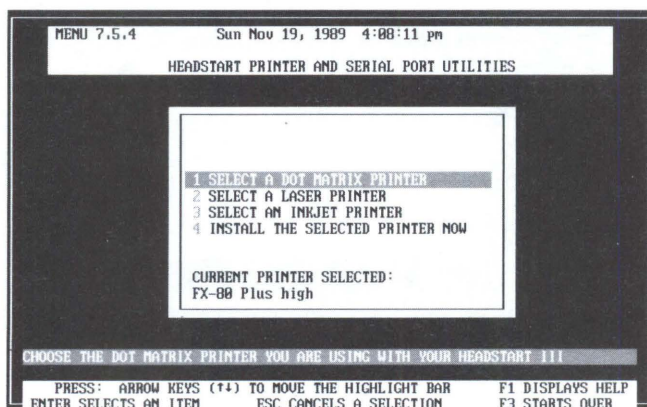
Figure 4-19 Pick a Printer Screen

To pick a printer, consult your printer's manual and find out whether it's a dot-matrix, laser or inkjet. Then pick that option off the Pick a Printer Menu.

After you make this selection, a list of printers of the type you have selected appears. Select the make and model of your printer from the list. If your printer is not on the list, look in the printer's manual to see if it can emulate any of the listed printers.

Once you have selected the printer you're using, choose #4, select **"INSTALL THE SELECTED PRINTER NOW."**

Change the Mouse Configuration

If you're left-handed, you may want to use this option to change the mouse so it uses its buttons in a way more convenient for you. When you choose this option, the right and left buttons are swapped so the button which is physically on the right side of the mouse (where a left-handed person's index finger rests) becomes the "left" mouse button and the physical left button becomes the "right" button.

Help For All Functions

Provides you with information on how to use the *Beginner's Environment.*


```
MENU 8            Sun Nov 19, 1989  3:41:33 pm            V.7.4a

                 ADVANCED HELP FOR THE HEADSTART LX


            1 HOW TO GET HELP
            2 HELP CONTENTS
            3 HELP ON KEYS
            4 SUMMARY OF DOS COMMANDS




   GET INFORMATION ON EACH COMPONENT OF THE HEADSTART OPERATING ENVIRONMENT
   PRESS:  ARROW KEYS (↑↓) TO MOVE THE HIGHLIGHT BAR     F1 DISPLAYS HELP
   ENTER SELECTS AN ITEM       ESC CANCELS A SELECTION    F3 STARTS OVER
```
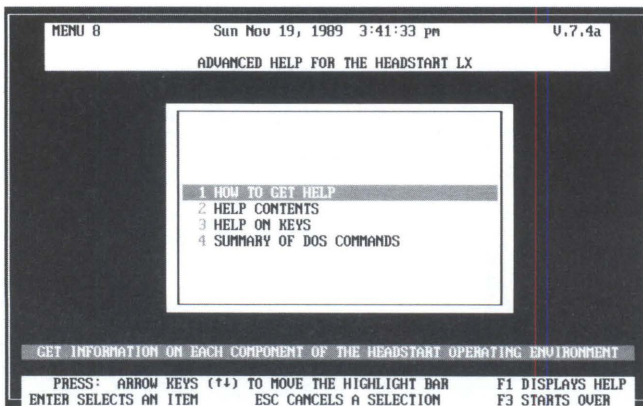
Figure 4-20 Help for All Functions

How to Get Help

Explains how to get context-sensitive help when using various functions of the environment.

Help Contents

Presents a guide to the basic operation of the environment.

Help On Keys

Displays a screen of information about the keys you can use in the environment.

Summary of DOS Commands

Displays a list of the most commonly used DOS commands. Select "**READ ME FIRST**" for an overview about DOS help. Then hit (Esc) to get the list of DOS commands back on screen. Use the (↑), (↓), (←), and (→) keys to highlight the DOS command you want more information about. When you find the command you want, press the (Enter) key.

Exit The HeadStart Environment

Quits the Environment. When you select "**EXIT THE HEADSTART ENVI-RONMENT**" and then press (Y) (for Yes), you are placed at the DOS level. All of the popups are uninstalled — that is, you won't be able to use them again until you restart the environment. If you select Exit by mistake, press (Esc) to get back to the Environment. If you exit the Environment by accident or otherwise want to restart it from DOS, at the C: prompt type hot and then press (Enter).


```
MENU 8                                              V.7.4a
      HEADSTART LX OPERATING ENVIRONMENT CREATED WITH HOT (TM)


                 NOTE: WHEN YOU EXIT THE HEADSTART
                 OPERATING ENVIRONMENT, YOU LOSE
                 ACCESS TO THE DESKTOP POPUP
                 SERVICES UNTIL YOU GO BACK TO THE
                 HEADSTART ENVIRONMENT AGAIN.




        PRESS "Y" ←┘ ENTER TO EXIT TO DOS OR ESC TO STAY IN HOT
```
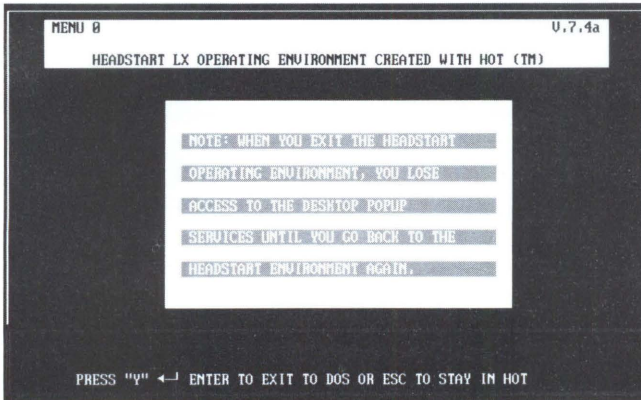
Figure 4-21   Exit the HeadStart Environment

Chapter 5
Advanced Environment
Reference

Unless you've instructed your computer otherwise, you will be using the *Advanced Environment.* The first thing your computer will show you after it starts up is shown in Figure 5-1.

```
┌══════════════ Sun Nov 19, 1989  1:58:00 pm V 7.4a ══════════════┐
│ Applications CD ROM  Tutorials  Popups  Setup  Utilities  eXit Help │
│                                                                    │
│          Arrow keys move the cursor or press the           key     │
│  ┌──────────────────────┬─────────────────────────────────────┐   │
│  │ C:\                  │                                      │   │
│  │                      │ Autoexec.Bat   Phase1  .Com          │   │
│  │                      │ Cdguide .Bat   Pkunzip .Exe          │   │
│  │                      │ Command .Com   Publish .Bat          │   │
│  │                      │ Editor  .Exe   Setmode .Bat          │   │
│  │                      │ Fontwid .Bat   Spawnit .Com          │   │
│  │                      │ Holdexec.Exe   Sweets  .Bat          │   │
│  │                      │ Hot     .Bat   Timer   .Bat          │   │
│  │                      │ Main    .Exe   Tm      .Exe          │   │
│  │                      │ Mouse   .Com   Unpac   .Exe          │   │
│  │                      │ Mscdex  .Exe                         │   │
│  └──────────────────────┴─────────────────────────────────────┘   │
│     ook at a disk  earch for file e ecute     cancels    selects   │
│ ▓ Word Processing, Data Base Management, Spread Sheet and other programs ▓ │
│  Arrows point  Enter selects  Esc=Cancel  F1=Help  F3=Return to 1st menu  │
└────────────────────────────────────────────────────────────────┘
```

Figure 5-1 The Advanced Environment

Basic Navigation

The top line you see on the *Advanced Environment* screen is the date and time. On the line below that, you see the different options you may select. Let's call that the Menu Bar.

In the middle of the screen is a large, shaded box divided into two halves. That's the Program Launcher, and it's described in detail in Chapter 6. For now, let's just say that, among its many functions, it helps you select a program to work with. Press [F2] to move the cursor from the Menu Bar into the Program Launcher, and press [Esc] to get back to the Menu Bar.

You can move around the Menu Bar by using the [◄] and [►] keys. As you press the keys, each option across the top is highlighted in succession. Notice also that as you move, an explanation of the highlighted option appears on the second line from the bottom of the screen. The explanation gives you an idea of the different things you can do in each option. When you find an option that you're interested in, press the [Enter] key.

A sub-menu, listing all the things you can do, pops up underneath the option you've just selected. Navigate through this list by using the [▲] and [▼] keys. As you press the keys, each choice is highlighted. When you've highlighted something you want to do, press the [Enter] key.
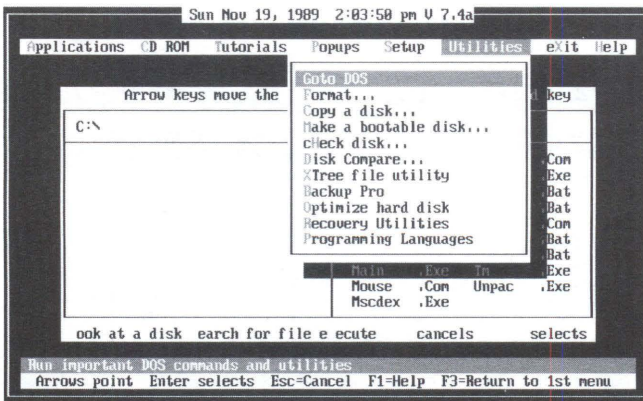
Figure 5-2 Menu Bar Sub-Menus

If you don't see what you're looking for in that list, continue to browse through the rest of the options by using the [▲], [▼], [◄], and [►] keys. Press [Esc] to close a submenu and to return the highlight to the Menu Bar.

Another way to select a menu option is simply to press the letter associated with it. If you have a color monitor, that letter will be in red and capitalized. (If you have a monochrome monitor, it will be highlighted or in a different shade.) To pop up the Applications menu, for instance, press Ⓐ when no menu is visible. To pop up the Exit menu, press Ⓧ.

If a menu is visible, pressing a letter key selects not another menu but an item on the menu that's already displayed. To start *Splash!*, for instance, you would press Ⓐ (for Applications) and Ⓢ (for *Splash!*). To quit the Environment, you'd press Ⓧ (for eXit) and Ⓨ (for Yes).

Here's an explanation of all the options you see on the Menu Bar:

> **Applications**—All the stand-alone programs that are included with your HeadStart LX-CD computer, such as word processing, data base management and spreadsheet.
>
> **CD-ROM**—Allows you to play a CD audio disc or run a program that is on a CD-ROM (as opposed to a program that is on your computer's hard drive or on a floppy disk).
>
> **Tutorials**—Help teach you how to use your computer.
>
> **Popups**—Includes all the memory-resident portions of your computer, such as the Calendar, Datebook and Calculator.
>
> **Setup**—Allows you to configure or change the different hardware components of your computer, like a printer, mouse, modem or clock.
>
> **Utilities**—Includes the different system-oriented functions you need to do with your computer — copy a disk, format a disk, and so on. Or, if you want, you can directly enter some DOS commands.
>
> **eXit**—Gets you out of the *Advanced Environment* and into DOS. Unlike the Utilities option, when you use **eXit** you permanently leave the Environment.
>
> **Help**—Explains how to get help in the different portions of the *Advanced Environment.*

Now let's look at each of these options in order. For more information about any of these options, consult the appropriate sections of the HeadStart manuals.

Applications
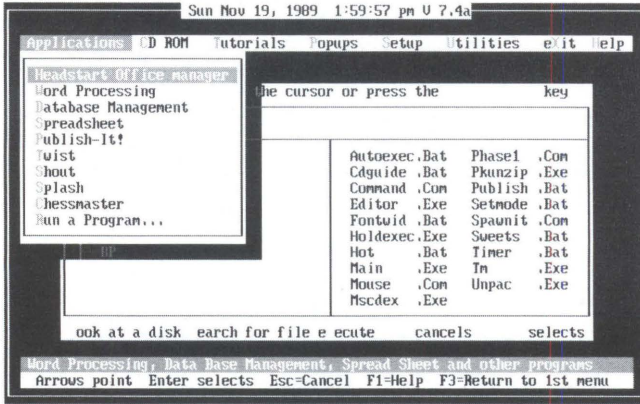
Figure 5-3 The Applications Menu

HeadStart Office Manager

Runs *HeadStart Office Manager*, the integrated productivity program. Picking this option gets you into either the word processing, spreadsheet or database management modules.

When you start the *HeadStart Office Manager*, you'll be offered the opportunity to load Microsoft Bookshelf, the CD-ROM-based reference tool. If you want to use Bookshelf, select the appropriate entry.
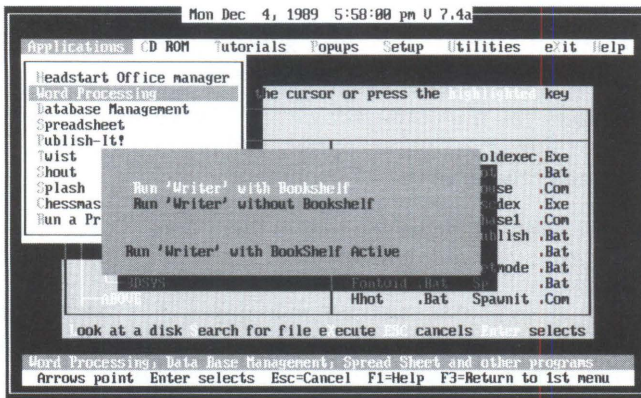
Figure 5-4 Starting the Office Manager with or without Bookshelf

Word Processing, Database Management, Spreadsheet

Instead of selecting *HeadStart Office Manager,* you can go directly to the Word Processing, Database Management or Spreadsheet modules by selecting that specific option from the Applications list.

When you start Word Processing, Database Management or Spreadsheet, you'll be offered the opportunity to load Microsoft Bookshelf, the CD-ROM-based reference tool–just as when you enter the *HeadStart Office Manager.* If you want to use Bookshelf, select the appropriate entry.

Twist

Runs *Twist*, which allows you to print spreadsheets sideways on narrow paper. That comes in handy if you don't want to have to change your printer paper to accommodate the spreadsheet's regular size.

Shout!

Runs *Shout!*, the banner-making program. This allows you to make big signs.

Splash!

Starts *Splash!*, the VGA paint program. It's a kind of computerized box of crayons that allows you to draw virtually any kind of picture you wish.

Chessmaster

Runs the *Chessmaster 2000* chess-playing program, one of the most powerful available.

Publish-It!

Begins the desktop publishing program *Publish-It!*

Run a Program...

Enters the Program Launcher so you can start programs that are not part of the HeadStart Environment.

CD-ROM

When you select an entry under the CD-ROM menus, you'll be asked to insert the appropriate disc. Slip the disc you want to use into the caddy (see the "Getting Started" manual for more details about that), and put the loaded caddy into the CD-ROM drive. When you've done so, press the (Enter) key, and your program will start.
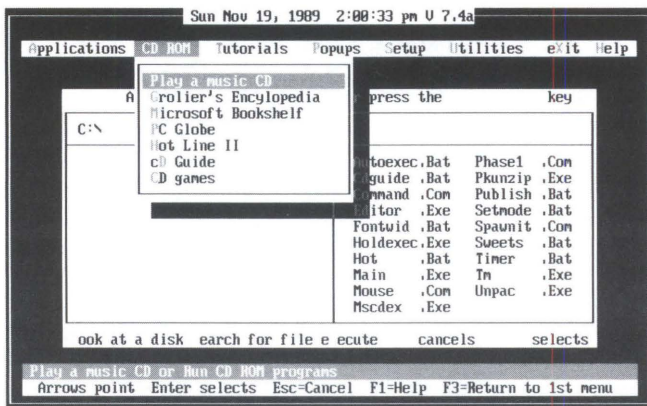
Figure 5-5 The CD-ROM Menu

Play a music CD

Allows you to play the music CD of your choice.

Grolier's Encyclopedia

Selects the CD-ROM version of the 21-volume *The New Grolier Electronic Encyclopedia.*

Microsoft Bookshelf

Starts *Microsoft Bookshelf,* a complete reference library, with a dictionary, thesaurus, style guide, almanac and famous quotations.

PC Globe

Enters *PC Globe,* a computerized atlas with maps and facts about the world.

Hot Line II

Selects *Hot Line II,* a directory of 100,000 corporate phone numbers and addresses and 100,000 confirmed fax numbers.

CD Guide

CD-ROM version of a popular magazine that reviews audio compact discs; includes graphics and sound samples from some of the titles.

CD Games

Allows you to play any of the included games.

Tutorials


```
                 Sun Nov 19, 1989  2:01:14 pm V 7.4a

 Applications  CD ROM  Tutorials  Popups  Setup  Utilities  eXit  Help
                        Ati
          Arrow keys   Computer*Ease          he            key
                        Mavis Beacon Typing
    C:\                 maVis Beacon Resume
                        micRosoft Bookshelf
                                       Bat    Phase1  .Com
                            Cdguide    Bat    Pkunzip .Exe
                            Command .Com    Publish .Bat
                            Editor   .Exe    Setmode .Bat
                            Fontwid .Bat    Spawnit .Com
                            Holdexec.Exe    Sweets  .Bat
                            Hot      .Bat    Timer   .Bat
                            Main     .Exe    Tm      .Exe
                            Mouse    .Com    Unpac   .Exe
                            Mscdex   .Exe

     ook at a disk  earch for file e ecute      cancels       selects

 Learn how to use your HeadStart Computer and improve your skills
    Arrows point  Enter selects  Esc=Cancel  F1=Help  F3=Return to 1st menu
```

Figure 5-6 The Tutorials Menu

ATI
Runs the *ATI Skill Builder* tutorial program which teaches you how to use
HeadStart LX-CD's keyboard and screen, and introduces you to some of
HeadStart LX-CD's features.

Computer*Ease
Runs the animated *Computer*Ease* tutorial program. This uses your
computer to teach you how computers work.

Mavis Beacon Typing
Runs the *Mavis Beacon Teaches Typing* program, which includes drills to
help you learn to type.

Mavis Beacon Resume Writer
Runs the *Mavis Beacon Resume* program, which helps you write your
resume.

Pop-Ups

Pop-Up programs are small, memory-resident utilities that enhance your
usage of the computer. They can also be invoked by pressing the left (Shift)
key twice rapidly.

```
Applications  CD ROM  Tutorials  Popups  Setup  Utilities  eXit  Help

                               File Finder
              Arrow keys mo   1Word        ress the         key
                              Printer Setup
        C:\                   Calendar
                              Datebook
                              cAlculator    exec .Bat   Phase1  .Com
                              crt Saver      ide .Bat   Pkunzip .Exe
                                   and .Com  Publish .Bat
                                   or  .Exe  Setmode .Bat
                              Fontwid .Bat   Spawnit .Com
                              Holdexec .Exe  Sweets  .Bat
                              Hot     .Bat   Timer   .Bat
                              Main    .Exe   Tm      .Exe
                              Mouse   .Com   Unpac   .Exe
                              Mscdex  .Exe

        ook at a disk  earch for file e ecute    cancels      selects

   Run any of the Pop-up Programs
     Arrows point  Enter selects  Esc=Cancel  F1=Help  F3=Return to 1st menu
```
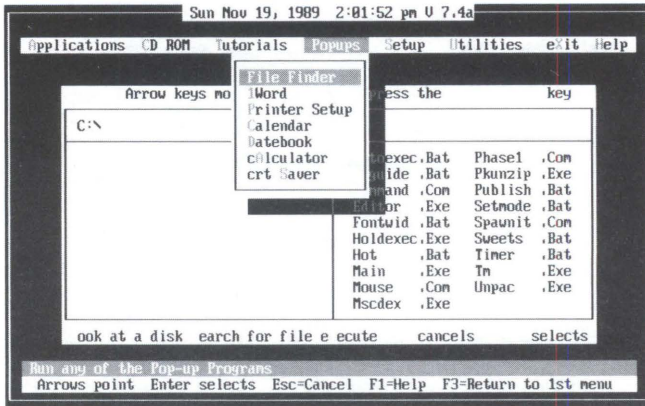
Figure 5-7 The Popups Menu

File Finder

Pops up the *File Finder* hard disk navigation aide.

1Word

Pops up *1Word*, the miniature word processor.

Printer Setup

Permits you to send control codes directly to your printer.

Calendar

Displays a nine-month calendar. With the calendar on the screen, pressing [Enter] starts the *Datebook*.

Datebook

Pops up the *Datebook* electronic appointment calendar.

Calculator

Turns the numeric keypad into a four-function calculator.

CRT Saver

Blanks the screen. The screen can also be blanked by pressing [Alt][9]. Pressing any key restores the screen.

Setup

Programs under the Setup menu let you customize your HeadStart computer.


```
                    Sun Nov 19, 1989  2:02:31 pm V 7.4a
 Applications  CD ROM   Tutorials   Popups   Setup   Utilities   eXit  Help
           ┌──set Date and/or time...──────────────┐
           │ Select speed (10 Mhz or 4.77 Mhz)     │         key
     C:\   │ Applications...                       │
           │ Edit a menu in the environment        │
           │ select Beginner environment level     │  Phase1  .Com
           │ Printer driver selection...           │  Pkunzip .Exe
           │ printer Lines/inch & chars/line...     │  Publish .Bat
           │ printer Utilities...                   │  Setmode .Bat
           │ Redirect printer to serial port...     │  Spawnit .Com
           │ Communications (serial) port...        │  Sweets  .Bat
           │ Mouse configuration...                 │  Timer   .Bat
           └────────────────────────────────────────┘  Tm      .Exe
                               Main     .Exe      Unpac   .Exe
                           Mouse    .Com
                           Mscdex   .Exe

     ook at a disk   earch for file  e ecute      cancels        selects
  Change the hardware configuration, modify the menus and programs
   Arrows point  Enter selects  Esc=Cancel  F1=Help  F3=Return to 1st menu
```

Figure 5-8 The Setup Menu

Set Date and/or time...

Resets the clock and/or the calendar.

Select speed (10 MHz or 4.77 MHz)

Changes the speed at which the computer runs. Normally, keep the computer at 10 MHz. Some programs, particularly games, may run better at the slower speed, however.

Applications...

Allows you to run the setup programs for the various applications included with your HeadStart LX-CD. For details on these setup programs, refer to the manual for each specific application program.

Edit a menu in the environment

Enables you to add, delete and change the menus of the environment. For more information see the Help section later in this chapter and the chapter "Customizing the Advanced Environment."

Select Beginner environment level

Switches you to the *Beginner's Environment*, and tells your computer to start with the *Beginner's Environment* from now on.

Printer driver selection...

Used to tell the Environment and all the included programs what kind of printer you have. After selecting this option, a menu appears from which you select the type of printer you are installing. After you make this selection, a list appears which includes printers of the type you have selected. Simply select the make and model of your printer from the list. If your printer is not on the list, look in the printer's manual to see if it can emulate any of the listed printers.

Printer Lines/inch & chars/line

Uses the DOS command MODE to send control sequences to the printer. This entry determines the number of lines per inch and the number of characters per line your printer will print:

1 Select the **printer number.** If you have one printer simply accept the default choice of printer 1. Otherwise select the number of the printer you wish to control.

2 Select **characters per line.** For business-sized paper, select **80**; for wide computer-printout paper, select **132.**

3 **Select Lines per inch.** Select **6** to print 66 lines per page on business-sized paper. Select **8** for to print 88 lines per page.

4 Select **continuous retry.** If you choose **ON**, the system will keep trying to send characters to the printer, even if you try to print and the printer is turned off or is not online or otherwise isn't responding. When continuous retry is on, the system can't recover from such a condition if there is no printer; if you accidently go to print and you don't have a printer, you'll have to restart the machine to recover. For this reason, it's best to keep continuous retry **OFF.**

5 & 6 To send the commands to the printer, select "**Change printer setting now.**" If you want to make the settings permanent (that is, until you perform this operation again), select "**Save these options as the default.**"
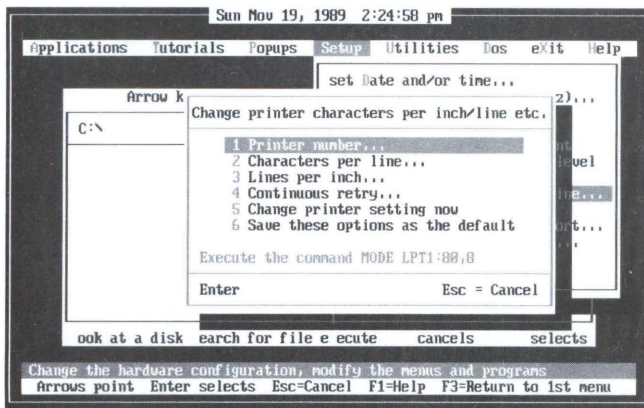
Figure 5-9 Lines per Inch Menu

Printer Utilities...

This option, like the previous one, sends printer control characters to the printer. The first two choices, **"Condensed"** and **"Elite,"** change the size of the type the printer uses (assuming the printer is able to change type sizes). The next two choices, **"Form feed"** and **"Line feed,"** advance the paper one sheet and one line, respectively. The next choice, **"Reset the printer,"** does just that, clearing any previously transmitted control codes. The choice after that one, **"Skip over perforation,"** positions the print head at the top of the page. To see what effect your settings have had, select the last choice, **"Print a test message."**

Redirect printer to serial port...

DOS and application programs send printer output to the parallel port unless you indicate otherwise. If you connect your computer to a printer with a serial interface, you must use this option to route output to the appropriate serial port. This is how you do it:

1 Select **printer number.** If you have one printer, simply accept the default choice of printer 1. Otherwise select the number of the printer you wish to control.

2 Select **"redirect printer now."**

Communications (serial) port...

Controls serial port parameters (settings) with the DOS MODE command. You can hook up modems and printers to the serial ports. If you hook a printer or other device to a serial port, you will probably have to use this option to establish communications between the device and the computer. In that case, refer to the device's manual as you set these parameters:

1 **Baud rate...** selects the transmission speed of data sent out the serial port, from **300** to **9600** baud. The rule of thumb is to set the speed at the highest the connected device can work with.

2 **Parity...** refers to parity checking, a form of automatic error correction which can be either **Odd** or **Even**. If no parity checking is to be done, you would choose **None**. Again, refer to the manual which came with your device.

3 Databits... Each character can be represented by either **7** or **8 databits.** Your device's manual should tell you how many your device expects.

4 Stopbits... The computer sends either **1** or **2 stopbits** after each character. Your device's manual should tell you how many your device expects.

5 Time-out retry... With this **ON**, the computer will keep trying to send characters to the device until the device responds or until you turn the computer off. It's best to keep time-out retry **OFF**.

6 & 7 After you've made the above changes, select "**Configure serial port now**." If you want to make the settings permanent (that is, until you perform this operation again), select "**Save these options as the default.**"
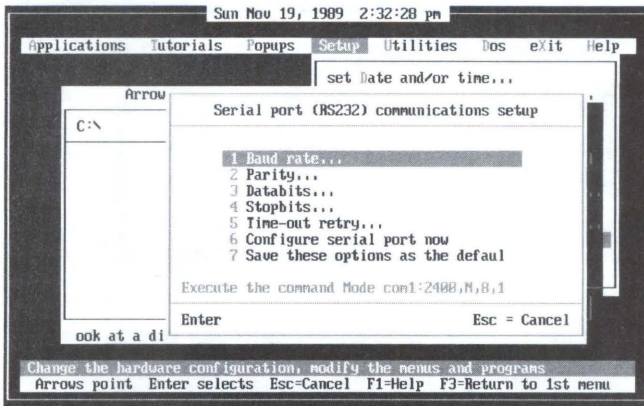
Figure 5-10 Configuring the Serial Port

Mouse configuration...

If you're left-handed, you may want to use this option to change the mouse so it uses its buttons in a way more convenient for you. When you choose this option, the right and left buttons are swapped so the button which is physically on the right side of the mouse (where a left-handed person's index finger rests) becomes the "left" mouse button and the physical left button becomes the "right" button.

Utilities

There are lots of routine tasks that you need to do with your computer–things like formatting disks, copying disks and backing up files. They're mundane but vital jobs, the sort of jobs you'll need to do every day. To make them more convenient, we've put them on a special Utilities menu.

Advanced Reference 5-13

```
           Sun Nov 19, 1989  2:03:50 pm V 7.4a
 Applications  CD ROM  Tutorials   Popups   Setup  Utilities   eXit  Help
                                  ┌──────────────────────┐
                                  │ Goto DOS             │
              Arrow keys move the │ Format...            │ d key
          ┌─────────────────────┐ │ Copy a disk...       │
          │ C:\                 │ │ Make a bootable disk...│
          │                     │ │ check disk...        │
          │                     │ │ Disk Compare...      │ Com
          │                     │ │ XTree file utility   │ Exe
          │                     │ │ Backup Pro           │ Bat
          │                     │ │ Optimize hard disk   │ Bat
          │                     │ │ Recovery Utilities   │ Com
          │                     │ │ Programming Languages│ Bat
          │                     │ └──────────────────────┘ Bat
          │                     │  Main    .Exe   Tm      Exe
          │                     │  Mouse   .Com   Unpac  .Exe
          │                     │  Mscdex  .Exe
          └─────────────────────┘
            ook at a disk  earch for file e ecute     cancels      selects
    Run important DOS commands and utilities
     Arrows point  Enter selects  Esc=Cancel  F1=Help  F3=Return to 1st menu
```
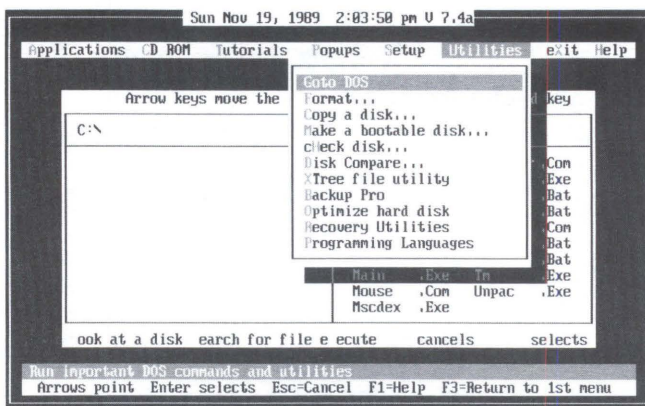
Figure 5-11 The Utilities Menu

Goto DOS

Allows you to run DOS commands and then return easily into the
Advanced Environment. When you select **"Goto DOS,"** you're presented
with a DOS command line from which you can run DOS internal or external
commands. For more information about DOS commands, see the Help
section later in this chapter, or consult your DOS manual.

```
┌──────────────┬────────────┬───────────────────┬──────────────────────┐
│ Sun Nov 19, 1989 │ 2:33:45 pm │ 254,000 Free Memory │ 25,896,960 Disk Space │
└──────────────┴────────────┴───────────────────┴──────────────────────┘
 C:\HOT>
                                              F1:Help Esc:Menu
```
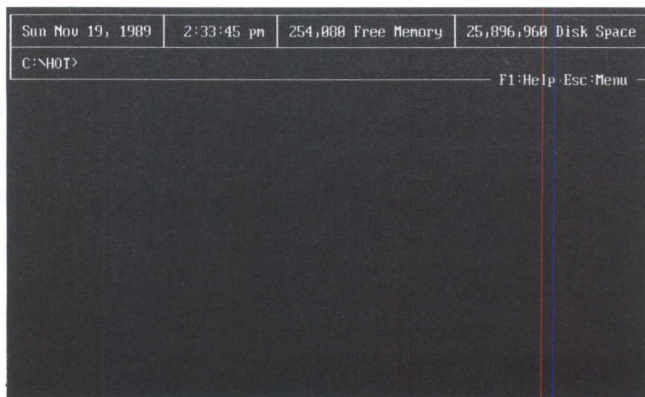
Figure 5-12 The DOS Window

You may find that the program you want to run won't work because it requires more memory than you have available. There's a trick, however, that will free up about 150 kilobytes of RAM.

Instead of entering just the name of the program you want to run, precede the name with two exclamation points, like this: !!SPLASH[Enter]. When it sees the exclamation points, the Environment actually removes itself from your computer's memory until you quit the program you told it to run. With the exclamation points, you can run nearly any DOS program from this screen.

For more information about what the double exclamation points can do, see the "Menu Editor Reference Section" at the end of Chapter 7.When you're finished with DOS, press [Esc] to switch back into the *Advanced Environment*.

Format...
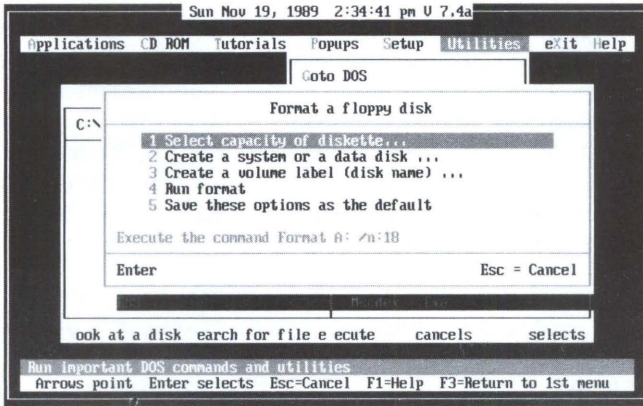
Figure 5-13 Format Choices

Prepares 3.5" floppy disks for use. The Headstart LX-CD can format either a 1.44 megabyte or a 720 kilobyte diskette. But to succesfully format a disk at the higher density, the disk must be a high-density disk. Make sure you buy the correct disks for what you want to do.

To format a 3.5" diskette, here's what you need to do:

1 First select which type of disk you want to create —
   system or data. A system disk means that the diskette will
   be formatted and a portion of DOS will be copied onto it.

You would select "system" if you were, for example, making a working copy of an applications program that does NOT come with HeadStart LX-CD. The DOS portions that are transferred take up about 60K of space on the disk, so make sure your application won't need that space. A "data"disk means that DOS files won't be copied onto it, and that the entire disk will be used to store information. "Data" is usually the option you select.

2 Next, tell the system whether you wish to create a volume label (a name for the disk). You can enter up to an 11-character volume label. The system will prompt you through this. (Selecting a volume name is strictly optional.)

3 Select "**Run format,**" and then "**Format the disk now**" from the window that appears. The system will give you a message saying, **"Insert new diskette for drive A: and strike ENTER when ready."** (Press ⌊Esc⌋ or select "**Cancel the format**" if you change your mind.) Follow the instructions. You will then see another message saying, **"Formatting..."** When the job is done, the computer will say, **"Formatting complete. Format another (Y/N)?"** If you want to format another diskette, press ⌊Y⌋. Otherwise, press ⌊N⌋ and you will see a message at the bottom of the screen that says **"Press any key."** Hit the ⌊Enter⌋ key to get back to the "Format a floppy disk" menu.

4 If you want to make the settings permanent (that is, until you explicitly change them), select "**Save these options as the default.**" Otherwise, press ⌊Esc⌋ twice to return to the Menu Bar.

Copy a disk...
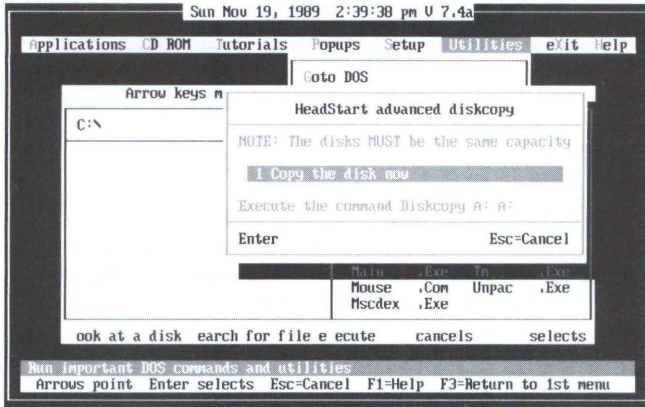
Figure 5-14 Copy a Disk Menu

There is a standard DOS command called DISKCOPY which makes exact copies of entire disks (sort of like duplicating an audio cassette). We've included the DISKCOPY command in this portion of the Environment. To use DISKCOPY, however, the disk that you are copying must be the EXACT SAME KIND as the disk you are copying onto. In other words, both must be 3.5" diskettes with the same capacity.

To copy a disk:

1 Select **"Copy a disk"** and then **"Copy the disk now"** from the next menu that pops up.

2 You will see a message saying: **"Insert SOURCE diskette in drive A. Press any key when ready."** Take the diskette you want to copy FROM and put it into the floppy drive. Press [Enter], and you will see a message, **"Copying...."** (If you press [Enter] and nothing happens, try pressing [Spacebar].)

3 DO NOTHING until you see the message, **"Insert TARGET diskette in drive A. Press any key when ready."** That means the computer has finished copying the information off that first diskette. When you see that message, remove the diskette you just copied. Then take the blank diskette you want to copy TO and put it in the disk drive. Press [Enter] and you will see the message, **"Copying..."** (Again, if

---
Advanced Reference   **5-17**

you press ⌐Enter⌐ and nothing happens, *try pressing*
⌐Spacebar⌐.)

4 Wait for the computer to give you a message. If the source diskette was full, you may be asked to insert swap diskettes in and out of the drive a few times. If there is a problem—such as the target disk being damaged or incompatible with the source diskette—try another target diskette.

5 If everything is fine, you will be notified when the computer has finished copying the information onto the second diskette. You will see a message **"Diskcopy complete. Copy another diskette (Y/N)?"** If you want to copy another diskette, press ⌐Y⌐. Otherwise press ⌐N⌐, and then the ⌐Enter⌐ key to get back to the Environment.

Make a bootable disk...

Creates a system disk like you can make with the Format command, but with an important difference: what we call a bootable disk has not only the DOS system files but also the files AUTOEXEC.BAT and CONFIG.SYS. (When the system starts up, DOS always checks these two files for important system settings.) On a bootable disk, the contents of AUTOEXEC.BAT and CONFIG.SYS are the same as on your HeadStart LX-CD's hard disk. You can make a bootable disk and then copy a program onto the same disk, so you could still run the program in case of some technical problem with your hard disk.

To make a bootable disk:

1 Select **Make disk bootable now.**

2 You will be prompted, as you were for formatting and copying disks, to enter a new diskette in Drive A. Follow the prompts.

3 When the system is done making the bootable disk, you will be asked, **"Format another (Y/N)?"** Type ⌐N⌐, and then press the ⌐Enter⌐ key to get back to the *Advanced Environment*.

cHeck disk...

```
========= Sun Nov 19, 1989  2:41:57 pm V 7.4a =========

  Applications  CD ROM  Tutorials  Popups  Setup  Utilities  eXit  Help

                                 Goto DOS
            Arrow keys move the  Format...                        key
         ┌─────────────────────  Copy a disk...
         │ C:\                    Make a bootable disk...
         │
         │              ┌──────── Check Disk Utility ────────┐
         │              │                                     │
         │              │  1 Select the disk to check...      │
         │              │  2 Error correction (on or off)...  │
         │              │  3 Display messages (on or off)...  │
         │              │  4 Run check disk                   │
         │              │                                     │
         │              │  Execute the command CHKDSK A: /F/V │
         │              │                                     │
         │              │  Enter                  Esc=Cancel  │
         │              └─────────────────────────────────────┘
          ook at a disk  earch for file eXecute Esc cancels Enter selects

    Run important DOS commands and utilities
     Arrows point  Enter selects  Esc=Cancel  F1=Help  F3=Return to 1st menu
```

Figure 5-15 Check Disk Menu

Runs the DOS command CHKDSK to test the integrity of a disk's file
system.

1 **Select the disk to check. Press the** (Enter) **key.**

2 Set **error correction (on or off)** to indicate whether you
   want CHKDSK to convert lost chains to files. A lost chain
   is one or more file storage units which show up as being
   used but which can't be associated with any particular
   file. If you select **Correct on**, each lost chain will be
   converted to a file named FILEnnnn.CHK (each file recov-
   ered is numbered — nnnn represents the number from
   0000 to 9999).

3 Set **"Display messages" ON or OFF** to indicate whether
   you want CHKDSK to display a report of its activity while it
   is running.

4 **Check the disk**. As with formatting and copying a disk,
   the system will prompt you. When done (if all is well), the
   system will say **"Disk checks OK. Check another (Y/N)?"**
   To check another, press (Y). Otherwise press (N), and then
   the (Enter) key, to get back to the Environment.

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Disk Compare...

Determines whether two disks are identical by running the DOS command DISKCOMP. Note that two disks can contain the exact same files and not be identical because the files may have been copied to the two disks in different orders. That would mean that the files are in different physical locations. Note too that only disks of the exact same physical type can be compared. When you use **Disk Compare...** the program will prompt you when to insert and remove the two disks from the drive, like you did above for Copy a disk and Format a disk.

1 **Select Compare the disks now.**

2 Insert into the drive first one disk, and then the other, when prompted.

3 If the two disks compare, the system will say, **"Disks compare OK. Compare another (Y/N)?"** To compare more disks, hit Ⓨ. To get back into the *Advanced Environment,* press Ⓝ and then the (Enter) key.

XTree file utility

Starts the file management program *XTree.* For more information on how to use *XTree*, see the *XTree* manual.

Backup Pro

Backs up the contents of your hard disk drive onto 3.5" diskettes. This utility is explained elsewhere in the manuals.

Optimize hard disk

Over time, your hard disk starts to store pieces of a single file in several different places–wherever there's room. This is called "fragmentation." Optimizing the hard disk defragments the disk, putting all the pieces of a file next to each other and in order, so the hard disk can access the file faster. This utility is explained in detail in the manual for the program DS OPTIMIZE.

Recovery utilities
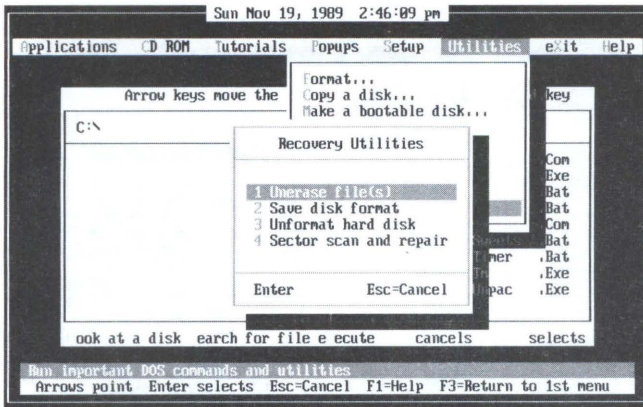
Figure 5-16 Recovery Utilities Menu

When you make a mistake, like erasing a file or formatting the hard disk when you didn't really mean to, these utilities can be lifesavers. These utilities also allow you to scan and repair damaged sections of the hard disk. For more information about how to use these utilities, consult the manual for the program DS RECOVER.

Programming Languages

Allow you to write your own programs in either GW-Basic or PC Logo. For information about how to use these languages, consult those manuals, included with your computer.

eXit
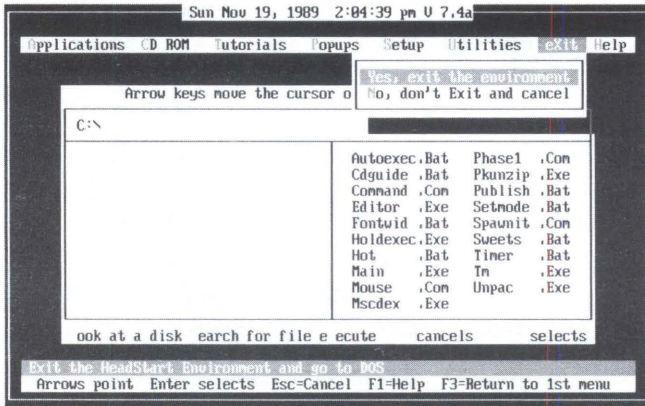
Figure 5-17 Exit Menu

Quits the Environment. When you select **"Yes, exit the Environment,"** you are placed at the DOS level and all of the popups are uninstalled — that is, you won't be able to use them again until you restart the Environment. If you select eXit by mistake, select **"No, don't Exit and cancel"** to return to the Environment. If you exit the Environment by accident or otherwise want to restart it, at the C: prompt, type **hot** and then press (Enter).

Help
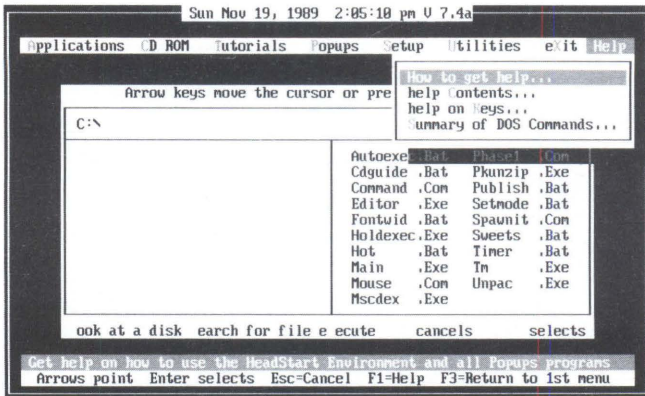
Figure 5-18 The Help Menu

Help

Provides you with information on how to use the *Advanced Environment*.

How to get help...

Explains how to get context-sensitive help when using various functions of the environment.

Help Contents...

Presents a Table of Contents for the basic operation of the Environment. It explains how to use the Environment, the Pop-Up programs, how to edit the menus, installing the Environment, and using the DOS utilities.

Help on Keys...

Displays a screen of information about the keys you can use in the Environment.

Summary of DOS commands...

Displays a list of the most commonly used DOS commands. Select **Read me first** for an overview about DOS help. Then hit Esc to get the list of DOS commands back on screen. Use the ↑, ↓, ←, and → keys to highlight the DOS command you want more information about. When you find the command you want, press the Enter key.

Chapter 6
The Program Launcher

That big grey box in the middle of the screen is called the program launcher. It's where you go to run programs that you purchase and copy to your HeadStart LX-CD.

Two questions immediately come to mind: How do I get the programs on to my HeadStart LX-CD and how do I start them using the Program Launcher once I do?

How to Get Programs onto your Hard Disk

Most programs nowadays come with installation programs. Typically, you place the disk numbered 1 into the A drive, make the A drive the *default* drive by typing **A:** at the C> prompt (changing the prompt to A>) and then typing **INSTALL** or **INSTALL C:** or **INSTALL A: C:** at the A> prompt. The installation program then creates any necessary subdirectories and copies the files to drive **C**, prompting you to change floppies as necessary.

To run such an installation program, go to the DOS shell (Select Utilities, on the main menu bar), change to drive A as described above and then run the installation program as described in the program's instruction manual.

When the installation program is finished, press (Esc) or the right mouse button to return to the *Advanced Environment*. (Some installation programs ask you questions about your hardware. See "What to Tell Your

If the program you want to copy to your HeadStart LX-CD doesn't have an installation program, you have two choices. If you know your way around DOS, go to the DOS shell, create or change to the appropriate subdirectory, and use the DOS COPY command to copy the files from the floppy to your hard disk (that is, drive C). If you're not comfortable with DOS, use the *XTree* file management utility which is available on the **Utilities** menu.

The Program Launcher Screen

If you drop down the **Applications** menu you'll see that the last choice on that menu is **Run other programs...** This is the entrance to the Program Launcher.

Click on it with the left or center mouse button and you'll see the program launcher window pop up over the **Applications** menu. Alternately you can just click the left mouse button anywhere in the left-hand window of the Program Launcher. Use either method to enter the Program Launcher now.

Once you're in the launcher, the right-hand window is replaced by a list of programs. A light bar appears in the left-hand window, which contains a diagram of the subdirectories on the hard disk.

Figure 6-1 shows what the Program Launcher looks like while you're using it.
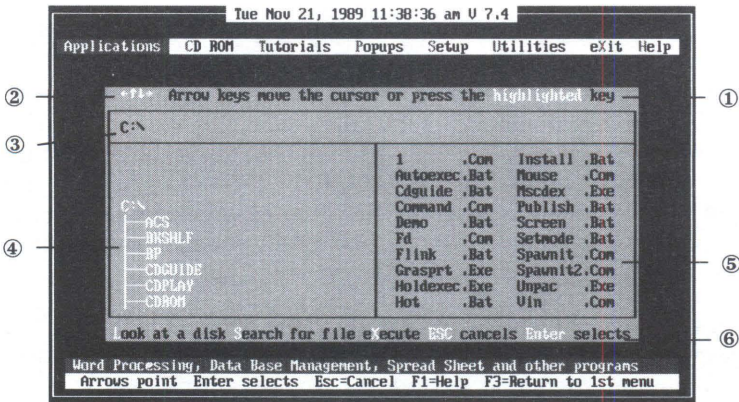
Figure 6-1 The Program Launcher

Note that the names of the subdirectories in the left-hand window and the names of the programs in the right-hand window on your HeadStart LX-CD may differ from the illustration.

①   Help Line

②   Mouse Arrows

③   Path Line

④   Directory Window

⑤   Program Window

⑥   Command Menu

At the top of Program Launcher is ① the help line. It explains that you can use the arrow keys to move the light bars and that the letters highlighted in the command menu represent commands you can enter.

On the left side of the help line are ② the mouse arrows. Clicking on a mouse arrow when you're in the program launcher moves the light bar in the direction the arrow is pointing .

Directly below the help line is ③ the path line. It shows the current path. What's the current path? We'll get to that in a minute.

The main section below the path line is divided into two boxes, or windows. The left-hand window is ④ the directory window. It presents a graphic depiction of the current disk's directory structure.

To the right of the directory window is ⑤ the program window. It displays all of the programs in the current directory.

At the bottom of the program launcher is ⑥ the command menu. There is no light bar as there is with the Main Menu bar, but this menu works much the same way. Press the highlighted letter to execute the commands.

We'll get into the actual operation of the program launcher in a moment, but first, a little background for beginners.

Current Events

You may be wondering what the terms "current path," "current directory" and "current disk" mean.

Current, in DOS terminology, means "the one which will be used in executing the next command unless you explicitly indicate another should be used." You may come across the terms "default" or "logged." They are synonymous with "current."

For example, your HeadStart LX-CD has two disk drives, designated A and C. If you were to run the DOS command DIR to display the contents of a disk, which disk's contents would be displayed? The contents on the current or default disk. When you start up your HeadStart LX-CD, drive C is the current disk. When using DOS directly, you change disks by typing the letter of the drive you to which you wish to change to at the DOS prompt, followed a colon. For instance:

C:\>

C:\>**A:** [Enter]

A:\>

Notice that these prompts have a backslash (\) in them. That's because the prompt on your HeadStart LX-CD (which you see when you shell to DOS and when you exit the Environment) has been modified to show not just the current disk, but the current path too. Just as you can change the current disk to perform operations on that disk, you can change directories to perform operations within that directory (like copying a file or starting a program.) Because the Environment takes care of changing directories when necessary to run programs, you don't have to know how to do so using DOS, but we'll give you a little background so you'll understand what you're looking at when you use the Program Launcher.

Directories and Paths

Instead of working like one giant floppy disk, the hard disk of your HeadStart LX-CD is organized into a series of directories and subdirectories. (In practice, the terms are used interchangeably.)

All disks have what's called a root directory. If you don't create subdirectories on a disk, the root is the only directory on the disk. This is usually the case with floppy disks, because they're small enough (in terms of storage capacity) to be fairly useful without further organization. Delicatessens and convenience stores don't number their aisles but supermarkets do. It's the same idea.

On your HeadStart LX-CD, all of the major applications are in their own subdirectories. If, for example, you had to change to the 3D subdirectory, where *Perspective 3-D Graphics* is stored, using DOS, the command would look like this:

C:\>

C:\>**CD\3D** (Enter)

C:\3D>

The backslash (\) represents the root directory. CD, or change directory, is the DOS command that changes directories. Notice that the prompt changes to indicate that 3D is now the current subdirectory. Subdirectories can contain files and other subdirectories. There's virtually no limit to how many files and subdirectories a subdirectory can contain.

If you can have lots of subdirectories and each of them can in turn contain even more subdirectories, how do you come up with a complete, unambiguous description of exactly where any particular file is? By describing the file's *path*. For instance, let's say your desk is in the accounting department, which is located in building three of the Northvale plant of your company. The path to your desk would be:

Northvale plant to Building Three to Accounting to Me

If you were a file on a disk, and these locations were disk subdirectories instead of physical locations, the path to you would be:

C:\NORTHVAL\BLDG3\ACCTING\ME

(Subdirectory names, like filenames, can have no more than eight letters in their names.)

Moving between subdirectories with the Program Launcher couldn't be easier. Instead of having to type in CD and then the complete path of the subdirectory to which you want to change at the DOS command line, you just point at the subdirectory's name in the left-hand window of the program launcher and click the left mouse button. When you do this, the path line shows the current path to the selected subdirectory. Let's see how it works.

Running Programs

Move the mouse cursor anywhere in the directory window and click the left mouse button.

Your screen should look like this:
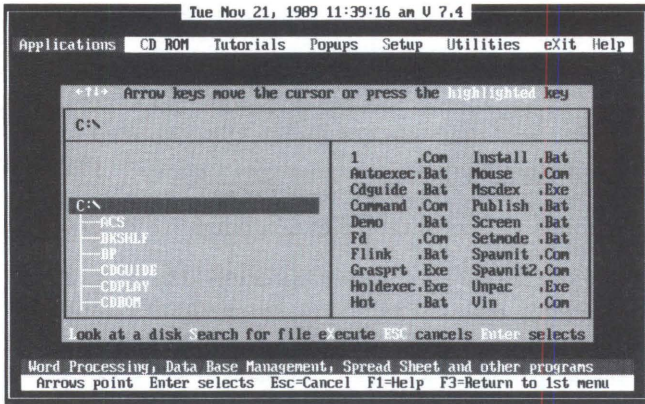
Figure 6-2 The Program Launcher

Notice that the light bar is over the root directory and the path line shows that you are "in" the root directory. The program window displays a list of all the programs in the root directory. Programs in the DOS world always have *extensions,* or last names, of .COM, .EXE or .BAT.

Now press the ⬇ key repeatedly (or just hold it down) until the light bar is over the MANAGER subdirectory. If you like, you can move the mouse pointer over the downward pointing arrow and hold the left button until the MANAGER subdirectory is highlighted. Note that the path line shows that the current path is now C:\MANAGER. We are now in the \MANAGER subdirectory, where the *HeadStart Office Manager* program is stored.

As you moved down the list of directories in the left window, you may have noticed that several names that were indented from the left margin. Those are the names of subdirectories underneath the directories.

If you have moved the cursor away, move back up to \MANAGER. Notice that there are a number of programs in this directory. You can run one of them by pointing to its name on the **Applications** menu of course, but let's run it from the Program Launcher to see how to do it. Move into the program window by pressing either ⌷Tab⌷ or ➔.
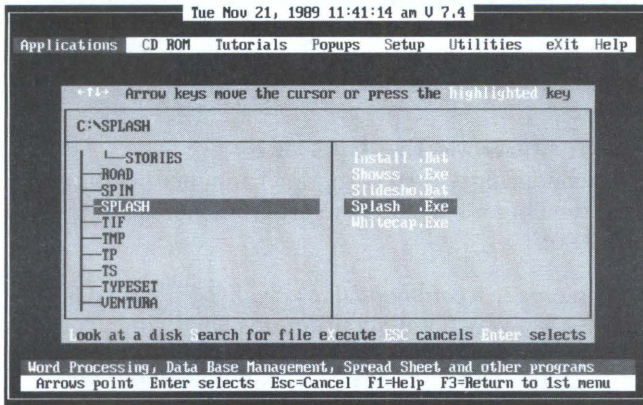
Figure 6-3 Program Launcher—Cursor in File Window

Now you have two light bars; one over MANAGER in the directory window and one over a file in the program window. Move the cursor over one of the .EXE files. You can launch that program in any of three ways: click the center button on the mouse, press Enter or, as the command menu shows, press X to **eXecute** the program.
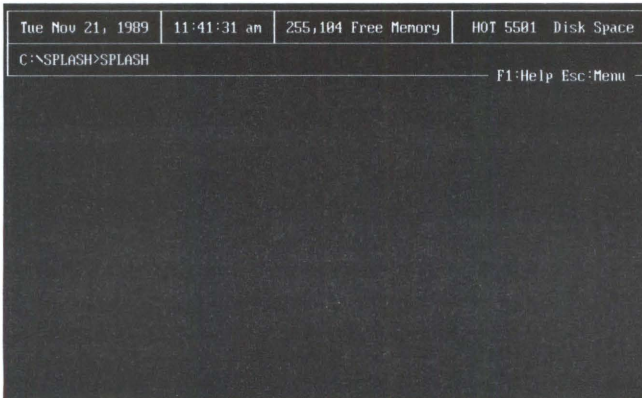
Figure 6-4 After Selecting an Executable File with the Program Launcher

When you launch a program, the DOS shell screen pops up with the filename already typed in at the command line.

Press (Enter) to launch the program. You don't really have to if you don't want to. If you don't, you can press (Esc) twice to exit it. If you choose to run the program, you'll be put at the DOS shell when you quit. Press (Esc) to return to the Program Launcher.

Why Does It Show Me the DOS Shell?

You may be wondering why the Program Launcher presents you with the DOS shell screen before starting the program instead of just starting the program right up.

It's so you can type in a *command line parameter* if you wish. A command line parameter is a way of telling programs what you want to work on.

For instance, most word processing programs allow you to type in a filename after the name of the program when you start them up. Then, if the file you typed in doesn't exist, the word processing program creates it; if the file does exist, the word processing starts up with that file already loaded.

The Program Launcher Command Menu

The Program Launcher has its own little menu of commands along its bottom row. (Esc) and (Enter) work as they always do.

The "L" Command—Look at a Disk

Look at a disk allows you to use the program launcher on any disk. Press (L) and the program launcher will prompt you: **Log disk drive (A..Z) ?** You can look at a diskette in one of the floppy disk drives by inserting the disk in a drive and typing the appropriate letter.

The "S" Command—Search For A File

Search for file searches for a program (that is, a file with an extension of .COM, .EXE or .BAT). You don't have to type in the extension and you don't have to use a DOS *wildcard* character if you don't know the full name. (See the DOS manual for more on wildcard characters.)

For example, let's say you need to locate a program you know starts with the letter "X". Type (S) and then when prompted for the name to search for, just press (X) and press (Enter).

The Program Launcher will find the first program on the disk that starts with **X**. Let's say this isn't the program you were looking for. Press ⑤ again. You'll notice that the **X** is now the default answer. Just press [Enter] to accept it.

The Program Launcher finds the next program that matches. You can repeatedly press ⑤ and [Enter] until you find the file you're looking for or you reach the end of the disk.

A Shortcut

In addition to using the menus or mouse, there is another way to get to the Program Launcher—simply press [F2] at any menu.

Chapter 7
Customizing the
Advanced Environment

Advanced Functions

The *Advanced Environment* is not only fast and powerful, but flexible too. You can change the wording of a menu option, change it's function, replace options and delete options entirely.

Editing menus is quite easy and straightforward, but it's a good idea to hold off on changes until you're used to the standard menus. A basic understanding of DOS and batch file programming would also be helpful.

As shipped from the factory, the Environment is full. While you may change existing menus, in order to add a menu item to the Environment you must first delete one.

If you do make any mistakes while editing menus, you can always go back to the "original" settings by re-installing the Environment from the CD-ROM.

As they comes from the factory, the Environment's menus are full. While you can change menus freely, you will not be able to add anything to them unless you first delete some items.

The Five Minute Menu Editing Tutorial

Note: This tutorial is for demonstration purposes only. If you do follow along and implement menu changes, you will have to re-install the HeadStart Environment if you want to restore the original menus.

A single menu option can trigger a long and complex series of commands. In fact, that's one of the most important advantages of a menu system. It simplifies and automates. In the example that follows, we automate an important system chore: backing up data. Backing up data protects you from losing information and should be done regularly.

To keep the example simple, we'll automate the backing up of the contents of just one subdirectory on your hard disk. We'll do this by changing an item on a menu and then typing in the commands that the option should trigger.

Once you've familiarized yourself with the system a bit more, you may want to add commands to the menu option so you can back up your entire disk with just a few keystrokes.

We'll assume that we want to back up those files which are stored in the *Splash!* subdirectory. *Splash!* data files always have the extension .SS. We have the option of choosing whether to back them up to a floppy disk or onto another directory on the hard disk. For this demonstration, we will be backing up our data to floppy disks.

We'll modify an option on the **Utilities** menu so that it will, when selected, do the following steps:

1. Change to the *Splash* subdirectory,

2. Prompt the user to insert a floppy disk in drive A:,

3. Copy the data files to the floppy disk.

Using the Menu Editor

1 Select the Setup Menu.

2 Select **Edit a menu in the environment**.

```
┌─────────────────────────────────────────────┐
│ ▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒ │
│ ┌────────────────────────────────┐          │
│ │▓Framework II▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓│          │
│ │ Splash                         │          │
│ │ perspective 3d graphics        │          │
│ │ Publish-it!                    │          │
│ │ Shout                          │          │
│ │ Twist                          │          │
│ │                                │          │
│ │ ┌────────┐                     │          │
│ │ │Apps▓▓▓▓│ n...                │          │
│ │ │Popups▓▓│────┘                │          │
│ │ │Setup▓▓▓│                     │          │
│ │ │Utils▓▓▓│                     │          │
│ │ │Exit▓▓▓▓│                     │          │
│ │ │Help▓▓▓▓│                     │          │
│ │ │CDROM▓▓▓│                     │          │
│ │ │Tutorial│                     │          │
│ │                                │          │
│ │ Select a menu to edit from the list         │
│ │ ARROWS point to menu   ENTER select menu    ESC quit editing │
└─────────────────────────────────────────────┘
```
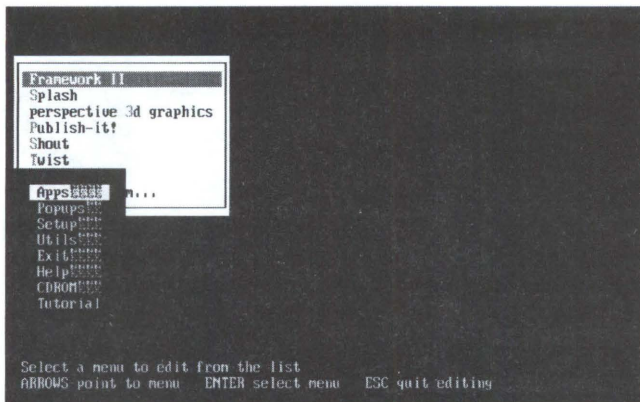
Figure 7-1 The Menu Editor

Your screen should now look like Figure 7-1. The **Applications** menu is in its usual place but it is partially obscured by a box which contains the names of the main menu bar menus.

This box, called the *Name Menu,* is used to select which menu you wish to work on. Two lines of help information are on the bottom of the screen.

> **Note:** *The names of menus are similar, but not exactly the same as their titles. For example, the real title of the menu displayed behind the name menu is* **Applications** *but its name on the name menu has been shortened to* **Apps**.

> **3** Press the ⊕ key to move the light bar down the Name menu.

Notice that as the light bar moves over a menu name, the corresponding menu appears on the screen.

We want to edit an option on the **Utilities** menu.

> **4** Move the light bar over **Utils** on the Name menu. This will display the **Utilities** menu.

> **5** Press ⌈Enter⌉. You are now ready to to begin the editing process.
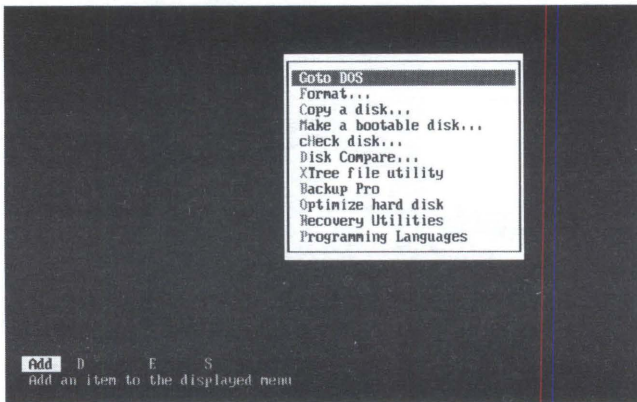
Figure 7-2 Changing an Item on a Menu

A new menu appears at the bottom of the screen. The first choice, **Add**, should be highlighted.

> **6** Press ⟶ twice, to move the highlight to **Edit** and press
> ⟨Enter⟩. If you accidently select one of these other
> choices, just press ⟨Esc⟩ to back out.
>
> **7** Use the ⟨↓⟩ to move the light bar over the sixth item on
> the menu, Disk Compare, and press ⟨Enter⟩.
>
> **8** Press ⟨Ins⟩.
>
> **9** Type **Backup Splash Data** and press ⟨Enter⟩.

Entering Commands

A new screen appears. This is where we enter the commands that will do the actual work. In effect, we'll be writing a little program to back up the data automatically.

When professional programmers write programs, they frequently write them first in what's called *pseudo code*.

Pseudo code is structured like an actual program but it's not written in any particular computer language. It's a plain English description of what will occur in a program. Programmers write pseudo code so they can organize their thoughts before they write the actual program in whatever language they're working in. It's like when an artist makes a rough sketch before doing an oil painting.

Here's the pseudo code for our little backup program:

    a) Change to the *Splash* directory.

    b) Prompt the user to insert a diskette in drive A:.

    c) Copy the *Splash* data files.

    d) Return to the *Advanced Environment*.

Now that we know exactly what we want the system to do, how do we tell it what to do?

Item Commands

The menu editor has its own little programming language which consists of ten *item commands*. They get plugged into the numbered lines on the right of the screen. Each item can can trigger up to 16 item commands. In addition to the item commands, any standard DOS command can be executed.

The *item commands* are fully explained in the at the end of this chapter. You don't need to know them all—in this example, we'll use just one, **[Input]** plus two regular DOS commands.

Look at the menu at the top of the screen. There are five editing commands (indicated by **CMDS:** on the menu): **Esc** (represented by a * on the menu), **Delete**, **Edit**, **Insert** and **Undo**.

Use the arrow keys to move the light bar across the menu to read the help line explanations of what the commands do.

    10 Select **Delete** by typing an Ⓓ or by moving the light bar over the word and pressing ⏎Enter⏎.

    11 Select **Edit** by typing an Ⓔ or by moving the light bar over the word and pressing ⏎Enter⏎.

Two Kinds of Commands

At this point, you can enter either DOS command or an item command. To make things easy, we'll only use one of the "item commands," along with regular DOS instructions.

At this point, your cursor should be a flashing block, located on line 1.

We can now type any standard DOS command on the line. In fact, we can type multiple DOS commands on the line, separating them by double exclamation points. We need only one DOS command on this line, so:

> **12** Type **CD\SPLASH** and press (Enter).

This is the first step of our mini-program: changing to the Splash subdirectory. Note that now another light bar appears to the right of the **2:**, indicating that this is the current line.

We could now use the (↑) key to move the light bar back up to line 1 (if you decide to change the command, for example). Instead, let's continue to work on line 2.

We have to prompt the user to insert a disk in drive A:

> **13** Type **[Input]** and hit the (Spacebar).

> **14** Type `Name=Insert a disk into drive A: and press Enter.`

> **15** Press (Enter).

This line enables us to prompt the user to insert the disk.

Now we enter the DOS command that does the copying. This time use the **[Silent]** command. This causes a DOS command to be executed without *echoing* or displaying the DOS command on the screen.

> **16** With the light bar on **3:** type:
>
> `[Silent] COPY *.SS A:\` and press (Enter).

That's it! You've modified a menu option on the Utilities menu. Now let's get out of the menu editor and back into the Environment with our new menu so we can try it out.

17 Press ⌈Esc⌋ twice to back out of the menu editor. At the bottom of the screen you will see the question "Do you want to save the menu file before exiting" with the **Yes** option highlighted. (If you don't see **YES** and **NO** at the bottom of the screen you've pressed ⌈Esc⌋ one time too many. Press ⌈Esc⌋ one more time to return to the save options.)

18 If you wanted to keep the changes to the Environment menus, you would press either ⌈Y⌋ or ⌈Enter⌋. Since we don't really want to make this change, press the ⌈→⌋ to highlight **NO** then press ⌈Enter⌋ to exit the menu editor and return to the Environment.

Remember: If you do make this menu change here, you will have to re-install the HeadStart Environment from the backup CD to restore the original menus.

Try out your new menu option. If it doesn't work properly you have to find the errors in it. Go over the instructions again and see if you made a typo somewhere.

This brief example was meant to just give you some of the flavor of the menu editor. The program we wrote can be improved and you'll probably be able to think of others that would also be useful additions to the menus. Here are some ideas to get you started:

- If you purchase a program and copy it to the hard disk, you can create a menu option to run it.

- You can launch the same program with two different menu options. Let's say you purchase a spreadsheet program like Lotus *1-2-3* with which you plan to track the performance of two companies, ABC and XYZ. You could create one menu item called **Track ABC Company** which would trigger the DOS command **123 ABC**, starting *1-2-3* and automatically loading the ABC spreadsheet. The other menu choice would be **Track XYZ Corp.** which would trigger the DOS command **123 XYZ**, starting *1-2-3* and automatically loading the XYZ spreadsheet.

• You can use the **[deVice]** command to load *1 Word* and a
file you frequently have to edit. If you're an expert user
who frequently has to edit AUTOEXEC.BAT or
CONFIG.SYS, you can create a menu option that allows
you to load these files into *1 Word* with one keystroke.

*CAUTION: Editing the CONFIG.SYS and/or AUTOEXEC.BAT files
is dangerous if you don't know what you're doing. If novices will
have access to your system you should protect this option with the
[passWord] item command. If you're a novice, don't touch these
files at all.*

Menu Editor Reference Section

Here is a listing of the available menu editing commands:

[Beep]
Sounds the speaker for one second. Useful for alerting that user that an
action must be performed or that some operation has been completed.

[deVice]
Calls a Pop-Up program. Syntax:

[deVice] *Device_name filename*

The Pop-Up programs include the *File Finder*, *1 Word*, *Datebook*, *CrtSaver*,
Viewfile and the *Calculator*. The valid device names are:

[deVice] 1word

[deVice] Calc10

[deVice] Calendar

[deVice] Datebook

[deVice] @Finder@

[deVice] Viewfile

DOS

Any DOS internal or external command can be executed by a menu item. You can select **DOS** from the item command menu, or simply type the desired DOS command on any blank line. To add more than one DOS command to a line, separate the DOS commands by double exclamation marks.

[Input]

Pops up a text input window. Syntax:

[Input] Name= *text*

Text is text to be displayed during execution.

[Keystr]

Sends a keystring to an application at startup. Syntax:

[Keystr] *Keystring*

This can automate the loading of programs. The **[Keystr]** item command must precede the keystrokes required to load the program.

For example, the keystrokes to load the word processing program *Multi-Mate Advantage* and bring the program to the Edit a Document menu are: 1, 1. That is, once the program starts you select 1 from the program's first menu and you select 1 from the next menu. If you purchased *MultiMate* and wanted to add it to, say, the **Applications** menu you could use the following item commands to automatically bring it up in edit mode whenever you selected it from the **Applications** menu:

1: **[Keystr]** 1 1

2: CD\MM

3: MM

[Pause]

Pauses execution and waits for a keystroke, similar to the DOS batch file command PAUSE. Unlike the DOS PAUSE command however, **[Pause]** cannot be used to display a comment line.

[reM]

Identifies a remark. Syntax:

[reM] *Remark*

Used to insert a non-executing comment into a command list. Useful for including explanatory material in command lists and for temporarily "commenting out" commands that you don't want to execute during testing.

[Silent]

Executes a DOS command without echo. Syntax:

[Silent] *Dos_command*

Similar to the DOS command ECHO OFF. It allows DOS commands to execute normally, but does not display them on screen.

[passWord]

Pauses execution until a correct password is entered. Syntax:

[passWord] *Password*

A password can be required before a user can actually access sensitive information. *Password* is the actual text the user will be required to type in.

[!!]

Twin exclamation points have two different functions, depending on where in the statement they appear. Either they "concatenate" several lines–allowing you to put several different commands onto a single line–or they unload the Environment before executing the command.

If you put them in the middle of a line, the double exclamation points let you join several statements onto a single line. For instance,

cd\3d!!3d

will cause the computer to change to the 3D directory and start the *Perspective 3-D Graphics* program. You could have put those steps on separate lines, but the double exclamation points work faster.

Twin exclamation points have an entirely different function when they're placed at the start of a line. If they are the first characters in a statement, the computer will completely unload memory before executing the command. That means all Pop-Ups, other memory-resident programs and even the Environment itself will be unavailable. Such a command would look like this:

!!cd \fw!!fw!!cd\hot!!hot

That command would unload the Environment, change to the directory containing Framework II, start the program, change back to the \HOT subdirectory, and re-load the Environment.

Why would you want to do such a thing? Because some programs – such as Framework II – are so large that they can't fit into memory unless everything else is emptied out first. If you want to start a program that's very big, be sure to put the twin exclamation points at the beginning of the statement that starts the program.

Chapter 8
The Hot Pop-Ups

The HOT Pop-Ups are a set of seven special programs. One lets you browse through your disks and files. The others include a notepad, a printer setup program, a nine month calendar display, an appointment book, a calculator, and a screen saver.

The Pop-Ups are what are called "memory resident" or "terminate and stay resident" (TSR) programs. In plain English, this means that they *stay resident* in memory (RAM) at all times—even when you're using other programs.

When you're at the main screen of the *Beginner's Environment* you can activate the Pop-ups with a simple menu choice, **4 POP-UP PROGRAMS**. In the *Advanced Environment*, the Pop-Ups can be found under the **Popup** menu heading. When you're not at an Environment screen but are using a program, just tap the **left** ⌈Shift⌋ twice in quick succession, and a small window of choices will pop up over the current screen text.
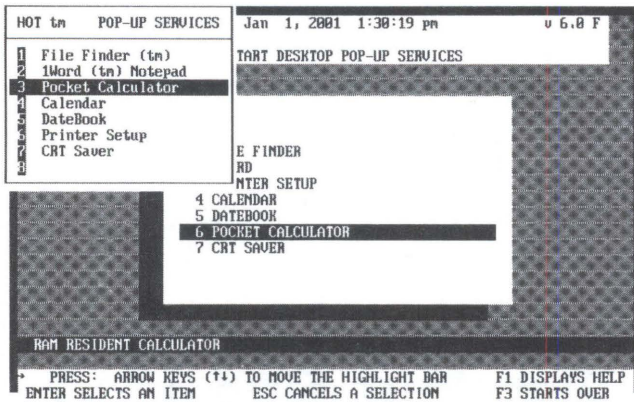
Figure 8-1 Accessing Pop-Ups within Programs and as Services

From any Pop-Up, you can return to what you were doing by pressing [Esc]. You can return to the last Pop-Up you used by tapping [Ctrl] twice.

On-screen help is available for all of the Pop-Ups. Press [F1] at any time.

File Finder

The *File Finder* lets you view your disk directory and file structure. It shows you the directory structure of any disk on your system. You can see the name of each directory and its subdirectories, and you can see the list of files for any directory.

You can also point to a directory or file name and automatically paste it into any program. This means when the system (i.e., the Environment or an application program) is waiting for you to type in directory or file name, *File Finder* lets you point to the information and have it automatically typed into the waiting program. This can be a real life saver when you're in the middle of a program and you've forgotten the exact name and location of a file you have to access.
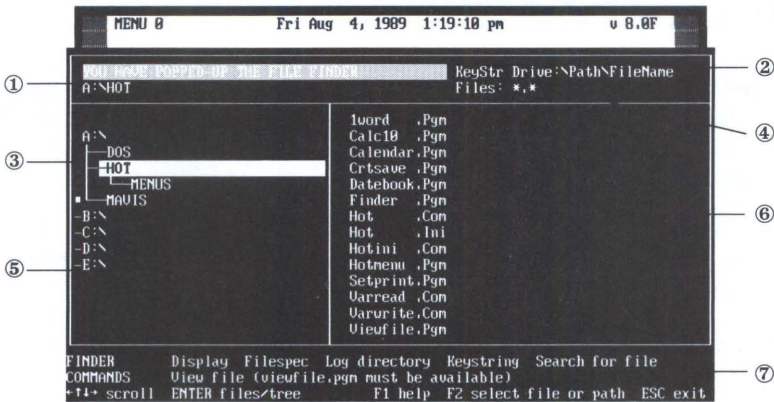
Figure 8-2 The File Finder

Use the up and down arrows to move the cursor through the directories. *File Finder* updates the path line as it reads each directory. Use the left and right arrow keys (or the [Tab] key) to move the cursor between the windows displaying the directory or disk names and the individual filenames.

When you are using *File Finder*, you can press [F1] to access help. You cannot access help while you are using the **Filespec** and **Keystr** commands.

The Screen Display

There are several areas to the *File Finder* screen display. These include:

A prompt line, ①, which identifies the current task.

A keystring (**Keystr**), line ②, which shows the portions of a path and file name that will be typed into an application program when you press [Enter].

A highlight, ③, over the current directory path.

The file specification (**Files:**), line ④, which indicates the attributes of the files you want to display. Initially, this is "***.***" to indicate all files.

The directory window, ⑤, which shows drives and directories.

The files window, ⑥, which shows the files of the current directory or disk.

The command line, ⑦, at the bottom, which displays the available commands.

Status Indicators

In the directory window, there are three status indicators that tell you the level of information *File Finder* has about each directory. The indicators include:

Small block— This indicates that the directory is not in memory. Either the file names of this directory are unread, or they have been dropped from memory.

When a directory is read (or *logged*), the small block disappears. *File Finder* may drop from memory the filenames of a directory to make room for others. If this happens, the block for that directory reappears.

Question mark—This indicates that the file list is incomplete. There are more filenames than memory can hold.

Minus sign—This indicates that the volume is ignored. In order to read the directory on this drive, you need to use the **L** command to change the logged drive.

File Finder Keys

Several keys perform special functions when you are working with *File Finder*. These include:

Key	Effect
(Esc)	Cancels an operation or exits from *File Finder* and returns you to the *Environment* main menu or your application.
(Enter)	Pastes in (feeds) a keystring to whatever cursor position you were in before you popped up *File Finder*. This might be an application, the DOS prompt, or Environment file utilities. Then you exit the *File Finder*.
(Tab)	Toggles highlight between the directory and files windows to scroll through directories or access files.

On the numeric keypad:

GREY ⬚   Unlogs the current drive and ignores it until

deliberately logged with the **L** command.

GREY ⬚   Collapses/expands the tree outline of a logged

subdirectory. (Refer to the DOS section on tree
structures.)

File Finder Commands

The five *File Finder* commands at the bottom of your screen include:

Display—Press **D** to change the display mode of the files window. You can toggle between two formats. The first format displays only the filename and the extension.

```
┌─────────────────────────────────────────────────────────────────┐
│   MENU 0          Fri Aug  4, 1989  4:40:11 pm          v 8.0F    │
│                                                                   │
│ YOU HAVE POPPED-UP THE FILE FINDER      KeyStr Drive:\Path\FileName│
│ A:\DOS                                  Files: *.*                │
│                                                                   │
│            Ansi    .Sys   Edlin   .Com   Link    .Exe            │
│            Append  .Exe   Emu18cga.Exe   Mode    .Con            │
│  A:\       Assign  .Con   Exe2bin .Exe   More    .Con            │
│  ├─DOS     Attrib  .Exe   Fastopen.Exe   Mlsfunc .Exe            │
│ ■├─HOT     Backup  .Con   Fc      .Exe   Print   .Con            │
│ ■└─MAVIS   Chkdsk  .Con   Fdisk   .Com   Printer .Sys            │
│ -B:\       Comp    .Con   Find    .Exe   Recover .Con            │
│ -C:\       Datacopy.Exe   Format  .Com   Replace .Exe            │
│ -D:\       Debug   .Con   Graftabl.Con   Restore .Con            │
│ -E:\       Diag    .Con   Graphics.Con   Select  .Con            │
│            Diskcomp.Con   Gwbasic .Exe   Share   .Exe            │
│            Diskcopy.Con   Join    .Exe   Sort    .Exe            │
│            Display .Sys   Label   .Con   Ss      .Con            │
│            Driver  .Sys   Lf      .       St      .Con            │
│                                                                   │
│ FINDER     Display Filespec Log directory Keystring Search for file│
│ COMMANDS   View file (viewfile.pgm must be available)            │
│ ←↑↓→ scroll ENTER files/tree         F1 help F2 select file or path ESC exit│
└─────────────────────────────────────────────────────────────────┘
```

Figure 8-3 Displaying Filenames and Extensions

The second format includes date, time, size, and various attributes. The attributes *File Finder* displays include read-only (r) and archived (a). Filenames with system or hidden attributes do not appear. A dot indicates that an attribute isn't set.

```
  MENU 0              Fri Aug  4, 1989  4:40:11 pm              v 8.0F

  YOU HAVE POPPED-UP THE FILE FINDER        KeyStr Drive:\Path\FileName
  A:\DOS                                    Files: *.*

                           Ansi     .Sys      1,647   2-02-88 12:00a ....
                           Append   .Exe      5,794   2-02-88 12:00a ....
  A:\                      Assign   .Com      1,530   2-02-88 12:00a ....
    ┌─DOS                  Attrib   .Exe     18,656   2-02-88 12:00a ....
  ▪ ├─HOT                  Backup   .Com     30,280   2-09-88 12:00a ....
  ▪ └─MAVIS                Chkdsk   .Com      9,819   2-02-88 12:00a ....
  -B:\                     Comp     .Com      4,183   2-02-88 12:00a ....
  -C:\                     Datacopy .Exe     25,139  12-06-88  7:39p .a..
  -D:\                     Debug    .Com     15,866   2-09-88 12:00a ....
  -E:\                     Diag     .Com     54,436   1-09-89 11:32a ....
                           Diskcomp .Com      5,848   2-02-88 12:00a ....
                           Diskcopy .Com      6,264   2-02-88 12:00a ....
                           Display  .Sys     11,259   2-02-88 12:00a ....
                           Driver   .Sys      1,165   2-02-88 12:00a ....

  FINDER      Display  Filespec  Log directory  Keystring  Search for file
  COMMANDS    View file (viewfile.pgm must be available)
  ↑↓ scroll   ENTER files/tree         F1 help  F2 select file or path  ESC exit
```

Figure 8-4 Showing the File's Date, Time, Size and Attribute

Filespec—Press F to edit the file specification. Your cursor appears at the **Files:** prompt so you can enter the specification that identifies the filenames you want to see. You can place up to four specifications on the line, separated by commas.

Only those files matching the specification display in the files window. This specification applies to all directories, not just the one in view. It is also the specification used by the **Search for file** command.

This feature is good to use, for example, when you only want to see files with a .COM or .BAT extension, or even all files that begin with the letter "D."

Log directory—Press L to log (read) the drive or directory under the cursor and display its filenames.

Keystr—Press K to control the amount of information *File Finder* feeds to a program. The string can contain the full drive, path, and filename, or any combination of this information. When you press K, the keystring prompt displays the following toggle switches:

Switch Effect

All   Press A to turn all the fields (i.e. drive, path, and filename) on.

Drive	Press D to turn the drive letter on/off.
Pathname	Press P to turn the path name on/off.
Filename	Press F to turn the filename on/off.

Search—Press S to begin or continue a search for any filename that matches the specification set by the **Filespec** command. The search starts from the current directory and file position and continues through all subsequent directories and files of the drive. The search stops at each match, or at the end of each drive. To resume the search, press S again.

1Word

To use *1Word*, tap the **left** Shift twice in quick succession or from the Pop-Up services menu and choose Option **2** from the **POP-UP PROGRAMS** menu. You can activate *1Word* at any time to use it as a scratch pad, to browse through the contents of a text file, and to create and maintain batch files and program source code.


```
MENU 3              Mon Jan  1, 2001  1:36:16 pm          v 6.0 F

                 HEADSTART DESKTOP POP-UP SERVICES


              1 FILE FINDER
              2 1WORD
              3 PRINTER SETUP
              4 CALENDAR
              5 DATEBOOK
              6 POCKET CALCULATOR
              7 CRT SAVER




RAM RESIDENT TEXT EDITOR AND NOTEPAD

  PRESS: ARROW KEYS (↑↓) TO MOVE THE HIGHLIGHT BAR    F1 DISPLAYS HELP
ENTER SELECTS AN ITEM          ESC CANCELS A SELECTION  F3 STARTS OVER
```
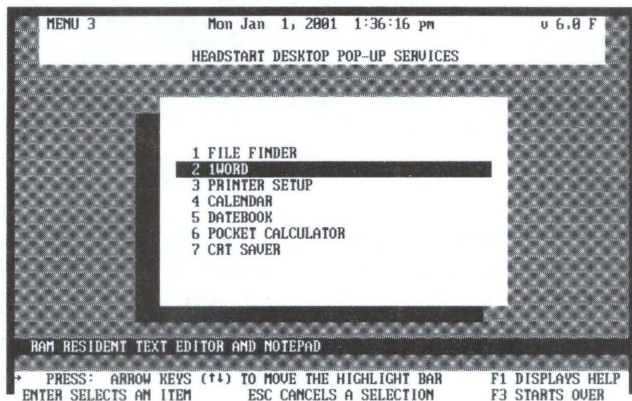
Figure 8-5 Selecting 1Word

1Word is a notepad that you can use to create and/or edit a text file. It can capture information from an application program's screen or it can feed blocks of information into a waiting application. This lets you use *1Word* as a "bridge" between applications. For example, you can paste the results of a spreadsheet calculation into a *1Word* memo or through *1Word* into another text file.

1Word also has a command that lets you insert the time and date anywhere in your text file. This is useful if you want to keep a history of phone calls, keep a journal or track revisions of a developing program.

You can enter foreign language and semi-graphic characters into a *1Word* file, but not the ASCII characters 0-31. Also, *1Word* contains no print formatting commands. The maximum file size allowed is 62 kilobytes.

The first time you start *1Word* you see a prompt to enter the name of the file you want to edit.
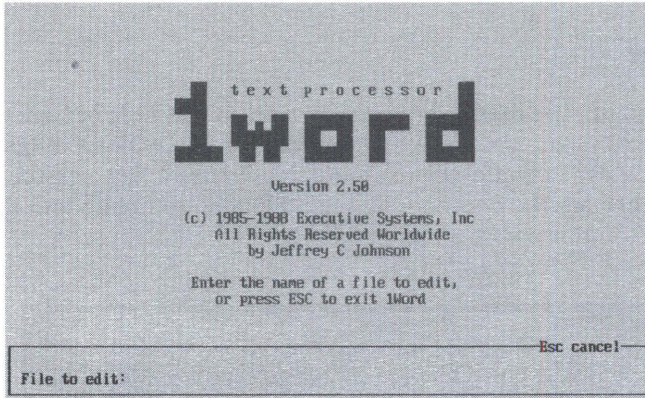
Figure 8-6 The 1Word Notepad

You may enter a full drive and pathname or use the *File Finder* to paste in the filename for you. If you do not enter a drive or path, but just enter a filename, *1Word* uses the current drive and path.

To display an existing file or create a new file, type the name of the file and press Enter.
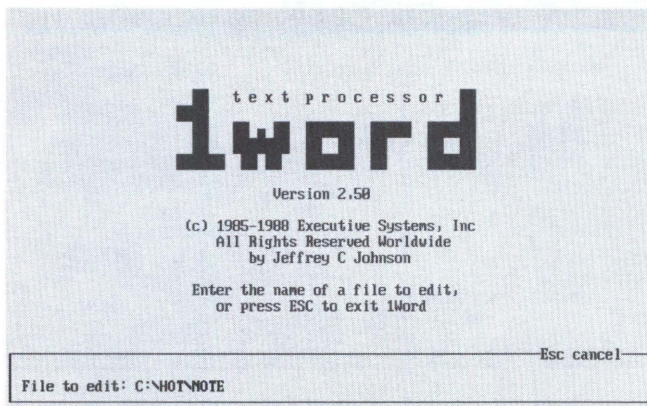
Figure 8-7 Entering a 1Word File Called "Note"

Press the Esc key to exit *1 Word* and return to a previous task. The edited file remains in memory for the next time you call up *1 Word*, but it is not saved on disk. Each time you re-activate *1 Word* it uses the same file with the cursor in the same position. To save an edited file, use one of the following *1 Word* file commands:

> Ctrl K S Lets you save your file and continue editing.

> Ctrl K D Save your file, ends editing, and prompts you for a new file.

> Ctrl K X Saves your file and exits *1 Word*.

Many *1 Word* commands are compatible with the *WordStar*™ word processing program and use the same keystrokes. You may also use the function keys and certain Alt key combinations. In addition, you can program the function keys and customize *1 Word* for special needs.

When you first start *1 Word*, it searches for a file named 1WORD.PFK on your disk. If it finds the file, *1 Word* uses it to set the programmable function keys F1 to F10.

The Screen Display

The *1 Word* screen display consists of a large area for text entry and editing and a status area containing two lines of information and prompts.

The Hot Pop-Ups 8-9
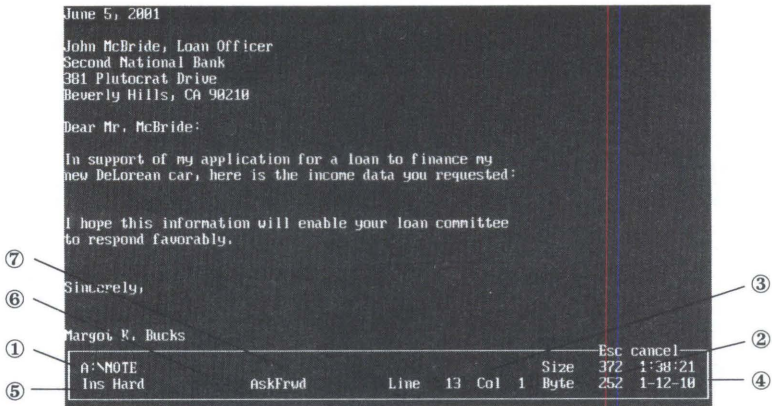
Figure 8-8 The 1Word Text Entry and Status Areas

The information in the status area includes:

The Filename Specification ① - This information appears at the top left of the status area and includes the name of the file, the pathname and the drive designation.

The File Size ②- This information appears next to the date and time.

The Cursor Position ③ - This information appears next to the file size and includes the cursor column and line position.

The Date and Time ④ - This information appears at the far right of the status area and includes the current system time and date.

Special Features ⑤ - This information appears on the second line and indicates the status of word wrap, tabs, and insert/overwrite.

Special Key Indicators ⑥ - This information appears on the second line and indicates the status of the Num Lock and Caps Lock keys. That is, if the Num Lock key is lit, **NUM** will appear on the line. If the Caps Lock key is lit, **CAP** will appear.

Search Options ⑦ - This information appears on the second line and indicates which options are active when you search for text.

When you are using *1Word*, press F1 to display help information. You cannot access help while you are entering commands or programming the function keys.
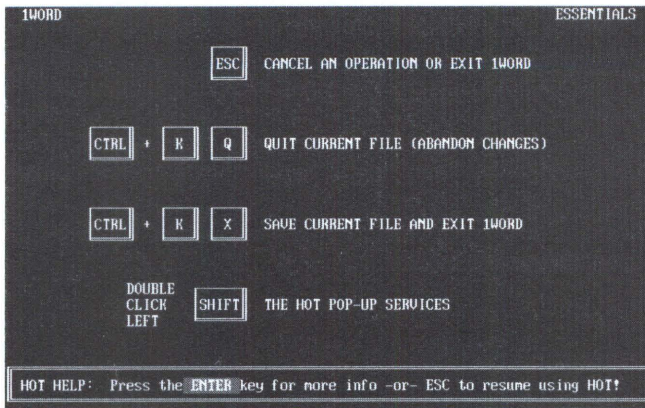
Figure 8-9 One of 1Word's Help Screens

Word Commands

In *1Word*, commands are grouped into categories according to the functions they perform. You access some of these commands by pressing a letter key **while holding down** the `Ctrl` key. You access many other commands by pressing two letter keys in sequence **while holding down** the `Ctrl` key. And with some other commands you **hold down** the `Shift` or `Alt` keys and press a letter key.

When a command involves two letter keys, holding down the `Ctrl` key and pressing the first letter causes a menu of options to appear. You can then press the second key of the command to select it, or use the arrow keys to find the command you want and press `Enter` to select it. If you use the arrow keys to highlight a command, a help line appears in the status area to provide information about the command.

The following tables list all of the *1Word* commands according to their functional categories. Whenever there is a short method for entering a command, that method appears in the first column.

Cursor Control

These commands move your cursor around the screen and mark where you will edit, delete, or insert text. With some of these commands you have the option of using a single key or a `Ctrl` key combination. The following table defines the cursor control commands.

The Hot Pop-Ups   **8-11**

Key	OR	[Ctrl] Key	Effect
[⇥]		[Ctrl][M]	Ends a line.
[4 ←]		[Ctrl][S]	Moves cursor one position to left.
[Ctrl][4 ←]		[Ctrl][A]	Moves cursor one word left.
[6 →]		[Ctrl][D]	Moves cursor one position to right.
[Ctrl][6 →]		[Ctrl][F]	Moves cursor one word right.
[8 ↑]		[Ctrl][E]	Moves cursor one line up.
[2 ↓]		[Ctrl][X]	Moves cursor one line down.
[7 Home]		[Ctrl][Q][S]	Moves cursor to beginning of line.
[Ctrl][7 Home]		[Ctrl][Q][E]	Moves cursor to top of screen.
[1 End]		[Ctrl][Q][D]	Moves cursor to end of line.
[Ctrl][1 End]		[Ctrl][Q][X]	Moves cursor to bottom of screen.
[9 Pg Up]		[Ctrl][R]	Moves cursor to previous screen.
[3 Pg Dn]		[Ctrl][C]	Moves cursor to next screen.
[Ctrl][9 Pg Up]		[Ctrl][Q][R]	Moves cursor to beginning of file.
[Ctrl][3 Pg Dn]		[Ctrl][Q][C]	Moves cursor to end of file.
		[Ctrl][Q][B]	Moves cursor to start of marked block.

Key	Action
Ctrl Q K	Moves cursor to end of marked block.
Ctrl Q O	Sets a Quick place marker.
Ctrl Q P	Moves cursor to Quick place marker.
Ctrl [	Scrolls the display up one line, keeping the cursor on the same screen row.
Ctrl]	Scrolls display down one line, keeping the cursor on the same screen row.

Editing Text

These commands let you perform various word processing tasks such as inserting and deleting text, controlling tabs, and formatting text.

You can enter either single lines of text or paragraphs in *1 Word*. When you enter paragraphs, you can tell *1 Word* to wrap lines of text between the margins. *1 Word* displays and prints text with an uneven right margin (ragged right) and does not justify it. Press (Enter) to end a paragraph of text and move the cursor to the start of the next line.

When you enter single lines of text, simply keep typing. *1 Word* shifts the screen as it needs to, in order to follow the cursor on a long line. Press (Enter) to end the line of text.

The Insert commands let you toggle between the insert and overwrite modes and allows you to insert a blank line.

When insert is on, *1 Word* inserts text at the cursor location and moves the cursor and all following characters one position to the right. When insert is off, the cursor changes from a block to an underline character. Any text you enter replaces the text at the cursor.

The Delete commands let you delete text in *1 Word*. The location of your cursor determines what you will delete. The delete key erases text under your cursor and the backspace deletes text to the left of the cursor.

The Tab commands allow you to select between three types of tabs, set new tabs, and clear all tabs. You can select from hard, soft, and user tabs.

Your status area identifies the type of tab you are using.

The hard tabs are strictly compatible with IBM standard ASCII files. This means that tab stops are positioned every eighth column and when you press (Shift) you place the ASCII character for tab into the file. If you use a lot of tabs, hard tabs conserve space on your disk.

Soft tabs are useful for programming in high level languages because tab stops are determined by the spaces in the line of text directly above the current line. This is useful for indenting a series of lines. Soft tabs place spaces in the file rather than tab characters.

The user tabs are useful for word processing. *1Word* displays a tab ruler indicating the location of each tab stop and you determine them by editing the ruler. When you are using these tabs, *1Word* performs automatic word wrap and paragraph reformatting.

A paragraph is any number of lines up to a blank line. The first and last tab stops on the ruler determine paragraph reformatting.

To reformat with different margins, first edit the ruler to change the first and last tab stops. When you reformat, *1Word* puts as many words as will fit onto each line and retains any original indent.

These are the commands for inserting, deleting, and tabbing:

Key	OR	Ctrl Key	Effect
0 Ins		Ctrl V	Toggles Insert on and off.
		Ctrl O I	Sets Insert on.
		Ctrl O O	Sets Overwrite mode.
		Ctrl N	Inserts a new line.
. Del		Ctrl G	Deletes character under the cursor.
		Ctrl T	Deletes word containing the cursor.
		Ctrl Y	Deletes line containing the cursor.

	`Ctrl` `Q` `Y`	Deletes from cursor to end of line.
`←`	(backspace)	Deletes character to left of cursor.
	`Ctrl` `O` `H`	Sets hard tab mode.
	`Ctrl` `O` `S`	Sets soft tab mode.
	`Ctrl` `O` `U`	Sets user tab mode.
`Alt` `J`	`Ctrl` `O` `J`	Toggles automatic word wrap on and off in user tab mode.
`Alt` `R`	`Ctrl` `B`	Reformats paragraph from cursor line to blank line in user tab mode.
`Alt` `T`	`Ctrl` `O` `T`	Sets or clears individual user tab stops.
`Alt` `Z`	`Ctrl` `O` `Z`	Clears all user tab stops.
	`Ctrl` `O` `E`	Edits user tab stop ruler line.

Manipulating Text

These commands let you manipulate text as blocks within a file, files to and from disks, and screens between applications.

The Block commands let you define blocks of text so you can move, copy or delete them. Two of the Block commands make it easy to capture information from one program and feed it to another.

For example, you can use *1Word* to feed text into a communications program for electronic mail. You can use it to import information from a spreadsheet into a document. You may prefer the convenience of the *1Word* editing tools over that of your word processing application.

These Cut and Paste features are a striking example of *1Word*'s usefulness. To cut a screen of an application and include it in a *1Word* notepad file, just pop up *1Word* from any application file screen. Press `Ctrl` `K` `I`.

Instantly, the application screen will appear in your *1Word* document.

For instance, suppose your spreadsheet has a screen containing columns of numbers and labels that you would like to include in a memo. Pop up *1Word* and press Ctrl K I. The entire screen will be placed into the notepad starting at the cursor location. You can edit the text, just as if you had typed the whole page in yourself.

To paste information into any document, pop up *1Word* and choose the file from which you will be pasting. Use the block commands to define a segment of data or text. Then press Ctrl K F to feed your marked block of text to any application.

The File commands let you save and insert files. *1Word* provides several options so you can save your work and continue editing, or save it and leave the document or *1Word*. *1Word* also lets you write blocks of text to your disk as files so you can read them into a document later.

The commands you use to manipulate blocks and files include:

Key	Effect
Ctrl K S	Saves file and continues editing.
Ctrl K D	Saves file, ends, and prompts for new file.
Ctrl K X	Saves file and exits *1Word*.
Ctrl K Q	Quits without saving file and prompts for another file.
Ctrl K B	Marks the beginning of a block of text.
Ctrl K K	Marks the end of a block of text.
Ctrl K H	Hides the marked block.
Ctrl K V	Moves the marked block to the cursor position.
Ctrl K C	Copies the marked block to the cursor position.

Ctrl K Y	Deletes the marked block.
Ctrl K I	Imports the screen into *1Word*.
Ctrl K F	Feeds the marked block from *1Word* to a waiting application.
Ctrl K R	Reads another text file from disk and inserts its text at the cursor position.
Ctrl K W	Writes the marked block of text to another file. If filename PRN is given, prints text.
Ctrl K P	Prints screen of text.

Finding and Replacing Text

These commands let you search through a document for text or replace text within a document.

To search for text, enter command Ctrl Q F, then type the text and press Enter. *1Word* moves the cursor to the first occurrence of that text. You can continue to search for the text and if there are no more instances of it, the cursor moves to the end of the file. If you start the search at the end of the file, *1Word* searches backwards toward the top of the file.

To replace text, enter command Ctrl Q A, then type the text you want to find and press Enter. Then enter the replacement text. When you press Enter again, *1Word* moves the cursor to the first occurrence of that text. You can tell *1Word* to ask you whether to replace each occurrence or to automatically replace all occurrences within the entire file. Using the Ctrl Q G command instead will search and replace throughout the entire file automatically.

The commands you use to search for and replace text include:

Alt Key OR	Ctrl Key	Effect
	Ctrl Q F	Finds a string of characters.
	Ctrl Q A	Performs a search and replace for a string of characters.

		Performs a global search and replace for a string of characters in entire file.
`Alt` `S`	`Ctrl` `L`	Repeats last search.
`Alt` `A`	`Ctrl` `O` `A`	Toggles search and replace "Ask" option on and off.
`Alt` `B`	`Ctrl` `O` `B`	Toggles search direction (backward/forward).
`Alt` `C`	`Ctrl` `O` `C`	Toggles search case sensitivity. With option ON, the case of each character (upper or lower) is included as part of the match criteria in a search.
`Alt` `W`	`Ctrl` `O` `W`	Toggles search full-word sensitivity. If this option is ON, the target text is considered to be whole words. If this option is OFF, a match will occur if the text matches part of a word in the file.

The top row shows `Ctrl` `Q` `G`.

Special Features

These commands let you insert the time and date, control certain features of *1Word*, import text from another word processing program, and convert large amounts of text to upper- or lower-case. They include:

Key	OR	`Ctrl` Key	Effect
		`Ctrl` `Q` `T`	Inserts the time and date at the cursor.
		`Ctrl` `O` `O`	Toggles beeper on and off.
		`Ctrl` `O` `M`	Toggles *1Word* menus on and off.

	Clears high bit from all characters in the file. Allows you to edit a *WordStar* file.
	Converts character to upper case.
	Converts character to lower case.

Printing Text

Using the Ctrl K P command sends to the printer the text you have on screen. There are no provisions in *1Word* to print a file already on disk. To do this, use the Environment's print file utility under the file utilities menu.

1Word files are known as pure ASCII files—there are no special control characters in them. So you can import them into your word processor (like *Writer*, the word processor in the *HeadStart Office Manger*) for printing.

Programming Function Keys

You can configure the function keys F1 to F10 to execute any *1Word* command or series of commands. You can use them to replace Ctrl key sequences, to perform repetitive multi-key editing operations, and enter hard-to-type text such as semi-graphic box characters.

The function keys get their initial settings from a file called 1WORD.PFK. At start-up, *1Word* first looks for this file in the current directory of the current drive. If the file isn't there, the program looks in the root directory.

If 1WORD.PFK is found and function key F1 contains a single Ctrl A character, *1Word* automatically "presses" F2. You can use this to set your preferred defaults or execute any *1Word* command. If you do not define a 1WORD.PFK file, the function keys will initially have no settings.

You can change the value of a function key and replace the string of characters it represents. When you edit the function key definitions, you can press Enter to complete the edit, press Esc to cancel it, press the ← key to back up and erase one character, and hold down Ctrl and press the ← key to erase the entire value.

When entering the string of characters, you may use the Ctrl key. For example, to enter the keystrokes Ctrl A, hold down Ctrl and press A.

The letter **A** appears in reverse video. To include pressing the (Enter) key in a function key definition, hold down (Alt) and press (N).

1Word ignores the keys on the numeric keypad during function key definition. Just use the other form of these commands as shown in the *1Word* Command Tables.

When you have set up the function keys the way you like them, you can save them for later recall. To recall the customized definitions, enter the name of the file that contains the definitions you want.

The commands you use to program function keys include:

(Ctrl) **Key**	**Effect**
(Ctrl) P E	Edits a function key.
(Ctrl) P R	Reads a function key definition file.
(Ctrl) P W	Writes the current function key definitions to a file.

These commands may appear inside a programmable function key (PFK) definition.

(Ctrl) P S	Inhibits screen updating while the PFK is running.
(Ctrl) P D	Displays status line updates while the PFK is running.
(Ctrl) P G #	Executes PFK #, where # is 1-9.
(Ctrl) P C #	Conditionally executes PFK # if the cursor is not at the top or bottom of the file.

1Word and Keystrings

"Keystring" is another term for macro, a series of keystrokes which will perform a specified sequence of tasks automatically.

If you are an advanced user, you will find keystrings especially helpful when you use *1Word* to cut and paste data from one program to another. By taking the time to think through a task and create appropriate keystrings, you can save considerable time and reduce the number of

keystrokes you need to enter.

Suppose you have defined a block of text in *1 Word* and want to paste it into a spreadsheet program like *Quattro*. If you insert keystrings into the text, the keystrings will command certain actions to be done. For example, {ENTER} within the text will automatically perform a carriage return at all specified locations.

Note that the program into which you're putting text doesn't have to "know" anything about *1 Word* in order for you to use *1 Word* keystrings with it. When *1 Word* encounters {ENTER} in a definition it doesn't send the characters { E N T E R } to the program. It sends just one character, ⌷Enter⌷, to the program. As far as the program is concerned, characters are coming from the keyboard as usual.

Specifying Keystrings

When you specify keystrings, you enter the standard typewriter keys by pressing the key, with or without ⌷Shift⌷. The keys ⌷A⌷, ⌷S⌷, ⌷D⌷, ⌷2⌷, and ⌷5⌷ are examples of this type of key. They produce displayable characters and you can enter them directly into a keystring.

1 Word provides a method for you to enter keys that have names and special functions (e.g. ⌷F1⌷ , ⌷Esc⌷, and ⌷Home⌷), and combinations of typewriter keys with the special shift keys, (i.e. ⌷Ctrl⌷, or ⌷Alt⌷).

You specify named keys by enclosing the name in curly braces. HOT supports the following named keys:

Key	*1 Word*
⌷←⌷	{BS} or {BkSp}
⌷Enter⌷	{ENTER}
⌷Esc⌷	{Esc}
⌷Tab⌷	{Tab}
⌷Shift⌷⌷Tab⌷	{BackTab}
⌷Del⌷	{Del}
⌷Ins⌷	{Ins}
⌷↑⌷⌷↓⌷⌷←⌷⌷→⌷	{Up} {Down} {Left} {Right}
⌷Home⌷	{Home}
⌷End⌷	{End}
⌷PgUp⌷	{PgUp}

PgDn	{PgDn}
F1 thru F10	{F1} ... {F10}
NUMERIC KEYPAD	{K0} ... {K9} {K+} {K-} {K.} {K*}

The displayable character set {#1} .. {#255}

Specifying Keystrings

You specify the combination of the Ctrl key with another key by preceding the key or key name with a caret (^), or with the letters CTRL. For example:

{Ctrl Z} or {^Z}

{Ctrl HOME} or {^HOME}

You specify the combination of the Alt key with another key by preceding the key or key name with the "at" symbol (@), or with the letters ALT. For example:

{Alt 1} or {@1}

{Alt F1} or {@F1}

You specify the combination of the Shift key with a function key by preceding the name of the function key with the letters SHF. For example:

{Shf F5}

Note that you only use the letters Shf with function keys. To specify a shifted typewriter key, simply enter it with the Shift key directly.

1Word supports mask controls for programs that use the PC BIOS routines to see which shift key is being held down at the keyboard. The *1Word* keystring processor allows you to have only one of the Shift, Ctrl or Alt keys in effect at one time. If one of those key is on, and then key press of another is simulated, the first is released.

Here's how you specify the pressing and releasing of the Shift, Ctrl or Alt keys:

{ALTON} {CTRLON} {SHFON}

{ALTOFF} {CTRLOFF} {SHFOFF}

Keystring Commands

You can include some special internal commands when specifying a keystring. You enclose these commands in curly braces, and they take effect when the *1Word* keystring processor feeds the keystrokes to a program. The internal commands include:

{Speed #}

You use the SPEED command to control the rate a program receives keys. Some programs cannot accept keystrokes at the high rate of speed that *1Word* can send them. The pound sign (#) represents a decimal number in the range 0 to 65,535. This number defines how often the program sees a key press. For example, if # is 100, then a program that is looking for a key will see one only 1 out of every 100 times it checks to see if a key has been pressed.

Some good speed values:

{Speed 20}   WordStar   (nice and slow)

{Speed 1000}   XTREE   (defeat keyboard stripping)

{Speed 0}   *1Word*   (it flies!)

You use the **PAUSE** command to suspend the key press playback for 1 second.

{KeyStr} or {!}

Normally in *1Word*, you use the Block Feed (Ctrl K F) command to feed a marked portion of text to an application program. This passes all characters in the block and performs no special translation of any text in curly braces.

If the command {KEYSTR} is the *very first* text found in the marked block, the processing is different. Then, *1Word* translates all key names in curly braces into the appropriate codes, and ignores the end of each line in the marked block.

For example, if the marked block looks like this:

AB{UP}

{UP} {ENTER}

when you execute the Ctrl K F command, it will be just like you typed in these characters at the keyboard

A B [U P] [U P] [E N T E R]

while holding down the Shift key.

However, if the marked block looks like this:

{KEYSTR} ab{up}

{up}{ENTER}

when you execute the Ctrl K F command, *1Word* feeds the characters "ab" and presses the up arrow, then ENTER, the up arrow twice again, and ENTER again as if you typed these keys:

A B ↑ ↑ Enter

Printer Setup

Printer Setup is the third of HOT's Pop-Up Services. From any screen within the Environment, rapidly press the left Shift key twice. Choose the third choice in your Pop-up menu.


```
 MENU 3           Mon Jan  1, 2001  1:48:18 pm        v 6.8 F
                HEADSTART DESKTOP POP-UP SERVICES



              1 FILE FINDER
              2 1WORD
              3 PRINTER SETUP
              4 CALENDAR
              5 DATEBOOK
              6 POCKET CALCULATOR
              7 CRT SAVER




   SET YOUR PRINTER TO CONDENSED, FORM FEED, LINE FEED, ETC.

 *  PRESS:  ARROW KEYS (↑↓) TO MOVE THE HIGHLIGHT BAR   F1 DISPLAYS HELP
    ENTER SELECTS AN ITEM      ESC CANCELS A SELECTION  F3 STARTS OVER
```
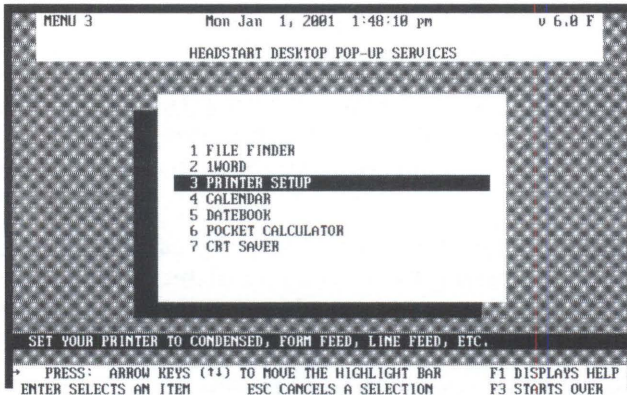
Figure 8-10 Selecting Printer Setup

It is even possible to pop up one of HOT's Desktop Services over another. The next figure shows how the *Printer Setup* Service would look if you popped it up over a *1Word* screen. This is a quick way to send control codes to your printer at any time.

```
June 5, 2001

John McBride, Loan Officer
Second National Bank                    ┌─────────────────────────┐
381 Plutocrat Drive                     │      Printer Setup      │
Beverly Hills, CA 90210                 ├─────────────────────────┤
                                        │                         │
Dear Mr. McBride:                       │                         │
                                        │  Condensed print        │
In support of my application for a loan to   Elite print         │
new DeLorean car, here is the income data y  Form feed           │
                                        │  Line feed              │
                                        │  Reset printer          │
I hope this information will enable your lo   Skip perforation    │
to respond favorably.                   │  Test message           │
                                        │                         │
                                        │                         │
Sincerely,                              │                         │
                                        └─────────────────────────┘

Margot K. Bucks
                                              ┌────Esc cancel────┐
  A:\NOTE                              Size    372  1:38:47
  Ins Hard            AskFrwd    Line  13  Col  1  Byte  252  1-12-10
```

Figure 8-11 Printer Setup Commands as a Pop-Up

The first two choices, **Condensed** and **Elite,** change the size of the type the printer uses, if it is capable of changing type sizes.

The next two choices, **Form feed** and **Line feed**, advance the paper one sheet and one line respectively.

The next choice, **Reset printer**, does just that, clearing any previously transmitted control codes.

The choice after that one, **Skip perforation**, positions the print head at the top of the page.

To see what effect your settings have had, select the last choice to print a **Test message**.

The Calendar

The fourth of HOT's Pop-Up Services is the *Calendar*. You may access it from any location within the Environment by rapidly pressing the left (Shift) key twice.

```
HOT tm   POP-UP SERVICES   Jan  1, 2001  1:49:17 pm              v 6.0 F
┌─────────────────────────┐ ┌─────────────────────────────────────────┐
│ 1 File Finder (tm)      │ TART DESKTOP POP-UP SERVICES
│ 2 1Word (tm) Notepad    │
│ 3 Pocket Calculator     │
│ 4 Calendar              │
│ 5 DateBook              │
│ 6 Printer Setup         │
│ 7 CRT Saver             │   E FINDER
└─────────────────────────┘   RD
                              NTER SETUP
                ┌──────────────────────────────┐
                │ 4 CALENDAR                   │
                │ 5 DATEBOOK                   │
                │ 6 POCKET CALCULATOR          │
                │ 7 CRT SAVER                  │
                └──────────────────────────────┘

 RAM RESIDENT CALENDAR

→ PRESS:  ARROW KEYS (↑↓) TO MOVE THE HIGHLIGHT BAR      F1 DISPLAYS HELP
  ENTER SELECTS AN ITEM       ESC CANCELS A SELECTION    F3 STARTS OVER
```

Figure 8-12 Selecting the Calendar

The *Calendar* displays a full nine months at one glance in three tiers of three months each. The current month, which is taken from your system date, is centered and highlighted. This allows you to view the four months preceding and following.
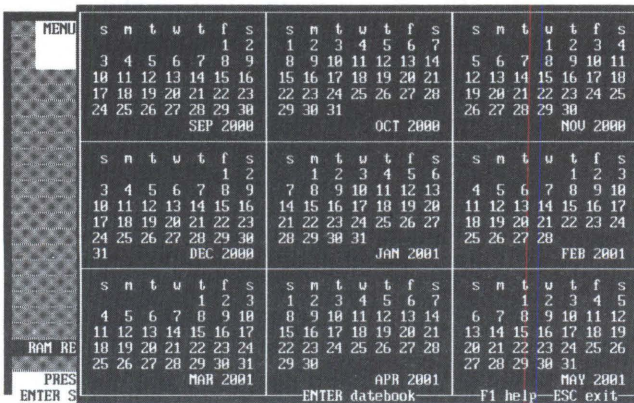
Figure 8-13 The Calendar Service

Use the arrow keys to scroll around in time. The *Calendar* displays any nine month block, beginning as early as November, 1901 and ending as late as April, 2061.

The DateBook

Another of HOT's Pop-Up Services is called the *DateBook*, and it is always available to you, wherever you may be in the Environment. Rapidly click the left [Shift] key twice.
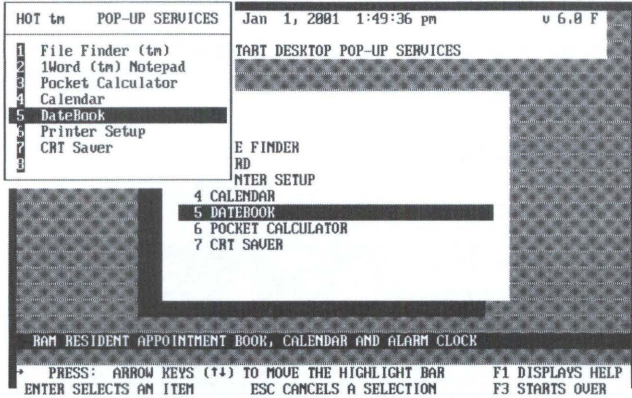
Figure 8-14 Selecting the DateBook

You can also access the date book by pressing [Enter] when you are using the calendar Pop-Up.

The *DateBook* is an electronic appointment book and can keep track of any date from January 1, 1901 to December 31, 2069. It uses your HeadStart LX-CD's built-in system clock to establish the current date and time.

You can use the *DateBook* as a scheduler, an activity log, a diary, and also a reminder of appointments and important events.

You can place up to 350 messages in the *DateBook* and up to 32 for any single day. Each message can contain up to 36 characters. If you enter multiple messages for one day, *DateBook* automatically arranges them in chronological order.

Once you enter a message, you can repeat it daily, weekly, bi-weekly, monthly, quarterly, or yearly. You can choose to have *DateBook* sound a beep to remind you of an event. This causes your computer to beep for 14 seconds at five minute intervals until you press [Esc].

The repeat option is a way to record appointments, engagements, or chores which occur on a regular basis. It is especially useful for remembering birthdays, anniversaries, club meetings, and exercise days.

You can even enter birthdays on the actual date of birth and repeat to every year. Should you wish to edit the message line in some future year, the original birth month/year will appear in the *Calendar* window.

When you are using the *DateBook*, you can press F1 to access help. You cannot access help while you are entering text into the *DateBook*.

The Screen Display

There are several areas to the *DateBook* screen display.
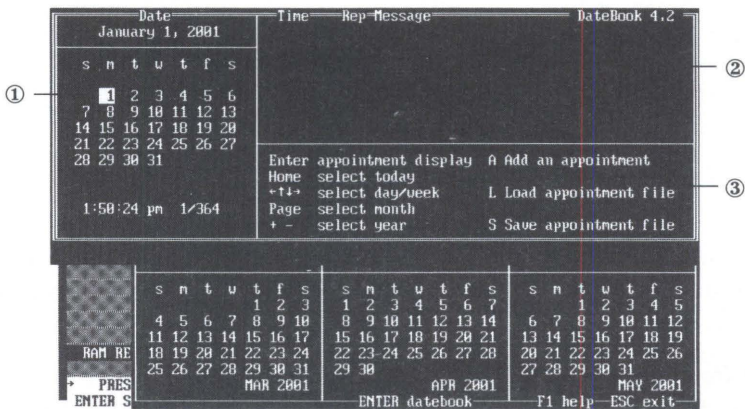
Figure 8-15 The DateBook Screen Display Popped up over the Calendar.

The Calendar Window ① - This area displays a monthly calendar and highlights the current date. Appointment dates appear in reverse video. The current date appears at the top and the current system time at the bottom. Next to the time, numbers identify the current day and number of days remaining in the year.

The Message Window ② - This area presents the message form or the message display.

The Command Window ③ - This area displays the active keys and their meaning, and the *DateBook* commands you can use.

The Message Form - This form contains five fields and allows you to enter and edit messages. Each entry must include a date and a message. In addition, you can enter a time between midnight and one minute before midnight, turn the alarm on or off, and select a repeat option.
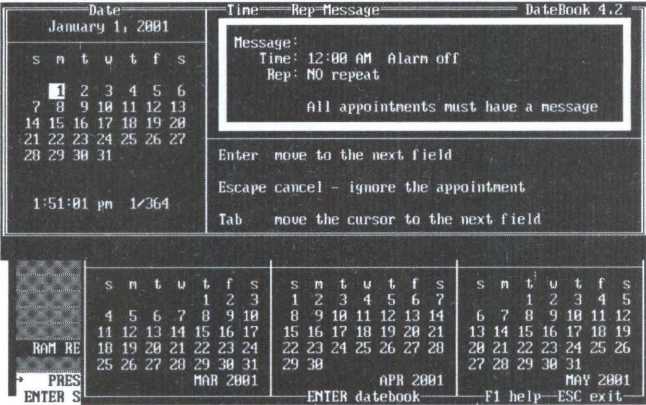
Figure 8-16 The Message Form

The Message Display - This area shows the information for a specific message, which includes the time, a symbol if the alarm is set, a code indicating how often the message repeats, and the message.
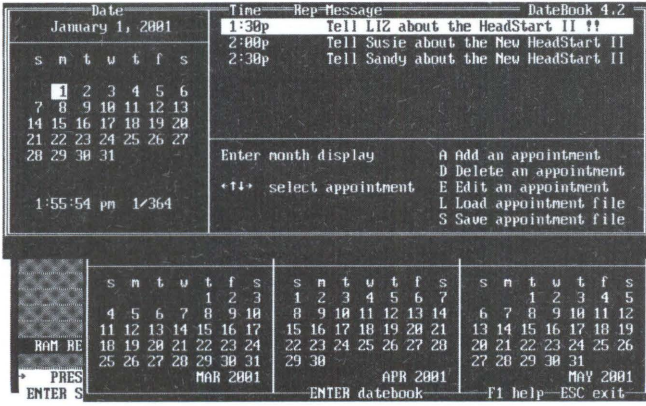
Figure 8-17 The Message Display

The DateBook Keys

Some keys perform different functions when you are working with the *DateBook* depending on what window you are using.

The Calendar Window Keys

The keys you use to move through the dates in your calendar include:

Key	Effect
[7 Home]	Highlights current date according to the system clock.
[1 End]	Same as [7 Home].
[4 ←]	Highlights previous day.
[6 →]	Highlights next day.
Spacebar	Same as [6 →].
[8 ↑]	Highlights same day in previous week.
[2 ↓]	Highlights same day in next week.
[9 Pg Up]	Displays same day previous month.
[3 Pg Dn]	Displays same day next month.
[+]	Displays same month/day next year.
[−]	Displays same month/day previous year.
[Esc]	Exits *DateBook* and turns off alarm.
[Tab]	Selects a date, displays message window, locates cursor on first message.
[Tab]	Same as [Enter].

The Message Window Keys

The keys you use to make entries in the message form include:

Key	Effect
[Tab→]	Moves the cursor to the next field; when cursor is in last field, accepts information and enters it into the *DateBook*.
[→Tab]	Moves the cursor to the next field.
Spacebar	Toggles through options within a field.
[←]	Deletes the character to the left of the cursor.
[Esc]	Ignores any changes made to current message. These changes are not saved.

The keys you use to move through the message display include:

Key	Effect
[8↑]	Highlights previous appointment, if any.
[2↓]	Highlights next appointment, if any.
[6→]	Same as Down Arrow.
[9 Pg Up]	Displays previous screen of messages, if any.
[3 Pg Dn]	Displays next screen of messages, if any.
[→Tab]	Moves the cursor to the calendar window.
[4←]	Same as [Tab→]

The DateBook Commands

All of the *DateBook* commands are available to you from the message display (see Figure 8-17). To select a date and enter the message window, move your cursor to the day and press either [Enter], [Tab], or the letter [E].

The commands you can use when working within the message window include:

The Add Command - Press Ⓐ to add an appointment to your *DateBook* file. The message form appears so that you can enter your appointments. Enter the message on the top line and enter the time on the second line. Then, press the ⎡Spacebar⎤ to toggle through the options of selecting AM or PM and turning the alarm on or off. On the third line, pressing the ⎡Spacebar⎤ selects one of the repeat options. The options include daily, weekly, bi-weekly, monthly, quarterly, and yearly.

The Delete Command - Press Ⓓ to delete an appointment. First, select the day containing the appointment you wish to delete. If there are multiple messages for a day, use the arrow keys to highlight the one you want to remove and then press Ⓓ.

The Edit Command - Press Ⓔ to edit an appointment. First, select the day containing the appointment you wish to edit and press Ⓔ to move your cursor to the message window. If there are multiple messages for a day, use the arrow keys to highlight the one you want to change and then press Ⓔ. Use the ⎡←⎤ key to delete an entry letter by letter.

The Load Command - Press Ⓛ to load the most recently saved appointments from disk. This is a way for you to recover information from your *DateBook* that you mistakenly change or delete before saving to disk.

The Save Command - Press Ⓢ and then ⎡Enter⎤ to save entries or changes you make to your *DateBook*. If you don't save your entries, they won't be there the next time you use the date book.

You can use the Add, Load, and Save commands when you are working with the calendar window.

When you press Ⓐ from the calendar window, the message form appears so you can add an appointment to the current day. You can also press Ⓔ to move from the calendar window to the message window and access all *DateBook* commands.

Pocket Calculator

HOT's *Pocket Calculator* is available from any location within the Environment. You can bring up this Pop-Up Service by pressing the **left** ⎡Shift⎤ key twice.
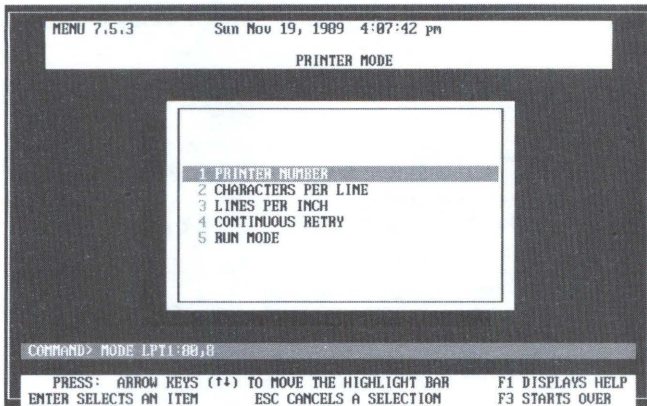
Figure 8-18 Selecting the Pocket Calculator

This program lets you use your computer to do simple number-crunching while you are using another application. It is an electronic calculator that works just like the one you may have on your desk. You can use it to perform addition, subtraction, multiplication, and division.

When you are using *Pocket Calculator,* you can press F1 to access help.

Screen Display

Pocket Calculator originally appears on the right side of your screen. To move it from one side to the other, just press the Tab key.

There are three areas to the *Pocket Calculator* display. These include ① the keypad display, ② the numeric display, and ③ the tape display .
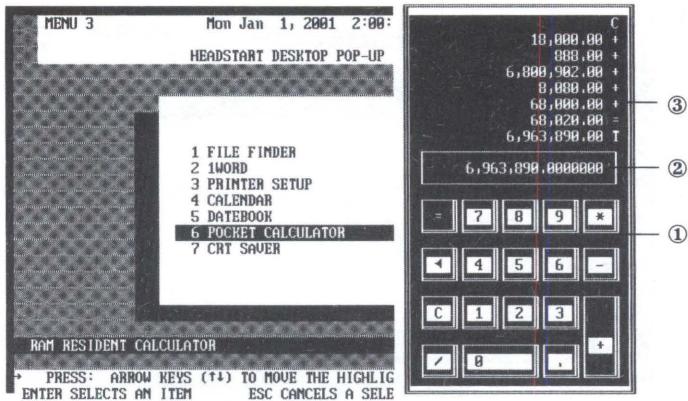
Figure 8-19 The Pocket Calculator

The keypad display ① - Shows the active keys you may use to enter numbers and perform arithmetic operations. When you press a key, the *Pocket Calculator* highlights the key on your screen.

The numeric display ② - Located above the keypad, this shows your entries as you make them. This is also the area where the results of your calculations appear. Numbers are displayed with up to 14 decimal places, for complete accuracy.

The tape display ③ - Similar to a paper tape in a physical calculator, this records your entries and transactions. It lists numbers up to two decimal places, as in dollars and cents configurations, meanwhile saving up to 14 decimal places in memory.

Pocket Calculator Keys

Some perform special functions when you are working with *Pocket Calculator*. These include:

Key	Operation
+	Adds
-	Subtracts
PrtSc *	Multiplies

Key	Description
[/]	Divides
[+/=]	Completes entry and displays result
[←]	Clears current entry
[C]	Clears all entries
[Esc]	Exits the *Pocket Calculator*

You may use either the keys on your numeric keypad, or the ones along the top of your keyboard to add, subtract, and multiply. The only key you may use for division is the one on your main keyboard. The (Enter) key is not operative when you use *Pocket Calculator*.

CRT Saver

The seventh of HOT's Pop-Ups is the *CRT Saver*. Like all of the other Pop-Ups, it is always available to you from any place within the Environment. Just press the left (Shift) key twice, rapidly.
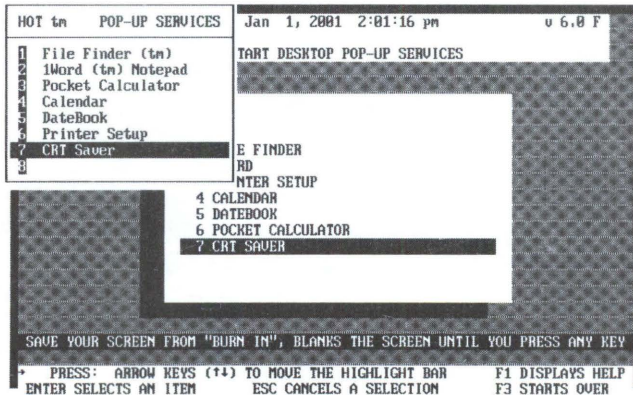

Figure 8-20 Selecting the CRT Saver

When you select the *CRT Saver* your screen instantly goes blank.

Nothing has actually changed. Blanking the screen just avoids "burning" the inner phosphorus coating. Screens left on too long on one particular display may eventually begin to retain a ghost image or lose their clarity. You can also use this feature for privacy when leaving your computer unattended.

Press any key to turn the screen back on.

Environment

Chapter 9
Environment Error
Messages

This section lists messages that the environment may display, and offers some suggestions as to what to do in the event they occur.

> *Note: The **HeadStart Environment** is created with a proprietary program called **HOT**. Therefore, **HOT** error messages and **HeadStart Environment** error messages are very much the same—and we use the terms interchangeably.*

Error messages are grouped together according to the activity you are performing when the error occurs. The categories of activity include:

Device I/O (input/output),

Command Execution,

Initialization,

1Word.

Device Error Messages

Device error messages may occur when HOT uses the I/O services provided by DOS. For example, HOT uses DOS to load HotMenu files, load application programs, to save HotMenu files to disk, etc.

These error messages appear in a box in the middle of the screen.

This box shows you the device that caused the error (usually a disk or printer), the error message, and the option to try the operation again or cancel it.

Bad File Allocation Table

Data CRC Error

Sector Not Found

Seek To Track Failed

Unable To Read Data

Unable to Write Data

Undetermined Error

Any of the above messages may occur if a disk becomes damaged. Check your disk and your drive and press ⒭ to retry. If you are still unsuccessful press ⒞ to cancel. You may have a defective disk.

Device Not Ready

If the device is a disk drive, the floppy may not be inserted, or the door of the disk drive may not be latched properly. Or, the indicated device may not be powered on or not on-line. Correct the problem and press ⒭.

Disk is Write Protected

The Environment cannot write to the indicated disk. This is due to a write-protect tab on a disk. If you are sure you want to write to the disk, take it out of the drive, and remove the tab, and press ⒭. Remember to put the tab back on if you want to keep the disk write-protected.

Unknown Media Format

This message usually indicates that you have placed an unformatted disk into the drive. Press ⒞ to cancel, and check the disk.

Command Execution

When HOT executes a list of commands or when the Command Shell executes a command line you type, one of the following errors may appear on the screen:

COMMAND.COM not found

When HOT attempts to run any program, it uses services in a file named COMMAND.COM. This file must be on the disk and directory that is in the COMSPEC line of your AUTOEXEC.BAT file. Locate the COMMAND.COM file and insure it is on the correct disk and in the proper directory, or change the COMSPEC specification.

Invalid Directory

The directory specified in a CHDIR (or CD) command is not on the disk or you did not specify a correct path. Check your command line and make sure you entered the proper directory or path for the specified disk.

Invalid Path, Not Directory, or Directory Not Empty

This message appears if there is a problem during a RMDIR (or RD) command. Either the directory you specified does not exist on the disk, or you are trying to remove a directory that still has files or subdirectories in it. You must delete its files and subdirectories first.

Out Of Environment Space

When executing a SET command, HOT was unable to expand the memory area in which the Environment strings are kept. The size of this area is 1500 characters, which should be more than enough for your needs.

If this error occurs, you can make space in the environment area by removing any strings you may not need.

Syntax Error

When executing a SET command, an improper form of the command was used. Check your DOS documentation for the proper syntax.

Unable to Create Directory

This message may result from a MKDIR (or MD) command. Perhaps there is a file or directory of the same name, or the disk or directory have reached the maximum capacity. Or, one of the directory names you specified could not be found. If you have a problem with similar names, choose another name. If your disk is full you'll need to delete some files.

Initialization

ERROR: Unknown information in the configuration file

The Configuration File is Invalid

HOT cannot recognize the information in the configuration file. Check to make sure you specified the correct path and file name.

HOTINI.COM Not Found

HOT requires the file HOTINI.COM for its initialization. This file must be in the current directory or in one of the directories specified in your PATH specification.

I Can't Find the Configuration File

The configuration file you specified on the command line is not in the proper directory. If you did not specify a file, HOT tries to use HOT.INI in the current directory.

I Can't Find the .PGM File That You Specified

The HOT Desktop Pop-Up Service you specified in a Program line in the configuration file is not in the specified disk and directory. Check the specification for the proper path and file names.

I Can't Fit the .PGM File You Requested Into Memory

This message will be displayed if HOT runs out of memory when loading the HOT Desktop Pop-Up Services specified in the configuration file. Try removing one or more of the Program lines, change the buffer allocation for *1Word*, or change the Files specification for the *File Finder*.

PGM File Has an Incorrect Version Number

This error can occur if the version of a HOT Desktop Pop-Up Service does not match HOT's version. Try going through the installation procedure again.

PGM File Isn't a HOT Program

Only specially developed programs can be used as a HOT Pop-Up Service. The file specified in a Program line in the configuration file is not a proper program. Check the file that you specified.

You Have Specified Too Many .PGM Files

This error occurs if HOT finds too many Program specifications in the configuration file. HOT allows a maximum of eight specifications.

1WORD

Can't Access File

The file cannot be opened because it has a read-only attribute, is a directory, or is in use by a computer network server.

If the file is read-only, it probably means that the file was not meant to be edited. To allow *1Word* to access it, you need to remove the read-only status.

Can't Create File

When attempting to create a new file, either the maximum disk capacity was exceeded or the filename was already in use.

Can't Open File
1Word cannot find the file you specified. Check the spelling of the filename and make sure you are specifying the correct directory.

Can't Write File (Disk Full)
This error occurs if *1Word* attempts to write the specified file to disk, but there is not enough room. Use a different disk or drive to write the file.

File is Too Big
When attempting to load a text file, *1Word* determined it was too large to fit into the allocated space. Exit HOT and increase the *1Word* buffer size specified in the configuration file. *1Word* cannot edit a file that is larger than 62K bytes.

Not Enough Memory
When doing a (Ctrl)(K)(R) to read a text file into the file being edited, *1Word* ran out of memory. Save the file as is, and exit HOT. Increase the *1Word* buffer size specified in the configuration file. *1Word* cannot edit a file that is larger than 62K bytes.

Block Not Marked
A block operation ((Ctrl)(K)(V), (Ctrl)(K)(Y), (Ctrl)(K)(C), (Ctrl)(K)(F)) was attempted but no block had been marked. Use the (Ctrl)(K)(B) and (Ctrl)(K)(K) commands to mark a block and try the operation again.

Block Too Big
A block copy ((Ctrl)(K)(C)) or move ((Ctrl)(K)(V)) operation was attempted but would have caused *1Word* to run out of memory. Save the file as is, and exit HOT. Increase the *1Word* buffer size specified in the configuration file. *1Word* cannot edit a file that is larger than 62K bytes.

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HEADSTART®

LX

Technical Reference Manual

CD ROM

SERIES

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Appendix A
General Technical
Information

Introduction

Every aspect of your HeadStart LX-CD has been designed with one guiding principle in mind. You should be able to use your HeadStart LX-CD immediately—right out of the box—without any specialized knowledge or training.

Within the constraints of today's technology, we've tried to make the system conform to you rather than forcing you to conform to the system. This means you don't have to know any of the technical details of your system's operation in order to use it.

We realize however, that occasionally you may need to know specific technical information on various aspects of the system. If you're an advanced user, a programmer or a technician you may need to know what's going on "under the hood" to solve some thorny technical problem, debug a program, or troubleshoot a printer or modem connection.

That is the purpose of this technical reference section.

What to Tell Your Software

Some software installation programs ask questions about your hardware setup, sometimes to take full advantage of your system hardware or just to be able to run properly. Refer to the following information when answering these questions. In particular, when presented with menu choices from which you are to select what indicates your hardware setup, select the choice from the words that appear in **boldface** below.

The Mouse Port and Mouse
The mouse on your HeadStart LX-CD is compatible with the **Logitech bus mouse** and the **Microsoft bus mouse**.

Video Adapter
Your HeadStart LX-CD is equipped with a **VGA** adapter which is fully compatible with the **IBM PS/2 family of computers.**

However, you should know that the adapter can also emulate the EGA, MCGA, CGA, MDA, and Hercules video adapters. If you install and run a program written for one of those adapters, the video adapter detects it and automatically switches to the appropriate mode.

Disk Drives
For increased media compatibility, your HeadStart LX-CD is equipped with one 3.5" floppy diskette drive. The drive is an IBM PS/2-compatible drive, able to read and write **1.44-megabyte diskettes** as well as **720-kilobyte diskettes**. The CD ROM drive adheres to the High Sierra data format, and can read any CD ROM which follows that industry standard.

Audio Ports
There are three audio ports on the back of your HeadStart LX-CD: two RCA-type jacks and one mini-headphone jack. The RCA-type jacks each provide one channel of stereo output. Use them to connect your computer to an audio amplifier so you can play music CDs. The headphone jack allows you to plug in either the supplied headphones or another similar set for private listening.

Appendix B
Maintaining Your
Computer

This section provides information on a variety of elements that can affect
the working condition of your computer. It describes the components of
your HeadStart LX-CD computer and gives you instructions regarding its
care.

The System Unit

The system unit houses the central processing unit (CPU), the drives,
memory chips, the video board, the fan, the power supply unit and many
other components. These components perform the primary functions of
the computer, such as executing programs, storing data, and communi-
cating with external devices. The system unit provides a cool and clean
environment for the smooth operation of your computer.

Handling

Handle your computer gently. Don't drop it and don't shake it. The
computer should be placed on a steady stand, table, or desk. Its perform-
ance could be affected if a vibration occurs while the computer is
operating.

Protect your computer from dust, dirt, smoke and liquids. Spilled food
and drinks can permanently damage components such as your keyboard
and diskettes.

Every so often, the vent area on the back of the main unit should be dusted. Dusting can be done with pressurized cans of air packaged for this purpose, or by a gentle dusting with a vacuum cleaner. Don't put the nozzle of the vacuum cleaner directly on the computer; hold the attachment above the surface. Make sure that the computer is turned off.

Temperature

Keep your computer cool. The internal components of your computer work best at temperatures around 60 to 70 degrees Fahrenheit. Although the computer has its own fan to reduce the heat generated by its internal components, the fan cannot compensate for a hot room. If intermittent errors occur, and you have a reason to suspect high temperatures might be the cause, turn off the computer and let it cool.

Power Supply

One of the most important elements for proper functioning of the computer is a steady, consistent power supply. There are a number of things you can do to minimize the possibility of damage caused by major power fluctuations.

You should try to reserve a separate electrical circuit for the main system unit. Make sure that the circuit cannot be accidentally turned off while you are working on your computer. If the circuit has to be shared, make sure that it is not shared with any heavy electrical appliances. If you are unsure about what is on a particular circuit, you can switch the circuit breaker off and see what appliances lose power. Never perform this type of experimentation when the computer is turned on.

Grounding

Another important step you can take to protect your computer system is to make sure that the connections to the computer are properly grounded. This will prevent electrical shock damage to both you and the system.

Static Electricity

Static electricity can cause power interference and damage floppy diskettes and circuits inside the computer. It can be reduced by eliminating static-producing materials such as wool and nylon rugs, or by increasing the relative humidity in the room. If you experience excessive problems with static electricity, ground yourself before you touch the computer or diskettes. You may also want to look into buying an anti-static mat to put under your computer work area.

Disk Drives

With proper use and simple routine maintenance, the drives on your computer system should give years of trouble-free service.

Protect the drives from dust and smoke by using the system in a clean environment. If you are not going to use the computer for a while, cover it to protect the drives from environmental dust.

You should always insert and eject disks gently. Never try to eject a disk when the in-use light (LED) is on, or when you can hear the whirring of the motor.

Be careful when you are inserting or removing diskettes. Never force a diskette into the drive. If it doesn't slip in easily, there is probably a diskette already inserted. Remove it and try again. If there is not another diskette in the drive and it continues to jam, check to see if a label or something else has become stuck in the drive.

Cleaning the Drive Heads

Several times a year the read/write heads on the floppy drive should be cleaned. This is done by using a special floppy disk that is soaked with cleaning solvent. You can purchase these special diskettes at your local dealer. If your unit is used constantly, you will want to clean the heads more frequently.

CD-ROMs

CD-ROMs are fairly indestructible, but there are some precautions you need to take so they won't get damaged. When they're not being used, keep CD-ROMs in the "jewel case" box in which they were shipped to you. If your computer ever has trouble reading a disc, wipe it with a slightly damp soft cloth from the center out–not around in circles. Never use a solvent such as alcohol. If you must use something, try mild detergent or soap. And keep the discs out of direct sunlight and extreme heat (such as on a windowsill), where they may warp and become unreadable.

Video Display Unit

Be sure to keep the screen clean. This is not only for the benefit of the unit, but also to prevent eye strain.

Turn off the computer and the monitor before cleaning the screen to prevent static electricity from affecting your system. The screen can be cleaned with a soft lint-free cloth.

If that's not enough, a slightly damp cloth and mild detergent can be used. Never use a wringing wet cloth to clean your screen—liquid could drip down into the system and cause damage.

Transporting Your Computer

Be sure to eject the CD-ROM caddy before moving the computer; leaving it in may damage both the caddy and the drive. It is also best to use the computer's original packing materials and cartons for the safest way to transport your system Be careful not to bump or jar the computer too much.

Appendix C
Adding Boards to
Your System

Your HeadStart LX-CD has three available full-length 8-bit (XT-style) expansion slots. This section describes how you can install add-on boards in them.

1. Before you begin, you must unplug everything. First, unplug the power cord from the back of the system unit. Second, unplug the monitor video and power cables from the back of the unit. Remove the monitor from atop the system unit and put on a secure surface. Gently pull out the keyboard connector from the front of the unit and put that also in a safe place. If you have any other peripherals installed, like a mouse, printer, modem or joystick, disconnect them from the system unit, too.

2. Locate the two screws that hold your system unit cover on. They are on the upper "lip" of the computer's back.

3. Using a flat-blade screwdriver, loosen the screws.

4. Look at the inside of your system unit. There are a total of three empty expansion slots. You may select any of those empty slots.

5. Select an available expansion slot and using a Phillips screwdriver, remove the screw that holds the expansion slot cover in place. Put the screw in a safe container; you will need it to install the option board.

6. Hold the option board at the top (that is, by the length-wise edge that doesn't have the row of gold-colored edge connecters). Slide the board into the selected expansion slot, using a very slight end-to-end (**NOT** side-to-side! These circuit boards can crack very easily) rocking motion if necessary. Use both hands to carefully guide the option board in while aligning the gold-colored tabs into the connector at the bottom of the slot. Gently but firmly push the board into the connector until it snaps into place and is seated firmly.
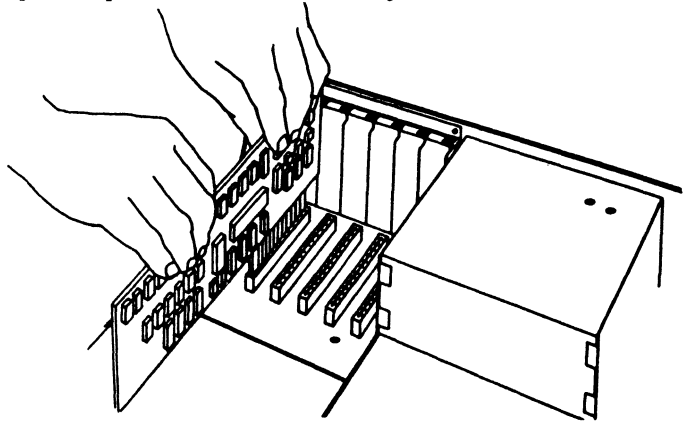
Figure C-1. Placing the option card

7. Align the hole in the metal tab of the option board with the hole in the rear panel of the system unit. Replace the screw you previously removed and tighten it. Save the slot cover to re-install should you ever remove the option board.

8. Carefully replace your system unit cover, watching that you don't catch and pinch any wires, and re-install the screws. Then plug in your keyboard, monitor, power cables and other peripherals (just as you did when you first installed your system).

9. Follow the manufacturer's directions to install any software which may accompany the new option board.

Appendix D
Troubleshooting

This appendix is designed to help you solve the problems you might encounter while you are using your HeadStart LX-CD. It includes a section of possible problems and their solutions and a section on caring for your computer.

If you run into problems that you cannot solve by using this troubleshooting section, try to isolate the problem by writing down everything that happened before it occurred. Turn off the computer and check all the cables and board connections. Then turn the computer back on and try to repeat the problem operation. If the same error occurs and you need technical advice, call the toll-free support number: (800) PC-COACH.

Problem Solving

This section lists problems that you may run into while operating your computer, and offers some solutions.

System Startup
Problem: When you first turn on the system you hear a long single beep lasting about a half second and the system does not appear to be starting.

> **Action:** The long single beep tells you that the system encountered a problem when it performed its routine self-test. You probably have added an expansion board, and the board isn't set up correctly. Make sure that all jumper settings are correct.

Problem: Nothing happens when the power switch is activated–the fan doesn't turn, the power light doesn't turn on and the disk drives don't activate.

> **Action:** The system unit is not getting power. Turn the switch off and recheck all of the power cord and cable connections. Test to see if the wall outlet you are using is working by plugging a lamp or an appliance into the same outlet.

Problem: There is a problem with the internal operation of your computer.

> **Action:** You may have to have the system unit serviced.

Monitor Problems

Problem: You can hear the system fan, and the power-on indicator light on the front panel is on, but there is no display on the screen.

> **Action:** Adjust the brightness and contrast controls on the display monitor. Be sure the monitor is plugged in and turned on. Check the monitor cables to make sure they are plugged in properly. Make sure that the HeadStart Operating Environment is installed on the hard disk.

Diskette Problems

Problem: The system attempted to read the diskette but the screen display did not appear.

> **Action:** Remove the diskette, and insert it again. The diskette should be gently inserted, **label side up.**
>
> Push it all the way in (there should be no resistance) it should snap into place. Take it out and try reinserting it. If there is resistance, check to see if there is something in the diskette drive. Sometimes a label can come loose from a diskette and will prevent you from inserting a diskette.
>
> If the problem occurred with a CD-ROM, be sure that the disc is in the caddy with the painted side up.

Problem: The system has trouble reading from or writing to a diskette and the error message "Device error- Abort, Retry, Fail" is displayed.

Action: When a device error is displayed, DOS waits for you to enter one of the following responses:

Abort—Press the letter **A** to terminate the program.

Retry—Press the letter **R** to repeat the operation. This response should be used when you have corrected the error (for example, with "Not ready or Write protect" disk errors).

Fail—Press the letter **F** to ignore the defective sector and pretend the error did not occur. *WARNING*: This response may cause damage to information on the diskette.

Check to be sure that you have not tried to write data to a CD-ROM, which is a read-only device. You cannot record data on a CD-ROM.

Keyboard Problems

A problem with the keyboard can affect the way the system unit and the display monitor respond. This makes it difficult to tell if it is the keyboard that is causing the problem, but there are a few tests you can perform.

Problem: You suspect that the data you are entering through the keyboard is not being properly transmitted to the system unit.

Action: Make sure that the keyboard is properly attached to the outlet on the lower front, just right of center, of the system unit. Turn the system unit off. Pull the plug out and plug it back in again. If you still have problems it may be necessary to have both the keyboard and the system unit serviced.

Problem: A key begins to stick in either the depressed or released position.

Action: Most likely the problem is a piece of dirt stuck under the keycap. Turn the computer off and unplug the keyboard. Turn your keyboard upside down and shake and blow at the key. Try the key, if it still doesn't work then pry up the keycap very gently with the point of a knife or small flat screw driver. If the keycap does not immediately begin to come loose, give up.

Some keys may be jammed and require service. If you manage to pry the keycap off, look for something that has slipped down under the key mechanism. Sometimes you can blow it loose. Put the keycap back on and try it again. If it still sticks, the keyboard will require service.

Problem: You press a key and the wrong character appears on the screen.

> **Action:** Turn the system unit off, unplug the keyboard cable and plug it back in. Then, turn on the computer and try again. If that doesn't help, try a different program to see if you have the same problem. If the problem continues, both the system unit and the keyboard may require servicing.

Problem: The computer doesn't recognize the keyboard.

> **Action:** The keyboard may be set up for the wrong type of computer. On the underside of the keyboard, you will find a switch labelled X-A. Try moving the switch to the other position and turning the computer on again.

Printer Problems
Problem: "Printer Not Ready" error

> **Action:** There are a number of things that need to be checked if you get a "Printer Not Ready" error.
>
> Check to see if the printer is turned on and that the printer is on line. Usually there is a light on the printer panel that displays this status. If it is not, press the On Line button till the light next to it is ON.
>
> Check the power cable for the printer to be sure that it is plugged into a working power outlet.
>
> Check the cables between the printer and the system unit to make sure both ends are plugged-in securely.
>
> Check the ribbon cartridge to be sure that it is properly inserted and that the ribbon is not jammed.
>
> Check to see if you are out of paper or if a piece of paper has become jammed in the printer mechanism.
>
> If you have checked for all of the above problems and you continue to get the error message, you may have to have your printer or your system unit serviced.

Input Device Problems

Problem: You cannot get your mouse to operate properly.

> **Action:** Turn off the computer and unplug the mouse connector. Plug the mouse back in, turn on the computer and check to see if the mouse is now functional.
>
> Check the manual that came with your mouse to make sure that all the switch settings are correct and that it was installed properly. You should also check the manual to find out if there is any special software that needs to be installed in order to operate your mouse.

Mouse Problems

Problem: The system doesn't recognize the mouse.

> **Action:** Change mouse interrupt with VSETUP utility. (See Appendix G.)

Appendix E
Connectors & Pinouts

If you don't understand any of the following, don't worry—you probably won't ever need to. This section is provided as reference materials for those so technically inclined.

Serial Port: COM1

COM1 is a 9-pin DIN male connector situated next to the 25-pin female parallel connector on the rear panel.
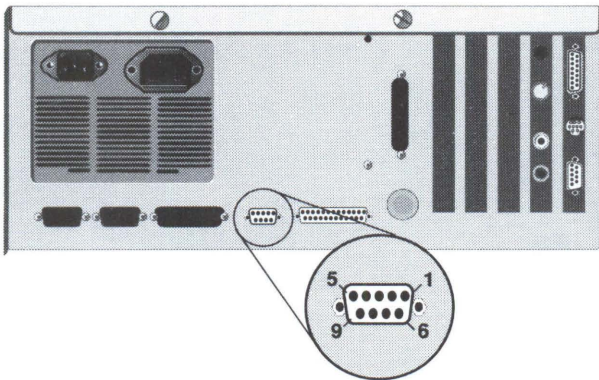
Figure E-1 9-pin serial COM1 connector

9-pin COM1 Pinout:

1   Carrier Detect

2   Receive Data

3   Transmit Data

4   Data Terminal Ready

5   DC Ground

6   Data Set Ready

7   Request to Send

8   Clear to send

9   Ring Indicator

Parallel Port

The Parallel Port LPT1 (PRN) is a 25-pin female IBM compatible connector located next to the 9-pin serial connector
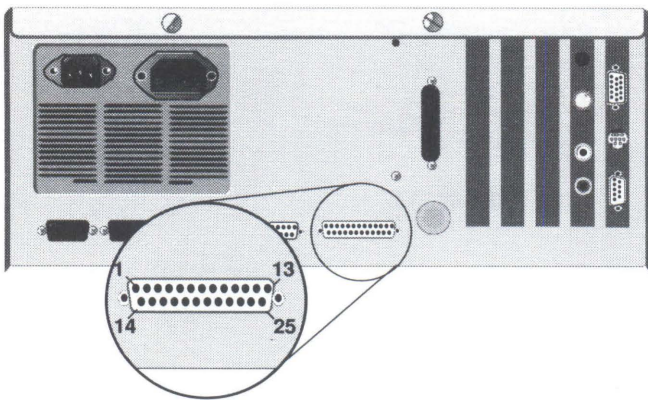
Figure E-2 Parallel Port

Pinout:

1	/Strobe
2	Data bit 0
3	Data bit 1
4	Data bit 2
5	Data bit 3
6	Data bit 4
7	Data bit 5
8	Data bit 6
9	Data bit 7
10	/ACK
11	Busy
12	PE
13	SLCT
14	/Auto Feed
15	/Error
16	/INIT
17	/SLCT in
18-25	Ground

Video Connector

VGA video output uses a 15-pin female connector.
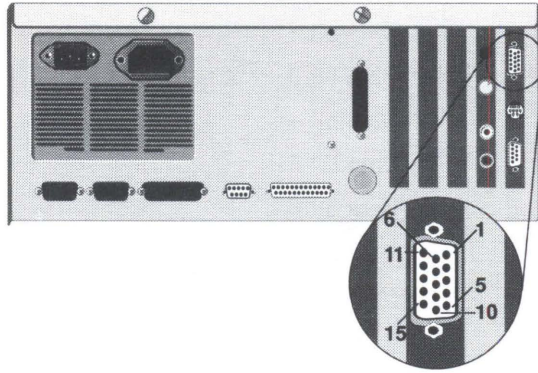
Figure E-3 15-pin VGA Video Connector

Pinout:

1 Red

2 Green

3 Blue

4 unused

5 Self Test

6 Red Rtn

7 Green Rtn

8 Blue Rtn

9 unused

10 Digital Gnd

11 Digital Gnd

12 unused

13 Hsync

14 Vsync

15 unused

9-pin Video Connector

The 9-pin video connector is for use with TTL-type monitors.

Pinout:

1   Ground

2   Secondary Red/Ground

3   Primary Red

4   Primary Green

5   Primary Blue

6   Secondary Green/Intesity

7   Secondary Blue/Mono Video

8   Horizontal Retrace

9   Vertical Retrace
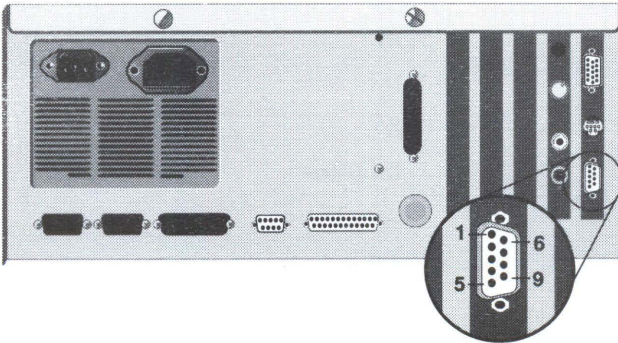
Figure E-4 The 9-pin TTL Video Connector

Mouse

The mouse connector is a 9-pin mini-DIN connector. It is located on an expansion card between the two video ports.
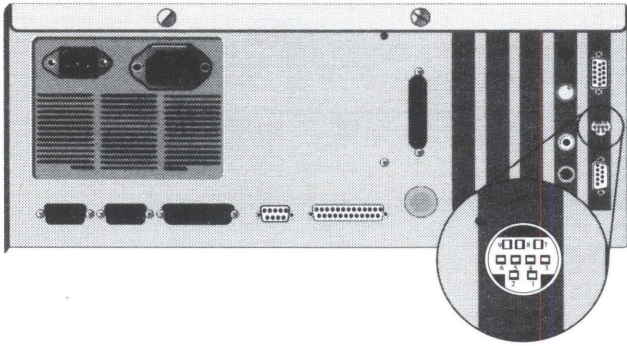
Figure E-5 Mouse Connector

Pinout:

1	+ 5 volts
2	XDA
3	XDB
4	YDA
5	YDB
6	Left button
7	Center button
8	Right button
9	Ground

Keyboard

The keyboard uses a 5-pin mini-DIN connector.
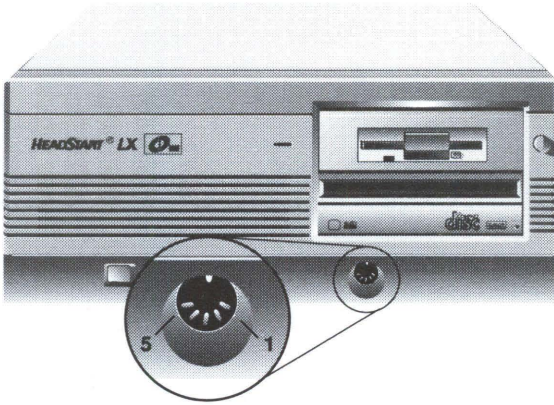
Figure E-6 Keyboard Connector

Pinout:

Pin #	Description
1	Clock
2	Serial Data
3	/Reset
4	DC Return
5	+5 Volts

Appendix F
Dip Switches

Dip Switch Settings

Located on the motherboard of the HeadStart LX-CD, you will see one bank of dip switches. The large bank of dip switches, with 8 switches, is called SW1. Each of the individual (small) switches is labeled 1 to 8 from the left.

The settings on these switches tell your computer exactly what options your computer has installed and how some of the built-in options will work.

These switches are normally set at the factory and usually never need be changed. However, the settings of these switches are included on the following page:

Switch	Function	ON/OFF	On/Off Function
1	8087 Co-processor Installed	ON	8087 not installed
		OFF	8087 installed
2	Number of Floppy Drives	ON	1 installed
		OFF	2 installed
3	Parity Chips Installed	ON	Chips installed
		OFF	Chips not installed

Switch	Function	ON/OFF	On/Off Function
4	Video Type Select	ON	Monochrome graphics
		OFF	Color graphics
5	Parallel Port Select	ON	Port disabled
		OFF	Port enabled LPT1
6	Serial Port #2 Select	ON	Port disabled
		OFF	Port enabled as COM2
7	Serial Port #1 Select	ON	Port disabled
		OFF	Port enabled as COM1
8	Internal Hard Disk Select	ON	No hard disk
		OFF	Hard disk installed

Appendix G
Video Reference

Your HeadStart computer includes software that gives you advanced control over the computer's video display. Also included is a set of high-resolution video drivers that can enhance the operation of graphics programs such as GEM, Windows, and AutoCAD.

If you use a HeadStart VGA monitor with the HeadStart Environment, you will never need these utilities. If you don't use the Environment and have bought programs such as *Ventura Publisher*, *Lotus 1-2-3*, or *Microsoft Windows*, however, you might find some of these utilities useful.

All the video software can be found in the directory C:\VGAUTILS. It includes:

VCONFIG.COM	mode switching software
VGATEST.COM	diagnostic software for VGAWONDER
VSETUP.COM	setup and configuration utility
ATIVIDEO.SY	RAM version of video BIOS
BIOSDATE.COM	utility that checks date of BIOS
CLR.COM	clear screen utility for 132 column mode
L43.COM	43 line mode utility
README	addendum and driver installation instruction
VDRIVER.EXE	program to install extended high-resolution drivers for AutoCAD, GEM, Windows, etc.

Other files include video drivers for a variety of popular programs, including Lotus 1-2-3, GEM, and Windows.

Before you start, you should print and read the file README. It may contain additional instructions and updates that occurred after this appendix was written.

VSETUP

VSETUP is used to configure the video card. The information you enter in this program is retained even after the power is turned off. Use VSETUP to change or store the default information used by the VGAWONDER. You'll only need to use it:

> To change the default setup video mode.
>
> To specify default monitor selection on powerup.
>
> To setup the mouse interface.

To start VSETUP, type at the DOS prompt VSETUP (Enter). You'll see the menu shown in Figure G-1.
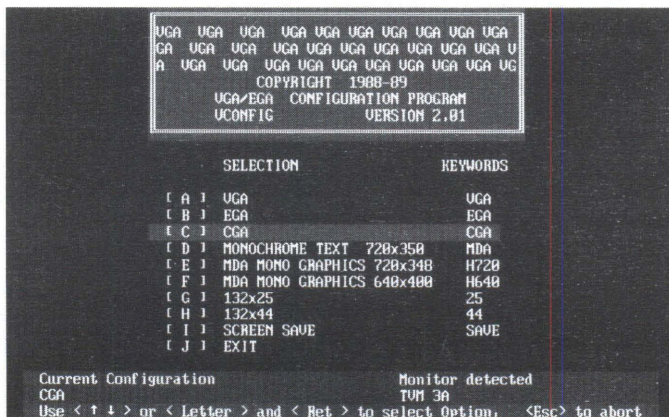

Figure G-1 : The VSETUP Menu

(A) ANALOG MONITOR SELECTION

The VGAWONDER monitor detection circuitry cannot differentiate be-tween Multisync, Multisync Plus, or Multisync XL monitor. You must specify which type of multisync monitor is attached. This selection allows you to override the automatic analog monitor detection function of the VGAWONDER.

(B) VGA

This item works only with Analog and Multisync monitors; if you pick it, the video card will start in VGA mode. You will be given the option of choosing either the COLOR or MONO option. If you have a color monitor and you choose the MONO option, you'll be able to specify whether you want to use white, amber or green as your foreground color.

(C) EGA (and Dual Monitor Configurations)

Selection of this item will start the VGAWONDER in EGA mode. You'll have the option of choosing either the EGA(C80), EGA (CE80), EGA (M80) or DUAL option. If you have a color monitor and you choose the EGA (M80) option, you'll be asked your choice of foreground color (either white, amber or green).

Dual Monitor

If you select the DUAL option, you must determine which video card you wish to be the primary card at the time the computer powers up.

If you want your primary monitor to be the one connected to the video card that comes with your HeadStart computer, you can choose from among three options.

With an MDA or Hercules card as the secondary adapter, you can power up your main monitor as either CGA or EGA. For the former, choose **EGA (C80)/MDA**. For the latter, choose choose **EGA (CE80)/MDA.** If your secondary adapter is a CGA card, choose **EGA (M80)/CGA**. The VGAWON-DER powers up as a Hercules or MDA card. You will also have to specify your selection of a foreground color if your primary monitor is color.

If you elect to use the video card that comes with your HeadStart computer as the secondary card, you also have three options.

With an MDA or Hercules card as the primary adapter, you can use the included card as a CGA card by choosing **MDA/EGA (C80)** or as an EGA card by choosing **MDA/EGA (CE80).**

With a CGA card as the primary adapter, choose **CGA/EGA (M80)**. You'll also have to specify your selection of a foreground color if you are using a color monitor with the included card.

(D) CGA

Selection of this item will start the video card in CGA mode with double scanned text. Because this mode has the lowest resolution available on this card, we recommend using this mode as a default only if most of your software is CGA selfbooting software.

(E) MDA MONO GRAPHICS 720x348

Selection of this item will start the video card in Hercules mode. We recommend using this mode as a default only if the majority of your software is monochrome. If you are using a color monitor and you select this option, you will be required to choose a color (either white, amber or green). Almost all Hercules Graphics programs use this resolution.

(F) MDA MONO GRAPHICS 640x400

This selection will also start the video card in a special Hercules mode. However, only a small number of Hercules graphics programs use this resolution. If there is a problem with this option, try option (E).

(G) 8/16 BIT SELECT

Select 8 or 16 bit BIOS operation.

(H) MOUSE OPTION SELECT

The Mouse option select allows the user to select or deselect the mouse, select the interrupt level, and select Primary or Secondary mouse port. The mouse interrupt should be set to 2.

(I) EXIT AND SAVE CONFIGURATION

This option saves the last configuration sequence. If you do not use this option to leave VSETUP, the configuration information is not saved.

> *NOTE: VSETUP will recognize only one change at a time. It is necessary to "Exit and Save Configuration" after each change. Once all changes have been made, power the system off and on again to allow the new setup to take effect.*

VCONFIG

VCONFIG is a menu driven utility that is used to change the current video mode to a different mode and to automatically turn your screen display off during long periods of inactivity.

To start VCONFIG, change to the directory C:\VGAUTILS, and type VCONFIG [Enter] at the DOS prompt.

You see a menu like the one in figure G-2.
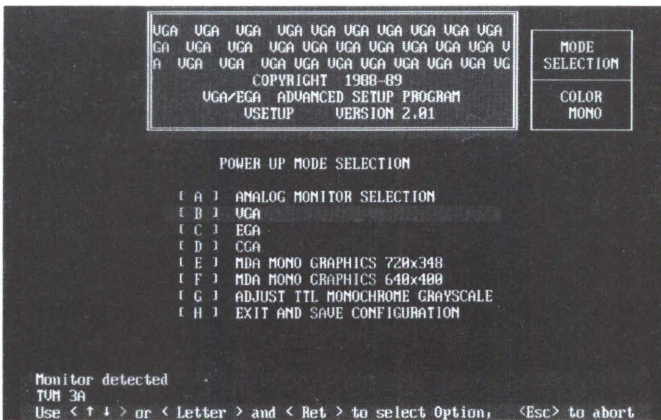
Figure G-2: The VCONFIG Menu

Each of the options in VCONFIG can be selected by typing in the letter to the left of the selection and then depressing the <enter> key. As you get familiar with the operation of VCONFIG, you can bypass the menu completely by typing:

C> VCONFIG (KEYWORD) [Enter]

The keywords are indicated on the right hand side of the screen: VGA, EGA, CGA, H720, H640, 25, 44, 60, or SAVE.

This is what each option does.

(A) VGA
This option selects the VGA mode and works only with VGA, 8514 and Multisync monitors. Software configured for VGA mode will run under this mode.

Video Reference **G-5**

(B) EGA

This option selects the EGA mode and works on all monitors. Software configured for EGA mode will run under this mode.

(C) CGA

This option selects the CGA mode. We've enhanced this mode by improving the graphics and text to a double-scanned image on all monitors except for RGB monitors.

(D) MDA MONO GRAPHICS 720x348

By picking this option, you put the video card into Hercules Graphics mode. If you are using a color monitor, you will have a choice of text colors from white, amber or green. All Hercules graphics programs use this resolution.

(E) MDA MONO GRAPHICS 640x400

This option will put the video card into special Hercules Graphics mode. Only a small number of programs use this resolution. If you have a problem with this option, try option (D).

(F) 132x25

The option 132 column by 25 row text mode works on all monitors except VGA monitors.

(G) 132x44

The 132 column by 44 row text mode will work on all monitors except for RGB monitors and VGA monitors.

(H) 132x60

This option will only work on Multisync monitors.

> *NOTE: 132 Column modes can only be used by software which is written to support 132 columns on the screen. Check your user's manual or call your dealer to confirm that the application will run in this mode.*

(I) SCREEN SAVE

The Screen Save option will activate a utility which will turn off the screen display after a predetermined time interval in order to prevent accidental phosper etching on your monitor. At your option, Screen Save is automatically installed during the utility installation process.

NOTE: Screen Save is not compatible with graphics programs that run under the GEM or Windows environments. Type "VCONFIG SAVE OFF" before you start these programs and type "VCONFIG SAVE ON" after you leave these programs. You can also incorporate these commands into a batch file to have the command automatically executed.

Also note that your HeadStart computer includes a screen saver.

(J) 8/16-BIT SELECT

8 or 16 bit BIOS operation. In an IBM XT, 8-bit is selected automatically. In some AT systems the VGAWONDER may not operate correctly in the 16 bit mode. This will be obvious if the system is NOT responding to keyboard control. ATI recommends that the user select the 8 bit mode if this condition persists. You should never have to select this entry.

(K) EXIT

Selection of this option will execute the last mode chosen that is supported by the monitor you are using. If you do not use EXIT to leave the menu, all options you choose will be ignored.

VDRIVER

To install the special graphics drivers that work with your video card, change directories to C:\VGAUTILS and type VDRIVER (Enter).

The following menu will appear on your screen:


```
A. Video Utilities
B. AutoCAD ver 2.52/ ver 2.62/ rel 9/ rel 10
C. AutoShade ver 1.0/ ver 1.1
D. AutoSketch ver 1.04
E. GEM ver 2.1/ ver 2.2/ ver 3.0/ ver 3.1
F. Lotus 123 ver 2.0
G. Symphony ver 1.1
H. Ventura ver 1.0/ ver 1.1/ ver 2.0
I. Windows ver 1.03/ ver 1.04/ ver 2.03/ 286 ver 2.1
J. VersaCAD ver 5.3
```

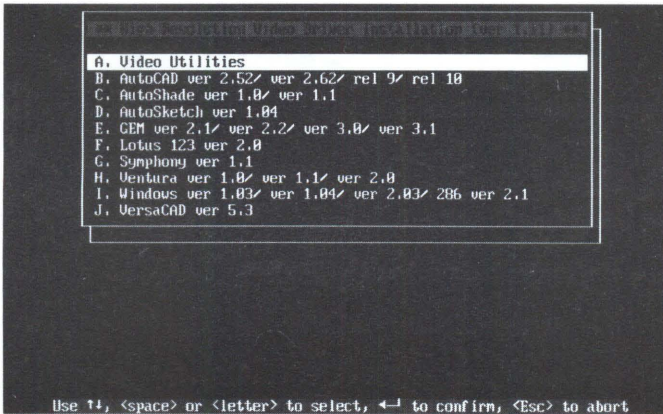Use ↑↓, <space> or <letter> to select, ←┘ to confirm, <Esc> to abort

Figure G-3: The VDRIVER Menu

Select the drivers you want to install, as directed on screen.

For detailed information on installing drivers for each program, however, consult the README file.

VGATEST

The VGATEST diagnostics program should be used when the VGAWON-DER produces a display but does not work properly. Examples of this include: Graphics not being displayed, characters missing, color not working and display not functioning in all modes.

When you run VGATEST, a series of menu driven instructions will appear. Follow these instructions and a series of screens will be displayed. If these screens do not show a problem, the VGAWONDER functions are working properly.

If problems are still encountered after the VGAWONDER passes VGATEST, they are most likely installation, compatibility or operation related. The following are the types of problems which are most likely to occur.

Installation Related Problems

Problem: Cannot seat VGAWONDER into slot.

> **Diagnosis:** Components in computer may interfere.

> **Action:** Try a different slot.

Problem: No display and no fan noise.

> **Diagnosis:** No power to computer.

> **Action:** Check that computer is plugged in and turned on. If the power indicator light does not come on when power is switched on, the power supply may be defective.

Problem: No display, but you can hear fan noise and the computer beeps (one long and two short tones).

> **Diagnosis:** Video card not recognized.

> **Action:** Check switch settings: switches 5 & 6 on switch block 1 on your motherboard should be "ON". Check that the VGAWONDER is properly seated in the slot.

Select the drivers you want to install, as directed on screen.

For detailed information on installing drivers for each program, however, consult the README file.

VGATEST

The VGATEST diagnostics program should be used when the VGAWONDER produces a display but does not work properly. Examples of this include: Graphics not being displayed, characters missing, color not working and display not functioning in all modes.

When you run VGATEST, a series of menu driven instructions will appear. Follow these instructions and a series of screens will be displayed. If these screens do not show a problem, the VGAWONDER functions are working properly.

If problems are still encountered after the VGAWONDER passes VGATEST, they are most likely installation, compatibility or operation related. The following are the types of problems which are most likely to occur.

Installation Related Problems

Problem: Cannot seat VGAWONDER into slot.

>**Diagnosis:** Components in computer may interfere.

>**Action:** Try a different slot.

Problem: No display and no fan noise.

>**Diagnosis:** No power to computer.

>**Action:** Check that computer is plugged in and turned on. If the power indicator light does not come on when power is switched on, the power supply may be defective.

Problem: No display, but you can hear fan noise and the computer beeps (one long and two short tones).

>**Diagnosis:** Video card not recognized.

>**Action:** Check switch settings: switches 5 & 6 on switch block 1 on your motherboard should be "ON". Check that the VGAWONDER is properly seated in the slot.

Problem: No display, computer beeps once, floppy drive light flashes on and goes off.

> **Diagnosis:** Computer works, signal not reaching monitor, possible defective monitor.

> **Action:** Make sure monitor is switched on and monitor cables are connected properly.

> Turn up monitor brightness and contrast controls.

> Turn monitor off and on, then reboot system.

> Try monitor on another system.

Problem: No display, dual monitor configuration.

> **Diagnosis:** Incorrect installation.

> **Action:** Check installation, run VSETUP.

If problem is not solved, remove other video card and install VGAWON-DER as single monitor setup to confirm operation before attempting dual monitor configuration.

Error Messages
Problem: Error message - 'Invalid configuration press [F1] to continue.'

> **Diagnosis:** Incorrect configuration file, or dead AT battery.

> **Action:** Run AT diagnostics software, installing for EGA or No Display; reboot. Problem should disappear. Power down. If problem appears on "power up" again, battery is dead.

Problem: Error message - Failed VGATEST.

> **Diagnosis:** Certain modes may not operate on certain monitors.

> **Action:** Check section on monitor selection. If the mode is supposed to run, and colors or patterns are missing, card may be defective.

Operational Problems

Problem: Screen goes blank in *Windows*, *GEM* or games.

> **Diagnosis:** Program incompatible with SCREEN SAVE.

> **Action:** Disable SCREEN SAVE by typing; VCONFIG SAVE OFF at DOS prompt before using program.

> **Problem:** Software does not work or garbage appears on screen and system hangs.

> **Diagnosis 1:** Software mode incorrect or not supported by monitor.

> **Action:** Use VCONFIG to change mode to match that fo which the software is installed. Check that mode is supported by your monitor.

> **Diagnosis 2:** Possible device driver or memory resident program conflict.

> **Action:** Disable programs by unloading them for memory or by renaming the AUTOEXEC.BAT file to *.BAK and CONFIG.SYS to *.BAK and reboot. If the problem disappears, there is a conflict with one of your programs.

> **Diagnosis 3:** Monitor may not switch modes without resetting.

> **Action:** Reset monitor by turning it off and on.

Problem: Memory resident programs (ie. *SideKick*) work when initially loaded, but not later when needed.

> **Diagnosis:** Current video mode different from installation of TSR program.

> **Action:** Use VCONFIG to switch mode to whatever the TSR program (ie. SideKick) is installed for.

Problem: Programs vary in screen size.

> **Diagnosis:** Programs may be using different video modes.

> **Action:** Adjust the horizontal and vertical height controls on your monitor.

Problem:

Screen flickers on RGB monitor.

> **Diagnosis:** Interlacing of image.

> **Action:** Use a screen filter or install software for lower
> resolution.

If the problem does not fall into any of these catgories, contact your
HeadStart dealer or call the Technical Support Hotline at 1-800-PC-
COACH.