# ꓘ ATARI®

# MEGA STE™
# COMPUTER



Owner's Manual

Like any electrical appliance, the Atari MEGA STE computer uses and produces radio-frequency energy. If not installed and used according to the instructions in this manual, the equipment may cause interference with your radio and/or television reception.

If you believe that this equipment is causing interference, try switching it on and off. If the interference problem stops when the equipment is switched off, then the equipment is probably causing the problem. With the equipment switched on, you may be able to correct the problem by trying one or more of the following measures:

• Adjust the position of the radio or television antenna.
• Reposition the equipment in relation to the radio or television set.
• Plug the equipment into a different wall outlet so that the equipment and the radio or television set are connected to different branch circuits.

If necessary, consult your Atari computer retailer or an experienced radio-television technician for additional suggestions.

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# CHAPTER ONE
# GETTING STARTED

## INTRODUCTION

Your Atari MEGA STE computer system combines the latest micro-computer technology with an easily understood and simple-to-use working environment. MEGA STE computers come standard with the following:

- A 16 MHz 68000 processor

- A palette of 4,096 colors; three different video modes

- An 80-column display

- Two or four megabytes of RAM, depending on the model

- An optional 68881/2 floating point coprocessor for faster information processing

- A built-in double-sided floppy disk drive that stores up to 726,016 bytes of information

- A built-in hard disk drive

- Ports for adding: an additional floppy disk drive, ACSI (DMA) devices, a parallel device, serial devices, MIDI instruments, and stereo speakers

- A Local Area Network (LAN) interface

- A VMEbus for high speed asynchronous parallel data transfer

- A cache option for faster information processing

- The operating system, TOS, permanently installed in memory. TOS includes GEM, the powerful Graphics Environment Manager. GEM provides the visual representation of the computer's operations

- The Control Panel desk accessory contained on the built-in hard disk drive and on the USA Language floppy startup disk

- A complete collection of hard disk utilities on the Atari Hard Disk Utilities disk

# Using This Manual

Operating your computer is easy. This manual explains in clear, nontechnical language how to operate your computer. After you become familiar with the computer, use this manual as a reference guide to individual procedures and specific information.

Computer owners living in the United Kingdom should refer to **Appendix G** for additional instructions when connecting their system.

A summary of each manual section follows:

**Chapter One: Getting Started** familiarizes you with the components of the computer system. This chapter explains how to unpack the computer and connect the system components, and explores the major features and available options.

**Chapter Two: Using the MEGA STE** introduces more basic computer concepts, describes how to start up and switch off your system, and discusses the GEM Desktop environment.

**Chapter Three: Basic Skills Tutorial** explains how to use the elements of the GEM desktop to manage information, both on screen and on disk. The tutorial teaches how to use the cursor, work with windows, copy and delete icons, folders and files, and format a floppy disk.

**Chapter Four: Advanced Desktop** continues where the tutorial left off and explains advanced desktop functions such as: updating a directory display, entering information when a dialog box displays, and advanced menu bar commands.

**Chapter Five: Directories, Folders, and Files** teaches you all about files, filenames, folders and directory structures. This chapter also explains how to use files and directories (folders) to develop and maintain an efficient working environment.

**Chapter Six: Desk Accessories** explains how to install and use desk accessories, and also describes in detail the Control Panel desk accessory included with your system.

**Appendix A: MEGA STE Panels and Ports** presents labelled drawings of the MEGA STE's side and rear panels.

**Appendix B: Pointer Control Quick Reference** is a chart describing pointer actions and how to achieve them using the mouse or keyboard. Keep this chart near the system for quick reference.

**Appendix C: Advanced Hard Disk Utilities** describes how to use the hard disk drive utilities.

**Appendix D: Troubleshooting and Preventive Maintenance** offers solutions to problems you may encounter while connecting or operating the MEGA STE computer. The appendix includes guidelines for proper maintenance of the computer system.

**Appendix E: MEGA STE Computer Specifications** summarizes the major features and requirements of the MEGA STE computer.

**Appendix F: Connector Pinout Specifications** shows the pin assignments of the computer ports.

**Appendix G: Power Connection in the United Kingdom** provides additional setup instructions for MEGA STE computer owners in the United Kingdom.

**Glossary** defines common technical terms used in this manual as they relate to your computer.

**Index** helps you locate terms and procedures used or explained in the manual.

**Customer Support** tells where to find more information about the Atari MEGA STE computer as well as other Atari computer products.

## Special Notations

Characters enclosed by square brackets ([ ]) represent keys on the computer keyboard. Sometimes a procedure requires you to use two or more keys at the same time. For example, [Control] [X] means to hold down the [Control] key while you press the [X] key.

Paragraphs marked **Note** or **Warning** appear throughout the manual.

> **Note**: Notes contain useful hints and other information relevant to the topic being discussed.

> **Warning**: Warnings alert you to potential problems and suggest ways to avoid those problems.

## SETTING UP YOUR SYSTEM

Set up your system in a workspace that is both healthy for the computer and comfortable for you. Choose a workspace with a sturdy, level surface close to an electrical outlet, with plenty of room for airflow around the system. Protect the system from dust, grease, extreme temperatures, direct sunlight, and high humidity. An environment that works well for a television or stereo system will also suit the computer.

Carefully unpack the computer console, keyboard, mouse, and monitor. Remove all packing materials (including the protective inserts in the floppy disk drive and the mouse) and save them for storing or shipping the system later. Then follow the instructions in this section for connecting the system.

> **Note**: You will find labelled diagrams of the MEGA STE 's panels and ports in **Appendix F, MEGA STE Panels and Ports**.

## Keyboard and Mouse

One of your computer's convenient features is the detached keyboard. You can position the keyboard at whatever angle is most comfortable for you. If you prefer a sloped keyboard, turn the keyboard upside down and flip the two plastic retractable feet on the bottom of the keyboard towards the back. This raises the back of the keyboard. Flip the feet back into the retracted position to make the keyboard lie flat.

A mouse is a device that allows a special type of communication with your computer. Rolling the mouse on a flat surface moves a cursor on the screen. You move the mouse and click the mouse buttons to perform select, move, delete, edit, and other operations on icons, text, and graphics displayed on your screen.

### Connecting the Keyboard

A coiled cord with a standard phone connector connects the keyboard to the computer console. Plug the connector into the jack on the left side panel of the MEGA STE .

### Connecting the Mouse

The mouse connects to the computer through the keyboard. The mouse and joystick ports are located on the sides of the keyboard.

To connect the mouse, insert the mouse cable connector into the Mouse/Joystick port on the right side of the keyboard.

## Monitor

You can use a computer monitor to provide the video display for your computer. If you are using a television for your video display, refer to the next section, **Television**.

### Connecting the Monitor

First connect the monitor's video cable into the monitor (if not already attached). Connect the other end of the cable to the Monitor port on the back panel of the computer. Use of an adaptor plug (supplied with the monitor) may be required.

Connect the power cable to the back of the monitor, then insert the plug into a grounded wall outlet or power strip. (Consult the manual supplied with the monitor for further information.)

## Television

The MEGA STE computer is equipped with a television port. You can use a television instead of a monitor as the computer video display.

### Connecting the Television
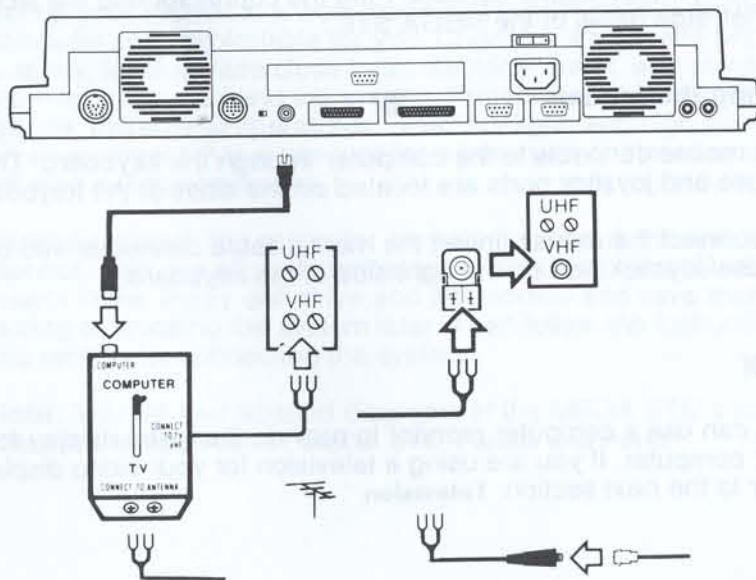


You will need the following to connect a television to a MEGA STE:

- A color or black and white television.
- A small flat-bladed screwdriver.
- Adaptors (VHF or antenna cable) to complete the setup.

1. Disconnect your present VHF antenna cable or cable television line from the VHF terminal on the back of your television.

2. If the cable or line has a flat twin-lead connector, attach it directly to the screw terminals on the bottom of the television switch box and use a screwdriver to tighten the connection.

   If the antenna cable or line has a round screw-on connector, attach it to a VHF adaptor (a 75 to 300 ohm converter) and then attach the VHF adaptor to the screw terminals on the bottom of the television switch box. (You can buy this VHF adaptor at most television or electronics stores.) Use a screwdriver to tighten the connection.

3. Connect the twin-lead cable from the switch box to the VHF terminal on the back of your television. If the VHF terminal has two screws, attach the switch box cable directly to the screws. Use a screwdriver to tighten the connection.

   If the VHF terminal has a screw-on connector, you'll need a line transformer (a 300 to 75 ohm converter). This transformer is available at most television or electronics stores. Attach the twin leads on the switch box to the screws on the transformer, then plug the transformer into the VHF terminal.

4. Move the sliding switch on the switch box to the COMPUTER position.

5. Plug one end of the video cable into the port labeled COMPUTER on the switch box, and the other end into the TV port on the back of the MEGA STE.

6. Set the Lo/Hi switch on the back of the MEGE STE to Lo if channel 3 broadcasts in your area. Set the Lo/Hi switch to Hi if channel 2 broadcasts in your area.

## Power Cable

The computer's power cable provides power to the computer and the built-in (internal) disk drives. The green light on the computer lights up when power to the computer is switched on. The disk drive busy light is lit when the drive is sending, receiving, or saving data.

**Connecting the Power Cable**

O I
The On/Off switch turns the computer on and off; I is on, O is off.

~
The power cable connects the computer to the electrical outlet.

Toggle the computer's power switch to the off position. Remove the protective insert from the floppy disk drive. Connect one end of the power cable into the jack marked Power on the back panel of the computer. Then insert the cable's three-pronged plug into a grounded wall outlet or power strip.

## Built-in Floppy Disk Drive

Your computer comes with a built-in double-sided floppy disk drive. The floppy disk drive slot is located on the computer's front panel.

The built-in floppy drive is known as drive A. However, the desktop displays two floppy disk icons, A and B. In systems with only one floppy disk drive, the built-in floppy drive acts as both drive A and drive B.

## Built-in Hard Disk Drive

A hard disk drive stores much more information and transmits that information faster than a floppy disk drive. The hard disk is a rigid plate coated with a substance which can receive and store data. The disk is sealed into the drive, protected from dust and physical damage. As the drive spins the disk at a very high speed, information is written to or read from the disk. Read/write heads, similar to those on a tape player or VCR, cruise across the disk and read or write information without actually making contact with the disk. Information on your hard disk is transferred to and from the computer's memory through electronic circuitry.

Your built-in hard disk was formatted and partitioned at the factory and is ready to use. If you would like more detailed information about the utilities on the Advanced Hard Disk Utilities Disk, including how to reformat or repartition your hard disk, see **Appendix C, MEGA STE Advanced Hard Disk Utilities**.

You can also connect additional hard disk drives to your computer. (See **ACSI.**)

## Reset Button  //

The reset button restarts the computer without switching it off. Restarting the computer this way is known as a warmboot. You can also perform a warmstart by pressing **[Control] [Alternate] [Delete]** .

## Cartridge Slot

Cartridges containing programs can be inserted into the cartridge slot. Cartridges contain all the memory needed for running the cartridge program. A single cartridge can contain up to 131, 072 bytes (128 kilobytes) of program information. The system recognizes the cartridge slot as drive c.

### Inserting a Cartridge

Switch off the computer and all peripherals. Insert the cartridge, label side up, into the cartridge slot. Switch on your system. The program on the cartridge loads automatically.

## Quick Start

You have connected your system, and you know some information about your computer's basic components and features. The following section describes additional ports and expansion slots and explains how to connect various peripheral devices. If you have no devices to connect and you wish to start your system now, skip ahead to **Starting your System** in **Chapter Two**.

## MEGA STE PORTS AND EXPANSION SLOTS

The panels on your computer contain ports. A port is an entryway into your computer through which you can connect peripheral devices such as printers and hard disk drives. Your computer communicates with peripheral devices by sending and receiving signals through the ports. Small icons identify most ports. This section discusses each port and its use. (See **Appendix A, MEGA STE Panels and Ports**, for labelled drawings.)

Your computer also contains a VMEbus expansion slot. You can connect high speed VME devices to your computer through this expansion slot.

Switch off your computer and all peripheral devices before connecting any new peripheral device. Some peripheral cables have small retaining screws or clips on the sides of the connector. Tighten the screws or attach the clips to maintain a strong connection between the computer and the peripheral. This will also help eliminate interference which might affect television or radio reception in the area.

**Warning**: Never touch the exposed contacts on any port or expansion slot. Static electricity could harm the sensitive electronics inside the computer.

## External Floppy Disk Drive

In addition to the floppy disk drive built into the computer, you can connect a second, external floppy disk drive. This second floppy disk drive can be either the Atari SF314 or 354 double sided 3½-inch disk drive or the Atari PCF554 5¼-inch disk drive. A second disk drive makes copy operations, and data storage and retrieval more convenient.

**Note**: The Atari PCF554 5¼-inch disk drive lets you use MS-DOS format compatible 5¼-inch data disks with your computer. You must install a special device recognition program to use this drive with your computer. Contact Atari Customer Support or your dealer for more information.

### Connecting an External Floppy Disk Drive

Switch off the computer and all peripherals and remove the protective insert from the disk drive. Connect one end of the floppy disk drive's interface cable into the port labeled Floppy Disk on the back panel of the computer. Connect the other end into the port labeled In on the back of the drive. Insert the round plug on the drive's power adaptor into the jack labeled Power on the back of the disk drive. Then insert the power adaptor's three-pronged plug into a grounded wall outlet or power strip.

**Note**: You can connect only one external floppy disk drive to the computer system. The computer always refers to the external floppy disk drive as drive B.

## ACSI (DMA)

The Atari Computer Systems Interface (ACSI) port is a high speed Direct Memory Access (DMA) interface. The DMA chip in your computer allows connected DMA devices to communicate directly with the computer's memory, without having to go through the CPU. The DMA chip transfers data much faster than the CPU can, and using the DMA chip frees the CPU for other tasks.

You can attach an Atari DMA hard disk drive, Atari SLM laser printer, CDAR504 compact disc drive or other high-speed DMA peripheral to this port. You can daisy-chain up to four DMA devices to the computer through the DMA port.

Daisy-chaining is a way to connect more than one peripheral device to a single port. The first device in the chain connects to the computer, and the rest of the devices in the chain connect to each other. For example, device A would connect to the computer, device B would connect to device A, device C would connect to device B, and so on. See the manual supplied with the peripheral for more detailed information.

### Connecting a DMA Device

Switch off the computer and all peripherals. Connect one end of the DMA device's interface cable to the port labeled DMA on the back panel of the computer. Connect the other end of the interface cable to the IN port on the back of the DMA device. Connect the power cable to the power jack on the back of the device, then insert the three-pronged plug into a grounded wall outlet or power strip.

## Printer

The Printer port is a standard parallel interface. You can attach almost any parallel printer to this port. (Refer to the manual supplied with your printer for further instructions.) However, you must use the ACSI port to connect an Atari laser printer.

### Connecting a Parallel Printer

Switch off the computer and all peripherals. Connect one end of the printer's interface cable to the port labeled Printer on the back panel of the computer. Connect the other end to the port on the printer. Connect the power cable to the power jack on the printer, then insert the three-pronged plug into a grounded wall outlet or power strip.

## Modem and Serial

The Modem and Serial ports are used for serial (one bit at a time) transmission of data over a single wire. You can connect a standard modem to either or both fully configured RS232 Modem ports. The computer uses a modem to transmit and receive information to and from other computers over telephone lines. You can use the Serial or Modem ports to connect any serial printer or other serial device to your computer.

There is one serial port on your computer. You can connect serial devices to the serial port unless you are also using the Local Area Network (LAN) port. If your computer is connected to a LAN, the serial port is disabled.

**Modem**                    **Serial**

## LAN

A Local Area Network (LAN) is a communications channel that connects computers and other devices together. Each device or computer in the network is called a node. Nodes are usually computers and input/output devices such as printers and disk drives.

Sharing access to network devices is very convenient when more than one user must have access to the same information. For example, a user at one location could update an inventory database by adding received goods, while a user in another location could deduct sales from the same database.

## VMEbus

You can install a VME card into the VME-compatible Eurocard (A24, D16) expansion slot. Use the VMEbus for high speed asynchronous parallel data transfer between the computer and any VME device. For complete instructions on how to connect a VME device to your computer, consult the device's owner's manual.

# Stereo

A stereo amplifier connected to the RCA stereo ports on your computer provide stereo sound when used with software that supports this feature. The 8-bit digital-to-analog sound converters contain hardware filters to prevent digital distortions (such as aliasing), resulting in realistic Pulse Code Modulated (PCM) sound.

Connecting a sound system also improves the sound quality of software not specifically designed to take advantage of stereo.

### Connecting Stereo Headphones or Speakers    R ⌁ L

Switch off the computer and all peripherals. Connect the left and right audio cable plugs to the corresponding stereo ports on the computer.

# Joystick

Joysticks control the screen action of some computer games. (See the manual supplied with the game for specific information on using the joystick.)

**Note**: Joysticks must be purchased separately.

**Warning**: Disconnect joysticks before switching on your computer. Connected joysticks can interfere with the initialization of keyboard functions during the starting process.

### Connecting a Joystick   👇

Connect Atari-compatible joysticks through either mouse/joystick port 0 or joystick port 1.

# MIDI

MIDI stands for Musical Instrument Digital Interface. The MIDI capabilities of your computer help you create and record music one track at a time. You can connect your computer to electronic musical instruments through the two MIDI ports. The Midi In port allows the computer to control a synthesizer or any MIDI-equipped instrument. Through the Midi Out port, the computer controls an instrument's digital interface, letting you play complex compositions while changing the volume, tempo, and instrumentation. MIDI interfaces and appropriate software can allow your computer to function as a sophisticated sound studio recorder.

### Connecting an Electronic Musical Instrument    ♪

Connect a MIDI instrument to the Midi In and Midi Out ports on the left side panel. Refer to your MIDI instrument's manual for instructions.

# CHAPTER TWO
# USING THE MEGA STE

## FUNDAMENTAL CONCEPTS

This section explains how a computer works, what memory is, and how to start up your system from the built-in hard disk drive or from a floppy startup disk.

## How the MEGA STE Works

A computer processes instructions to perform a task. Two examples of instructions are the operating system instructions on your computer's Read Only Memory (ROM) chip, and the instructions in an executable program contained on a disk. Your computer receives these instructions as electronic signals to be processed and/or stored. The processing and storing of data (sets of electronic signals grouped together) is handled by a system of electronic components and integrated circuits.

## Memory

Your computer uses two types of memory: internal memory, and external memory. Internal memory is information storage locations on microchips inside your computer. External memory is information storage locations on hard disks, removable cartridges, floppy disks, and CD-ROM discs.

A computer's memory capacity is measured in bytes. Since computer language is based on the binary numbers system, the smallest data unit is one **BI**nary digi**T**, or BIT. Groups of 8 bits are called bytes.

A kilobyte is 1,024 bytes; a megabyte is 1,024 kilobytes. Each MEGA STE has 256 kilobytes of ROM and 2 or 4 megabytes of RAM.

### Internal Memory Storage

There are the two types of internal memory: ROM and RAM.

ROM means Read Only Memory. As its name implies, you cannot write more information into a ROM storage area. The information in ROM is permanent, and cannot be erased. ROM chips inside the computer contain the operating system information.

RAM means Random Access Memory. The RAM area within a computer is for temporary storage of information. RAM is the computer's chalkboard. The computer can quickly and efficiently access programs and data files written into RAM. To save information stored in RAM, you must transfer the information from RAM into external memory storage. Turning off your computer erases the RAM chalkboard.

### External Memory Storage

External memory storage disks include cartridges, floppy disks, standard hard disks, hard disks in removable cartridges, and CD-ROM discs.

Floppy and hard disks store information which can be read from the disk into RAM, modified if desired, and later saved back to the disk from RAM. Information on floppy and hard disks can be erased and the disk reused. Magnetic floppy disks for your computer can store either 357,376 bytes (single-sided disks) or 726,016 bytes (double-sided disks) of data.

CD-ROM discs store information that can be read into RAM for processing. You cannot write any additional data onto a CD-ROM disc.

## TOS

TOS is the name of the computer's operating system. TOS controls the way the computer works, handling tasks such as reading from and writing to disks, translating mouse movement into onscreen cursor movement, and displaying information on the screen.

GEM, the Graphics Environment Manager, is an important part of TOS. GEM provides a graphic interface for the computer. This allows a screen display of information as graphic images (such as picture icons and windows) as well as letters, numbers, and symbols.

## STARTING YOUR SYSTEM

You have connected the hardware and you have learned the fundamentals of how your computer works. The next step is to switch on your system. The ROM chips inside your computer contain the operating system, so you do not need a system (boot) disk in the floppy drive to start your computer. However, you can have your computer read additional startup information and files during the startup process. All of the startup information read during the startup process will be automatically available when the desktop appears.

You can store startup information on a hard disk or a floppy startup disk. Your built-in hard disk already contains startup information and will automatically access this information when you switch on your system. This is the quickest and most convenient way to start your system.

In rare cases, storing startup information on floppy disks may be necessary. For example, you may have a large number of desk accessories, more than you can have active at one time. If you only need certain desk accessories active when you are doing specific tasks (such as word processing, using your database, etc.) you could create a custom floppy startup disk for each activity. The startup disk you use would depend on the activity. Most users will find this to be unnecessary and time consuming. It is much more convenient to store your startup information on the built-in hard disk.

If you wish to start your system from a floppy startup disk, skip to the section **Starting Your System from a Floppy Startup Disk**. If you wish to start your system from the hard disk, continue to the next section, **Starting Your System from the Hard Disk**.

## Starting Your System from the Hard Disk

Your built-in hard disk contains the following startup information and files:

- The Control Panel desk accessory (XCONTROL.ACC)

- An SHDRIVER.SYS file. This file contains the startup information on the hard disk.

When you start your system, the computer reads the startup information on the hard disk. When the startup procedure is complete, the desk accessory will appear under the Desk menu, and drive C will contain folders and files.

Follow these steps to start your system from the hard disk:

1. Switch off your computer and all peripherals.

2. If you have an Atari laser printer connected to your system, switch it on.

3. Next switch on the monitor, second floppy disk drive, external hard disk drive (see your hard disk drive owner's manual for further instructions), all other devices (such as a second hard disk, parallel printer, or modem).

   If you have a connected external hard disk drive, wait until the hard drive busy light goes off before switching on another device.

4. Switch on your computer. When the internal hard drive has completed its initialization, press any key. Pressing a key at this stage speeds up the startup process by a considerable amount of time. (The hard disk drive makes a certain sound during initialization. When initialization is complete, the sound stops.) The desktop displays.

**Note**: If the desktop does not appear on the screen, switch off the computer. Make sure the monitor is switched on and all cable connections are correct and secure. Switch on the system again. If the desktop still fails to appear, see **Appendix B, Troubleshooting and Preventive Maintenance**.

That's all there is to it. There are several reasons other than the ones already mentioned that may make it necessary for you to start your system from a floppy startup disk. Some games and copy-protected programs require that you start your system from the floppy program disk. If you want to learn how to start your system from a floppy startup disk, read the next section. Otherwise, skip ahead to **Initial Screen Display-GEM Desktop**.

## Starting Your System from a Floppy Startup Disk

The easiest way to start your system from a floppy disk is to bypass the installed hard disk driver on the internal hard disk drive. Then you can run the AHDI.PRG program from the Advanced Hard Disk Utilities disk so your computer will recognize the presence of the hard disk drive.

It will be helpful for you to follow the tutorial in **Chapter Three** before you attempt to start your system from a floppy disk. The tutorial will teach you all the skills you need to easily follow the floppy disk startup instructions.

**Warning:** Before starting your system from the USA Language disk, follow the instructions in the next chapter to make a working copy of the disk. Always use the working copy--never the original disk.

Follow these steps to start your system from a floppy startup disk:

1. With your computer switched off, insert the working copy of the USA Language disk into drive A.

2. Switch on the computer. When the power light comes on, immediately hold down [Alt]. As soon as the floppy drive busy light comes on, release [Alt]. Wait several seconds, then press any key. After a short delay the desktop displays, containing three icons (floppy disk icons A and B, and the trash can icon) and a menu bar.

If you are starting your computer from a commercially prepared program disk, the program may run at this time and the desktop may not display. You do not need to follow the additional steps.)

> **Note:** If you are not using a commercially prepared program disk to start your system, and the desktop does not display, switch off the computer. Make sure the video display is switched on, the disk is correctly inserted in drive A, and all cable connections are correct and secure. Switch on the system again. If the desktop still fails to appear, see **Appendix B, Troubleshooting and Preventive Maintenance**.

4. Remove the USA Language disk from drive A. Insert the working copy of the Advanced Hard Disk Utilities disk into drive A. Display the directory.

5. Open the Auto folder. Open (run) AHDI.PRG. This will allow the computer to recognize the presence of the hard disk drive. After the program runs, close all windows.

6. To install hard disk icons, select Install Devices from the Options menu. All hard disk icons appear on the screen.

## Initial Screen Display-GEM Desktop

When you switch on your system, the computer reads the startup information from the hard disk or the startup floppy disk and loads that information into RAM. The desktop appears on your screen.

GEM Desktop is the starting point for almost everything you do with the computer. The basic desktop contains two floppy disk icons, four hard disk icons, and a trash can icon on the left edge of the screen, a menu bar at the top of the screen, and a pointer.

### Hard Disk Icons

Your built-in hard disk drive is already formatted and divided into sections (partitions). Having more than one partition makes it easier for you to organize your files. For example, you can use one partition to store all of your word processing programs and files, another for databases, etc.

A hard disk icon is an entrance to the information storage area on a partition. All hard disk icons are automatically installed for you. Since your built-in hard disk drive has four partitions, four hard disk icons display on your screen.

Each icon must have its own unique letter identifier, and the letters must be in alphabetic sequence. The letters A and B have already been used for floppy disk icons, and the letters C through F represent logical drives (the four partitions on your hard disk).

### Floppy Disk and Trash Can Icons

Two of the disk icons that first appear are labeled FLOPPY DISK. (Both A and B icons appear even if you have only one floppy disk drive.) You use these icons to access information on floppy disks. Use the trash can icon to delete unwanted files or folders from disks.

The trash can icon works like an incinerator. Once you throw a file or folder in the trash, that file or folder is gone forever.

### Menu Bar

The desktop also displays four menu names along the top edge of the screen. Each menu bar heading (Desk, File, View, and Options) has its own drop-down menu, from which you can select options. (**Chapter Four** gives a detailed description of the menu bar options.)

### Pointer

The final basic desktop element is the pointer (cursor). The cursor can also appear in the shape of an I-bar or a busy bee icon, depending on the activity. The I-bar usually represents an insertion point for text entry, and the busy bee icon appears when your computer is processing data.

# KEYBOARD FEATURES

Much of what you will do with the computer will involve pressing keys. The keys you will use most often with word processing applications are letter keys. You will use number keys most often with spreadsheet programs.

The computer keyboard is similar to a conventional typewriter keyboard in both design and function. For example, the **[Return]** key on the computer keyboard acts like the carriage return lever (or key) on a typewriter. Pressing **[Return]** moves the cursor down the screen.

Most keys automatically repeat when held down. (For information on changing the rate of automatic repeat, see **Control Panel** in **Chapter Six**.)
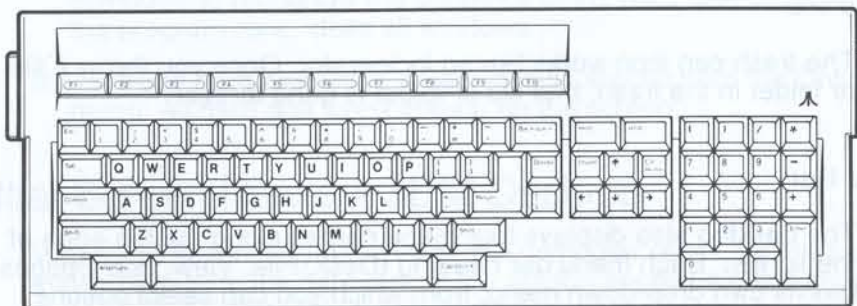


The alphanumeric keys (letters, numbers, and symbols) usually have the same function as similar keys on a typewriter. Press **[S]** to produce a lowercase letter s and press **[Shift] [S]** to produce the uppercase letter S. Press **[Caps Lock]** to toggle (switch back and forth) between upper and lower case letters.

In addition, several keys on the computer's keyboard perform special functions not found on a typewriter.

For example, you can use **[Control]**, **[Alternate]**, and **[Shift]** in conjunction with another key to produce a secondary function or code. Hold down one or more of these keys while pressing another key.

Along the top of the keyboard are the function keys **[F1]** through **[F10]**. Holding down **[Shift]** while pressing function keys accesses ten more function keys: **[F11]** through **[F20]**. Software applications often assign special functions to these keys.

Use the four arrow keys to move the cursor in the direction indicated by the arrow. The cursor is a movable graphic screen symbol (often an arrow, block, or vertical line) that marks where the next action will take place.

**Note**: The presence of a text cursor (usually a vertical line or a block) indicates that the computer is ready for you to type something.

The calculator keypad usually functions as an alternate method for entering numbers and math symbols, producing the same effect as typing the number or symbol from the keyboard. **[Enter]** acts as **[Return]**.

## SWITCHING OFF THE SYSTEM

There are two ways of switching off and restarting your system. Completely switching off the system for any period of time longer than 10 seconds is called a coldstart. This completely resets the machine and clears all information from RAM. A warmstart does not completely clear RAM.

### Coldstart

You can coldstart your system from the keyboard without switching the system on and off. Simply press **[Control] [Alternate] [Right Shift] [Delete]**.

You can also coldstart the system in the following way. Switch off all system components in the reverse order that you switched them on. Wait at least 10 seconds before switching the computer back on. This completely resets the computer.

Some applications and desk accessories require that you coldstart after changing certain options.

## Warmstart

To warmstart the system from the keyboard without switching the system on and off, simply press **[Control] [Alternate] [Delete]**.

You can also warmstart the system by pressing the reset button on the back panel.

# CHAPTER THREE
# BASIC SKILLS TUTORIAL

This chapter presents the information you need to work with the different basic elements of the desktop. By following the tutorial, you will learn how to control the onscreen pointer using the mouse or the keyboard, manipulate icons and windows, make selections from the menu bar, format and copy a floppy disk.

To follow the copying and formatting sections of the tutorial, you must have two blank unformatted floppy disks available. You will use the disks to make working copies of your USA Language disk, and your Advanced Hard Disk Utilities disk.

Before you begin the tutorial, you must do the following:

- Start your system and display the desktop as described in the previous chapter
- Insert your USA Language disk into drive A

## Inserting and Removing Floppy Disks

When you insert a floppy disk into a floppy drive, a mechanical catch inside the drive slides the metal sleeve open, exposing the sensitive magnetic disk to the drive's read/write head. The disk stores information in concentric rings called tracks. The read/write head moves from one track to another as the disk spins.

**Front of Disk**

Metal Sleeve

**Back of Disk**

Write-Protect Notch

Sliding Tab
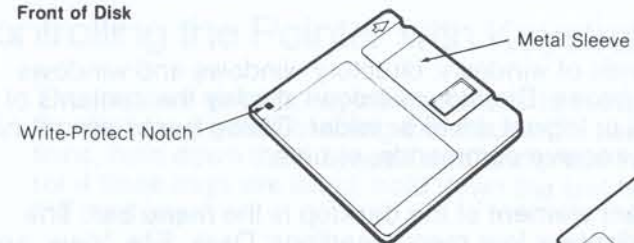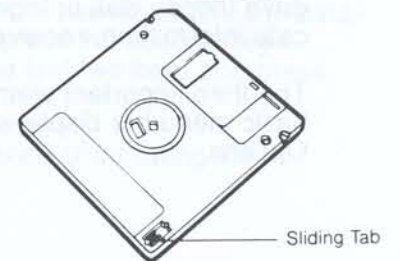
Always be sure the floppy drive's busy light is off before you insert or remove a floppy disk. To practice inserting and removing a floppy disk, follow these steps:

1. Align one of the blank, unformatted floppy disks with the floppy drive slot, the metal sleeve against the slot and the write-protect tab on the left.

**Warning:** Do not slide the metal sleeve open or touch the magnetic disk. Doing so may damage the disk and the information on it.

2. Slide the floppy disk into the drive slot until it drops down and seats within the slot.

3. Remove the floppy disk by firmly pressing the eject button on the front of the floppy disk drive. The disk ejects part way. Remove the disk.

# DESKTOP ELEMENTS

Icons, windows, and the menu bar are the three important elements of the desktop. Desktop icons are graphic representations of drives (logical drives and floppy disks), devices such as printers and cartridge drives, and the trash can. Window icons represent folders and files. Files and folders can be displayed as either text or graphics. A text display is simply the name of the file or folder appearing on the screen. A graphic display is the same as a desktop icon; a small picture with the name of the file or folder underneath. Files and folders displayed as text are also referred to as icons.

There are two kinds of windows: directory windows and windows known as dialog boxes. Directory windows display the contents of a drive (floppy disk or logical drive) or folder. Dialog boxes communicate information, receive commands, or both.

The third important element of the desktop is the menu bar. The basic menu bar displays four menu headings: Desk, File, View, and Options.

When you first switch on your system, the desktop displays two floppy disk icons, four hard disk icons, the trash can icon, pointer, and menu bar. It will also display a cartridge icon if a cartridge is inserted into the cartridge slot before you switch on the computer.

# USING THE POINTER

The pointer is the key to all desktop operations. You use the pointer to select icons or menu options, and to move objects on the desktop. You control the pointer either by moving the mouse or with keystroke combinations.

## Controlling the Pointer with the Mouse

The mouse supplied with the computer controls the pointer. By moving the mouse, you can position the pointer anywhere on the desktop. Roll the mouse over a clean, hard, flat surface such as a tabletop. The computer detects the motion of the mouse (direction, distance, and speed) and moves the pointer accordingly.

Place the mouse near the computer with the cable pointing away from you. Roll the mouse. Notice how the pointer moves on screen as the mouse moves.

**Note:** If you touch the menu bar with the pointer a menu drops down. Retract the menu by moving the pointer out of the menu and clicking the left mouse button.

## Controlling the Pointer with Keystrokes

You can use specific key combinations to move the pointer around the desktop instead of using the mouse. To use keystroke combinations, hold down the first key listed and press the second key (or if three keys are listed, hold down the first two keys and press the third key).

**Note:** See **Appendix B** for a quick reference chart listing the keystrokes for controlling the pointer.

Your screen is divided into tiny sections known as pixels. When you use keystroke combinations to move the pointer, the pointer moves either one pixel at a time or in multiple pixel jumps. Try each keystroke combination to move the pointer.

• **[Alternate]** combined with any arrow key moves the pointer eight pixels in the direction of the arrow.

• **[Alternate] [Shift]** combined with any arrow key moves the pointer one pixel in the direction of the arrow. Use this combination for fine positioning.

## Selecting a Single Item

Selecting a item (icon or menu option) tells the computer you want to use the item. When an item is selected it highlights, which means it displays on the desktop in different colors from your normal desktop colors.

The first two sections below explain how to select using either the mouse button or keystroke combinations. In the sections that follow, it will be assumed that you are using the mouse to move the cursor or make selections. If you are using keystroke combinations, just substitute the instructions under **Selecting with Keystroke Combinations**.

### Selecting with the Mouse Button

Clicking is the mouse operation used to select an item or initiate a procedure. Most actions require you to use the left mouse button. Only use the right mouse button if specified.

Single clicking selects and highlights only. Double-clicking combines two single-click actions in quick succession to both select and initiate a procedure.

To click, press and release the mouse button once. To double-click, quickly press and release the mouse button twice. (Double-clicking correctly may take some practice.)

**Note**: To adjust the responsiveness of the mouse buttons to your clicking speed, see **Control Panel** in **Chapter Six**.

Follow these instructions to practice mouse button clicking and double clicking:

1. Position the pointer over the drive A icon.

2. Click the left mouse button once. The drive A icon highlights. You have selected the drive A icon. Now move the pointer to an open area of the desktop and click the mouse button to deselect the drive A icon.

3. Now to practice double clicking (selecting and opening the drive A window in one maneuver), again position the pointer over the drive A icon. Now, double click the mouse button. A window opens and displays the contents of the disk in drive A.

**Note**: If you forgot to put the disk in the drive, an alert message appears. Just place the disk in the drive, position the pointer over the word OK, and click the mouse button. Try step 3 again.

4. To close the open window, position the pointer over the small box in the upper left hand corner of the window and click the mouse button. The window closes.

### Selecting with Keystroke Combinations

Using the keystroke combination **[Alternate] [Insert]** performs the same function as clicking the left mouse button. To perform a keystroke double-click, hold down **[Alternate]** and quickly press **[Insert]** twice.

Follow these instructions to practice selecting and initiating a procedure using keystroke combinations:

1. Position the pointer over the drive A icon.

2. Press **[Alternate] [Insert]**. The drive A icon highlights. You have selected the drive A icon. Now move the pointer to an open area of the desktop and press **[Alternate] [Insert]** again to deselect the drive A icon.

**3.** Now to practice keystroke double clicking (selecting and opening the drive A window in one maneuver), again position the pointer over the drive A icon. Now, hold down **[Alternate]** and quickly press **[Insert]** twice. A window opens and displays the contents of the disk in drive A.

⚠️ **Note:** If you forgot to put the disk in the drive, an alert message appears. Just place the disk in the drive, position the pointer over the word OK, and click the mouse button. Try step 3 again.

**4.** To close the open window, position the pointer over the small box in the upper left hand corner of the window and press **[Alternate] [Insert]**. The window closes.

## Selecting an Icon

There are two types of icons: desktop icons (floppy and hard disk drive icons, printer and cartridge icons, and the trash can icon), and window icons (folder and file icons). Remember, files and folders can be displayed as either text or graphics.

You selected an icon when you practiced clicking on the drive A icon. An icon that has been selected appears highlighted.

## Selecting a Menu Heading

Each menu heading on the menu bar has its own drop-down menu. If you move the pointer onto the menu bar near one of the headings that menu immediately drops down and displays its command options. Moving the pointer away from the dropped menu to another menu heading causes the new menu to drop down, and the previously displayed menu to retract.

Follow these steps to practice displaying and choosing menu options:

**1.** Position the pointer near the Options menu heading. The menu drops down.

⚠️ **Note:** A drop-down menu may have both active and inactive command options. Active options are in bold text and produce an action when selected. Inactive options appear as lightened text. Selecting an inactive option causes the menu to retract. Options with a check mark to the left of them are currently selected.

**2.** Position the pointer over the Save Desktop command option. The command highlights.

**3.** Click the mouse button. A dialog box appears, asking if you really want to save the desktop.

⚠️ **Note:** The box in bold type surrounding the word OK denotes the default selection. You can always choose a default selection by pressing **[Return]**.

Select Cancel by positioning the pointer over the word Cancel in the dialog box and clicking once. The dialog box disappears.

To retract a menu without selecting a command option, just move the pointer outside the menu and click the left mouse button.

# Dragging

Holding down the mouse button and moving the pointer is called dragging. You can also use a key combination to perform dragging.

Dragging moves icons from one place to another. After you select an icon, you can drag the selected icon to a new location. You can perform different operations by dragging, depending on the icon type and the icon's destination. You also use dragging to create a rubber-band box to select multiple icons. (See **Selecting Multiple Icons**.)

## Dragging with the Mouse

Using the mouse to drag is easy. Just move the mouse while holding down the mouse button. Any selected icon or group of icons will be dragged. The pointer must be positioned over the selected icon or group of icons for successful dragging.

### Dragging with Key Combinations

To drag with keystroke combinations, press **[Alternate] [Insert]** combined with any arrow key to drag a selected icon or group of icons in the direction of the arrow. The pointer must be positioned over the selected icon or group of icons for successful dragging.

### Dragging an Icon

You need to drag to perform copy, move, or delete operations. After you drag an icon or icons to a new destination and release the mouse button, the icon or icons will be copied, moved, or deleted, depending on the operation performed.

When you drag icons from one location to another, a ghost outline of all selected icons follows the cursor from the original location to the destination. The pointer shape also changes from a pointer to an outline of a hand until you release the mouse button.

You will use the move operation to practice dragging. The copy and delete operations will be explained in later sections of the tutorial.

Now practice dragging using one of the described methods. Move the desktop icons into different configurations. If you accidently drag one icon on top of another icon, a special window called a dialog box will display. Select Cancel. The window disappears, and the moved icon will return to the position it occupied before you moved it.

**Note:** You can also drag more than one icon at once. See **Selecting Multiple Icons**.

## Selecting Multiple Icons

Sometimes you will want to select more than one icon at a time to perform delete, copy, move, or other operations. There are two ways to select multiple icons.

The first way is using the rubber band box to select icons that are grouped together on the desktop or in a window. You use the pointer to create a box on screen to surround the icons you wish

selected. The box is called a rubber-band box because it expands or contracts when you drag the pointer.

You can use shift-clicking to select multiple icons individually instead of having to select items that are physically grouped together. The selected icons do not have to be in sequence on a list, or near each other on the desktop.

Both methods of selecting multiple icons can be used on desktop or window icons.

### SELECTING WITH THE RUBBER-BAND BOX

Whenever you drag the pointer, a rubber-band box appears on the screen. The first corner of the rubber-band box is created wherever the pointer is positioned on the screen. The box expands in the direction of pointer movement.

Follow these steps to practice selecting multiple icons with the rubber band box:

1. Position the pointer above and to the left of the drive A icon. Try not to touch the nearby menu heading. If the menu drops down, just retract the menu and try again.

2. Now drag the pointer down and to the right. The rubber-band box appears and expands with the pointer.

3. Surround the drive A and B icons with the rubber band box. Release the pointer. The icons highlight.

4. Move the pointer to a clear area of the desktop and click the mouse button to deselect the icons.

### SELECTING BY SHIFT-CLICKING

Shift-clicking lets you select multiple items that are not next to each other on the desktop, or in sequence in a window.

To practice selecting by shift-clicking, follow these steps to select the drive A and C icons:

1. First, select the drive A icon.

2. Now hold down **[Shift]** and position the pointer over the drive C icon. Click the mouse button. Both the drive A and drive C icons are now highlighted. The drive B icon in the middle remains unselected.

> **Note:** You must hold down **[Shift]** until all desired icons are selected. Once you release **[Shift]**, no further icons can be added to the selected group. If you attempt to select an icon after you release **[Shift]**, all previously selected icons will be deselected.

3. Move the pointer to a clear area of the desktop and click the mouse button to deselect the icons.

## SELECTING BY COMBINING RUBBER-BANDING AND SHIFT-CLICKING

You can combine rubber-banding and shift-clicking to select a group of icons, then deselect any icons you don't want in the group.

Follow these steps to practice combining the two methods of selecting multiple icons:

1. First, use rubber-banding to select all three drive icons.

2. Now use shift-clicking to deselect the drive A icon. Only the drive B and C icons are highlighted.

3. Now use shift-clicking to reselect the drive B icon. All three icons are again highlighted.

4. Move the pointer to a clear area of the desktop and click the mouse button to deselect the icons.

For additional practice, try selecting and dragging more than one icon at once.

# USING WINDOWS

Most of the desktop activity takes place in windows. Windows are small screens within the larger screen display. You can have up to seven windows displayed at one time. When a window is displayed on the screen it is open.

## Opening and Closing a Window

You can only open directory windows. Dialog boxes simply appear during certain operations or to give you information. Directory windows can be opened in several ways by using the pointer and mouse button. The first window you will open is the drive A directory window. Make sure the USA Language disk is in drive A before you begin.

One way to open a window is to double click on the desired desktop icon. Open the drive A window now by moving the pointer over the drive A icon and double clicking. The contents of the drive appears in the drive A directory window.

> **Note:** If the drive A icon highlights but the window does not open, it means that the MEGA STE has not recognized your click as a double click, but only as a single click. Move the pointer to a clear area of the desktop and click once to deselect the icon. Try again, and remember that double clicking can be a bit tricky at first. Just keep practicing.

Now you need to close the drive A directory window. In the upper left corner of the window is a small box containing an X icon. This is the close box. Move the pointer over the close box and click once. The window closes.

Another method of opening a window uses the menu bar. Open the drive A window again by selecting the drive A icon. The icon highlights, but does not open. Now select the Open command from the File menu. The drive A directory window opens.

Now close the window by selecting the Close Top Window command from the File menu.

There are other ways to open windows and programs that will be discussed in other sections of the manual.

# Window Elements

You have already learned about the close box in the upper left hand corner of most windows. The following example displays all window elements. Some are explained here, and others will be explained as you use them in the tutorial.
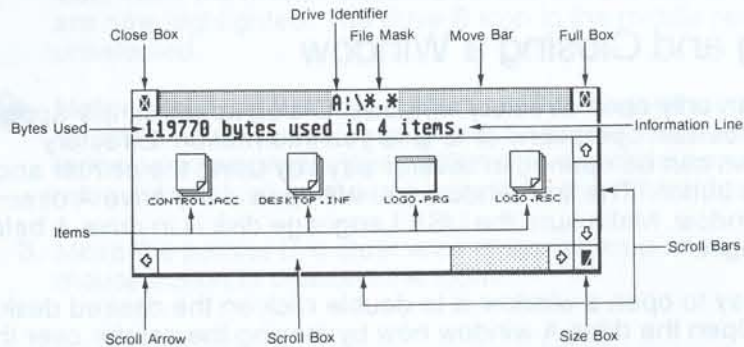


The Drive Identifier appears in the center of a window's move bar. It shows the drive letter of the open drive, in this case floppy drive A.

The File Mask tells you what type of files are displayed in the window. You can set the File Mask to display all the files in a directory, or you can set up restrictions on the types of files displayed. The window displays an icon for each folder in the directory, and for every file in the directory that matches the file mask setting. For more detailed information on setting the File Mask, see **Set File Mask** in **Chapter Four**.

The Information Line displays the Bytes Used (total number of bytes of disk space used by the contents of the directory), and Items (the number of files and folders residing within the directory).

The other elements of a window are explained in the following tutorial sections.

# The Active Window

When you have more than one window open at a time, you can only work with the files and folders in the active window. In addition, you can move, scroll, update, or resize only the active window. You can identify which window is active by looking at the move bar. Only the active window's move bar is shaded.

You can open up to seven windows on the desktop. You can make any window the active window by positioning the pointer anywhere on the window and clicking the left mouse button.

Open windows may overlap. If they do, the active window is always completely displayed. Activate a partly hidden, inactive window by positioning the pointer anywhere on the window and clicking the left mouse button. The active window moves to the front and displays over the other windows.

# Sizing a Window

Sizing windows is especially useful when you want to display more than one window on the desktop at one time. To practice sizing a window, follow these steps:

1. Open the drive A directory window.

2. Locate the size box in the lower right corner of the window. Position the pointer over the size box and use dragging to move the size box up and to the left. An outline of the window follows the pointer movement. Release the mouse button when the window outline is about half of the original window size.

3. Now locate and select the full box in the upper right corner of the screen. Selecting the full box expands a window to fill the entire screen.

4. Select the full box again. The window returns to the most recent size and position.

5. Continue to practice sizing the window. Drag the size box down towards the bottom of the screen to lengthen the window, up to shorten the window, right to widen it, or left to narrow it. When you have finished practicing, close the window.

## Moving a Window

You can use the move bar to move a window to any screen position below the menu bar. Follow these steps to practice moving a window:

1. Open the drive A directory window.

2. Double click on the SAMPLE.PRG icon. The Sample window displays. Resize the window to about one half its original size.

3. Position the pointer over the shaded move bar. Use dragging to move the window to a new position on the screen, then release the mouse button. The window displays in its new position.

   Note that when you dragged the window the cursor appeared as a hand icon, and an outline of the window followed the movement of the hand cursor until you released the mouse button.

4. Close the Sample window. Close the drive A directory window.

## Scrolling a Window

Sometimes a single directory will contain too many items to display in a window at one time. When this occurs, some of the directory items remain undisplayed, or hidden. You can view the hidden items by using the scroll bars. The scroll bars along the bottom and right edges of the window let you scroll the window horizontally (right and left) or vertically (up and down).

If a directory contains more items than will fit in the window, a portion of the scroll bar will be shaded. The scroll box shows the current position of the window relative to its total directory. If there is gray above or below the scroll box, more of the directory is available by scrolling the window in the direction of the gray area.

There are three ways to scroll a window: entry by entry, one window display at a time, or continuous scrolling. To practice scrolling, follow these steps:

1. Open the drive A directory window.

2. Decrease the window's size until only two directory items are displayed, one on top of the other.

3-14

3. To scroll by one directory entry at a time, position the cursor over the scroll arrow that indicates the direction of the hidden contents. Click once. Now click once on the opposite arrow to return to the original window display.

4. To scroll by one window display at a time, position the cursor over the shaded area of the scroll bar. Click once. The previously displayed items are now hidden, and the screen displays previously hidden items.

   Another way to accomplish this is by using the up and down arrow keys to the right of the main keyboard. Each time you press an arrow key the previously displayed items are hidden, and the screen displays previously hidden items.

5. To scroll entries continuously, position the cursor over the scroll arrow that indicates hidden items. Hold down the left mouse button.

6. To scroll entries continuously one window at a time, position the cursor over shaded area of the scroll bar. Hold down the left mouse button.

   You can also skip over some of a directory's contents by dragging the scroll box to a new position in the scroll bar. The window will now display the contents of that portion of the directory.

7. When you have finished practicing scrolling, close the drive A directory window.

⚠ **Note:** Directory windows displayed as text instead of icons cannot be scrolled horizontally. (See **Show as Icons** and **Show as Text** in **Chapter Four**.)

## USING FLOPPY DISKS

Floppy disks serve as permanent storage for programs and the information you create. MEGA STE computers use 3½-inch disks that consist of a 3½-inch rectangular plastic casing holding a circular sheet (disk) of oxide-coated material. This material is the magnetic media which holds data and which the disk drive reads.

Its accessible section is protected by a sliding metal sleeve. Most floppy disks also have a write-protect sliding tab. (See **Write-Protecting a Floppy Disk** in this chapter.)

Floppy disks can be either single-sided or double-sided. Both types of disks look the same. On a single-sided disk, only one side of the magnetic disk is certified by the manufacturer as safe for storing information. Both sides of a double-sided disk are certified. A single-sided disk can store up to 357,376 bytes of information; a double-sided disk can store up to 726,016 bytes of information.

## Formatting a Floppy Disk

You must format a new floppy disk before you can store programs and data on the disk. Formatting prepares a floppy disk by completely erasing the disk's contents, checking for damage to the magnetic media, and setting patterns in place to hold information. Floppy disks formatted by your computer are format compatible with MS-DOS computers. This means information written to a floppy disk formatted on your computer can be read by MS-DOS computers and vice versa.

Single-sided floppy disks must be formatted as single-sided. Floppy disks formatted as single-sided can be used in both single and double-sided floppy disk drives. However, you can format floppy disks certified for double-sided use as either double or single-sided. Floppy disks formatted as double-sided can be used only in a double-sided drive.

You can also reformat previously used floppy disks. Since formatting erases all information on a disk, it is sometimes more efficient to reformat a floppy disk than to delete all of a floppy disk's files.

**STOP** **Warning:** Formatting a floppy disk permanently erases all information on the disk. Before you format any floppy disk, be sure to copy any data you want to save. (See **Copying Files and Folders** in this chapter.)

To format a disk, follow these steps:

1. With the computer switched on and the desktop displayed, insert a blank, unformatted floppy disk into drive A.

**Note:** If you have two floppy disk drives on your system, you can format a disk in either drive A or drive B.

2. Select the Format Floppy Disk command from the File menu. The Copy/Format dialog box displays.

**Note:** Both Copy and Format operations are combined in one dialog box so you can format, and then copy disks without returning to the desktop after formatting. If you select the Format option and decide to copy a disk instead, click on COPY. You can also click on FORMAT after initiating a disk copy operation if you must format a disk first.

3. If you wish the disk to have a label, type in the label. Then select the disk drive on which you want to format a disk. The default is the disk drive you selected in step 2. Select SINGLE or DOUBLE sided, depending on how you want to format the disk.

4. Select OK.

The disk drive begins formatting the disk. The indicator bar displays formatting progress.

**Note:** You must have a double-sided disk in a double-sided drive to use the double-sided format option. (The built-in drive is double sided.) Once you format a floppy disk as double-sided, you can only use it in a double-sided drive. You may format a double-sided floppy disk as single-sided, but only one side of the disk will be used.

5. When formatting is completed, an alert message appears telling you that a double-sided disk has 726,016 (or 357,376 for a single-sided format) bytes available.

Select OK.

**STOP** **Warning:** If the computer does not report that the formatted disk can hold 726,016 bytes of information for a double-sided disk or 357,376 bytes of information for a single-sided disk, the disk may be defective. Try formatting the disk again. If the problem persists, discard the bad disk and use another disk.

6. To return to the desktop select Cancel.

**Note:** If you try to use a disk without first formatting it, or if you try to use a double-sided disk in a single-sided drive, the computer displays an alert dialog box. The dialog box tells you that the disk drive is not responding, and to please check the disk drive, or insert a correctly formatted disk into the drive. Then you must select Retry or Cancel (to tell the drive not to attempt to read that disk.)

Repeat the formatting process with the other blank, unformatted floppy disk.

# Copying a Floppy Disk

It is essential to make a backup copy of all important disks. This protects you against loss of important files. Since it is especially important to make a backup copy of the USA Language disk and Advanced Hard Disk Utilities disk supplied with your computer, you are going to make copies of the two disks now. After you make the copies, store the original disks and use the backup copies as your working disks.

You will copy the original disks supplied with your computer onto the two floppy disks you just formatted. The original disk is known as the Source disk, since it is the source of the information. The disk you are copying to is the destination disk. A destination disk need not be blank, but all data on it will be overwritten (erased) during copying. You cannot copy a double-sided disk to a single-sided disk, or vice-versa.

For systems with only one floppy disk drive, the internal floppy drive is both drive A and drive B. This enables you to use a single floppy disk drive to copy and move files between disks. During disk copying operations, the source disk is disk A and the destination disk is disk B, or vice versa. Dialog boxes appear during the copy operation to tell you when to remove one floppy disk and insert the other floppy disk. For systems with two floppy drives, the internal floppy disk drive is drive A and the second, external floppy disk drive is drive B, so you don't have to swap floppy disks when copying files from one disk to another.

To copy an entire disk, follow these steps:

1. With the computer switched on and the desktop displayed, insert the source disk (USA Language disk) into drive A. If you have two disk drives, insert the source disk into drive A (the internal floppy drive) and the destination disk (formatted floppy disk) into drive B (the external floppy drive).

   **Note:** If you have one double-sided disk drive and one single-sided disk drive, you cannot copy an entire disk using the disk copy operation. You must transfer the files and folders from the source drive to the destination drive. For detailed instructions see **Copying Files and Folders** in this chapter.

2. Drag the drive A icon onto the drive B icon. When the floppy disk icon for drive B highlights, release the mouse button.

3. An alert dialog box appears, warning you that copying the disk in drive A to the disk in drive B will erase all information on the disk in drive B.

   If you have two floppy disk drives, make sure the source and destination disks are in the correct floppy disk drives before proceeding. Then select the OK button. The Copy/Format dialog box appears.

4. Select OK to begin copying the source disk. The copy indicator bar shows the progress of the copying process.

   **Note:** If you have one disk drive, the computer prompts you (with alert dialog boxes) to switch disks from time to time as it copies and then writes sections of information.

5. When copying is completed, select Cancel (or press **[Return]**) to return to the desktop.

Now repeat the procedure, making a backup copy of the Advanced Hard Disk Utilities disk onto another formatted floppy disk. Store the original disks in a safe place, and use the copies for all future operations.

# Write-Protecting a Floppy Disk

Write-protecting a floppy disk prevents information from being written to the disk. To write to a disk means to store information on the magnetic media. (Similarly, to read a disk means to retrieve information recorded on the disk.) The floppy disk drive and computer work together to write information from the computer's memory onto the floppy disk, or to read information from the floppy disk into the computer's memory.

Most floppy disks have a small write-protect tab in their plastic casing. Write-protect the working copy of the Advanced Hard Disk Utilities disk now by sliding the tab until the notch is completely exposed.

⚠ **Note:** Write protect 5¼ inch floppy disks by covering the write-protect notch with special tape supplied with the floppy disk.

You cannot write to, format, or erase a write-protected disk. It is a good idea to write-protect disks containing important information so you do not inadvertently erase information from the disk, especially when copying disks with a one-drive system. You can move the write-protect tab back to the unprotected position at any time.

⚠ **Note:** Some commercial program disks may not have write-protect tabs. These disks are permanently write-protected.

# COPYING AND DELETING FILES AND FOLDERS

You have already learned how to copy an entire floppy disk. But most of the time you will want to copy selected files and folders from one drive to another, or delete files or folders from a drive. This section will explain how.

## Copying

You will be copying files and folders from one disk to another. The same file copy procedure below also applies to copying folders. To practice copying files and folders, follow these steps:

1. Display the drive C directory window.

2. Drag the SAMPLE.PRG file icon onto the drive D icon. The Copy Files dialog box displays. Select OK.

The SAMPLE.PRG file will be copied onto logical drive D. Display a directory of drive D to make sure the file reached its destination.

## Deleting

There are two ways to delete a file or folder. You can drag the item to be deleted onto the trash can icon, or select the item to be deleted and select Delete Item from the File menu.

To practice deleting a file, follow these steps:

1. Display the directory for drive D.

2. Drag the SAMPLE.PRG icon onto the trash can icon. Release the mouse button. A dialog box appears, asking if you really want to delete the file. Since we are just practicing and we do not want to delete the file yet, select CANCEL. Selecting OK would have deleted the file.

3. Now you are going to practice the other method of deleting files. Repeat step 1. Now select the SAMPLE.PRG icon. The icon highlights.

4. Select Delete Item from the File menu. A dialog box appears, asking if you really want to delete the file. Select OK. When the delete operation is complete, the SAMPLE.PRG icon disappears from the directory. Close the drive D directory window.

**Note:** Only if the Confirm Deletes option (see **Set Preferences** in **Chapter Four**) is active will the dialog box appear to confirm the delete action.

You can use the same delete operation to delete the entire contents of a disk. If you just want to remove an icon from the desktop, see **Remove Desktop Icon** in **Chapter Four**.

# CHAPTER FOUR
# ADVANCED DESKTOP

This chapter continues where the tutorial left off and explains advanced desktop functions such as: updating a directory display, entering information when a dialog box displays, and advanced menu bar commands.

# UPDATING A DIRECTORY DISPLAY

Being able to update a displayed directory is useful when you are working with floppy disks. If you insert a disk into drive A and display that disk's directory, and then remove that disk and insert a new disk into drive A, the window does not automatically display the new disk's directory. You can update the directory displayed in the window by pressing **[Esc]**. Your computer will read the directory of the disk that is currently in the drive, and display that directory in the window.

Displayed directories update automatically after you copy, move, or delete a file or folder, or copy or format a disk.

# DIALOG BOXES AND ALERT BOXES

Your MEGA STE computer can communicate with you through dialog boxes which request information, and alert boxes which warn you about an action. Some dialog boxes ask you to supply information or make a choice. Use the keyboard or mouse to make a choice or supply the information needed. An I-bar text insertion cursor indicates where the next typed character will appear on a text field.

Some dialog boxes contain more than one field requesting information. To select a field, position the pointer over that field. Click once. The cursor jumps to that field.

The following keys provide additional functions:

- **[Left Arrow]** -- Moves the cursor one character to the left within a field.
- **[Right Arrow]** -- Moves the cursor one character to the right within the field.
- **[Down Arrow]** -- Moves the cursor to the next field.
- **[Up Arrow]** -- Moves the cursor to the previous field.
- **[Tab]** -- Moves the cursor to the next field (same as **[Down Arrow]**).
- **[Backspace]** -- Deletes the character or space to the left of the cursor.
- **[Delete]** -- Deletes the character or space to the right of the cursor.
- **[Esc]** -- Clears the current field.
- **[Return]** -- Selects the default dialog button, if one is present. A bold border around the button indicates the default button.

Some fields contain punctuation marks such as periods (.) or back slashes (\) to divide text. To advance past a punctuation mark, type that mark. For example, you may see a field with a period dividing the field, such as the period that separates a file's name from the extension. Type a period to advance to the second part of the field.

When the computer needs to communicate with you, a dialog box appears in the center of the desktop. To respond to a dialog box, type in the requested answer or perform the requested action. Then select one of the dialog buttons. If a dialog button has an enlarged border, it is the default button and can be selected by pressing **[Return]**.

The computer uses alert boxes to bring something to your attention. Alert boxes contain stop signs, question marks, or exclamation points, and may either caution you about an intended action or tell you that something went wrong.

When you see an alert box, follow its instructions, then select the appropriate dialog button.

# THE MENU BAR

The top edge of the desktop contains the menu bar. The menu headings are Desk, File, View, and Options. To see the commands within any menu heading, position the pointer over the menu heading. The heading highlights and the menu displays under the selected heading.

When the menu displays you can select an option. Options in black text are active and available for use. Options in light text are inactive. Inactive options are not available for use at the time you display the menu. (See the specific option later in this chapter for more information.)

Most of the commands listed under the menu headings can be selected by using a single keystroke. Each command's keystroke is listed in brackets to the right of the command name. To initiate the command, just press the key indicated. It saves a lot of time if you memorize the keystrokes for the commands you use frequently. You can change the assigned keystroke of a command, or assign a keystroke to a command that does not have one. (See **Desktop Configuration** in this chapter.)

## Desk Menu

The Desk menu is divided into two sections. The top section usually contains a single entry which, when selected, displays information about the application you are working with. This information can be a complex series of windows explaining in detail how the application works, or it could be a single dialog box display of copyright information.

The lower section lists your active desk accessories. To be active, a desk accessory file must have the extension .ACC and must be on the root directory of drive C (or on a floppy startup disk in drive A) when you switch on the computer.

You can open desk accessories from the desktop or from any application that displays the menu bar. The desk accessory included on your USA Language Disk is the Control Panel (XCONTROL.ACC). For detailed information on the Control Panel, see **Chapter Six**.

Switching on the computer without active desk accessories frees some RAM and displays the desktop faster.

### Desktop Info

When you display the Desk menu from the desktop, the top section of the menu lists the Desktop Info option. If you select Desktop Info, a window listing GEM and TOS copyright data displays.

# File Menu

The File menu contains options for opening and closing directory windows, selecting all displayed files and folders for an operation, deleting a file or folder, creating a folder, formatting disks, and more. This section explains in detail each File menu option.

### Open

The Open command can be performed on a disk or cartridge icon, folder, or file, printer icon, or trash can icon.

First select the item you wish to open. Then select Open from the File menu. The result of the command depends upon which of the following was highlighted:

**Disk icon or folder**- the disk or folder directory window appears.

**Cartridge icon (drive c) or executable file**- The desktop disappears and the program runs.

**Printer icon**- An alert box displays informing you that the icon you attempted to open is a printing device.

**Trash icon**- An alert box displays.

**Data file**- If you have installed an application that is linked to the same document type as the data file you are opening, the application will automatically open and load the data file. If no such application is installed, a dialog box displays, giving you the

choices show, print, or cancel. Show displays the contents of the file on the screen as ASCII characters. Print prints the contents of the file (only if you have a printer connected to your system!), and Cancel cancels the command.

**Note:** An alternative to using the Open menu command is to position the pointer over the icon you wish to open and double-click the left mouse button.

### Show Information

When you highlight a floppy disk, logical drive, folder, or file icon and select the Show Info option, the screen displays information about the highlighted item.

When you select Show Info for a floppy disk or logical drive icon, the Disk Information dialog box displays the following information:

**Drive ID**- The drive's letter identifier.

**Disk Label**- The name you assigned to the drive. (This field can be blank.)

**Number of Folders**- The total number of folders on the disk of logical drive, including folders within folders.

**Number of Files**- The total number of files on the disk or logical drive, including files within folders.

**Bytes Used**- The number of bytes used by all files and folders on the disk or logical drive.

**Bytes Available**- The available storage space (measured in bytes) left on the disk.

**Note:** In the Disk Information dialog box, the number of bytes used plus the number of bytes available for a floppy disk or logical drive does not always equal the exact total storage capacity. This is because the computer allocates space for each file in fixed-size blocks, even if the file does not completely fill the last block. The Bytes Available information is an accurate indicator of available unused storage space.

When you select Show Info for a file or folder, the File Information dialog box or Folder Information dialog box displays the following information:

**Path-** The top line lists the complete path of the file or folder. If the path is too long to display on the line, you can use the scroll arrows to reveal the hidden part of the pathname.

**Name-** The name of the folder or file. The text insertion cursor appears to the right of the name. To change the name of a file or folder, press **[Esc]** to clear the name line. Type in the new name, using eight characters or less. Type a period, then the three character file extension (usually not used in folder names).

**Size-** Size, in bytes of the file or folder. Folder size is the total number of bytes used by all the files within the folder.

**Date-** The date the file or folder was last modified.

**Time-** The time the file or folder was last modified.

**Number of Folders-** The number of folders within the folder. This only applies to folders.

**Number of Files-** The total number of files within the folder, including files within other folders. This only applies to folders.

**Attribute-** The two choices are Read Only and Read/Write. If you want to make sure a file remains intact and no changes are made to it, select Read Only. You will still be able to display and copy the file, but you cannot modify or delete it. Read/Write allows you to read the file, change it, or delete it. The Attribute field does not apply to folders.

## Search

The Search command performs a file search on a floppy disk, logical drive, or folder. When you select Search, the Search File dialog box appears. You must set the parameters of the search by typing in the name of the file for which you are searching. You can also type in part of a filename, and Search will match the typed characters. For example, if you wish to search for all files with the

extension .DOC, type a period, then type DOC. Search opens the window containing the first .DOC file it finds and asks you if it should continue the search. If you select OK, Search will use the same window to show the next .DOC file, and so on. When Search can find no more .DOC files, an alert box displays to let you know that no more files are to be found.

Before selecting Search, you should highlight the floppy disk, logical drive, or folder upon which you wish the search performed. If no item is highlighted, Search will perform the command upon the active window. If there is no open window on the desktop and no highlighted item, you cannot select Search from the menu.

**Note:** The Search dialog box may cover highlighted icons.

## Delete

The Delete command deletes all highlighted files and folders. If you highlight a floppy disk or logical drive icon and then select Delete, all files and folders on the highlighted item will be deleted. The icon remains on the desktop.

## Create Folder

The Create Folder command creates a new folder in the active window. When you select this command, the New Folder dialog box appears. Type in a name for the folder, then select OK (or press **[Return]**). The name of the new folder appears in the directory window.

**Note:** Certain characters cannot be used within a folder name or extension. For a list of illegal characters, see **Files and Filenames** in **Chapter Five**.

## Close Directory

The Close Directory command closes the top level of the active window. For example, let's say the top window is a folder window, and that folder resides in the main directory of drive C. When you

select Close Directory, the folder's window closes, and the main directory window displays.

> **Note:** You can also close a directory by selecting the close box in the window's upper left corner.

## Close Top Window

The Close Top Window command completely closes the active window, including all levels of folder windows and the main directory window. If windows from other floppy disks or logical drives are open on the desktop, the most recently opened window becomes the active window.

## Bottom to Top

The Bottom to Top command is useful when you have multiple, overlapping windows displayed on the desktop. When you select this command, Bottom to Top brings the bottom window to the top of the stack and displays it as the active window. The current active window is sent to the bottom of the stack.

## Select All Items

The Select All Items command highlights all files and folders in the active window. The files and folders that are hidden, but would be shown by scrolling, are also selected. However, files that are in the directory but do not match the file mask parameters are not selected. (See **Set File Mask**.)

> **Note:** If the File Mask is *.* (show all items), then all items, including all folders, are selected. If the File Mask is set to show a selected filename or file extension or both, folders will not be selected.

## Set File Mask

The Set File Mask command allows you to choose the file type to be displayed in the active window. When you select this command,

the Set File Mask dialog box appears. You must fill in the file type parameters, both file name and file extension.

For example, if you want only those files beginning with the letters "DESK" to appear in the directory list, you would press escape to clear the Name line. Then you would type **DESK*.*** and select OK. The first asterisk after the word DESK means that any file with characters in the filename following the letters DESK should be displayed. The asterisk is known as a wild card character. (See **File Specification** in **Chapter Five**). The period is the separation between the filename and the file extension. The second asterisk means any file with a filename that meets the parameters should be displayed no matter what extension the file has. Setting the file mask as described here would display files with different filenames and extensions, such as NEWDESK.INF and DESKACC.DOC, as long as the filename begins with the characters DESK.

The default file mask parameter is an asterisk for the filename and an asterisk for the extension. This means all files are displayed.

> **Note:** Folders are not affected by Set File Mask.

The parameters selected for the open window remain in effect as long as the window remains open. Once you close the window, the parameters you chose are cleared.

## Format Floppy Disk

Formatting prepares floppy disks to accept data. You can format disks as either single or double-sided. Used disks can be reformatted.

All disks formatted with TOS can be read by IBM PCs and compatible computers using MS-DOS version 3.2 or later.

To format a floppy disk, insert the disk into a floppy disk drive. Select the floppy disk icon, then select the Format command. For complete information on formatting disks, see **Formatting a Floppy Disk** in **Chapter Three**.

# View Menu

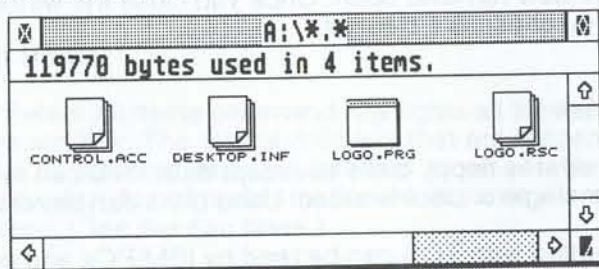The View menu lets you choose the way your computer displays files and folders.

You can view files and folders as icons or text. You can display those filenames alphabetically by name (filename or extension), or numerically by date or file size. To modify the display, select the menu option you want. A check next to a option indicates that option is selected.

Options selected from the View menu affect all directory windows. You cannot select one option for one window and a different option for another window.

⚠ **Note:** When you save your desktop, TOS saves all the View menu choices you made to the NEWDESK.INF file on your startup disk. (See **Save Desktop** in this chapter.)

## Show as Icons or Show as Text

The same directory, with entries displayed both as icons and as text, is shown below:

```
┌─────────────────────────────────────────┐
│ ⊠ ▒▒▒▒▒▒▒▒        A:\*.*        ▒▒▒▒ ◨   │
├─────────────────────────────────────────┤
│ 119770 bytes used in 4 items.           │
│                                    ⇧     │
│   ┌──┐      ┌──┐      ┌──┐     ┌──┐      │
│   │  │      │  │      │  │     │  │      │
│   └──┘      └──┘      └──┘     └──┘      │
│ CONTROL.ACC DESKTOP.INF LOGO.PRG LOGO.RSC│
│                                    ⇩     │
│ ◇            ▒▒▒▒▒▒▒▒▒▒▒        ◇  ▨     │
└─────────────────────────────────────────┘
```

```
┌─────────────────────────────────────────┐
│ ⊠ ▒▒▒▒▒▒▒▒        A:\*.*        ▒▒▒▒ ◨   │
├─────────────────────────────────────────┤
│ 119770 bytes used in 4 items.           │
│   CONTROL  ACC    15616  11-20-85  12:03 am ⇧│
│   DESKTOP  INF      478  11-20-85  12:03 am  │
│   LOGO     PRG    98770  11-20-85  12:03 am  │
│   LOGO     RSC     4906  11-20-85  12:04 am  │
│                                    ⇩     │
│ ◇                              ◇  ▨      │
└─────────────────────────────────────────┘
```

When directory entries are shown as icons, different icons indicate different types of files or folders. The window displays icons in horizontal rows across the desktop. You can choose the shape of desktop and window icons. See **Install Icon** in this chapter.

When directory entries are shown as text, the window displays the filename, file size, and the date and time the file was last modified. A square icon to the left of a filename indicates a folder. The window displays files and folders as vertical text.

⚠ **Note:** A triangle symbol appearing next to a file name indicates a read-only file.

Files and folders displayed as text may be opened, copied, and deleted using the same procedure used with icons.

## Sort by Name/Date/Size/Type

It is sometimes necessary for you to have a list of your files and folders presented in a certain order. Folders as a group are always listed first, followed by files (Except with the No Sort Option). You can sort your files and folders in the following ways:

- **Sort by Name**- Lists files and folders in alphabetical order

- **Sort by Date**- Displays files and folders chronologically. The most recently created or revised file or folder appears first

- **Sort by Size**- Lists files and folders according to their size in bytes

- **Sort by Type**- Lists files alphabetically according to their extension type. Files with common extensions are grouped together in alphabetical order by filename

- **No Sort**- Lists files and folders according to the order in which a program would recognize them

## Size to Fit

When you select Size To Fit, all icons are displayed in horizontal rows starting at the top of the window. Each row is only as wide as the window and will automatically resize whenever the window is resized.

## Set Color and Style

Set color and style allows you to create a unique desktop environment. You can use Set Color and Style to choose a color and fill pattern for both your desktop and for opened windows. When you select Set Color and Style, the following dialog box appears:
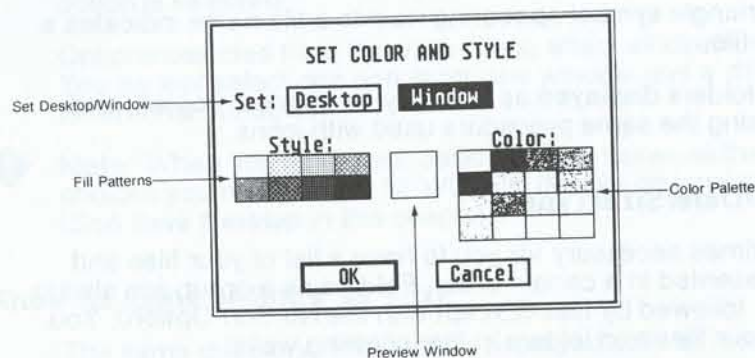


In the example the Desktop box is highlighted. This allows you to modify your desktop display. To modify the window display, the Window box must first be highlighted.

To create your desktop environment, follow these steps:

1. Highlight the Desktop box.

2. Position the pointer over the solid black Style square and click once.

3. To select a color, position your pointer over the desired color on the color palette and click once. The color displays in the Preview Box. (If you are using a monochrome monitor, position your pointer anywhere on the black section of the color palette and click once.)

4. To select a fill pattern, position your pointer over the desired fill pattern and click once. The fill pattern displays over the color in the Preview Box.

5. Next highlight the Window box and repeat steps 2 through 4 to modify your window display.

6. Select OK to select the chosen options and exit Set Color and Style.

# Options Menu

The Options menu includes commands that allow you to save your desktop configuration, install icons, applications, and devices, and print what is displayed on your screen. You can use the Set Preferences option under the Options menu to switch confirmation dialog boxes on or off and set your screen resolution.

**Note:** When you save your desktop, TOS saves all the Options menu choices you made to the NEWDESK.INF file on your startup disk. (See **Save Desktop** in this chapter.) Use Save Desktop to save changes made with Options menu commands.

### Install Icon

Install Icon allows you to choose the shape of your window and desktop icons. The DESKICON.RSC file on your C drive or floppy startup disk contains a collection of detailed icon shapes. You access this file through Install Icon. Choose from a variety of icons to create an interesting and entertaining desktop.

You can also use Install Icon to change a floppy disk's or logical drive's icon identifier and icon label.

When you select Install Icon from the Options menu, the select icon type dialog box displays. You can select either Desktop or Window. Desktop icons are: device icons (printer, floppy disk drive, logical drive, and cartridge), and the trash can icon. Window icons are folder and file icons.

## DESKTOP ICON

When you select Desktop (icon), the following dialog box displays:

```
┌─────────────────────────────┐
│     INSTALL DESKTOP ICON     │
│                              │
│  Icon Identifier: └:         │
│       Icon Label: _____   │
│  Icon Type:                  │
│  ┌──────┐┌─────────┐┌───────┐│
│  │Drive ││Trash can││Printer││
│  └──────┘└─────────┘└───────┘│
│                        ┌─┐   │
│  Icon Shape:     🖴     │⇧│   │
│                        │⇩│   │
│                        └─┘   │
│                              │
│   ┌────┐  ┌──────┐ ┌──────┐  │
│   │ OK │  │ Skip │ │Cancel│  │
│   └────┘  └──────┘ └──────┘  │
└─────────────────────────────┘
```

To install a single desktop icon, follow these steps:

1. If you are installing a floppy disk or logical drive icon, type the drive identifier letter. Press **[Tab]**.

2. Type in the name of the floppy disk or logical drive. You can use up to 12 characters. This step is optional; you do not have to assign labels (names) to your desktop icons.

3. Position your pointer over the type of icon you wish to install: Drive, Trash Can, or Printer (see **Using an Installed Printer Icon** later in this section). Click the mouse button once.

4. Use the scroll arrows to scroll through your icon choices. When the desired icon displays, select OK to install. The icon appears on your desktop.

You can also assign an icon shape to a group of desktop items. For example, if you want all of your logical drive icons to have the hard disk icon shape, in the same operation you can assign that shape to all logical drive icons.

To assign an icon shape to a group of desktop items, follow these steps:

1. From the desktop, use rubber-banding or shift-clicking to highlight the group of desktop items.

2. Select Install Icon from the Options menu. The Install Desktop Icon dialog box displays. The drive identifier, icon label, and currently assigned icon shape of the first selected desktop item appears in the dialog box.

3. If the Drive box is not highlighted, position your pointer over the Drive box and click the mouse button once.

4. Use the scroll arrows to display the desired icon shape. To assign that icon shape to the first of the selected group of items, select OK. The second item of the selected group displays in the dialog box.

⚠️ **Note:** If you do not wish to assign a new icon shape to an item in the selected group, select Skip when that item displays in the dialog box. That item will retain its current icon shape.

When you have completed the selection process for the final item in the selected group, the dialog box disappears. The new icons for all selected items appear on your desktop.

## WINDOW ICON

There are two ways in which window items can be displayed in a window: text and icons. You can assign icon shapes to window items that are currently displayed as text, but the assigned icon shapes will not display until Show as Icons (under the View menu) is selected.

You can assign icon shapes to: a single window item (file or folder), a group of window items, or a specific file type.

```
INSTALL WINDOW ICONS

Name: |_____:___

Icon Shape:  🗇      ⬆
             ▱       ⬇


File Type:  [FOLDER]  [FILE]


[Install] [Remove] [Skip] [Cancel]
```

To assign an icon shape to a single window item (file or folder), or a group of window items, follow these steps:

1. Open the window containing the desired window items. Highlight a single displayed window item or use rubber-banding to highlight a group of displayed window items.

2. Select Install Icon from the Options menu. The Install Window Icons dialog box displays. The name of the first selected desktop item appears in the dialog box. Either the File or Folder box is highlighted, designating the type of item displayed, and the icon currently assigned to the item is displayed.

3. Use the scroll arrows to scroll through your icon choices. When the desired icon displays, select Install to assign the icon shape to the displayed item. The name of the selected group's second item displays in the dialog box, along with that item's current icon.

**Note:** If you do not wish to assign a new icon shape to an item in the selected group, select Skip when that item's name and current icon displays in the dialog box. That item retains its current icon shape. If you wish to remove the item's currently assigned icon shape, select Remove. The default icon shape for that item type will automatically be assigned to that item.

When you have completed the selection process for the final item in the selected group, the dialog box disappears. The new icons for all selected items appear in the window.

You can also assign an icon shape to a file type. After setting the parameters to define the file type, all the files that match the selected parameters will be assigned the specified icon shape.

Select the parameters the same way you would set a file mask, typing in the parameters on the Name line of the Install Window Icons dialog box. (See **Set File Mask** in this chapter.)

To assign an icon shape to a specific file type, follow these steps:

1. With a window open, select Install Icon from the Options menu. Select the Window box from the dialog box. The Install Window Icons dialog box displays.

2. Type *. followed by the extension (for example, *.FNT).

3. Use the scroll arrows to display the desired icon shape. To assign that icon shape to the files matching the specified parameters, select Install. The dialog box disappears. All files that match the selected parameters will be represented by the new icon.

## CHANGING THE ICON IDENTIFIER AND LABEL

To enter a new icon identifier and label for an icon, follow these steps:

1. Highlight the icon you wish to change. Select Install Icon from the Options menu. The Install Icon dialog box displays.

2. Type the new Icon Identifier letter and press **[Tab]**. If you wish to retain the current drive identifier, press **[Tab]** to move the text insertion cursor to the Icon Label line.

**Note:** The letters A and B are reserved for floppy disks, and the lowercase letter c is reserved for the cartridge slot. Uppercase letters C through P represent logical drives.

3. Press **[Esc]** to clear the Icon Label line. Type in the new icon label. You can use up to 12 characters. Select OK.

## USING AN INSTALLED PRINTER ICON

An installed printer icon can help you print files in the same way as the Print command of the Show/Print dialog box (see **Opening a**

**Data File** in **Chapter Five**). Drag and position the desired files over the printer icon. If you have a printer properly connected to your system, the information from the file will be sent to the printer. Some files may print only coded or incomplete information.

After installing a printer icon, use Save Desktop to save the installation. The next time you switch on your system, the printer icon will appear on your desktop.

## Install Application

Using Install Application, you can:

• Link an application to data files with a specified extension. You can then process those data files (documents) directly from a window instead of having to open the application first

• Select an autoboot status for any application, so whenever you switch on your computer the application opens automatically

• Assign a function key to open an application

• Specify what default directory to use for a specific application. The assigned default directory takes precedence over the defaults assigned by Desktop Configurations

• Specify full path or filename to an application. The specification takes precedence over the defaults assigned by Desktop Configurations

• Assign arguments to programs

## ARGUMENTS

When you open a program file, you are telling the computer to follow the instructions in that file. The instructions within the program file then take over and run the show until you exit from the program. Sometimes you need to give the program additional information, such as what to do with a data file. This additional information is called an argument.

Most programs provide ways for the user to input arguments, such as an Open File command in a word processing program. In fact, if you input the name of an existing data file in the Arguments line, and you have your input parameters set in such a way that the program can find the file, the data file will open automatically when you open the word processing program. But unless you work on one data file almost exclusively, other options such as linking an application to a data file type make arguments of this kind clumsy and unnecessary.

Arguments are used most often with utility programs. These programs often need complex additional instructions such as a code sequence to determine which part of RAM will be used to contain the program instructions. Detailed explanations of the arguments needed, and the correct syntax for those arguments will be included in the program's documentation.

When you open the Install Application dialog box, the text insertion cursor is already on the Arguments line. Simply type in the arguments and press **[Return]**. Remember to use Save Desktop to save the argument, otherwise it will be erased when you switch off the computer.

## LINKING A DOCUMENT TYPE TO AN APPLICATION

Normally, the only way you can process a data file is to first open an application that can work with the type of data contained in the file. Then you can open the data file from within the application. If you attempt to open a data file directly from a window, a dialog box displays informing you that your options are to show or print the file, or cancel the request. You cannot edit the data in the file.

But you can use Install Application to link a data file type (determined by the three character file extension) to an application. Choose the file type most commonly used by the application. After linking the application with the document type, the linked application automatically opens when you open the document.

**Note:** You must pay particular attention to assigning correct default directories and parameters to an application when linking a document type to an application. This is especially true when you open the application from its icon on the desktop. Refer to the application's documentation for detailed information on correct default directories and parameters.

To use Install Application to link an application to a data file type, follow these steps:

1. Display the window containing the application you wish to link to a document type. Highlight the desired application. Select the Install Application dialog box from the Options menu. The name of the selected application appears in the Install Application dialog box.

⚠ **Note:** You can select more than one application at once for this operation. Highlight all the applications you wish to install, then open the Install Application dialog box. After completing the operation on the first selected application, the name of the second selected application appears in the Install Application dialog box.

2. Press **[Tab]** to move the text insertion cursor to the Document type line. Type in the three character file extension of the file type you wish to link to the displayed application.

3. Select the appropriate Application type.

4. Choose a Default Directory and Parameter. (See **Selecting a Default Directory and Parameter** in this section.)

5. Select Install to enter the selected settings.

⚠ **Note:** When installing multiple applications, selecting Skip will cause Install Application to skip over the application whose name is displayed on the Application name line. All current settings will be retained.

## SELECTING A DEFAULT DIRECTORY

Every program that works with supporting files (such as resource files or help files) has to have, as part of the program, a way to look for those files. Desktop Configurations tells your computer which directory should be the default. This is where the program will access files if the program assumes that it is not installed. Using Install Application to assign a default directory to a specific application overrides the Desktop Configuration's assignment for that application.

You can set the default directory to Top (active) Window, or Application (the directory in which the program resides).

Some programs do not look for files in any location other than the default directory. For these programs, select Top Window, and make sure that the program file and all supporting files are in the active window.

## SELECTING PARAMETER

Before an open application can use a data file, it must first find and open the file. Most programs enable you to search through all existing directories to locate and open a desired file. These programs have no preconceived ideas about the location of files. For these programs you would choose Full Path, so the entire path-name of the file is used when a file is opened.

Other programs already have pre-existing partial paths. This means that the program contains a partial pathname that it uses every time the program searches for a file. A partial pathname consists of the drive identifier, and all applicable directories. Only the file name and extension is input for the search. All files must be in the specified directory, or they cannot be located. Check your program's documentation to determine the program's default path, and make sure all of your data files reside in the correct directory.

Always try Full Path first. Then if necessary, experiment with other combinations until you find one that works with your application.

## INSTALLING AN APPLICATION TO OPEN FROM A FUNCTION KEYSTROKE

Any executable file (program) can be installed to open from a function key (**[F1]** through **[F10]** at the top of the keyboard). You can install up to 20 programs to open this way. Use **[F1]** through **[F10]** for the first ten programs, and **[Shift] [F1]** through **[Shift] [F10]** for F11 through F20.

After you assign a function key to a program, you only have to press the assigned function key to open that program. The assigned key will only open the program from the desktop. Once

you are within an application, the function keys perform the tasks assigned to them by the application.

To assign a function key to open an application, follow these steps:

1. Highlight the application.

2. Select Install Application from the Options menu.

3. Press [Tab] twice to move the text insertion cursor to the Install as line.

4. Type the number of the function key you wish to assign to the application.

5. Select Install.

## INSTALLING AN APPLICATION TO AUTOBOOT OR NORMAL BOOT STATUS

If you mainly use your computer for a single purpose using one specific application (such as a database, a word processor, or graphics program), it will save time if you install that application to autoboot. An application installed to autoboot status will open automatically whenever you switch on your computer.

Follow these instructions to install an application to autoboot or return an application to normal status:

1. Highlight the icon or name of the application you wish to install to autoboot. Select Install Application from the Options menu. The Install Application dialog box displays.

2. Select the Boot Status: Auto box. (To restore normal boot status to an application installed to autoboot, select the Boot Status: Normal box.)

3. Select the appropriate Application type box.

4. Select Install or press [Return].

Remember to use Save Desktop to save the selected boot status, otherwise it will be erased when you switch off the MEGA STE. The next time you switch on your computer, the selected boot status will be in effect.

## Install Devices

The Install Devices command installs desktop icons for all hard disk partitions on all properly configured devices. It also installs a cartridge icon if a cartridge is in the cartridge slot during startup.

To use Install Devices, follow these steps:

1. From the Options menu select Install Devices. Icons for all configured devices appear on your desktop. Each icon has a unique drive identifier letter, and each device icon is labelled DEVICE.

⚠ **Note:** You can change the shape of your desktop icons. See **Install Icon** in this chapter.

2. Use the mouse to place the desktop icons where you want them to appear. Select Save Desktop from the Options menu. The Save Desktop Dialog box displays. Select OK.

The Save Desktop command saves your desktop configuration in a file called NEWDESK.INF. This file stores information about which icons have been installed and the location of each icon on the desktop. See **Save Desktop** in this chapter.

## Remove Desktop Icon

If you wish to remove an icon from the desktop, follow these steps:

1. Highlight the icon you wish to remove.

2. Select Remove Desktop Icon from the Options menu. The icon disappears from the desktop.

**Note:** If the highlighted icon represents a data or application file, a dialog box displays and asks you whether you want to delete the file or just remove the icon.

Remember, the information stored on the logical drive represented by a removed hard disk icon is still on the hard disk. To regain access to that information, you can: reinstall a hard disk icon for that logical drive, or press **[Alternate]** and the drive letter.

## Set Preferences

The Set Preferences option lets you choose whether or not you wish to have alert boxes display during copy, move, delete, and file overwrite operations. Set Preferences also lets you select monitor resolution.

When you select the Set Preferences option, the Set Preferences dialog box appears:

```
                    SET PREFERENCES

            Confirmation required for:

            File Deletes:    Yes      No

            File Copies:     Yes      No

            File Overwrites: Yes      No

              Set screen resolution:
            ST Low   ST Medium   ST High


                    OK      Cancel
```

If you select Yes, an alert box will display whenever you begin to delete, copy, or overwrite a file (depending on which option you have selected). The alert box requests confirmation of the command, giving you the option to proceed or cancel the operation. This step can help prevent accidental deletion or overwriting of important files. Selecting No skips this step; no alert box will display.

**Note:** You must save your desktop to save changes made to the confirmation section of the Set Preferences dialog box. Any change made to the screen resolution section of the Set Preferences dialog box causes the computer to warmstart. If you do not save your confirmation preferences with Save Desktop before you change screen resolution, the warmstart will erase all of your confirmation preferences.

Set screen resolution lets you select monitor screen display resolution. The MEGA STE supports three graphics modes. ST Low allows 16 colors onscreen, with a resolution of 320 x 200. ST High is an incredibly crisp resolution of 640 x 400.

### MEGA STE Graphics Modes

| Resolution | Palette | Colors Onscreen |
|---|---|---|
| ST Low (320 x 200) | 4096 | 16 |
| ST Medium (640 x 200) | 4096 | 4 |
| ST High (640 x 400) | 4096 | 2 |

You will need a high resolution monitor to display the ST High resolution.

Click on OK (or press **[Return]**) to set the selected preferences. Remember that changing screen resolution causes the computer to warmstart. Your selected screen preference will be in effect after the MEGA STE warmstarts.

## Read .Inf File

You can have more than one desktop information file on your hard disk, each containing different information (such as installed desktop icons and their placement, and all View and Options menu options). The Read .INF File command allows you to change to a different desktop environment without having to transfer files or reboot.

The default NEWDESK.INF file is in the root directory of your C drive. You can name the alternate desktop information files anything you like, but the three character extension must be .INF.
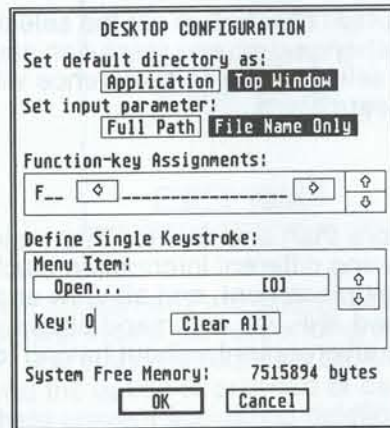
With the Read .INF File command, you instruct the MEGA STE to read information from a specified alternate desktop information file. Follow these steps to use the Read .INF File command:

1. Select Read .INF File from the Options menu. The Select an INF File dialog box displays.

2. Display and highlight the alternate desktop information file. Select OK, or press **[Return]**. The new information is read into your computer.

**Note:** If you wish to save the current NEWDESK.INF file before using the READ.INF command, simply change the name of the current file NEWDESK.INF file. This will allow you to save your desktop without losing your current setup.

## Desktop Configuration

With the Desktop Configuration dialog box you can set the default directory and input parameters for all applications, scroll through assigned function keys, and assign a single keystroke to various menu commands. The Desktop Configuration dialog box also displays the amount of RAM still available.

```
┌──────────────────────────────────────┐
│        DESKTOP CONFIGURATION           │
│                                        │
│ Set default directory as:              │
│    [Application] [Top Window]          │
│ Set input parameter:                   │
│       [Full Path] [File Name Only]     │
│                                        │
│ Function-key Assignments:              │
│                                        │
│ F__ [◇]_____[◇]  [⇧]        │
│                              [⇩]       │
│                                        │
│ Define Single Keystroke:               │
│ Menu Item:                             │
│  [Open...          [O]]     [⇧]        │
│                              [⇩]       │
│ Key: O    [Clear All]                  │
│                                        │
│ System Free Memory:    7515894 bytes   │
│         [ OK ]  [Cancel]               │
└──────────────────────────────────────┘
```

Most applications use the default directory and input parameters displayed in the Desktop Configuration dialog box. The exceptions are applications that have been assigned their own specific default directory and input parameters through the Install Applications

dialog box. You can find detailed information regarding setting the default directory and input parameters under **Install Applications** in this chapter.

You can use the Function-keys Assignment to display the full pathname of each program that has an assigned function key. Use the right and left scroll arrows to display hidden parts of the pathname, and the up and down arrow keys to scroll through the assigned function keys.

All menu commands can be assigned a keystroke. This enables you to bypass the menu bar and initiate the command by pressing a single key. Use Define Single Keystroke up and down arrows to scroll through the menu commands and their keystroke assignments. To change the keystroke of a displayed menu command, type in the desired keystroke. To clear all menu command keystroke assignments, select Clear All.

System Free Memory displays the number of bytes of RAM still available.

After making changes to the Desktop Configuration dialog box, select OK to confirm your choices. Use Save Desktop to save your selections, or they will be erased the next time you switch off your MEGA STE.

## Save Desktop

You can rearrange the desktop icons and windows to suit your personal preferences and use the Save Desktop option to save the new arrangement. For example, you might want to move the trash can icon, line up the disk icons horizontally, or have the startup screen display several open directory windows.

Save Desktop also saves Option and View menu selections. The computer stores saved configurations and menu selections in a NEWDESK.INF file and places this file on your startup disk or hard disk drive root directory.

Arrange disk and trash can icons by dragging them to new positions on the desktop. You may want to close all windows first to start with a clean desktop.

How you arrange your desktop will depend on your needs, but it's usually a good idea to place the trash can icon away from the disk drive icons to protect against unintentionally dragging files to the trash can instead of to a disk or logical drive icon.

Arrange directory windows on the desktop by opening, moving, and sizing selected windows. You can have up to seven directory windows open at once on the desktop. Select options from the View menu to determine how window items (folders and files) will be shown (as text or as icons) and sorted (by name, date, size, or type). If you show window items as text, you may want to narrow the windows to show only the item's name and extension.

If you leave the windows open when you save the desktop, those windows will open to the same size and position the next time you switch on the computer. The window that is active when you save the desktop will be the active window the next time you switch on the computer.

The size and position of closed windows is also saved when you select Save Desktop. The next time you open the window, it will open to the size and position it occupied on the desktop the last time it was opened.

## Print Screen

The Print Screen command lets you print the current screen display. Everything showing on the screen prints.

To use this command, you must have a graphics printer connected to the computer. The printer must be installed from the Control Panel and switched on. If you are using an Atari SLM Laser Printer, the program SDUMP.PRG must be in the Auto folder on your startup disk. Set up the screen you want to print, then select the Print Screen option.

## BLiTTER

The BLiTTER co-processor chip in the MEGA STE computer greatly improves the speed of text and graphics displays. This chip can be turned on or off by selecting the BLiTTER option from the Options menu. When there is a check next to this option, the BLiTTER is turned on. When there is no check, the BLiTTER is disabled.

In most cases, you will want to have the BLiTTER on because faster graphics and text are desirable. However, some applications may run too fast, or not at all, with the BLiTTER turned on. In these cases, turn off the BLiTTER before starting the program.

# CHAPTER FIVE
# DIRECTORIES, FOLDERS, AND FILES

A computer processes information, but it must first be provided with the information and then told what to do with it. A collection of information grouped together is called a file. A program or application file contains instructions for the computer. A data file contains information to be used or edited by the program or application.

Directories and folders provide a way to group files together for organization and storage. Maintaining an organized structure for your files and folders helps you easily locate files and creates an efficient working environment.

# DIRECTORIES AND FOLDERS

A directory is the area on a drive (a drive can be either a floppy disk, or logical drive on a hard disk) that contains a list of the files residing on that drive and the locations of those files. The computer can display directories as either a list of file and folder names, or graphically, with each file and folder represented by an icon.

Every formatted drive has at least one directory (the main or root directory), which lists all the files and folders on the disk or logical drive. Directories can contain other directories, allowing you to create a hierarchical structure of directories within directories. A directory within another directory is called a subdirectory or folder. The terms folder and subdirectory are synonymous.

## Identifying Directories and Folders

The root directory is the first directory displayed when you open a disk icon. When you open a root directory, only the Disk Identifier and file mask appear in the window's move bar. For example, the move bar of a newly formatted floppy disk in drive A would display the following:

A:\*.*

When you open a folder, the folder's name is added to the move bar. If you opened a folder called LETTERS that resided in the root directory of a floppy disk in drive A, the move bar would display the following:

A:\LETTERS\*.*

## Displaying a Directory or Folder

You can view the contents of a directory or folder by opening the icon representing that directory or folder. A desktop window opens, displaying the contents of the directory or folder. The contents will display as either text or icons.

To open a directory or folder, position the pointer over the desired icon, then double-click the left mouse button. Or highlight the desired icon, then select the Open command from the File menu. Once the window displays, you can select the contents (other files and folders) of the directory or folder.

Directories and folders can contain data files, program files, and folders. If you have a number of related files, you can place them inside one folder to keep them together. You can also put folders and files within other folders. You can create a folder using the Create Folder command. (See **File Menu** in **Chapter Four**.)

## FILES AND FILENAMES

A file is a collection of information grouped together under a single filename. There are two types of files. Executable files (also called programs or applications) contain instructions for the computer to carry out. Most of the time the instructions contained in executable files are used to work with information in data files. A data file is a collection of information that contains no instructions for the computer.

You can place files in root directories and folders. If you choose to display your folders and files as icons (see **View menu** in **Chapter Four**), you will have as many icons in a directory as you have

folders and files in that directory. The name of the file or folder will display under its icon.

## Filenames and Extensions

Files are identified by filenames. You can name the files you create, and change the names of existing files. New files are named within an application when they are created. You can also use the Show Information command under the File menu to rename existing files (See **File menu** in **Chapter Four** for more information.)

The filename is made up of two parts: the name and the optional three character extension. In the following example, the name is SAMPLE and the extension is .PRG.

```
SAMPLE.PRG
 |      |
 |      extension (optional; a period (.) and up to three characters)
 |
 name (mandatory; up to eight characters)
```

The name section of a filename can be from one to eight characters (letters, symbols, or numbers) long. A filename extension can be from one to three characters long, separated from the filename by a period.

The following characters cannot be used within a file name or extension:

• Period (.)
• Quotation Marks (")
• Forward Slash (/)
• Backslash (\)
• Brackets ([ or ])
• Vertical Break Bar (|)
• Less-Than Symbol (<)
• Greater-Than Symbol (>)
• Plus Sign (+)

- Hyphen/Minus Sign (-)
- Colon (:)
- Semicolon (;)
- Comma (,)
- Asterisk (*)
- Question Mark (?)

Filenames usually refer to the information contained in the file, such as TAXES for tax information, or TAXES87, TAXES88, and TAXES89 for a series of tax information files.

An extension often indicates the file type, and certain types of files must have specific extensions. For example, the .PRG extension indicates to your computer that the file is an executable GEM application. If you remove the extension, the computer would not recognize the file as an application.

Applications often use a specific file extension. This extension is automatically assigned to any file that application creates. For example, word processors often use .DOC or .TXT as an extension for documents. See the documentation supplied with the application for more information.

Each of the following executable file types has a unique file extension by which it can be recognized. These extensions should be used only for executable files: .PRG, .TTP, .TOS, .ACC, and .APP. Files with any of those extensions cannot be opened if the extension is deleted or changed.

The five most common extensions and their definitions are listed below:

**.ACC**   A GEM Desktop accessory. The system accesses .ACC files which appear under the Desk menu. Use accessories by selecting them from the Desk menu. You can have up to six active accessories on the system at a time.

**.APP**   A GEM application. An .APP file is a GEM application and will usually take advantage of the GEM environment by using windows, icons, and drop-down menus.

**.PRG**   GEM application. (See .APP.)

**.TOS**   A TOS application. A .TOS file is a non-GEM application. It does not use the GEM environment and may not even use the mouse.

**.TTP**   A .TTP (TOS-Takes-Parameters) application. A .TTP file is a .TOS file that expects some typed parameters (data that will control the program's operation). When you open a .TTP file, an Open Application dialog box appears requesting you to enter some parameters. Consult the .TTP program's documentation for more information.

**Note:** When you sort files by type, they are arranged alphabetically by their extensions.

# Pathnames

A pathname is a description of a folder's or file's location. A pathname begins with the appropriate drive identifier, and then lists each applicable folder, starting with the folder residing in the root directory and ending with the folder in which the file or folder actually resides. The final element of a pathname is the name and extension of the file or folder. The move bar displays the complete pathname of the displayed file or folder.

Let's build an example. You have a floppy disk in drive A which contains all 1986 sales and marketing reports for all sales regions. But you are interested in finding the July 6th sales report from the western sales region.

First you open the disk icon for floppy drive A. A window opens, displaying drive A's root directory. The move bar displays only the drive identifier and file mask. The file mask is the *.* following the backslash:

A:\*.*

**Note:** For a full explanation of file masks, please refer to **Set File Mask** under **File Menu** in **Chapter Four**. The asterisks in the file mask above are known as wild card characters. Wild card characters are explained in the section on **File Specification** in this chapter.

One of the items in the displayed root directory is a folder called SALES. When that folder is opened, the name of the folder is added to the pathname. The pathname then consists of the Disk Identifier and the folder name like the example below:

A:\SALES\*.*

The window now displays the contents of the SALES folder. One of the items in the displayed directory is a folder called WESTERN. When that folder is opened, the name of the folder is added to the pathname. Now the pathname looks like this:

A:\SALES\WESTERN\*.*

In the displayed directory of the WESTERN folder you find the file you are looking for, called JULY_6.DOC. If you opened that file from within an application, the following entire pathname may display in the move bar:

A:\SALES\WESTERN\JULY_6.DOC.

The file mask is replaced by the actual file name and extension.

**Note:** Do you notice something odd about the filename JULY_6.DOC? An underline character separates JULY from 6. Since the space character is an illegal character (you cannot use it in file or folder names), sometimes the underline character is used to simulate a space.

# Opening a Program File

When you open a program file, the computer carries out the instructions contained in the file. This is also called starting, running, or launching the program.

There are many ways to open a program file from the desktop. You can position your pointer over the file's name or icon (located either in a window or on the desktop) and double-click the left mouse button. You can highlight the file, then: select the Open option under the File menu, or press the assigned command key (the default command key for opening a file is [O]). You can also use an

assigned function key to open the program. (See **Open** under **File Menu** in **Chapter Four**.)

Other methods of opening a program file are explained in the **Install Application** section under **Options menu** in **Chapter Four**.)

## File Selector

The File Selector is a special dialog box that can only be accessed from within a program. You will use the File Selector for loading and saving files. Many applications programs use the File Selector dialog box.
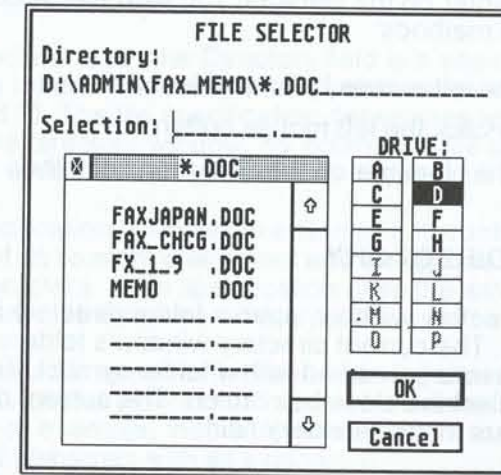


When you display the File Selector dialog box, the Directory field displays the current directory's pathname. The pathname consists of a disk identifier, folder name(s), and a file specifier.

The Selection field shows the currently selected file (if one has been selected) and can be edited like the Directory field.

The directory window shows the current directory's folders and files that can be accessed by the application. The folders are listed first in the directory window, and then all files are listed. (For further information on sorting see **Sorting Files and Folders** in this chapter.) If the directory contains more files than it can display in the window

at one time, scroll the window to view the hidden files. (See **Scrolling a Window** in **Chapter Three**.)

The drive selector shows the currently selected drive.

**Note:** When you make a change within the File Selector dialog box, related fields automatically show that change. For instance, if you change the drive with the drive selector, the drive letter in the Directory field also changes.

## SELECTING A FILE

Place the pointer on the filename you wish to select. Select a file by one of these methods:

- Click the left mouse button. Select OK.
- Double-click the left mouse button.
- Enter the filename on the Selection field, then select OK.

## SELECTING A DIRECTORY

From the directory window, open a folder directory by selecting the folder name. The current directory window's folders appear at the top of the directory, marked with a folder symbol. To close a folder directory, select the close box button. The current directory's pathname appears in the Directory field.

From the Directory field, you can select a directory by typing that folder's pathname. To do this, erase the Directory field, type the new pathname, and press **[Return]**. The pathname contains a disk identifier, and may contain folder names and a file specification.

## SELECTING A DRIVE

You can select a drive from the drive selector or the Directory line.

To select a drive with the drive selector, position the pointer over the desired drive's letter. Click the mouse button to view the drive's directory.

**Note:** The drive letter is part of the disk drive identifier. The disk drive identifier includes a letter specifying the disk drive, a colon (:), and a backslash (\).

## THE FILE SPECIFICATION

The file specification in the Directory field is a search criterion that may include letters, numbers, and special characters called wildcards (* and ?). The file specification determines which files will appear in the directory window. By editing the file specification, you can choose which files or types of files to display.

The file specification is similar to a filename. It contains a mandatory name of up to eight characters and an optional extension of up to three characters. A file specification uses the asterisk (*) and the question mark characters as wildcards.

An asterisk in a file specification stands for all characters and combinations of characters, and can replace an entire name or extension. For example, the file specification *.* calls for the display of all filenames with all extensions.

A file specification will often have an asterisk as the name but specify an extension. For example, the file specification *.DOC allows all filenames with the .DOC extension to appear in the directory window. This file specification would show the files:

REPORT.DOC
STOCK.DOC
MEMO.DOC

This file specification would not show:

FINANCE.TXT

The asterisk must be the last character in the name or extension of a file specification. For example, the file specification TAX*.DOC is valid, but the file specification T*X.DOC is not valid. The letter following the * is of no importance since the * before the letter specifies all characters.

The question mark in a file specification replaces a single character. For example, the file specification MEMO?.LET specifies all files which begin with MEMO, which have any character in the fifth position of the file's name, and which have the extension .LET. This file specification would display the files:

MEMO1.LET
MEMO4.LET
MEMOZ.LET

This file specification would not display the files:

BID.LET
MEMO33.LET
MEMO1.DOC

The file specification ????????.??? is equivalent to *.* .

You can combine wildcards and characters. For example, ?IL*.T?T and F*.T* are both valid file specifications which would display FILE.TXT.

To change a file specification, edit the specification in the Directory field, then update the directory window by pressing **[Return]**.

## Opening a Data File

You can open the application file first (see **Opening a Program File** in this section) and then open the data file using the File Selector. Or you can save a step by using Install Application to link the data file type (identified by the three character extension) to an application. If the data file type is linked to an application, you can use one of the four methods for opening a file (see **Opening a Program File** in this chapter) as if you are opening the data file from the desktop. The computer will open the selected file. (See **Install Application** in **Chapter Four**.)

**Note**: You can also open a file by dragging a data file over the icon for the program file.

If you attempt to open a data file whose file type is not linked to an application, the Show/Print dialog box displays.

Select Show to display the data file on screen. If the file contains readable text, the text displays. If the file is longer than one screen, the message -More- appears at the bottom of each screen of text. You can scroll through the file in the following ways:

• One screen at a time by pressing **[Spacebar]** or the mouse button

• One half screen at a time by pressing **[D]** or **[Control] [D]**

• One line at a time by pressing **[Return]**

**Note**: You can only scroll forward. You cannot scroll back through text you have already viewed.

If you press the left mouse button or **[Space Bar]** while scrolling text by the screen or half-screen, the screen will continue to scroll until it displays a full or half screen starting from where you last pressed the left mouse button or **[Space Bar]**. The message -End of file- appears when the entire file has been displayed . Press **[Space Bar]** to return to the desktop. To return to the desktop at any time before -End of file- appears, press the right mouse button, **[Q]**, **[Control] [C]**, or **[Undo]**.

Select Print to print the data file. You can stop printing at any time by pressing **[Q]**, **[Control] [C]**, or **[Undo]**.

Select Cancel to return to the desktop without displaying or printing the data file.

**Note**: Not all data files contain readable text. When you print or show such a file, the screen may display only coded or incomplete information.

# FILE AND FOLDER MANAGEMENT

Copying, moving, deleting, and other file and folder operations allow you to better organize your disk space. If you maintain good file and folder organization, you will conserve disk space and create an efficient working environment.

## Copying Files and Folders

You can copy window items (files and folders) onto a floppy disk, logical drive or folder. When you copy a folder, the subdirectory information and all the folder's contents (files and other folders) are copied to the new location.

To copy a window item, select the item and drag it to its new position on the desktop. You can drag a window item to another window, disk icon, or folder icon. The item's destination icon will highlight when the item is positioned on top of the destination icon.

**Note:** If you drag a data file on top of an application, the application will run. The data file will be used as a parameter and will open automatically.

When you begin a copy operation on a single or on multiple window items, the Copy File(s) dialog box appears. You must select OK to continue the copy procedure. With single disk drive systems, you will need to switch disks occasionally to complete the procedure. The computer provides alert dialog boxes to tell you when to switch disks. The Copy File(s) dialog box shows the name of the destination folder, and displays each item's name as that item is copied.

**Note:** The Copy File(s) dialog box will not appear if the File Copies confirmation option has been turned off. See **Set Preferences** under **Options Menu** in **Chapter Four** for more information on the File Copies confirmation option.

You can halt the copy operation by pressing **[Undo]** while the bee icon displays. On a single disk drive system, press **[Undo]** while the source disk is in the drive. When the Abort Operation dialog box appears, select Yes to halt the operation, or No if you wish to continue copying.

To copy an entire disk, drag the disk icon to the copy destination (floppy disk, logical drive, or folder). Copying a disk icon to a folder adds the contents of the disk to the folder without disturbing the contents of the folder. If the destination folder's window is open, copying a file or folder updates the displayed directory.

**Warning:** Copying from one floppy disk icon to another floppy disk icon erases all existing information on the destination disk. When you begin this operation, an alert dialog box appears to make sure you do not erase information you need.

**Note:** When copying from one disk icon to another, both disks must be the same format (single or double-sided).

### Name Conflict During Copying

A name conflict occurs when you attempt to copy a window item to a floppy disk, logical drive, or folder that already contains an item of the same name. Depending on the File Overwrites confirmation setting (see **Set Preferences** in **Chapter Four**), the Name Conflict alert dialog box appears warning you that a name conflict occurred. If you wish to replace the existing item with the item of the same name, select Copy.

You could also choose to change the name of the window item you are copying so no name conflict will occur when you continue the copy operation. You can change the item's name from within the Name Conflict alert dialog box. The text insertion cursor is already positioned at the end of the Copy's Name line. Press **[Backspace]** to clear the Copy's Name line one character at a time, or press **[Esc]** to clear the entire field. Now type in the new file or folder name and select Copy or press **[Return]** to continue the copy operation. The original item will remain intact, and the copied item will appear in its destination under the new name.

When copying multiple window items, select Skip if a name conflict occurs and you wish to skip over that particular item, but you wish to continue the copy operation on the other selected items.

## Moving Files and Folders

Moving a window item allows you to transfer that item to a new location, deleting the item from its initial location.

To move window items, highlight one or more items. Then hold down **[Control]** as you click on and drag the items to a new location. The Move File(s) dialog box appears, showing you the number of items involved in the Move operation.

Select OK to complete the move. To cancel the move operation, select Cancel. When you select OK, the Move File(s) dialog box shows the destination folder (if there is one) and the name of the item moved.

You can halt a move operation in progress by pressing **[Undo]** while the bee icon displays. When the Abort Operation dialog box appears, select Yes to stop the operation.

## Renaming Files and Folders

You can rename files and folders with the File Information dialog box. The Show Information command displays the File Information Dialog Box. For more complete instructions, refer to **Show Information** under **File Menu** in **Chapter Four**.

Filenames can have from one to eight characters. Optionally, filenames are followed by a period (.) and a three-character extension. Folders can have from one to eight characters, and usually do not have an extension.

**Note**: As a general rule, avoid modifying the three-character extension. A change in the extension may prevent the system or an application from using program, resource, data, and other files correctly.

## Deleting Files and Folders

You can delete unwanted window items to free up room on a disk or in a folder. There are two ways to delete window items. You can highlight the desired item and drag it into the trash can icon on the desktop. The trash can icon highlights and the Delete File(s) dialog box displays. You can also highlight the desired item and choose Delete Item from the File menu or use an assigned keystroke for Delete.

When the Delete Folders/Items dialog box appears, you can confirm or cancel the delete operation. To continue the operation and delete the item, select OK.

**Note**: If the Delete File(s) dialog box does not appear, the File Deletes confirmation option has been turned off. See **Set Preferences** in **Chapter Four** for more information on the File Deletes confirmation option.

You can halt a delete operation in progress by pressing **[Undo]** while the bee icon displays. Deleting files is a fast operation, so you must act quickly to halt the process. When the Abort Operation dialog box appears, select Yes to stop the delete operation. This will not retrieve those files already deleted.

**Warning**: Deleting a folder deletes all files and folders within the selected folder. Once the bee icon disappears, you cannot retrieve any files and folders.

**Note**: You cannot delete a file if its read/write status is set at Read Only. Also, you cannot delete a folder containing a Read Only file. To change the read/write status of a file, select Show Info from the File menu, then select Read/Write.

# CHAPTER SIX
# DESK ACCESSORIES

Desk accessory programs are unique because they can be opened not only from the desktop, but also while you are running another program. For example, if you want to change how fast a key repeats while you are working in a word processor, you can use the Control Panel desk accessory to change keyboard repeat time without exiting the word processor. Most programs that use the menu bar will allow you to access desk accessories. Desk accessories can be accessed from the far left menu item (usually the Desk menu).

Installing a desk accessory is easy. Whenever you switch on your MEGA STE, the operating system checks the main directory of your startup disk for files that need to be run during startup. One of the criteria used in identifying those types of files is the ACC (desk accessory) file extension. Any file ending in .ACC and residing in the main directory will be read and loaded during startup.

To install a desk accessory, simply place a copy of the program file into the main directory of your startup disk. (Make sure the desk accessory's file extension is ACC.) Then you must restart your system, since the file can only be properly read and loaded during the startup procedure. The desk accessory will now appear under the Desk menu.

You can load up to six desk accessories at one time. If you store more than six desk accessories on your startup disk, make sure that the six desk accessories you currently wish to use have the ACC extension. The ACC extension means the file is active. Change the extension on all other desk accessories to ACX (or any extension other than ACC). Inactive files will not be recognized or loaded during startup.

**Note:** No harm will be done if you have more than six active desk accessories on the startup disk's main directory. The first six active desk accessories will load in the order that the files appear on the disk, and any additional active desk accessory files will be ignored.

XCONTROL.ACC, the control panel desk accessory included with your MEGA STE, is already installed. The file resides in the main directory of your USA Language disk, and in the drive C main directory of your internal hard disk drive. The Control Panel will be loaded automatically the first time you switch on your MEGA STE.

To open a desk accessory, first display the Desk menu. Position the pointer over the desk accessory and click. The desk accessory opens into a dialog box or window.

# CONTROL PANEL

The Control Panel coordinates many smaller programs called control panel extensions (CPXs). The initial Control Panel screen displays the names of all currently loaded CPXs. You can open a CPX by positioning the pointer over the desired CPX and double clicking.

The Control Panel also contains a pull down Options menu. When no CPX is highlighted, the Options menu displays two menu choices: About and Setup. Two additional Options menu choices display when a CPX name in the main Control Panel window is highlighted. The three additional options are Open CPX, CPX Info, and Unload CPX.

To select an option, position the pointer over the Options menu. Then click the mouse button. The Options menu displays. Move the pointer until the desired option highlights. Click the mouse button to select the highlighted option.

Whenever you open a Control Panel or CPX window, you are usually given the following options: Save, OK, or Cancel. Clicking on the close window box is the same as selecting OK and then closing the Control Panel.

Selecting Save places the currently displayed setting information in a file on the startup disk. The MEGA STE will read this file during startup, and load in the saved settings.

Select OK if you just wish to change a setting for one session. The Control Panel window will close, and the changes will remain in effect only until you switch off the MEGA STE. The most recently

saved settings will be in effect then next time you switch on the MEGA STE.

Selecting Cancel will always return you to the main Control Panel window.

## About...

When you select About, Control Panel information (such as version number and copyright date) displays.

## Setup...

You can use the Setup dialog box to change a CPX's status (active/inactive), reload CPXs without restarting the MEGA STE, set the amount of memory reserved for basic CPX information, and designate a CPX directory path. You can also use the calendar and clock to set the MEGA STE's time and date.
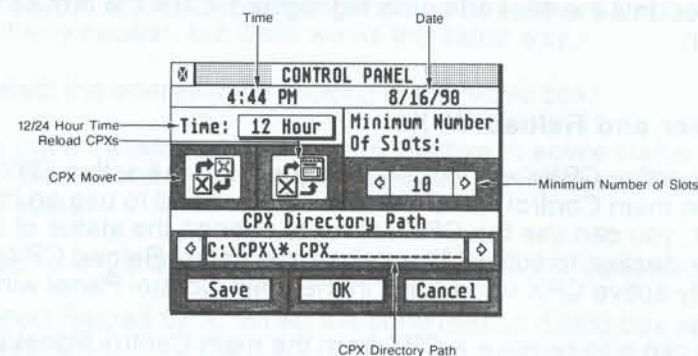


### Date and Time

The computer uses the date and time to mark individual files with the date and time they were created or revised. This feature is useful when you want to determine which file was most recently changed or created.

You can use 12/24 Hour Time to set the Control Panel clock to 12 or 24 hour time. This does not affect the way files are dated, only the way the time is displayed in the Contol Panel window.

To set the clock or calendar, follow these steps:

1. Open the Control Panel. Select date or time by positioning the pointer over the desired selection and clicking the mouse button.

2. Press the Left Arrow key to position the cursor in the window, or press [Backspace] or [Esc] to erase the window. [Backspace] erases the characters in the window one character at a time. [Esc] erases the entire window.

3. Type in the desired time or date.

4. Click on the new time or date.

To change between 12 and 24 hour time, position the cursor over the selection box to the left of the word Time. Click the mouse button. Both the 12 and 24 hour selection boxes display. Move the cursor until the desired box is highlighted. Click the mouse button again.

## CPX Mover and Reload CPXs

Only active CPXs are loaded during startup. All active CPXs appear in the main Control Panel Window. If you need to use an inactive CPX, you can use the CPX Mover to change the status of the CPX from inactive to active. Then when you select Reload CPXs, the newly active CPX will display in the main Control Panel window.

You can also remove a CPX from the main Control Panel Window by changing the status of the CPX from active to inactive.

To change the status of a CPX, follow these steps:

1. Open the Control Panel. Select Setup from the Options menu.

2. Select the CPX Mover. The CPX Mover window displays.

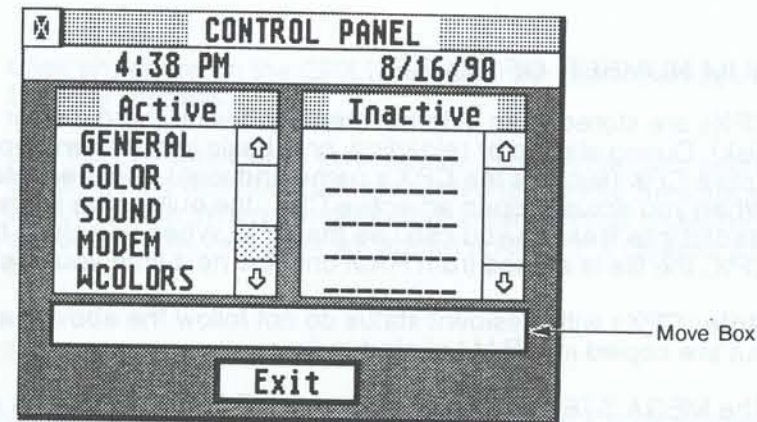
3. Select the desired CPX by positioning your pointer over the name of the CPX and clicking. The CPX highlights, and the appropriate operation appears in the Move box.

Note: You can select multiple CPXs for the move CPXs operation. Use shift-clicking or rubber banding to highlight more than one CPX. If you use rubber banding, the rubber band box will not actually appear, but it still works the same way.

4. Select the operation by clicking in the Move box.

If you have transferred a CPX from inactive to active status, you must reload before you can use the CPX. To Reload CPXs, follow these steps:

1. Open the Control Panel. Select Setup from the Options menu.

2. Select Reload CPX. When the confirmation dialog box appears, select OK.

## Advanced Setup Options

Setting the Minimum Number of Slots and the CPX Directory Path are advanced features of the Setup dialog box. You will probably use these options infrequently.

## MINIMUM NUMBER OF SLOTS

CPXs are stored in an external memory device (hard disk or floppy disk). During startup or reloading, only basic information about each active CPX (such as the CPX's name and icon) is loaded into RAM. When you actually open an active CPX, the bulk of the file is then loaded into RAM so you can use the CPX. When you close the CPX, the file is erased from RAM until the next time you open it.

⚠ **Note:** CPXs with Resident status do not follow the above pattern, but are copied into RAM at startup time.

The MEGA STE has to know how much RAM to reserve for CPX basic information. When you set the Minimum Number of Slots, you are telling the MEGA STE to reserve enough RAM to be able to store basic information for that number of CPXs. If the number of active CPXs at startup time exceeds the Minimum Number of Slots, the MEGA STE will reserve enough RAM for that number of CPXs. You can select from 5 to 99 slots.

To change the Minimum Number of Slots, follow these steps:

1. Open the Control Panel. Select Setup from the Options menu.

2. Use the scroll arrows to display the desired number of slots. Select OK or Save.

## CPX DIRECTORY PATH

The CPX Directory Path tells the Control Panel where to look for CPX files. You will probably want to store all of your CPX files in one folder, and set the directory path to that folder. But if you store CPX files in more than one place, the CPX Directory Path must be set to the directory that contains the CPX files you wish to use.

⚠ **Note:** If the CPX Directory Path is too long to display in the box, use the left and right scroll arrows to display the hidden sections of the path.

To change the CPX Directory Path, follow these steps:

1. Open the Control Panel. Select Setup from the Options menu.

2. Click anywhere on the CPX Directory Path box. The File Selector displays.

3. Use the File Selector to select a new path. When you open a directory, the directory name is added to the File Selector's Directory line. When the desired directory path is displayed, select OK. The new path will appear in the CPX Directory Path box.

## Open CPXs...

You can open a CPX by first highlighting the CPX on the Control Panel main window, and then selecting Open CPXs from the Control Panel Options menu. You can also open a CPX by double clicking on its box in the Control Panel main window.

## CPX Info...

When you highlight a CPX and then select CPX Info from the Control Panel Options menu, the CPX Info window displays. The window contains the selected CPX's filename, version number, ID number, and Resident/Non Resident status.

Filename is the CPX's actual filename as it appears on the disk. Version and ID are assigned by the CPX's programmer. Two versions of the same CPX can have the same ID number. In this case, only the most recent version will be loaded. If you have several versions of the same CPX, you can look at the version number to determine which is the most recent version.

You can use Configure CPXs (see **Configure CPXs**) to change the resident status of a CPX. You will probably want most of your CPXs to have Resident: No status. This means that the bulk of the program is stored in external memory (hard or floppy disk) and only read into RAM when you open the CPX. But if you have a CPX that you use frequently, you may want to give it Resident: Yes status. CPXs that have a Resident: Yes status on startup will be read directly into RAM and will remain there until you switch off the computer. Resident CPXs run a bit more quickly, but may take up a great deal of RAM.

**Note:** When you change a CPX's status to Resident: Yes, the status change will not be in effect until the next time you start your system. The only time a CPX can be installed into RAM with Resident status is during startup. In addition, changing a CPX's status to Resident: No status will not actually remove it from RAM until you switch off your system.

## Unload CPX...

Unload CPX does not change the status of the CPX to inactive. It simply removes a CPX from the CPX list on the Control Panel main window. You can use Reload CPX to place the CPX back on the list.

**Note:** You cannot unload a resident CPX.

# CPXs

This section describes in detail each CPX included with your MEGA STE.

### Window Colors

Window Colors allows you to assign different colors (depending on the selected resolution) to different elements of desktop windows. You can assign colors to each of the 15 elements of the active window and 5 elements of inactive windows.

Even though the MEGA STE color palette contains 4,096 colors in most resolutions, the colors available depend on the selected resolution (from 2 to 16 colors on the screen at any one time). You can use the Color Setup CPX if you wish to create a custom set of available colors. See **Color Setup**. You can also use the factory assigned default color set, or use function keys 1 through 10 to select one of Window Color's preassigned color sets.
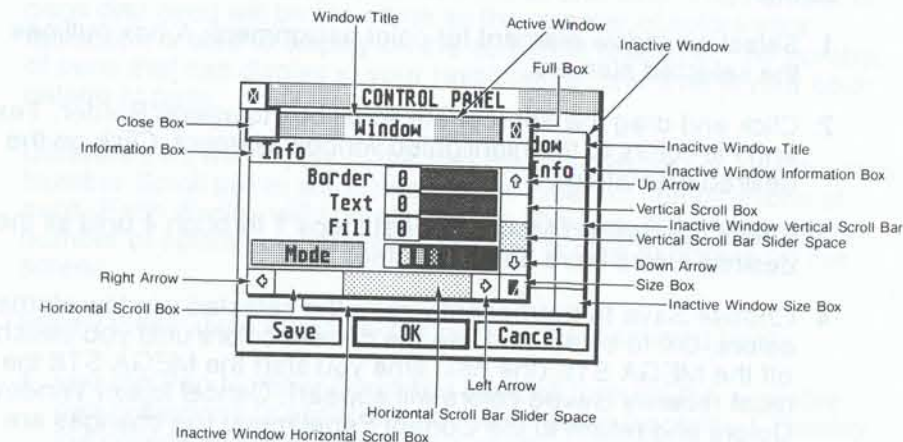


You can choose four options for each window element. Border allows you to choose the color of the narrow border that surrounds each window element. Use Text to choose the color of any text or icon (as in the case of the Full box) that appears within the selected window element. Fill is the background color of the selected element, and you can also choose one of the eight fill patterns appearing directly under the Fill scroll bar. The fill color will appear in the selected pattern.

The Mode box allows you to toggle between having text appear directly on the fill pattern, and having text appear within a solid background over the fill pattern.

When you assign active window element colors and then select Save or OK, the new colors will display the next time you open a window. Any window that was opened before will not reflect the new active window element colors.

Before you assign window element colors, choose the color set you wish to use. You can: use the factory assigned default color set, press a function key (1 through 10) to use a Window Colors preassigned color set, or use Color Setup to create a custom color set.

Follow these steps to assign active and inactive window element colors:

1. Select a window element for color assignment. A box outlines the selected element.

2. Click and drag the appropriate scroll box to assign Border, Text, and Fill colors to the highlighted window element. Click on the desired Fill Pattern.

3. Select the desired Mode. Repeat steps 1 through 4 until all the desired colors have been selected.

4. Choose Save to permanently save the selected window element colors, OK to select and use the current colors until you switch off the MEGA STE (the next time you start the MEGA STE the most recently Saved colors will appear), Cancel to exit Window Colors and return to the Control Panel menu (no changes are saved).

## Color Setup

Depending on your monitor type and the screen resolution you have selected, up to 16 colors can display at one time on your screen. You can choose the colors you wish to have displayed from a palette of 4,096 available colors (except in ST High resolution, which is monochrome only).

Color Setup allows you to choose which colors from the color palette you wish to have available for use when you assign window colors. See **Window Colors**.
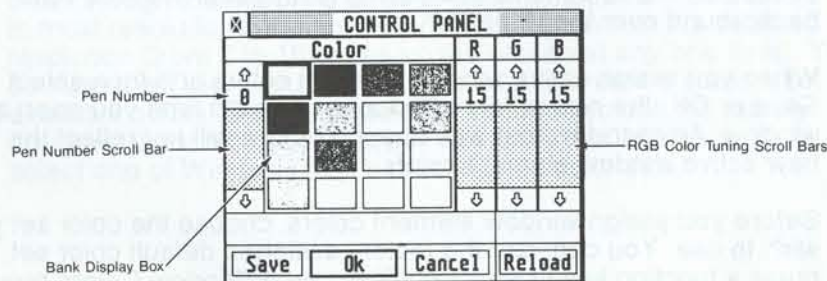
Think of the 4,096 available colors as a collection of pens. The Pen Display Box can display up to 16 pens at one time. The number of pens displayed will be the same as the number of colors your resolution is able to display on the screen at one time. The number of pens that can display in your resolution at one time is your color palette of pens.

Different inks will display in the Pen Display Box as you use the Pen Number Scroll bar to scroll through the different combinations of pens. Each display will contain 2, 4, or 16 pens, depending on the number of colors your chosen resolution is able to display on the screen.

Follow these steps to modify the pens in the displayed bank:

1. Use the Pen Number Scroll bar to scroll through the available pen collections (if applicable to the selected resolution). Display the collection that contains the pens that most nearly matches the pen colors you desire.

2. Select the pen you wish to modify by: moving the pointer over the desired pen and clicking the mouse button, or using the Pen Number Scroll Box to display the number of the desired pen. A black box outlines the pen selected for modification.

3. Now use the RGB Color Tuning Scroll Bars to change the color of the highlighted pen. Changing the ratio of Red, Green, and Blue will change the color of the highlighted pen.

Repeat steps 3 and 4 for every pen to be modified.

4. After you modify the displayed bank as desired, select Save to permanently save the palette, OK to select and use the bank until you switch off the MEGA STE (the next time you start the MEGA STE the most recently Saved banks will appear), Cancel to exit the Color Setup CPX and return to the Control Panel menu (no changes are saved), or Reload to display the most recently saved defaults. If you wish to return the banks to the factory set defaults, press **[Clr Home]**.

**Note**: You can restore the currently displayed collection of pens to the condition it was in before you opened it. Simply press **[UNDO]**. Use Reload to restore all pens.

## Configure CPXs

Configure CPXs allows you to change the name, choose the displayed text and icon color, and change the RAM resident status of CPXs.
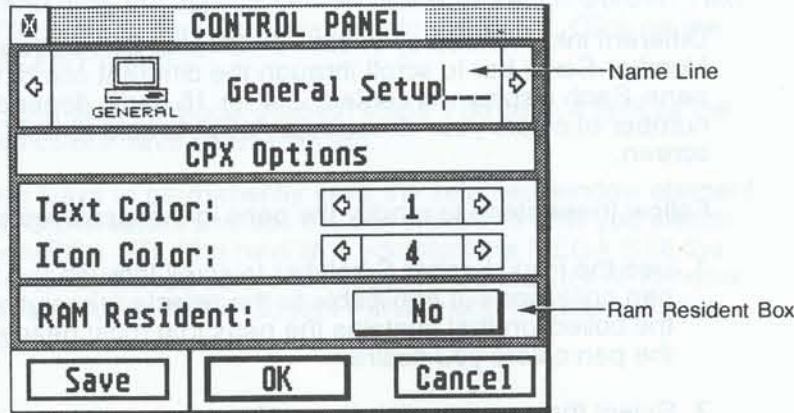


To configure a CPX, you must first display the name of the desired CPX in the name line. Use the left and right scroll arrows to scroll through the CPX list.

When the Configure CPXs window displays, the text insertion cursor is already positioned at the end of the CPX Name line. To change the name of the displayed CPX, press **[Esc]** to clear the entire Name line, or press **[Backspace]** to erase one character at a time. Then type in the new CPX name.

To select Text and icon colors, use the appropriate scroll arrows to display the 16 different available colors. The name and icon displayed on the Name line will display the selected colors.

You can also set the RAM resident status of the selected CPX. Position the pointer over the shaded RAM resident box and click the mouse button. move the pointer to highlight the desired status. Click the mouse button to save the highlighted selection.

When the desired text/icon color selection displays, and the desired RAM resident status is selected, click on OK or Save.

⚠ **Note**: RAM resident status takes effect only at start up time and when you change resolutions.

## General Setup

The General Setup CPX allows you to set the keyboard response and repeat rate, the mouse double click response rate, and the audio feedback. It also allows you to toggle on and off the CPU Cache option and display system statistics such as TOS version number and amount of available RAM.
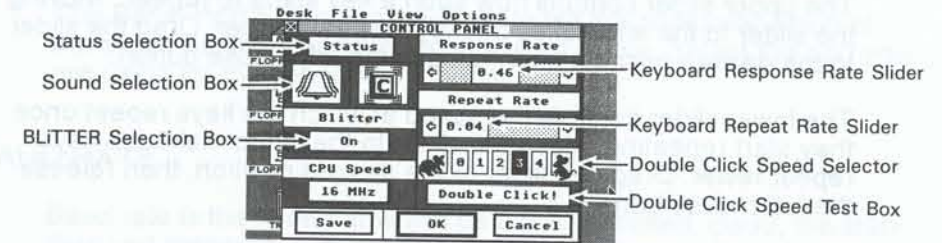


## STATUS

Select the Status box to display the TOS version number and date, and the number of total bytes available.

## AUDIO FEEDBACK

The computer has two kinds of audio feedback, a click signaling each keystroke and a bell signaling keyboard or mouse errors.

To control audio feedback, select the keytop button or the bell button. A gray image means that the sound has been turned off. A clear image means that sound is turned on.

## SOUND

If you want all sound turned off, position the pointer over the Sound box. Click the mouse button. Move the pointer until the word Off highlights, and click the mouse button again.

## KEYBOARD RESPONSE

Every key on the computer keyboard responds when pressed, and every key (except **[Shift]**, **[Control]**, **[ESC]**, **[CapsLock]** and **[Alternate]**) repeats its character if held down. The keyboard repeat controls how much time it takes for the keys to repeat when they are pressed, and how quickly they repeat after the repeat process begins.

The upper slider controls how soon a key starts to repeat. Moving the slider to the left makes the keys repeat sooner. Drag the slider to the desired position, then release the left mouse button.

The lower slider controls the speed at which the keys repeat once they start repeating. Move the slider to the left to make the keys repeat faster. Drag the slider to the desired position, then release the left mouse button.

Test the new settings by turning the sound on, if required, and pressing **[Space Bar]**. You will hear a click each time you press the space bar. Listen to the clicks to judge the repetition speed of the keyboard.

## DOUBLE-CLICK RESPONSE

You can adjust the MEGA STE's response to double clicking. To slow the computer's response to double-clicking, allowing you to double-click more slowly, select a numbered box nearer to the resting mouse icon. To quicken the computer's response to double-clicking (for fast double-clicks), select a numbered box nearer to the running mouse icon.

After setting the double-click response, you can test the setting by double-clicking on the Double-Click Response Test box. When you double-click at the set rate or faster, the box will briefly highlight.

## Modem Setup

The ports labeled Modem on the back of the computer are RS232 serial ports. By connecting a modem to the computer, you can communicate with other computers. You can also connect a serial printer or any other RS232 device to the modem ports.

The Modem Setup CPX lets you configure the computer's modem ports to work with your modem or other serial device. Refer to the manual supplied with your peripheral for specific information on which parameters to choose. The parameters needed by the computer with which you are communicating (the remote device) is known as the communications protocol.

## SERIAL PORT SELECTOR

The Serial Port Selector allows you to tell the computer which of the available serial ports to recognize as active. Select the port you are using for the connected modem.

## BAUD RATE

Baud rate is the speed at which data is transmitted. Baud, the standard unit measure of transmission speed, is the number of signal elements per second. The fastest rate available to you is 19,200 baud; the slowest is 50 baud. Set the baud rate to accommodate both your modem and the remote computer's modem. (The baud rate for bulletin board systems is usually listed along with the phone number for the board.)

To set the baud rate, position the pointer over the Baud Rate box. Click once. Use the up and down arrows to scroll through the baud rate selections. When the desired baud rate displays, move the cursor to highlight the desired rate. Click the mouse button to select the highlighted rate.

## PARITY

Whenever computers transmit data through telephone lines, there is a chance that some of the information will become garbled due to imperfections and noise within the lines. Parity is a error checking procedure that computers use to examine information and determine whether data was cleanly transmitted.

The parity bit is added to a group of bits to make the total number of bits transmitted odd or even. Transmission errors can be identified when the number of bits in a group does not match the parity chosen (odd or even). Depending on the modem and the remote device, you will choose either None, Odd, or Even parity. (Refer to the manual supplied with your modem for specific information.)

To set the parity, position the pointer over the shaded Parity box. Click once. Use the cursor to highlight the desired parity. Click the mouse button to select the highlighted option.

## BITS/CHAR

Each character is stored in memory as one byte. Usually a byte is made up of eight bits. Depending on bits per character used by the remote device, you may need to change the number of bits per character when transmitting through the RS232 port.

To set the bits/char, position the pointer over the shaded Bits/Char box. Click once. Use the cursor to highlight the desired number of bits per character. Click the mouse button to select the highlighted option.

## STOP BITS

The stop bit indicates the end of an asynchronous RS-232 character. You will normally use 1 stop bit, but you may need to use 1.5 or 2 stop bits.

To set the number of stop bits, position the pointer over the shaded Stop Bits box. Click once. Use the cursor to highlight the desired number of stop bits. Click the mouse button to select the highlighted option.

## FLOW CONTROL

You can choose between two flow-control protocols: Xon/Xoff, and Rts/Cts. Flow control protocols are procedures that allow your computer and the remote device to signal one another when to start or stop sending information. Choose the flow control supported by the remote modem.

To select a Flow Control protocol, position the pointer over the shaded Flow Control box. Click once. Use the cursor to highlight the desired flow control protocol. Click the mouse button to select the highlighted option.

## Printer Setup

Any program may access the printer configurations set by the Printer Setup CPX. For example, the Print Screen option under the Options menu uses the printer setup information. Other utilities or applications may not. Check the manuals supplied with your programs to see if a program can use the printer setup information.

**Note:** You cannot configure an Atari SLM laser printer with the Install Printer dialog box. Instead, refer to the **Atari SLM Printer Emulator User's Manual** (supplied with the SLM laser printer) for instructions on changing printer settings. If you have both an SLM and dot-matrix or daisy wheel printer connected to your computer you may be able to select the printer type within your application. If not, you must turn off one of the printer driver programs.

To configure your printer, display the Printer Setup CPX window. Position your pointer over the shaded box representing the setting you wish to change. Click the mouse button. Move the pointer over the desired setting. When the setting highlights, click the mouse button to select the highlighted setting.

## PRINTER TYPE

The choices are Dot (dot matrix printers) and Daisy (daisy wheel printers). Select the appropriate box for your printer.

## COLOR

The choices are B/W (black and white, or monochrome) and Color. Select the appropriate box for your printer.

## PIXELS/LINE

Only dot matrix graphics printers use the Pixels/Line option. Pixel means picture element. On dot matrix printers, a pixel is a dot. Dot matrix printers print a certain number of pixels per line when printing in graphics mode. If you have an Atari dot matrix graphics printer, select 1280. If you have an Epson, or Epson-compatible dot matrix graphics printer, select 960. Both values assume an eight-inch printed line.

## QUALITY

Only dot matrix printers use the Quality option. Select Draft for draft-quality printing. Select Final for letter or near-letter quality printing.

In Draft mode, the printer may make only one pass of the print head when printing. For darker printing, select Final. Keep in mind that in Final draft mode the printer will generally make two passes of the print head, thus taking twice as long to print the page.

**Note:** Do not select Final if your printer does not support near-letter quality printing.

## PAPER

If your printer feeds paper automatically by means of a tractor or single-sheet feeder, select Feed. If your printer accepts only a sheet at a time which you must insert manually, select Single. The Single option prevents the printer from printing beyond the end of a page on documents longer than a single sheet.

## PORT

If you have a parallel printer, select Printer. Parallel printers connect to the port marked Printer on the back of the computer. If you use a serial printer, select Modem. Serial printers connect to the port marked Modem (the RS232 port) on the back of the computer.

**Note:** For most serial printers, Xon/Xoff flow control is set to On. This setting enables the printer to signal the computer to temporarily stop sending data so it can print data it has already received. (See **RS232 Configuration** earlier in this chapter.)

## Sound Setup

The Sound Setup CPX allows you to adjust the balance, volume, bass, and treble stereo sound output. To generate a tone to test the current sound settings, position the pointer over the face icon and click the mouse button.

All Sound Setup settings can be adjusted in two ways. You can use the scroll arrows to scroll through every possible setting, or you can click on and drag the scroll box from one setting to another.

The Balance setting determines the strength of the audio signal sent through both the right and left speakers. You can adjust for an even balance, or send a stronger signal through the right or left speaker. You can use the Bass and Treble settings to adjust the strength of low and high register tones, respectively. The Volume setting adjusts the volume of sound.

When the setting highlights, click the mouse button to select the highlighted setting.

## Accelerator

The Accelerator CPX allows you to adjust the speed at which the onscreen cursor responds to the movement of your mouse. The Accelerator also contains a screen saver.

Mouse Accelerator
Screen Saver Box
Modem Recognition

Super Fast
Fast
Off
Screen Saver Delay Slider

Save    OK    Cancel
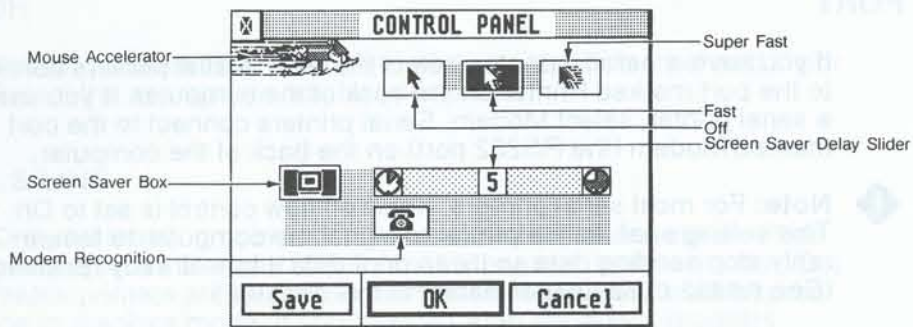
There are three Mouse Accelerator settings: Off, Fast, and Super Fast. Choose the Off setting if you do not wish to increase the response speed of the cursor. Select Fast or Super Fast to increase the cursor response speed.

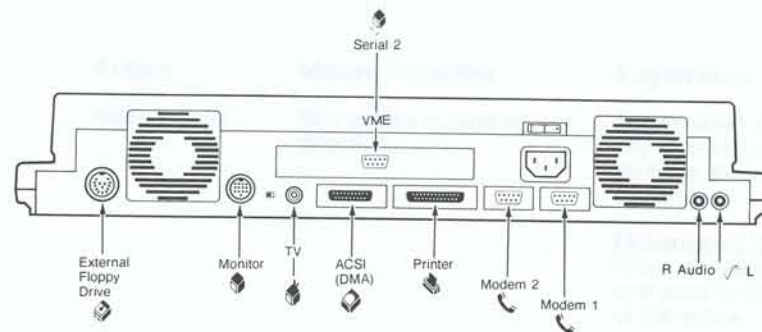To select a new cursor response speed, position the pointer over the desired setting and click the mouse button.

The Screen Saver will automatically darken the screen after a set period of inactivity. To activate the Screen Saver, select the Screen Saver box. When the Screen Saver is active, the Screen Saver Delay slider and the Modem Recognition icon appear as solid objects on the screen. When the Screen Saver is inactive, the Screen Saver Delay slider and the Modem Recognition icon appear as outlines.

When the Screen Saver is active, it will automatically darken the screen after a period of mouse and keyboard inactivity. You can set the number of minutes of inactivity in two ways. You can use the clock icons on either side of the Screen Saver Delay slider as scroll arrows, or you can drag the scroll bar. Release the mouse button when the desired number displays in the scroll bar.

Modem Recognition allows you to choose whether or not you want the Screen Saver to recognize modem activity. If the Modem Recognition is on, the Screen Saver will recognize any modem activity and will not activate. If the Modem Recognition is off, the Screen Saver will ignore modem activity and will activate after the set delay period of keyboard and mouse activity has passed.

# APPENDIX A
# MEGA STe PANELS AND PORTS

## Back Panel Ports



Serial 2
VME
External Floppy Drive
Monitor
TV
ACSI (DMA)
Printer
Modem 2
Modem 1
R Audio / L

## Left Side Panel Ports



Reset
Out  MIDI  In
Keyboard
LAN
Cartridge Slot
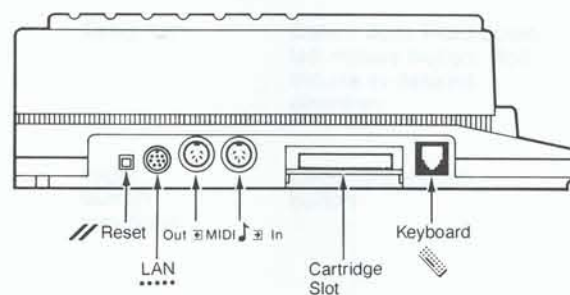
# APPENDIX B
# POINTER CONTROL
# QUICK REFERENCE

The following table lists mouse functions and keystroke combinations. You may copy this page and post it near your computer for quick reference.

| Action | Mouse Function | Keystrokes |
|---|---|---|
| Move pointer. | Roll mouse in desired direction. | [Alternate] any arrow key moves pointer eight pixels in the direction of the arrow.<br><br>[Alternate] [Shift] any arrow key moves pointer one pixel in the direction of the arrow. |
| Select item. | Position pointer on item. Click left mouse button. | Position pointer on an item. Press [Alternate] [Insert]. |
| Select and open item. | Position pointer on item. Double-click left mouse button. | Position pointer on an item. Press [Alternate] [Insert] twice. |
| Drag item. | Select item. Hold down left mouse button. Roll mouse in desired direction. | Position pointer on an item. Hold down the [Alternate] [Insert] keys and use arrow keys to move the item. |
| Right button functions. | Click right mouse button. | [Alternate] [Clr Home]. |

This appendix contains information about the Atari Advanced Hard Disk Utilities disk. This disk contains programs and files that allow you to:

- Park and Unpark the read/write heads
- Install or remove the hard disk driver file
- Format and partition the hard disk
- Erase the contents of a logical drive
- Extend the system-wide folder limit
- Mark bad sectors
- Create an Extended Partition Scheme

You will not use these programs as part of the hard disk's daily operation. Instead, the programs allow you to start the drive for the first time, perform functions that are required from time to time, or maximize your use of the hard disk drive. This chapter will help you choose the programs and utilities you need.

## PARKING AND UNPARKING THE READ/WRITE HEADS

Whenever you move your computer, you should park the hard drive heads to prevent damage to the hard disk and the data it contains. Parking the hard disk drive heads moves the read/write heads of the drive away from the disk media. Parked heads cannot damage the disk media during moving or shipping. The Atari Advanced Hard Disk Utilities include two types of head parking programs. One type parks the disk heads of all hard drives connected to your system. The other parks the disk heads of individual units.

**STOP Warning:** If you fail to close all hard disk windows before parking the drive heads you may damage data on your hard disk.

## Parking Drive Heads on all Units

To park the hard disk drive heads on all hard disks connected to your system, run SHIP.PRG. You must run this program from a floppy disk in drive A or B.

⚠ **Note:** SHIP.PRG will not park the heads of a Megafile 44 Removable Hard Disk Drive.

With a directory of the Atari Advanced Hard Disk Utilities disk displaying, follow these instructions to run SHIP.PRG.

1. Open the HDX folder.

2. Close all other open windows.

3. Run SHIP.PRG.

4. Switch off your hard disk units as soon as the desktop appears.

## Parking Drive Heads on Selected Units

To park a specific hard drive, you must select a physical unit to be parked. With your hard disk utilities disk in drive A or B, follow these instructions to park the heads on individual physical units:

1. Run the HDX program.

2. Close all other open windows.

3. Select the Ship option on the Disk menu.

4. When the Select physical unit(s) dialog box appears, select the physical units that are to have their heads parked. Select OK.

⚠ **Note:** You can select any physical unit connected to your system (formatted or not). The unit number boxes of connected devices appear shadowed.

5. An alert box message appears on screen offering you a last chance to cancel the head parking procedure.

Select OK to park the heads.

6. A final alert box appears, instructing you to turn off your hard disk.

Select OK and switch off the power to your disk drive(s).

⚠ **Note:** If you are preparing to move your entire system, switch off your computer at this time.

## Unparking the Drive Heads

The next time you start your system the drive heads are automatically unparked.

# INSTALLING AND REMOVING THE HARD DISK DRIVER FILE

The HINSTALL.PRG program installs or removes the hard disk driver file. The hard disk driver allows you to start your system from your hard drive.

## Installing the Hard Disk Driver

Display the directory of the HINSTALL folder. Follow these steps to install the hard disk driver:

1. Run HINSTALL.PRG.

2. Select Install from the File menu.

3. Select a logical drive for the operation. You can only select logical drives that are highlighted in shadowed boxes. Select OK.

4. From the displayed dialog box, select OK to install the driver, or Cancel to abort the operation.

## Removing the Hard Disk Driver

Display the directory of the HINSTALL folder. Follow these steps to remove the hard disk driver:

1. Run HINSTALL.PRG.

2. Select Remove from the File menu.

3. Select a logical drive for the operation. You can only select logical drives that are highlighted in shadowed boxes. Select OK.

4. From the displayed dialog box, select OK to install the driver, or Cancel to abort the operation.

## Bypassing the Hard Disk Driver

As an alternative to removing the hard disk driver, you can simply bypass the driver. To do so, switch off your computer (or perform a keyboard coldboot) and make sure there is a floppy disk in drive A that does not contain a hard disk driver file. Switch on the system. The drive light comes on, and then goes off. Immediately hold down **[Alternate]**. Release **[Alternate]** when the floppy drive's busy light goes back on.

# FORMATTING AND PARTITIONING THE HARD DISK

(STOP) **Warning:** The HDX Format and Partition options described in this chapter completely erase all data on your hard disk. Back up all of your valuable files before proceeding.

## Formatting

You will probably never have to re-format your hard disk. The hard disk has already been formatted at the factory. Formatting the hard disk creates magnetic patterns called tracks and sectors. The process also marks and logs bad sectors, areas on the disk with

surface damage or other imperfections. Data stored in these areas could be corrupted or lost. During hard disk operations, the computer avoids sectors marked and logged as bad. The formatting process also automatically divides the hard disk into storage areas called partitions or logical drives.

The internal hard disk drive is already formatted. Formatting erases all information from a disk and prepares the disk to accept data. You may need to format the hard disk if the factory format becomes erased due to mishandling or if the hard disk develops bad sectors.

Display the directory the HDX folder. Follow these instructions to format a hard disk:

1. Select HDX.PRG. Then select the Format option from the Disk menu.

2. Read the alert message that appears on screen. If necessary, back up all your data before proceeding.

   Select OK to continue.

3. Select a physical unit (hard disk drive) for formatting. If you are formatting only the internal hard disk, select UNIT 0. If you are formatting an additional hard disk, select a unit that corresponds to the hard disk's DIP switch settings. (See your hard disk drive owner's manual for information about DIP switch settings.) Units in shadowed boxes are the units that are connected to your system.
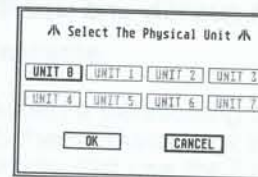


Select OK to continue. A dialog box may appear, displaying a list of hard disk unit types.

**4.** Select the hard disk type showing your drive's model name.

```
┌─────────────────────────────────┐
│     Select the unit type:       │
│                                 │
│ [MEGAFILE 60][MEGAFILE 44][MEGAFILE 30] │
│                                 │
│ [MEGAFILE 20]  [SH205]   [SH204] │
│                                 │
│ [SH104]                         │
│                                 │
│      [  OK  ]    [ CANCEL ]     │
└─────────────────────────────────┘
```
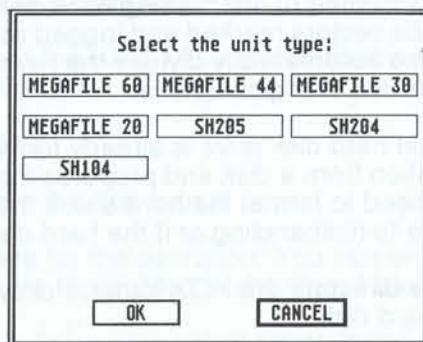
Select OK to continue.

**5.** Read the alert message that appears on screen.

Select OK to format the unit. A message appears informing you that formatting is in progress.

⚠ **Note**: When the partitioning message disappears, the formatting operation is complete.

When formatting is complete, the Format option automatically initiates the Markbad and Partitioning options. To find out more about these functions, refer to the sections on Marking Bad Sectors and Partitioning.

The default partition quantity and size is determined by the hard disk drive model.

# Partitioning

The MEGA STE's internal hard disk drive is already partitioned. Partitioning a hard disk is a process that divides the disk into sections. Setting a partition size tells the hard drive how much storage capacity to assign to each partition. You can use the factory-set partition capacities or change the storage capacity of each partition to suit your file organization needs.

Partitioning divides your physical hard disk into data storage areas called logical drives. Each logical drive is pre-installed and will automatically appear on your desktop unless you re-partition the disk. Partitioning allows you to store and access your data efficiently by allowing you to group files and folders in different logical drives.

Use the Partition option to create partitions in sizes best suited to your disk storage needs. The Partition option lets you use an editing menu to set the size of each partition or select a suggested partitioning scheme without having to reformat your disk.

⚠ **Note:** When you repartition your hard disk, you must use the Install Devices command to install desktop icons for the logical drives.

### Selecting a Unit to Partition

Display a directory the HDX folder. Follow these instructions to partition a hard disk:

**1.** Select HDX.PRG from the HDX folder. Then select the Partition option from the Disk menu.

**2.** Select a physical unit for partitioning. To partition your hard disk, select the unit number of the device you want to partition. Only units in shadowed boxes can be selected.

Select OK to continue.

**3.** Select a partitioning scheme.

There are two ways to select a partitioning scheme. You can use the Choose a Partition Scheme dialog box to choose from preset partitioning schemes. Or you can use the Edit Partition Scheme dialog box to create a customized partitioning scheme. The following sections fully describe each method.
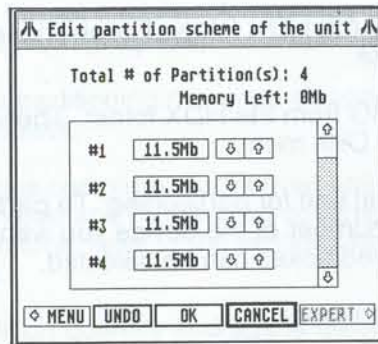
## Selecting a Partitioning Scheme

After you select a physical unit for partitioning, the Edit Partition Scheme dialog box displays.

Use the Edit Partition Scheme dialog box to create a customized partitioning scheme. If you wish to select a preset partitioning scheme, click on Menu to display the Choose a Partition Scheme dialog box.

From the Choose a Partition Scheme dialog box you can click on the Edit box to return to the Edit Partition Scheme dialog box.

## Creating a Customized Partitioning Scheme

The Edit Partition Scheme dialog box displays information about the selected unit's current partition scheme.

```
╱╲ Edit partition scheme of the unit ╱╲

    Total # of Partition(s): 4
           Memory Left: 0Mb

                                    ⇧
  #1   [ 11.5Mb  ] ⇩ ⇧
  #2   [ 11.5Mb  ] ⇩ ⇧
  #3   [ 11.5Mb  ] ⇩ ⇧
  #4   [ 11.5Mb  ] ⇩ ⇧      ⇩

 ⬦ MENU │ UNDO │  OK  │ CANCEL │ EXPERT ⬦
```

Information lines appear at the top of the dialog box. The Total line displays the current total number of partitions. The Left line displays the number of megabytes on your disk that have not yet been assigned to any partition.

Each partition's size is displayed to the right of the partition number in the edit box. Minimum partition size is 1 megabyte. Maximum partition size is determined by the capacity of your hard disk. You can allocate all of the memory on your hard disk to one partition. For example, a 40 megabyte hard disk can have a single partition containing all 40 megabytes of memory.

Use the scroll bar to scroll through partition boxes. To view the 28 partitions you can click on the shaded area of the scroll bar to scroll through four partitions at a time.

Click on the partition box you wish to create or edit. Then click on the up and down arrows to the right of the partition size box to increase or decrease partition size. Clicking on an Unused box creates a new partition.

**Note:** There must be available bytes listed on the Left line before you can increase the size of any partition. 1 megabyte or more must appear in the Left box before an unused partition can be activated.

You can select Menu to display the Choose a Partition Scheme dialog box. This dialog box allows you to choose preselected partitioning schemes.

To return to the most recent partition scheme, select Undo.

OK initiates the partitioning process.

If you want to return to the HDX.PRG main menu, select Undo.

The Expert option is shaded and cannot be selected unless you have more than four partitions. You need to use the Expert option only if you plan to use more than one operating system. If you are planning to use more than one operating system with the same hard disk, see **Appendix E, Extended Partition Schemes**.

## Selecting a Preset Partitioning Scheme

The Choose a Partition Scheme dialog box appears when you select Menu from the Edit Partition Scheme dialog box.

```
      Choose a partition scheme:
  [11-11-11-11] [13-13-9-9] [15-15-7-7]
  [17-17-5-5] [19-19-3-3]



     [  OK  ]   [ CANCEL ]   [ Edit ⬦ ]
```
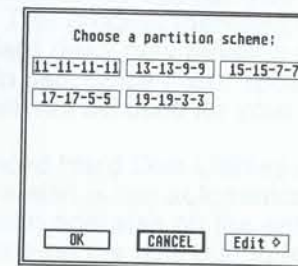
The Choose a Partition Scheme dialog box provides a list of suggested partitioning schemes. Select the scheme you want from the list. Select Edit to return to the Edit Partition Scheme box.

After you select a partitioning scheme, select OK to partition the disk.

## ERASING THE CONTENTS OF A LOGICAL DRIVE

You can erase all data from a selected logical drive with the Zero option of the HDX program. Erasing (or zeroing) a logical drive is useful if you want to clear the drive to make room for new data or if you want to erase damaged data from a logical drive without reformatting (and thus erasing) the entire hard disk.

Display a directory of the HDX folder. Follow these steps to erase the contents of a logical drive.

1. Select HDX.PRG. Then select the Zero option from the Disk menu.

2. Read the alert box that appears on screen. Select OK to continue.

3. Select a drive for zeroing from the Select the Logical Drive dialog box. Select OK to continue.

4. An alert box appears giving you a final chance to quit the program before proceeding.

   Select OK to continue.

## EXTENDING THE SYSTEM WIDE FOLDER LIMIT

You can run FOLDER100.PRG to extend the number of folders your system recognizes. Though most users will be able to create as many folders as they wish without problems, you can still use FOLDR100.PRG to extend the folder limit even further.

To use this program, display the AUTO folder directory on drive C containing the FOLDR100.PRG file. Then change the 100 in the filename to any value between 001 and 999 using the Show Info option from the File menu. The value you enter is the number of folders beyond 40 you can now access. For example, to extend the limit to 240 folders, you would change the filename to FOLDR240.PRG.

The FOLDR program must be stored in the AUTO folder of the startup disk (partition C on the hard disk if physical unit 0 is the startup disk).

The new folder limit takes effect when you reboot your system. During the boot procedure, a message appears that shows how many extra folders you have designated and how many bytes of RAM are allocated to the extra folders. Each folder uses 132 bytes of RAM.

## MARKING BAD SECTORS

Error messages stating that the data on your disk may be damaged might indicate the presence of bad sectors on your disk. If such error messages frequently appear, you should check your hard disk for bad sectors. This process identifies and flags defective areas on the hard disk. Hard disks may develop defective spots after the drive has been in use. Once these spots have been logged with Markbad, they will not be used for your hard disk operations.

The Atari Advanced Hard Disk Utilities disk includes two versions of Markbad. One version is run automatically during the HDX Format option. This version operates on the entire selected physical unit and erases all data on the disk during formatting. The other version operates on the selected logical drive when you run the HDX

Markbad option. This version helps you preserve data by letting you decide whether or not to erase data containing bad sectors.

Both versions of Markbad display a log of any bad sectors found. The cumulative tally of bad sectors in the log appears during subsequent Markbad operations.

◆ **Note:** You can use the HDX Markbad option on hard disks formatted with a previous version of HDX.

Display the directory of the HDX folder. Follow these steps to mark bad sectors on selected logical drives:

1. Select HDX.PRG. Then select the Markbad option from the Disk menu.

2. Select a logical drive from the Select the Logical Drive dialog box.

```
        Select the logical drive
    [ C: ]  [ D: ]  [ E: ]  [ F: ]
    [ G: ]  [ H: ]  [ I: ]  [ J: ]
    [ K: ]  [ L: ]  [ M: ]  [ N: ]
    [ O: ]  [ P: ]
          [ OK ]     [ CANCEL ]
```
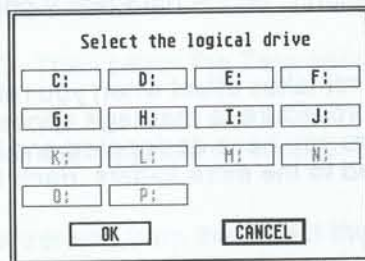
Select OK to continue.

3. While Markbad scans the logical drive for bad sectors, a message appears telling you that the program is marking bad sectors. If bad sectors are found in a file, select a course of action for the file from the Logical Drive Markbad dialog box. This box displays the name of the file, the address location of the bad sector and cluster in the logical drive, and your choices for a course of action.

◆ **Note:** The Logical Drive Markbad dialog appears only when Markbad flags bad sectors in allocated clusters. An allocated cluster is a cluster that has been assigned to a file.

```
    /|\  Logical Drive Markbad  /|\
               File
            E:\SAMPLE.DOC

            Bad sector: 627_
              Cluster: 266_

         [   Delete file      ]
         [ Skip over bad sector ]
         [  Ignore bad sector  ]
```
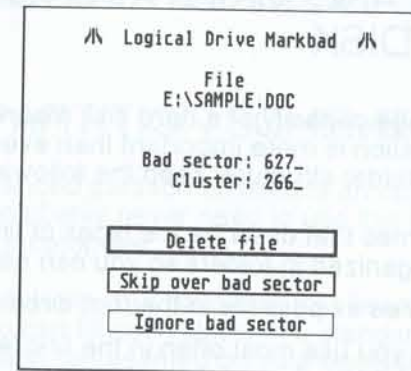
Select Delete File to erase the file or Skip Over Bad Sector to preserve the undamaged portions of the file. Select Ignore Bad Sector to leave the file unchanged. (Select Ignore Bad Sector if you want to examine the file before taking action.)

If bad sectors are found in a subdirectory file, select a course of action for the subdirectory from the Logical Drive Markbad box. This box displays the name of the subdirectory, its address location, and your choices for a course of action.

Select Delete Directory Only to delete the directory structure and save the deleted directory files to the root directory. All files saved to the root directory will be named "TMPnnnn" where "nnnn" stands for the starting hexadecimal cluster address of the file. Select Delete Directory And Files to delete the directory structure and all of its files. Select Ignore Bad Sector if you don't want to take any action at all.

◆ **Note:** If a bad sector is found in a lost cluster, an alert box appears giving you the option of marking the cluster. A lost cluster is a segment of data that is unaccounted for and inaccessible to the system.

5. When Markbad finishes scanning the disk, a Logical Drive Markbad tally box with the total count of newly found bad sectors and the count of all previously found bad sectors appears.

# ORGANIZING AND MAINTAINING YOUR HARD DISK

The larger storage capacity of a hard disk means that careful folder and file organization is more important than ever. When planning and using your folder structure, keep the following tips in mind.

- Use folder names that describe the types of files in the folders. Keep files organized in folders so you can easily find them.

- Keep as few files as possible in the root directory.

- Keep the files you use most often in the first level of directories.

- Delete unneeded files to free up disk space for new files.

## Backing Up the Hard Disk

It is important to frequently back up your hard disk data. Other-wise, accidentally deleted or damaged files will be lost forever. As a general rule, it is good practice to back up new or modified files after each session at your computer.

To back up your data, regularly copy important files or folders onto floppy disks and store them in a safe place. In addition to the copy option, you can use one of the many hard disk backup programs available through your Atari dealer or Atari user groups (see **Customer Support**).

## Optimizer Programs

An optimizer program checks the structure of your hard disk and rearranges files and free space on the disk. The multiple sectors of each file are grouped together. Contiguous free space is placed either at the top of the disk (to increase the speed of writing new files to the disk) or at the bottom of the disk (to increase the speed of accessing existing files). Back up your data, then use a file optimizer program regularly to increase the speed and efficiency of your hard disk drive and to reduce the possibility of data corruption and loss.

Use one of the many hard disk optimizer programs available through your Atari dealer or Atari user groups (see **Customer Support**).

# EXTENDED PARTITION SCHEMES

Creating an extended partition scheme is an option for advanced users. You will probably never need to use this option in the normal operation of your computer.

There are four slots on your hard disk that keep track of partition information. You can fill each slot with a standard partition, and have each partition represented on your desktop by a logical drive. Or you can fill one of the four slots with an extended partition to obtain more than four logical drives.

An extended partition is subdivided into more than one partition. This allows you to have more than one logical drive representing that slot.

**Note:** To store system startup data the first partition must be a standard partition. This partition is always assigned to the first slot. You cannot select the first slot to contain the extended partition. You must use one of the three remaining slots to contain your extended partition.

Supporting TOS as your primary operating system, HDX.PRG will automatically choose slot number two to contain your extended partition. However, if you plan to use more than one operating system, it may be useful to choose the specifics of the partition assignments. Some operating systems will not recognize an extended partition scheme. The partitions you use with these operating systems must be standard partitions.

The Expert option of the Edit Partition Scheme dialog box allows you to choose which slot will contain the extended partition, and which of four slots will contain standard partitions.

The Select the extended partition scheme dialog box displays the current extended partition scheme. The Partition section on the left side of the dialog box shows the partition number, size, and range of each partition. The Extended Partition Range dialog box on the

right side of the dialog box allows you to choose which slot will contain the extended partition scheme.

The Extended Partition Range dialog box displays each slot's range of partitions.

In the example below, all four slots contain partition information. The first slot contains partition one. The second slot contains the extended partition, which is subdivided as partitions two through eight. The partitions included in the extended partition are always highlighted. The third slot includes partition nine, and the fourth slot contains partition ten. Slots one, three and four contain standard partitions.

```
┌─────────────────────────────────────────────┐
│  Select the extended partition scheme         │
│                                               │
│  Partition    Extended Partition Range         │
│                                               │
│  #1__  10.6Mb     ┌───────────────┐           │
│  #2__  10.6Mb     │ from #2 to #8  │           │
│  #3__  10.6Mb     │ from #2 to #9  │           │
│  #4__   4.6Mb     │ from #2 to #10 │           │
│                   │ from #3 to #9  │           │
│          ⇩        │ from #3 to #10 │           │
│                   │ from #4 to #10 │           │
│  #8__   1Mb       └───────────────┘           │
│  #9__   1Mb                                    │
│  #10_   1Mb     ⬦ EDIT   OK    CANCEL          │
└─────────────────────────────────────────────┘
```
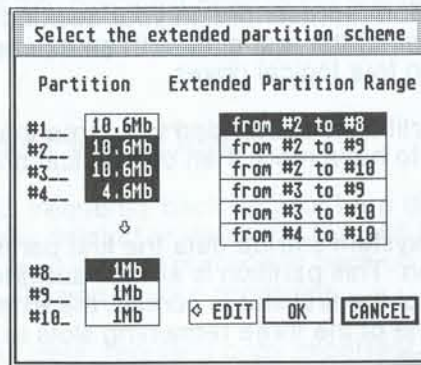
# OTHER ADVANCED HARD DISK UTILITIES DISK FILES

- **HDX.RSC** is a GEM resource file used by HDX.PRG

- **WINCAP** is a text file that includes information used by HDX.PRG.

- **HINSTALL.RSC** is a GEM resource file used by HINSTALL.PRG.

- **SHDRIVER.RAW** is used with HINSTALL.PRG to create SHDRIVER.SYS, the hard disk driver file that directs your system to start from a hard disk.

# APPENDIX D TROUBLESHOOTING AND PREVENTIVE MAINTENANCE

## TROUBLESHOOTING

If you run into problems while connecting or operating your computer, don't panic. You can probably fix it yourself. This section describes some common problems and suggests solutions.

⚠ **Note**: The most common and easily fixed problem is failure to switch on the power to the computer or the monitor. Always check this first before exploring other possibilities.

## It Will Not Switch On

If the power light will not come on or the video display stays dark-- the remedy is easy. Follow these steps:

1. Switch off all components in your system (the computer, external drives, the monitor, and all other peripherals).

2. Make sure all cables are correctly and securely fastened. Check the power cables and the video cable.

3. Check your wall socket or power strip by plugging in a desk lamp or appliance.

4. Switch on all components.

5. Check the brightness and contrast adjustments on your monitor or TV. Turn up the adjustment knobs if necessary.

## No Desktop

If the power lights come on, the monitor brightens, and the busy lights for the internal floppy and hard drive's busy lights light up, but the desktop does not display, you may have a bad desk accessory file in your startup disk or folder.

With the computer switched off, place a disk in floppy drive A (do not use the Advanced Hard Disk Utilities disk). Switch on your system. (If you need to bypass an installed hard disk driver, hold down **[Alternate]** when drive A's busy light comes on. Release the key when the busy light shuts off.) The basic desktop displays.

Next, remove the disk from drive A. If the questionable desk accessory resides on a floppy startup disk, insert the floppy disk into drive A. Remove the file from the disk. If the questionable desk accessory resides in the root directory of your hard disk, remove the file from drive C.

Switch off your computer and restart in your usual way.

## Software Problems

If you have problems with an application, it may be that the software contains imperfections (bugs). Try coldstarting your system, then switch it on again. Reopen the application. If this helps, it may mean the application experienced a momentary failure.

If you still experience problems, make a new working copy of the application from the original application disk onto a newly formatted floppy disk. Run the application from the new copy. If you are running the application from your hard disk, remove the file from the hard disk and copy it again from the original application disk back onto the hard disk. If this works, the problem is probably with the original working copy of the file. If none of your disks work properly, you may need to replace your original application disk.

You may find that some older programs do not run properly with the BLiTTER option turned on. If you think this may be the problem, make sure the BLiTTER option is off before running the program.

## Bombs  🍎

Sometimes applications develop errors that are potentially damaging to the computer's operating system. When such an error occurs, TOS detects the error and terminates the program. As a signal to you, TOS displays one or more bombs across the screen and attempts to recover from the error.

To protect the computer's operating system, immediately perform a keyboard coldboot when you see bombs displayed. If the problem recurs, discontinue using the program.

## The Hard Disk Drive

Some symptoms identify the hard disk drive as the source of the problem. Many problems can be easily remedied using the Advanced Hard Disk Drive utilities.

### Common Problems

Use the following table to identify and correct common hard disk drive problems.

| Problem | Suggested Solution |
|---|---|
| Hard disk drive icon C does not appear when you switch on your system. | If you are starting your system from a floppy disk drive, make sure the startup disk contains AHDI.PRG in the AUTO folder. If you are starting your system from the hard disk, AHDI.PRG must be in the AUTO folder on drive C. If you have AHDI.PRG in the proper folder and the system still does not display disk icon C, you may need to reformat the drive. (See **Formatting** in **Appendix C**.) |
| The system will not start from the hard disk. | Run the hard disk driver installation program (HINSTALL.PRG.) If the problem continues, the hard disk should be backed up and reformatted. (See **Backing Up the Hard Disk** and **Formatting** in **Appendix C**.) |
| An application program will not start from the hard disk. | The program contains garbled data or was not designed to start from a hard disk. Try starting your system from the floppy disk drive with a working copy of the program. Attempt to run the program from the program disk. If it still will not run, contact the program's manufacturer for more information. |

## Identifying and Replacing or Erasing Corrupted Data

If you still have problems, your hard disk may have developed unusable data. Unusable data appears altered or is unusable. Try erasing individual bad files and replacing them with valid backups. If replacement is not possible, follow these steps to try and recover data:

1. Run the Markbad option of the HDX program on the Atari Advanced Hard Disk Utilities disk (as described in **Marking Bad Sectors** in **Appendix C**) in each logical drive containing unreadable data. Recover as much data as possible.

2. Back up the data recovered from the logical drive onto floppy disks.

3. Erase all data in the problem logical drive(s) with the Zero option of the HDX program and run Markbad on the logical drive again.

4. Copy the data you backed up on to the logical drive.

If the main drive (drive C) contains unreadable data, you may not be able to start your system from the hard disk. Use a working copy of the Atari Advanced Hard Disk Utilities as a floppy startup disk to start the system. Follow the steps above, then install the hard disk driver as described in this appendix.

## Error Messages

If an error message appears while you run one of the Atari programs from the Atari Advanced Hard Disk Utilities disk, the problem is usually something easily remedied. If you aren't sure what to do when an error message appears, read the message carefully for a suggested solution. If there is no suggested solution, find the message in the alphabetical list below and try the solution suggested.

| Error Message | Program and/or Option | Suggested Solution |
|---|---|---|
| Bad Sector List is corrupted! Try backing up the disk and reformatting it. [OK] | HDX Format Partition Zero Markbad | See message. |
| Cannot create driver file at destination! [OK] | HINSTALL Install | Your root directory may be full. You need to delete data to make room for the driver file. Or, your root directory may be corrupted. If so, back up as much data as you can and reformat the drive. |
| Cannot find format parameters for disk type <disk type name> [OK] | HDX | Make sure the original WINCAP file is on the disk with HDX. |
| Cannot find partition scheme <selected partition scheme> [OK] | HDX Partition | This partition scheme is not recognized by HDX. Make sure you are using your original WINCAP file. **Warning:** Do not modify the WINCAP file. Doing so may destroy the disk. |
| Cannot format <selected unit>! Try checking all the connections and reformatting. [OK] | HDX Format | Make sure your hard disk is securely connected as explained in **Chapter 1**. Then reformat the drive. |
| Cannot open driver source file! [OK] | HINSTALL Install | Make sure the SHDRIVER.RAW file is on the disk with HINSTALL.PRG. |
| Cannot partition <selected unit>! Try reformatting. [OK] | HDX Partition | See message. |

| Error Message | Program and/or Option | Suggested Solution |
|---|---|---|
| Cannot read Bad Sector List from the disk! Try backing up the disk and reformatting. [OK] | HDX Format Partition Zero Markbad | See message. |
| Cannot read Boot Sector from the logical drive! Try backing up the disk and reformatting. [OK] | HDX Zero Markbad HINSTALL Install | See message. |
| Cannot read File Allocation Table from the logical drive! Try backing up the disk and reformatting. [OK] | HDX Partition Zero Markbad | See message. |
| Cannot read from directory! Try re-running Markbad on this logical drive when the current Markbad is completed. [OK] | HDX Markbad | See message. |
| Cannot read Root Directory entries from the logical drive! Try backing up the disk and reformatting. [OK] | HDX Markbad | See message. |
| Cannot read Root Sector from the disk! Try backing up the disk and reformatting. [OK] | HDX Partition HINSTALL Install Remove | See message. |
| Cannot save any more files in the root directory! Deleting the remaining lost clusters of the subdirectory will free up disk space. [OK] [CANCEL] | HDX Markbad | When the Markbad option found a bad sector in a sub-directory, you directed the program to save the deleted directory's files to the root directory. here is no more room in the root directory for the files. Either select OK to delete the rest of the directory's files or select CANCEL to use a disk utility that can recover the directory's files. |

D-6


| Error Message | Program and/or Option | Suggested Solution |
|---|---|---|
| Cannot write Bad Sector List to the disk! Try backing up the disk and reformatting. [OK] | HDX Format Partition Zero Markbad | See message. |
| Cannot write Boot Sector to the logical drive! Try backing up the disk and reformatting. [OK] | HDX ZERO HINSTALL | See message. |
| Cannot write driver file to destination! [OK] | HINSTALL Install | HINSTALL cannot write to the root directory of the drive. Try backing up the hard disk and reformatting it. |
| Cannot write Header to the logical drive! Try backing up the disk and reformatting. [OK] | HDX Zero | See message. |
| Cannot write Root Directory entries to the logical drive! Try backing up the disk and reformatting. [OK] | HDX Markbad | See message. |
| Cannot write Root Sector to the disk! Try backing up the disk and reformatting. [OK] | HDX Format Partition HINSTALL Install Remove | See message. |
| Cannot write to directory! Try re-running Markbad on this logical drive when the current Markbad is completed. [OK] | HDX Markbad | See message. |
| Driver file does not exist! [OK] | HINSTALL Remove | The driver file SHDRIVER.SYS has not been installed or is missing. |

D-7

| Error Message | Program and/or Option | Suggested Solution |
|---|---|---|
| File Allocation Table is corrupted! Try backing up the logical drive and zeroing. [OK] | HDX Markbad | Back up the logical drive, erase its data with the HDX Zero option, run Markbad, and restore your data. |
| Format parameters in the root sector are corrupted! Please reformat the disk. [OK] | HDX Partition | See message. |
| HDX.RSC [OK] | HDX | The HDX.RSC file is either missing or damaged. Copy the HDX.RSC file from the original Atari Advanced Hard Disk Utilities disk onto your working copy of the disk. |
| No menu items available for this disk's capacity. [OK] | HDX Partition | Use the Edit Partition Scheme dialog box to set partition sizes. |
| Not enough system memory! Cannot continue. [OK] | HDX HINSTALL | Your computer's memory capacity is too low to run these programs. You need a minimum of 512 kilobytes. |
| Reserved sectors are bad! Try backing up the disk and reformatting it. [OK] | HDX Format Partition | See message. |
| Selected partition scheme is for a bigger capacity unit. Please select another one. [OK] | HDX Partition | See message. |
| Too many bad sectors to record. Try backing up the disk and reformatting. [OK] | HDX Markbad | See message. |
| Too many logical drives! You cannot have more than 14 logical drives. [OK] | HDX Format Partition | You cannot have more than 14 logical drives on your system. Repartition disks as necessary. |

| Error Message | Program and/or Option | Suggested Solution |
|---|---|---|
| Unrecognized boot sector! Either this logical drive's boot sector is corrupted, or another utility was used to partition this disk. [OK] | HDX Zero Markbad | Before you can use Zero or Markbad, you must back up your hard disk (if necessary) and reformat with HDX Format. |
| WINCAP file not found! Cannot continue. [OK] | HDX | Copy the WINCAP file on the Advanced Hard Disk Utilities disk to the disk from which you are running HDX. |
| Your system will have to reboot when you quit HDX, for new disk information to take effect. | HDX Format Markbad | No action required. Your system will reboot when you quit HDX so the disk parameters you changed [OK] can take effect. Any data in RAM will be lost. |

# The Mouse

With time, the mouse may begin to move slowly or sporadically. If this happens, make sure the mouse is plugged firmly into mouse/joystick port 0. If the problem persists, the mouse may need cleaning. (See the **Atari Mouse** manual for instructions.)

# Monitors

If you have both an Atari color monitor (or TV) and an Atari monochrome monitor set up side by side, make sure only the one connected to the computer is switched on. With both monitors switched on, you may get interference patterns on the screen. If you only have one monitor switched on and you get interference patterns, some other peripheral may be causing the trouble. Try moving power supplies, printers, and modems as far away from the monitor as possible.

# PREVENTIVE MAINTENANCE

To ensure top performance from your computer system, follow the guidelines in this section.

## Caring for the Computer

Always place the system securely on a firm, level surface.

Avoid dusty or greasy work areas.

Keep all components away from extreme heat or moisture.

Keep all components out of direct sunlight.

Do not move the components unnecessarily.

Avoid smoking near the computer system.

Keep liquids away from the components.

Always switch off the system before cleaning it. Clean the outside of the components with a soft, slightly damp, lint-free cloth only. Do not use cleansers, abrasives, or solvents.

Always switch the computer off before inserting or removing a cartridge.

Always switch the computer and peripherals off before connecting or disconnecting components.

When you switch off the computer, wait at least ten seconds before you switch it on again.

To ship or store the system, repack it in the original factory packing materials. Always park the hard disk before moving your computer.

## Caring for Floppy Disks

Do not switch the floppy disk drive off while its busy light is lit.

Do not insert or remove disks while the floppy drive's busy light is lit.

Do not leave disks in the floppy drive when the drive is off.

Keep disks away from sources of magnetism (such as monitors, televisions, electric motors, and telephones).

Never leave disks in direct sunlight.

Never touch or clean a disk's magnetic recording surface inside the plastic casing.

# A FINAL NOTE

Your MEGA STE computer system is designed for low maintenance and high reliability. But like anything electronic and mechanical, the equipment can break down.

If you experience problems that appear serious, take the computer (or any other component) to an authorized Atari service center. For the location of the nearest Atari service center, contact your Atari dealer or Atari Customer Support. (See **Customer Support** at the end of this manual.)

# APPENDIX E
# MEGA STE COMPUTER SPECIFICATIONS

| | |
|---|---|
| Processor | 16 MHz 68000 processor |
| Math Coprocessor (optional) | 68881/2 floating point coprocessor |
| Memory | 2 or 4 megabytes of RAM, depending on the model |
| Graphics Resolutions | ST Low (320 x 200 x 16)<br>ST Medium (640 x 200 x 4)<br>ST High (640 x 400 x 2) |
| Color | Palette of 4,096 colors |
| Interfaces | Midi In and Midi Out ports |
| | VME-compatible Eurocard (A24, D16) expansion slot |
| | Monitor port |
| | Television port |
| | Parallel port |
| | 1 Serial port |
| | 2 fully configured RS232 Modem ports |
| | Floppy Disk port (includes controller) |
| | LAN Interface |
| | ACSI DMA port (10 megabits per second DMA transfer rate) |
| | ROM Cartridge port (128 kilobytes capacity) |
| | Mouse/Joystick and Joystick ports |
| | Stereo ports |
| Sound Generator | Pulse Code Modulated (PCM) sound (8-bit digital-to-analog sound converters) |
| | 3 voices from 30 Hz to above audible range; built-in amplitude envelopes and noise generator |
| Keyboard | 95-key intelligent keyboard using its own microprocessor |
| Power Consumption | 95 Watts (maximum) |

| Ambient Temperature | 41 to 113°F (5 to 45°C), operating or idle, -4 to 149°F (-20 to 65°C), storage, -40 to 149°F (-40 to 65°C), transport |
|---|---|
| Relative Humidity | 20to 80%, operating or idle; (noncondensing) up to 95%, storage or transport |

**Physical Characteristics**
| Height: | 3.54 inches (90 mm) |
|---|---|
| Width: | 19.29 inches (490 mm) |
| Depth: | 11.41 inches (290 mm) |
| | Internal power supply |

## Internal Floppy Disk Drive

| Storage Medium | 3½-inch floppy disks, double-density, double- or single-sided, 135 tracks per inch |
|---|---|
| Storage Capacity | 360 kilobytes per side (formatted MFM); 720 kilobytes total |
| Track Density | 135 tracks per inch |
| Head Positioning Mechanism | Stepper motor |
| Data Transfer Speed | 250 kilobits per second |

# APPENDIX F
# CONNECTOR PINOUT
# SPECIFICATIONS

## MODEM 1

DB9 Male
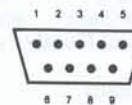
| 1 | -- | Carrier Detect | Input |
|---|---|---|---|
| 2 | -- | Received Data | Input |
| 3 | -- | Transmitted Data | Output |
| 4 | -- | Data Terminal Ready | Output |
| 5 | -- | Ground | --- |
| 6 | -- | Not Connected | --- |
| 7 | -- | Request To Send | Output |
| 8 | -- | Clear To Send | Input |
| 9 | -- | Ring Indicator | Input |

## MODEM 2

DB9 Male
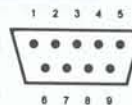
| 1 | -- | Not Connected | --- |
|---|---|---|---|
| 2 | -- | Received Data | Input |
| 3 | -- | Transmitted Data | Output |
| 4 | -- | Data Terminal Ready | Output |
| 5 | -- | Ground | --- |
| 6 | -- | Not Connected | --- |
| 7 | -- | Request To Send | Output |
| 8 | -- | Not Connected | --- |
| 9 | -- | Not Connected | --- |

## SERIAL 2

DB9 Male
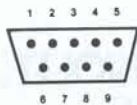
| | | | I/O |
|---|---|---|---|
| 1 | -- | Carrier Detect | Input |
| 2 | -- | Received Data | Input |
| 3 | -- | Transmitted Data | Output |
| 4 | -- | Data Terminal Ready | Output |
| 5 | -- | Ground | --- |
| 6 | -- | Data Set Ready | Input |
| 7 | -- | Request To Send | Output |
| 8 | -- | Clear To Send | Input |
| 9 | -- | Synchronous Clock | Input |
| -- | -- | Synchronous Clock | Output |

## PARALLEL PRINTER

DB25 Female
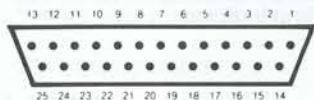
| | | | I/O |
|---|---|---|---|
| 1 | -- | Strobe | Output |
| 2 | -- | Data 0 | -- |
| 3 | -- | Data 1 | -- |
| 4 | -- | Data 2 | -- |
| 5 | -- | Data 3 | -- |
| 6 | -- | Data 4 | -- |
| 7 | -- | Data 5 | -- |
| 8 | -- | Data 6 | -- |
| 9 | -- | Data 7 | -- |
| 10 | -- | Not Connected | -- |
| 11 | -- | Busy | Input |
| 12-17 | -- | Not Connected | -- |
| 18-25 | -- | Ground | -- |

## MIDI OUT

5-pin DIN female

| 1 | -- | THRU Transmit Data |
|---|---|---|
| 2 | -- | Shield Ground |
| 3 | -- | THRU Loop Return |
| 4 | -- | OUT Transmit Data |
| 5 | -- | OUT Loop Return |

## MIDI IN

5-pin DIN female

| 1 | -- | Not Connected |
|---|---|---|
| 2 | -- | Not Connected |
| 3 | -- | Not Connected |
| 4 | -- | IN Receive Data |
| 5 | -- | IN Loop Return |

## MONITOR

13-pin DIN        {art D.6}

| 1 | -- | Audio Out |
|---|---|---|
| 2 | -- | Composite Video |
| 3 | -- | Clock Select |
| 4 | -- | Monochrome Detect/Clock In |
| 5 | -- | Audio In |
| 6 | -- | Green |
| 7 | -- | Red |
| 8 | -- | Reserved |
| 9 | -- | Horizontal Sync |
| 10 | -- | Blue |
| 11 | -- | Monochrome |
| 12 | -- | Vertical Sync |
| 13 | -- | Ground |
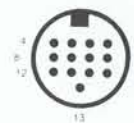
# TELEVISION

Shielded connector

| | | |
|---|---|---|
| Core | -- | RF Modulated Video |
| Shield | -- | Ground |
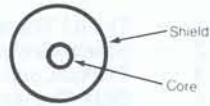


# FLOPPY DISK

14-pin DIN female

| | | |
|---|---|---|
| 1 | -- | Read Data |
| 2 | -- | Side 0 Select |
| 3 | -- | Ground |
| 4 | -- | Index Pulse |
| 5 | -- | External Drive Select |
| 6 | -- | Internal Pull-up |
| 7 | -- | Ground |
| 8 | -- | Motor On |
| 9 | -- | Direction In |
| 10 | -- | Step |
| 11 | -- | Write Data |
| 12 | -- | Write Gate |
| 13 | -- | Track 00 Detect |
| 14 | -- | Write Protect |

# ACSI DMA

ACSI Interface, DB 19 Female

| | | |
|---|---|---|
| 1 | -- | Data 0 |
| 2 | -- | Data 1 |
| 3 | -- | Data 2 |
| 4 | -- | Data 3 |
| 5 | -- | Data 4 |
| 6 | -- | Data 5 |
| 7 | -- | Data 6 |
| 8 | -- | Data 7 |
| 9 | -- | Chip Select |
| 10 | -- | Interrupt Request |
| 11 | -- | Ground |
| 12 | -- | Reset |
| 13 | -- | Ground |
| 14 | -- | Acknowledge |
| 15 | -- | Ground |
| 16 | -- | A1 |
| 17 | -- | Ground |
| 18 | -- | Read/Write |
| 19 | -- | Data Request |
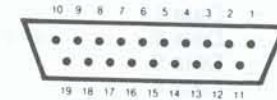
# CARTRIDGE

40-pin PCB Edge Connector, Female

```
 1  --  +5 VDC
 2  --  +5 VDC
 3  --  Data 14
 4  --  Data 15
 5  --  Data 12
 6  --  Data 13
 7  --  Data 10
 8  --  Data 11
 9  --  Data 8
10  --  Data 9
11  --  Data 6
12  --  Data 7
13  --  Data 4
14  --  Data 5
15  --  Data 2
16  --  Data 3
17  --  Data 0
18  --  Data 1
19  --  Address 13
20  --  Address 15
21  --  Address 8
22  --  Address 14
23  --  Address 7
24  --  Address 9
25  --  Address 6
26  --  Address 10
27  --  Address 5
28  --  Address 12
29  --  Address 11
30  --  Address 4
31  --  *ROM Select 3
32  --  Address 3
33  --  *ROM Select 4
34  --  Address 2
35  --  *Upper Data Strobe
36  --  Address 1
37  --  *Lower Data Strobe
38-40  --  Ground
```



# MOUSE/JOYSTICK 0

DB9 Male

```
1  --  XB/Up
2  --  XA/Down
3  --  YA/Left
4  --  YB/Right
5  --  Middle Button/Joystick Up
6  --  Left Button/Fire
7  --  +5 VDC
8  --  Ground
9  --  Right Button/Joystick1 Fire
```
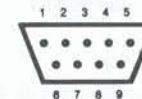


# JOYSTICK 1

DB9 Male

```
1  --  Up
2  --  Down
3  --  Left
4  --  Right
5  --  Reserved
6  --  Fire Button
7  --  +5 VDC
8  --  Ground
9  --  Not Connected
```
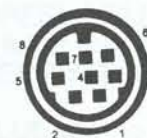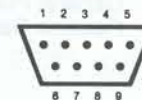
## STEREO AUDIO OUTPUT

Dual Jacks

Tip      --   Audio
Shield   --   Ground


Shield
Core
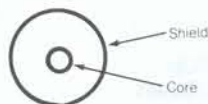
## LAN

8 pin Mini-DIN female RS-422

| | | | |
|---|---|---|---|
| 1 | -- | Handshake Output | Output |
| 2 | -- | Handshake Input or Internal Clock | Input |
| 3 | -- | *Transmit Data | Output |
| 4 | -- | Ground | --- |
| 5 | -- | *Received Data | Input |
| 6 | -- | Transmitted Data | Output |
| 7 | -- | General Purpose Input | Input |
| 8 | -- | Receive Data | Input |

# APPENDIX G
# POWER CONNECTION
# IN THE UNITED KINGDOM

## MAINS PLUG

In the United Kingdom, the Atari MEGA STE computer operates on 240VAC, 50 Hz mains supply. The wires in the main lead of the MEGA STE are colored as follows:

Green/Yellow  --  Earth (E)
Blue          --  Neutral (N)
Brown         --  Live (L)


Green/Yellow
Blue
Fuse
Brown
Cord Grip
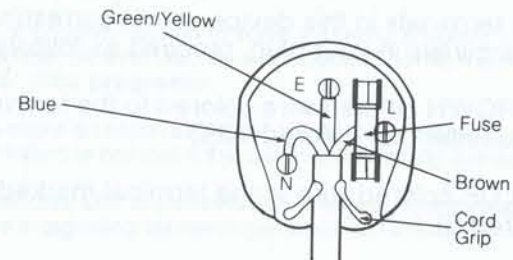
If the colors of the wires do not correspond to the colored markings identifying the terminals in your plug, proceed as follows:

1. Connect the GREEN/YELLOW wire to the terminal in the plug marked by the letter E or by the safety earth symbol, or colored GREEN or GREEN/YELLOW.

2. Connect the BLUE wire to the terminal marked with the letter N or colored BLACK. Connect the BROWN wire to the terminal marked with the letter L or colored RED.

3. If you use a 13-amp (BS1363), you must fit a 3-amp fuse. If you use any other type of plug, you must fit a 3 or 5-amp fuse in either the plug, the adapter, or on the distribution board.

# MAINS PLUG ADAPTER

The wires in the mains lead are colored in accordance with the following code:

Blue      —    Neutral (N)
Brown   —    Live (L)
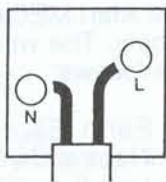


If the colors of the terminals in this device do not correspond with the colors of the terminals in your plug, proceed as follows:

1. Connect the BROWN colored wire colored to the terminal marked with the letter L or colored RED.

2. Connect the BLUE colored wire to the terminal marked with the letter N or colored BLACK.

3. If you use a 13-amp (BS1363), you must fit a 5-amp fuse. If you use any other type of plug, you must fit a 5-amp fuse in either the plug, the adapter, or on the distribution board.

# GLOSSARY

**.ACC** The desk accessory extension.

**ACSI** Atari Computer System Interface. ACSI is a hardware and software control procedure used to connect devices to the computer's Hard Disk port (DMA channel).

**active window** The window on GEM Desktop that is currently available for desktop operations such as selecting, copying, moving, and deleting items. The active window is the only window that you can scroll, update, move, or resize.

**alert box** A dialog box designed to bring something to your attention. Alert dialog boxes are punctuated with stop signs, question marks, or exclamation points.

**.APP** An executable GEM program file extension.

**application** A program written to solve a specific problem or produce a specific result, and can be executed by a computer. That is, the computer is applied to the task. (See **program**.)

**back up** To make an archive copy of a disk or file. Backing up disks ensures that information is not lost if the disk is accidentally damaged or erased.

**baud** The standard unit of transmission speed of data through a modem, calculated in signaling elements per second.

**baud rate** The speed at which data are transmitted from one source to another, usually from one computer through a modem to another computer.

**bee icon** The icon displayed on screen whenever the computer transfers or retrieves information from the disk drive. You cannot proceed to another action while the bee icon is on screen.

**bit** The smallest unit of computer data (a **bi**nary dig**it**). Eight bits equal one byte. (See **byte**.)

**boot** Initial system load procedure. If the procedure for loading your system is in ROM, booting is accomplished by switching on your system. (See **coldstart** and **warmstart**.)

**boot disk** A disk containing the system files needed to boot a computer. (Not needed for MEGA STE computers, since all MEGA STE system files are in ROM.)

**busy light** The light on a disk drive indicating that the drive is reading from or writing to a disk.

**byte** A unit of computer data. Each byte consists of eight bits, providing 256 possible values. For example, the letter "a" is stored in memory as one byte. (See **bit** and **kilobyte**.)

**cartridge** A device (usually containing files and data in ROM) that plugs into the cartridge slot. Cartridge programs load instantly and do not use any of the computer's Random Access Memory to load. The cartridge in the cartridge slot is designated by the c: identifier.

**CD-ROM drive** A computer-controlled device that reads high-capacity optical discs and sends the output to the computer.

**click** To quickly press and release a mouse button. A click on the left mouse button selects items on the desktop. (See **double-click** and **shift-click**.)

**clock/calendar** The file-dating feature built into the computer and set from the Control Panel.

**close box** The small box in the upper left corner of an active window, used to close the current window.

**coldstart** Booting the computer by switching the power off and on or pressing **[Control] [Alternate] [Right Shift] [Delete]**. A coldstart can be initiated while the computer is running by switching off the power for 10 seconds, then switching it back on. A coldstart completely initializes the system. (Compare to **warmstart**.)

**configure** To customize the computer system to your preferences by setting colors, baud rate, confirmation, and so on.

**control panel** A desk accessory used to alter and set many of the system's features and options, such as the color palette, mouse and keyboard response, and the clock/calendar.

**copy** A command used to duplicate the information in a file, folder, or disk.

**current directory** The directory currently displayed in a window, as specified by the pathname in the move bar.

**cursor** A marker that appears on the screen to indicate the position of the next action. Text cursors are usually either a blinking block or a solid vertical line. The mouse pointer is sometimes called a cursor.

**daisywheel printer** A type of printer that uses a rotating wheel to impact characters against a ribbon and onto the paper.

**data file** A collection of information used by an application. Data file icons look like sheets of paper with one folded corner.

**default** A value, option, or setting that the computer automatically selects until you direct it otherwise. For example, items on the desktop are shown as icons, by default, unless you change the option in the View menu.

**desk accessory** An application loaded into memory from the startup disk when you switch on your computer. Desk accessories can be accessed either directly from the desktop or from an application that uses the menu bar format. Desk accessory files are identified by the .ACC extension.

**desktop** The main screen for the computer. It includes (but is not limited to) the menu bar, two disk icons, and the trash icon.

**destination disk** The disk that information is written to during a copy procedure.

**dialog box** An interactive message box that the computer uses to communicate with you. To exit a dialog box, you must acknowledge the message or choose an option.

**directory** A list of files. (See **current directory**, **root directory**, and **subdirectory**.)

**disk drive** The most common data storage device. The computer uses the disk drive to read information from or write information to a disk.

**disk identifier** The letter in a pathname indicating which disk is in use. The letter is always followed by a colon (:) and a backslash (\). A disk identifier appears by itself in the move bar of a directory window when the root directory displays.

**diskcopy** A procedure that duplicates data from one disk to another disk.

**DMA port** A high-speed peripheral port for attaching a hard disk drive, CD ROM drive, or other DMA device to the computer. DMA is an acronym for Direct Memory Access. (See **ACSI**.)

**document** A collection of data you create or modify using an application. Documents can contain text, graphics, or both. Also called a file. (See **file**.)

**document type** See **extension**.

**dot matrix printer** A type of printer that forms characters and graphics by printing small dots.

**double-click** Two quick clicks on a mouse button. A double-click on the left mouse button opens a file, disk, or folder.

**double-sided** Allowing use of both sides of a disk. A double-sided disk has both sides of its magnetic media certified as safe for storing data. A double-sided disk can store up to 726,016 bytes of data. A double-sided disk drive can read, write to, and format both single- and double-sided disks. (Compare to **single-sided**.)

**drag**  To move an item on the desktop. To drag, point the mouse pointer at an item, press and hold down the left mouse button, and move the mouse. While the item is being dragged, a ghost outline of the item appears on the desktop.

**drop-down menu**  A list of options that appears below a menu heading when you touch the menu bar heading with the mouse pointer.

**editable text field**  A dashed line in a dialog box where you can type characters.

**expansion connector**  An internal connector that permits installation of additional specialized hardware with your computer. The signals provided include a direct extension of the microprocessor bus.

**extension**  The characters to the right of the period in a filename. Extensions that represent the file type are mandatory. An extension can have up to three characters (letters and numbers). Some common extensions are .ACC, .APP, .PRG, .TOS, and .TTP.

**file**  A collection of information that can be stored on a disk or in the computer's memory.

**file selector**  A dialog box, opened from an application, that lists files and folders. The File Selector dialog box can be accessed from the application.

**file specification**  The search criteria used in a file selector.

**filename**  The name of a file, made up of a mandatory name and an extension, separated by a period. (See **extension** and **filename**.)

**floppy disk**  A magnetic medium used to store information generated on a computer. The disk is made of material similar to audio tape.

**folder**  A subdirectory for storing files and other folders. A folder appears as a folder icon (manila folder) on the desktop, or with a folder symbol (small box) next to its name when shown as text.

**format**  To set the circular patterns on a floppy disk that enable it to store information. Formatting erases all information previously stored on the disk.

**full box**  The small box in the upper right corner of a window, used to change the size of a window alternately between a smaller screen and a full-screen.

**function keys**  The keys [F1] through [F10] along the top edge of the computer keyboard. Many applications use these keys to perform special actions.

**GEM**  The portion of TOS that creates and manages all the windows, icons, menus, and graphics features of the MEGA STE computer. GEM is an acronym for Graphics Environment Manager.

**hard disk**  A device used to store data on a magnetic surface. A hard disk drive can store far more data than a floppy disk drive, and can read and write information many times faster.

**hardware**  The actual physical apparatus of your computer system. (Compare to **software**.)

**icon**  A picture on the desktop that represents a disk, file, folder, or procedure. The disk icon looks like a filing cabinet; the data file icon looks like sheets of paper with one corner folded; the program file icon looks like a small desktop; the folder icon looks like a manila folder; the trash icon looks like a trash can; and the bee icon looks like a bee.

**information line**  The line at the top of a directory window immediately below the move bar, telling how many bytes are used by the items listed in the directory, and how many items there are.

**initialize**  To set the computer to its starting configuration.

**input/output (I/O)**  The communication process that takes place between the computer and a peripheral device such as a disk drive or printer. Input is information the computer receives (that is, it is sent in); output is information the computer transmits (that is, it is sent out).

**interface**  An electronic connection that allows communication between the computer and a peripheral.

**kilobyte**  1,024 bytes of data. (See Byte.)

**laser printer**  A high-speed, high-resolution printer that electrophotographically produces an image on paper. The Atari SLM804 is a laser printer.

**LAN (Local Area Network)**  is a communications channel that connects computers and other devices together.

**megabyte**  1,024 kilobytes of data. The abbreviation for megabyte is MB. (**See kilobyte**.)

**memory**  The internal or external media that the computer uses to store data and programs. There are two kinds of computer memory: RAM (Random Access Memory) and ROM (Read-Only Memory). RAM loses its data if the power is turned off; ROM retains its information whether the computer has power or not.

**menu bar**  A bar at the top of the desktop. When you first start up your system, the headings on the menu bar are Desk, File, View, and Options. Other application programs may have different headings in the menu bar.

**MIDI** A standard interface designed to connect a computer to a number of electronic musical devices. MIDI is an acronym for Musical Instrument Digital Interface.

**modem** A device that enables you to connect your computer directly to telephone lines in order to establish a communication link with other computers and on-line information networks. Also, the port on the computer for connecting a modem or other serial device. Modem is a contraction of MOdulator/DEModulator.

**monitor** See **video display**.

**mouse** A small, hand-manipulated device connected to your computer that controls the movement of a pointer on the desktop. As you slide the mouse, a small roller on the bottom tracks the movements. The mouse has two buttons. The left button is used for most desktop operations. The right button is used with some applications.

**move** To move files or folders from their original locations to a different folder and/or disk.

**move bar** The bar at the top of an active window. Use the move bar to drag a window to a new location on the desktop.

**MS-DOS** Microsoft Disk Operating System. An operating system used with IBM PC's and compatibles. Floppy disks formatted on the MEGA STE are compatible with PC systems using MS-DOS and 3½-inch floppy drives.

**name** The identifying name of a file. A name is mandatory and can have up to eight characters (letters and numbers).

**NEWDESK.INF** The file that holds your customized desktop data. NEWDESK.INF must be in the root directory of the boot disk in order for the computer to read it during booting.

**option** An item in a drop-down menu that enables you to manipulate the desktop and the elements on it.

**parallel port** An interface which accepts the simultaneous transmission of more than one bit. (See **serial port**.)

**parameter** Data given to a program that controls its operation.

**pathname** The list of items that specifies the path through the subdirectories on the disk to the current directory. A pathname consists of a disk identifier and a string of folders separated by backslashes (for example A:\document\text\). It may also contain a file specification.

**peripheral** Any external device, such as a disk drive, monitor, or printer, that you connect to your computer.

**pixel** A dot on the computer's video display. Pixels are arranged in a grid, and set to either 320 x 200, 640 x 200, or 640 x 400 dots per grid, depending on your screen resolution. Pixel is short for picture element.

**pointer** The small image on the screen that moves when you move the mouse. The mouse pointer is usually an arrow, but it may change to other shapes such as a bee icon during certain procedures.

**.PRG** A GEM application file extension.

**program** A detailed and explicit set of instructions for accomplishing some purpose, expressed in a language that can be read by a computer. (See also **Application**.)

**program file** A file that contains an applications program. The program file icon looks like a small desktop. Double-click the left mouse button on a program file to execute the program.

**prompt** Any symbol or message on screen indicating that the computer is awaiting input from the user.

**RAM** The part of the computer's memory used to write data to and read data from a disk. When you work with your computer, the information displayed on the monitor screen is in RAM. RAM is an acronym for Random Access Memory.

**RGB** The color signals that the computer produces to create its special color display. The combinations of 16 different intensities each of red, green, and blue enable you to create 4,096 colors with the MEGA STE computer. RGB stands for Red, Green, Blue.

**ROM** The part of the computer's memory containing the operating system. ROM never changes, and retains its information with or without power to the computer. ROM is an acronym for Read-Only Memory.

**root directory** The first directory displayed when you open a disk. The root directory is specified by the disk identifier alone (such as A:\).

**RS232** An industry-standard connection for serial peripherals. The RS232 port on the back of the computer is labeled "Modem." This port is sometimes referred to as the serial port.

**scroll** Scrolling allows different areas of a window to be displayed. You can scroll left, right, up, or down.

**scroll bar** One of two bars that border an active window on the bottom and right edges. The scroll bars contain the scroll arrows and are shaded if part of the window's contents cannot be seen. The larger the shaded portion, the greater the percentage of the window's contents that is hidden from view.

**sector**  A section of a track on a hard or floppy disk. Sectors are usually 128, 256, 512, or 1024 bytes long. On a floppy disk, the sectors are 512 bytes long. (See **track**.)

**selecting**  Clicking the left mouse button on an icon, file, or menu option. Selected icons and files highlight to indicate the selection.

**serial port**  An interface which accepts the transmission of data one bit at a time. (See **parallel port**.)

**shift-click**  Clicking with the mouse button while holding down the **[Shift]** key.

**single-sided**  Allowing use of one side only of a floppy disk. A single-sided disk has only one side of its magnetic media certified as safe for storing data. A single-sided disk can store up to 357,376 bytes of data. A single-sided disk drive can read, write to, and format only single-sided disks, or double-sided disks that have been formatted as single-sided. (Compare to **double-sided**.)

**size box**  A small box at the lower right corner of a window, used to change the window's size or shape.

**sizing**  The process of changing the size or shape of a window.

**software**  The instructions used by your computer to process data. (Compare to **hardware**.)

**source disk**  The disk from which information is copied during a Diskcopy procedure.

**startup disk**  A disk that usually contains desk accessories, applications, and a desktop configuration (DESKTOP.INF) file. Insert a startup disk in the floppy drive before the computer is switched on.

**subdirectory**  A directory inside a directory; often called a folder. (See **root directory**.)

**.TOS**  The TOS application file extension.

**TOS**  The operating system for the MEGA STE computer.

**track**  One of the circular sections of a disk that can store data. Each track is made up of smaller sections called sectors. (See **sector**.)

**trash can**  GEM Desktop icon used to permanently delete files or folders from the desktop.

**.TTP**  The TOS-takes parameters file extension.

**video display**  A device containing a video screen that you and your computer use to communicate.

**VMEbus**  allows you to connect standard VME devices for high speed asynchronous parallel data transfer.

**warmstart**  Rebooting the computer by pressing the Reset button on the back of the computer or pressing **[Control] [Alternate] [Delete]**. A warmstart only partially initializes the system. (Compare **Coldstart**.)

**wildcard**  A question mark (?) or asterisk (*) character used in a file specification to specify the search criterion. "?" replaces one character; "*" replaces all characters to the end of the first name or extension.

**window**  The work area that the computer uses to display files and folders or to run programs. Up to four directory windows can be open on the desktop at one time.

**write-protect**  To mechanically prevent a disk from being formatted, erased, or written to. To write-protect a disk, move the write-protect tab so you can see through the notch.

# CUSTOMER SUPPORT

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Atari user groups also provide outstanding assistance. To receive a list of Atari user groups in your area, send a self-addressed, stamped envelope to an address below.

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