

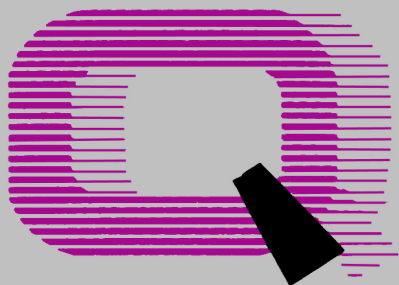
EasyDriveTM

COMPLETE HARD-DISK MANAGEMENT KIT

INCLUDES:

*EasyDrive Disk and
Application Guide*

ProDOS User's Manual



Quality Computers

P O W E R F O R P E R F O R M A N C E

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EasyDrive 1.5 Manual

by

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EasyDrive Introduction

Welcome to EasyDrive! EasyDrive is a convenient and time-saving storage management system for your hard drive or 3.5" disk. EasyDrive will help you get the most out of your computer quickly, while requiring you to learn a minimum about pathnames and technical operating system details.

EasyDrive features:

1. Self installation. EasyDrive will load itself onto your hard drive or 3.5" disk so that when you boot you will immediately be at EasyDrive's Main Menu. If you are starting with a new drive, EasyDrive can install the operating system for you also. If you are installing to a hard drive that is already set up, EasyDrive will not disrupt what is already installed.
2. Automatic installation of popular software applications. EasyDrive comes with a significant database of installation scripts for popular Apple software. Simply choose the application from a list, and follow EasyDrive's prompts to install your favorite program onto your hard drive.
3. An easy-to-use launcher. The hub of the EasyDrive system is a quick and simple launcher menu for executing the software on your hard disk. This launcher is compatible with ProDOS 8, ProDOS 16 and GS/OS (System 4.0).
4. A point-and-shoot file maintenance program. This program is designed to quickly and easily perform necessary functions, such as deleting or copying files

on a large storage device. All commands are implemented in a way that makes functions such as renaming a file or creating a subdirectory as visually meaningful as possible.

5. An image backup program. This module will swiftly save an image of one ProDOS volume to a file on any other volume. This makes it very efficient in backing up a hard drive to 3.5" or 5.25" diskettes or for backing up your ramdisk to your hard drive.
6. A hard drive optimizer. This program will correct the problem of file fragmentation on any ProDOS volume. It works regardless of the size of your hard drive or how much ram memory you have. This can greatly improve the performance of your drive!
7. A convenient index program. This utility will produce a list of all the files on your hard drive in sorted order and indexed by subdirectory. This list can be used to quickly find where a file is on your hard disk.

EasyDrive is designed to get you up and running in as little time as possible. EasyDrive is available on 3.5" disk media upon request.

REQUIREMENTS

1. Apple //c, //e, IIGS or compatible computer.
2. 80 column card with 128k of memory.
3. 3.5" diskette drive or ProDOS compatible hard drive.

Chapter 2

GETTING STARTED

EasyDrive can install itself on your hard drive along with the operating system. This is a very simple process, however you must be sure of your answers to the prompt questions. We recommend you read through the installation instructions once before actually beginning. This will familiarize you with the prompts and insure that there are no surprises along the way.

Before you begin - be sure to make a backup copy of *both* sides of the original EasyDrive diskette. It is not copy-protected and can be easily copied by any Apple copy program. When doing the install, use the backup copy and not the original disk.

NOTE: You cannot install EasyDrive by copying the files to the hard drive with a copy program. Several files are modified by our installation program. Make sure to install EasyDrive using the following instructions. GS/OS users must install the operating system using the GS/OS installer before installing EasyDrive using the following instructions.



NOTE: GS/OS users - Our install program does NOT support the installation of GS/OS (System disk 4.0) to your hard disk. GS/OS has its own installer which should be used. DO NOT use the ProDOS 16 option to install GS/OS to your hard disk. Boot your GS/OS system disk and execute the installer on the TOOLS disk. Only after you install GS/OS should you install EasyDrive using the 'NONE' option for the operating system.



Follow these step-by-step instructions:

1. Insert the EasyDrive disk into drive one (either 3.5" or 5.25" drive) and boot on it. This can be accomplished by getting to the BASIC prompt (']') and typing 'PR#n' where n is the slot number of the drive you are booting.
2. The EasyDrive installation program will begin by scanning all available drives and displaying a list on the screen. Use the arrow keys to select the volume you wish to install to and press the <RETURN> key.
3. Another screen will appear asking you which operating system you wish to install on the screen. You must be very sure of what you select at this prompt.
 - A. If your hard drive is already bootable select 'NONE' from this prompt. Installation will proceed.
 - B. If you have an Apple //e, //c or clone, you will only see one other option (ProDOS 8). If you wish to install ProDOS 8 to your disk, select this option and the installation will proceed.
 - C. If you have an Apple IIGS you will see three prompts (ProDOS 16, ProDOS 8, and NONE). If you wish to install ProDOS 16 (System 3.2 or earlier) to your disk, select this option. You will be prompted to insert your system disk. Insert the ProDOS 16 System Disk into any drive (removing the EasyDrive disk if necessary) and press the <Return> key. When installation of the operating system is finished you will be prompted to insert the EasyDrive disk once again, if you have removed it.

NOTE: The menu option 'ProDOS 16' refers to System 3.2 and earlier. This installation program will only install the parts of the operating system which are necessary to run EasyDrive. To install the rest of the parts of the operating system, go to the INSTALL option on the main menu after installation of EasyDrive is complete and select the System Disk version that you are working with from the database.



4. If you are installing from a 5.25" EasyDrive disk the installation process will ask you to turn the diskette over in a short while.
5. When this process completes you will be taken to the EasyDrive main menu. You may now remove the EasyDrive disk and store it in a safe place. Next time you boot your system you should come immediately to this menu.

The EasyDrive Main Menu is the hub of the EasyDrive system. The main portion of the screen is split into two sides. The left side of the screen contains the user menu with items on your hard drive which can be executed. Initially this menu will only contain a few EasyDrive utilities. The right side of the screen contains a graph of space used on the hard drive and some status information. Along the top of the screen is a horizontal menu bar containing frequently used menu items. A full explanation of all of the features will follow in the next few chapters.

NOTE: All EasyDrive files (except for EZDRV.SYSTEM) are located in a subdirectory named EZDRV by the install program. If you feel you would like to save disk space you may delete the file named EZ.DATA in this subdirectory. This is the file which contains the database of installation scripts. When EasyDrive needs



this file it will ask for you to insert a disk which contains it. Deleting the EZ.DATA file is recommended when running EasyDrive on 3.5" drives.

USING EASYDRIVE

Getting around on the EasyDrive menu is fairly simple. First you need to familiarize yourself with the menu cursor. The menu cursor is used to select the function or application you wish to use. Normally when EasyDrive is first run, the menu cursor will be highlighting the item at the top of the user menu on the left hand side of the screen. Knowing the location of the menu cursor can be very important since the rules for its movement change depending on whether it is highlighting something on the user menu or something on the horizontal bar menu at the top of the screen. Pressing the <ESC> key will toggle the menu cursor from the top menu to the user menu and back.

If the menu cursor is located on the user menu the following rules apply:

- Using the up and down arrow keys or moving the mouse will move the menu cursor through the list of applications.
- Pressing any alpha-numeric or special character key will send the menu cursor to the next available item in the menu that starts with that character.
- Pressing the <RETURN> key or a single click on the mouse button will select the currently highlighted item for execution. Or if the item is a menu, it will display the new menu selections.
- Pressing the <ESC> key or double clicking on the mouse button will send the menu cursor to the horizontal menu at the top of the screen.

Pressing <CTRL><C> will exit EasyDrive and leave you in BASIC.

If the menu cursor is located on the horizontal menu the following rules apply.

- Using the right and left arrow keys or moving the mouse will move you through the list of menu items.
- Pressing the first letter of any function will cause the menu cursor to highlight that function.
- Pressing the <RETURN> key or a single click on the mouse button will select the currently highlighted menu item. If there are sub-selections to be made for this function a pull-down menu will appear, otherwise the function will be performed immediately.
- Pressing the <ESC> key or double clicking on the mouse button will send the menu cursor to the user menu at the left hand side of the screen.
- Pressing <CTRL><C> will exit EasyDrive and leave you in BASIC.

In most cases a message will be displayed at the bottom of the screen showing all or most of the valid keystrokes available. For mouse users, you must simply remember that a single click on the mouse button will always be the same as pressing the <RETURN> key on the keyboard, and a double click is always the same as pressing the <ESC> key on the keyboard.

INSTALLING SOFTWARE

Two options are available for installing software to your hard disk. They are both accessed from the horizontal menu bar at the top of the EasyDrive menu screen.

INSTALL This option will allow you to access the database of installation scripts that comes with EasyDrive. Selecting this option will copy the software you want to install from the original diskettes into appropriate subdirectories on your hard disk and create a menu item in the currently active menu.

EASYADD This option will allow you to search through your hard disk for executable filenames, and add entries for them in the currently active menu. EasyAdd assumes the software is already installed on the hard drive.

USING INSTALL

If the menu cursor is located on the user menu, press the <ESC> key to place it on the horizontal menu at the top of the screen. Follow these instructions to install a new piece of software to your hard drive.

1. Select **INSTALL** from the horizontal menu by highlighting it and pressing the <RETURN> key.
2. If the EZ.DATA file is NOT present in the EZDRV subdirectory, EasyDrive will prompt you to type in the pathname for the location of the file. Please insert a disk that contains the file EZ.DATA and type in the pathname.

3. A menu with a list of installation scripts will be displayed on the right side of the menu. You may select one or more of these scripts by pressing the right or left arrow keys to mark/unmark selections. If multiple installation scripts are marked, the applications will be installed one after the other.
4. When you are finished selecting applications to install, press the <ESC> key and answer Yes to the safety prompt.
5. You will then be asked which volume you wish to install this application to. The default will be the same volume that EasyDrive is installed on. If you wish to install the application to a volume other than the default (for instance a second partition on the same hard drive) press the space bar until the volume you want is displayed.
6. If you have not already put the original disk for the software you are installing in a disk drive, you will be prompted to do so. If you are not installing the software from the original disks you have the opportunity at this point to enter a new pathname for EasyDrive to look for the files in.
7. In the case of software that occupies more than one disk, EasyDrive will continue to prompt you to insert the original disks by volume name until the entire application is installed. You may press <ESC> at any of the prompts to abort the installation if necessary.
8. After the installation is complete you will be returned to the EasyDrive menu. You should notice that each of the applications you added now have items on the menu. If you aborted the installation the application will not have an item on the menu.

NOTE: If you have multiple menus, the menu item will be added to the menu panel that was active when **INSTALL** was invoked.



If you already have an application on the hard disk that you want to add to the menu, or the application you wish to add does not have an entry in the scripts database you can still create a menu item for it using EasyAdd.

Before you select EasyAdd you need to make sure that the program is installed on the hard drive properly. You can do this by using TreeSurgeon to create subdirectories and copy file manually onto the volume.

NOTE: Some programs come with their own installation programs or GS/OS installation scripts. Please consult your applications manual for specifics about hard drive installation. In any case it is preferable to install your software in a subdirectory and not in the root volume directory.



To add the application to the menu follow these instructions:

1. Select **EASYADD** from the horizontal menu by highlighting it and pressing the <RETURN> key.
2. EasyAdd will scan the default drive for directory information and then display its selection screen. The cursor will initially come up on the right side of the screen. Use the arrow keys to select the subdirectory you wish to view and press the <RETURN> key.
3. This screen is divided into two sides. The left hand side contains a list of files available in the current directory. The right hand side has a display of the directory tree

structure (a representation of how the subdirectories are arranged on your drive). Valid key commands are shown at the bottom of the screen.

4. If you installed the application to a different volume you will first have to select that volume. Press the <TAB> key to move the cursor from the left side of the screen to the subdirectory tree on the right side of the screen. Then press the <?> (Question mark) key. All online drives will be searched and a list of available volumes will be displayed. Select the correct volume and press the <RETURN> key.
5. You will then want to move to the subdirectory which contains your executable file. If the cursor is not already on the right side of the screen press the <TAB> key to move the menu cursor from the left side of the screen to the subdirectory tree on the right side of the screen. Use the arrow keys (or the mouse) to highlight the subdirectory which contains your executable file.

NOTE: EasyAdd will only list two levels of subdirectories on the screen at any time. When a level of subdirectories exists that cannot fit on the screen, EasyAdd will denote this with a RIGHT ARROW ('->') on the rightmost side of the screen. You can still access subdirectories that are deeper than two levels by pressing the right arrow key while highlighting a subdirectory that has a right arrow after it. The tree will be redrawn to show the lower level of subdirectories.



NOTE: Additionally, you can still access subdirectories that do not appear on the screen because they extend below the bottom line of the tree display. EasyAdd denotes that there are additional 'sibling' subdirectories by placing a plus sign and a dash ('+-') in front of the directory name. The



last sibling on a level is denoted by two dashes ('—'). To access these directories simply press the down arrow key when at the bottom of the screen.

6. Press the <TAB> key once again to move the cursor from the right side of the screen to the catalog at the left side of the screen. EasyAdd will display all of the files that are contained in the subdirectory that you selected. Use the arrow keys to highlight the executable file and press the <RETURN> key.

NOTE:



Be very careful when selecting an executable file. Be absolutely sure that the file you choose is the starting file for the application. You may need to refer to the documentation that came with the application to find out which file this is. EasyAdd does not protect you from mistakes here (a file with ANY filetype can be added as an executable file). A few simple guidelines can narrow down your choices here if you are careful.

- a. Many executable files end with the suffix '.SYSTEM' and have a filetype of 'SYS' (ie. APLWORKS.SYSTEM).
- b. Most executable files have a very similar name to the name of the package (ie. MULTISCRIBE.GS).
- c. Executable files under ProDOS 16 or GS/OS have a filetype of S16 and many times end with the suffix '.SYS16' (ie. MUSIC.SYS16).
- d. Many programs written in BASIC have

an executable file named 'START' with a filetype of 'BAS'.

NOTE: Basic programs (files with a filetype of 'BAS') may be added directly to the menu as executable files. There is no need to have a copy of BASIC.SYSTEM in the same subdirectory as the application. EasyDrive automatically notes the filetype and invokes BASIC.SYSTEM for you.



6. A prompt will appear asking you to enter the title for this menu entry. Type in a 25 character or less title that you wish to appear on the menu to denote this application and press the <RETURN> key. If you make a mistake, such as choosing the wrong executable file, you may press the <ESC> key to abort adding this entry.
7. If the entry is added correctly to the menu the program will respond 'Entry Confirmed'. Press any key to continue.
8. After you have added all of the entries you want press the <ESC> key to exit back to the EasyDrive menu.

DELETING APPLICATIONS

Occasionally you may want to free up some space on your hard drive or just remove an entry from the menu. This can be done quickly and easily from the EasyDrive menu using the DELETE function. Follow these steps to remove an application from the hard drive.

1. Select DELETE from the horizontal menu by highlighting the function and pressing the <RETURN> key.
2. A menu of currently installed applications will be displayed on the right hand side of the screen. You may select one or more applications to be deleted from the menu by using the right and left arrow keys to mark/unmark entries.
3. When you have selected all of the entries you want deleted press the <ESC> key and answer Yes to the safety prompt.
4. If the entry was added with INSTALL as opposed to EASYADD, EasyDrive will ask you if you want to delete the files as well as the entry. If you would like to delete the files from the hard drive answer YES to this prompt. Answering NO to this prompt will remove the item from the menu while leaving the files on the hard drive intact.
5. If the entry was a menu EasyDrive will ask you if you want to delete the menu file? Think carefully about this. If any other menus reference this menu file, deleting it will cause them to lose access to it. If you do not delete it, then creating a menu later that has the same name will

link you to this same menu. Press the <RETURN> key to delete the file or any other key to keep it.

6. After all of the menu entries that you selected are deleted you will be returned to the EasyDrive menu.

OTHER EASYDRIVE COMMANDS

Several functions are available from the EasyDrive horizontal menu.

Q

This function will simply display a copyright message and version number. Press any key to return to the horizontal menu.

MENU

This selection has two sub-selections: Add menu and Move Item. These sub-selections appear as a pull-down menu when the Menu function is chosen.

Add menu

The *Add menu* function will create a new menu for grouping applications. For instance, you can use the main menu for commonly used applications while a separate utilities menu holds all of your utility programs. Follow these procedures to create a new menu:

1. Select the *Add Menu* function from the pull-down menu.
2. A prompt will appear at the bottom of the screen asking for a name for the menu. Please enter a unique and descriptive name that is 12 characters or less and press the <RETURN> key. If you make a mistake or decide you don't want to create the menu press the <ESC> key to abort.
3. You will be returned to the EasyDrive menu. The new menu item should now be available.

NOTE: Each menu creates a new 'menu file' in the EZDRV subdirectory. This is why it is important that the menu name be unique in the creation of a new menu. If you use the name of a previously created menu no file will be created. Instead a new 'menu link' will be established (a menu item will be created that will invoke the existing menu file). There are no limits to the ways you can link menus. Most of the time you will want to include a menu link to the Main Menu in each new sub-menu.



NOTE: There is no limit to the number of menus you can create, except the limit imposed by the size of your hard drive.



Move Item

The *Move Item* function will allow you to re-arrange the order of items on a menu. Follow these directions for moving an item:

1. Highlight the *Move Item* function on the pull-down menu and press the <RETURN> key.
2. The menu cursor will be put back in the user menu and everything will appear as normal except for the 'Select an item to move:' prompt at the bottom of the screen. Use the up or down arrows to highlight the item you wish to move and press the <RETURN> key.
3. The prompt at the bottom of the screen will now read 'Use ARROW keys to relocate item'. Pressing the up or down arrows will now move the highlighted item up or down in the order of the menu items. Once you have

located the item where you want it to go press the <RETURN> key.

4. You will be returned to the normal EasyDrive menu. The item you just moved should remain right where you left it from now on.

NOTE: It is NOT recommended that you move items around on the menu frequently as doing so will decrease the performance of EasyDrive. This function does not change the physical location of data in the menu file, only the order that it is read. Therefore, if you make many item moves it is possible that the time to read these menu files will take more time as EasyDrive is thrashing through the file to find each item. If such a problem occurs for you, simply delete the menu file and start from scratch using the EasyAdd feature to add the menu items.



BOOT

The Boot function will allow you to boot a device in a particular slot. It normally have several sub-selections. The number will depend greatly upon the configuration of your machine. EasyDrive will search the slots of your machine looking for bootable devices when it is first executed. Each device will be represented by an item in the pull-down menu. Just select the slot to boot and press the <RETURN> key.

NOTE: GS users: Smartport devices that are mapped to alternate slots will not be bootable using this function. Only devices that have a physical card (built in to the motherboard or in a slot) will be available for boot using this function.



LAUNCH

This item is a convenience for executing programs without having to add them to the menu first. You **MUST** know the full pathname of the file before you can use this function. When you select Launch from the horizontal menu a prompt will appear at the bottom of the screen asking you to type the path of the application. Type in the **FULL** pathname of the application, including the volume name, subdirectories, and executable filename.

BACKUP/RESTORE

This utility is for creating image backups of any ProDOS volume. It will quickly save an image of your hard drive onto multiple 5.25" or 3.5" disks. It can also be used to save an image of your ramdisk onto your hard drive. It is extremely important to keep a backup of all of your important data. We recommend backing up your hard disk at least once a month. If you use your hard drive a lot you may want to use the backup utility more frequently.

Follow these step-by-step instructions for backing up your hard drive.

1. Select BACKUP/RESTORE from the user menu.
2. The initial screen will allow you to choose between doing a backup or a restore. Use the up or down arrow to choose the BACKUP function and press the <RETURN> key.
3. All drives will be scanned and a list of available volumes will appear on the screen on the SOURCE side. Select the volume name of the drive you wish to back up and press the <RETURN> key.
4. The cursor will move to the DESTINATION side of the screen after to Slot prompt. Type in the slot number of the destination device (limits: 1-7) and press the <RETURN> key.
5. The cursor will move to the drive prompt. Type in the drive number of the device you wish to back up to (limits: 1-2) and press the <RETURN> key.

NOTE: If you make a mistake at any of these prompts, you may press the <ESC> key to back up to the previous prompt.



6. The program will prompt you to insert a disk into the destination drive. It is recommended that the disk be previously formatted and blank.
7. If the disk that you insert is unusable for some reason (unformatted, or doesn't have enough room left) a prompt will inform you of this condition and allow you to format the disk or insert another disk for a retry. Press the <F> key to perform the format or any other key to retry.
8. After the backup program runs out of room on the first disk it will prompt you to insert each succeeding disk. Insert the disks and press the <RETURN> key to continue.

Before restoring a volume be very sure that you know what slot and drive you want to restore to. The restore function will completely cover whatever you currently have on the destination drive and replace it with the backup. To RESTORE a volume follow these instructions:

1. Select BACKUP/RESTORE from the user menu.
2. Select the RESTORE function from the initial screen.
3. Enter the Slot and Drive numbers for the devices of the source and destination disks.
4. BACKUP/RESTORE will prompt you to insert the backup disks one at a time.

NOTE: Be SURE that the drive you are restoring is the same drive (or identical type of drive) that you created the backup from. BACKUP/RESTORE does not support restoration of a backup to a different size drive or to a different drive that contains BAD BLOCK files.



The index utility produces a brief report about the contents of any ProDOS volume. This report is designed to make looking for a file on the hard drive quick and easy. The report lists filenames grouped by subdirectory. The filenames are listed in alphabetical order. This report can be sent to the screen or to a printer attached to your computer.

Follow these instructions to use the index utility:

1. Select INDEX from the user menu by highlighting it with the up or down arrow keys and press the <RETURN> key.
2. At the initial screen a list of all available mounted volumes will be listed. Please select the volume you wish to get the index report from by using the up or down arrows and press the <RETURN> key.
3. Next, INDEX will ask you which output device you wish to use (Screen or Printer). You also have the option of aborting the operation at this point. Select one of these options by using the up or down arrow keys and press the <RETURN> key.
4. If you selected 'Screen' from the menu the listing will be displayed on your monitor one page at a time. Do not be alarmed if the process seems to pause at times. Large subdirectories take longer to put into sorted order than small subdirectories.
5. If you selected 'Printer' from the menu another prompt will appear asking for the slot number of your printer.

This will normally be slot 1. Be sure that your printer is turned on and is aligned to print before answering this question. Enter the slot number of the printer and press the <RETURN> key. The report will begin printing on your printer.

NOTE: Subdirectories do not appear as filenames in the report. Subdirectory names appear as headings instead.



After the report is finished you will be returned to the EasyDrive menu.

TREE SURGEON

Tree Surgeon is a general purpose file maintenance program. It allows for most of the operations you might want to perform on any ProDOS volume. These operations are listed as follows:

- EXEC** - You may sometimes want to start a program without having to add it to the main menu and without having to remember its full pathname. With Tree Surgeon you can scan through the directory tree without memorizing pathnames and begin execution of any ProDOS system file.
- COPY** - The copy function allows you to copy files from place to place on your ProDOS drive or between ProDOS volumes. This will allow you to install software onto your hard drive that is not listed in the installation script database.
- RENAME** - This function allows you to change the name of any file on your hard drive.
- DELETE** - Delete allows you to get rid of files that you no longer want on the volume.
- UN/LOCK** - Locking or unlocking a file prevents you from accidentally damaging important files. If you lock a file you cannot delete or copy over it.
- VERIFY** - If you suspect a file of being physically damaged the verify command will check

it. If a bad block is encountered somewhere in the file a warning will be displayed.

- SEEK**
- This function will allow you to find files on your hard drive by name. If you can remember the filename but can't remember what subdirectory it is in, seek will find it and display the pathname for you. Seek can also find multiple matches on partial filenames.
- FORMAT**
- The format command will initialize any ProDOS volume for you.

TREE SURGEON LAYOUT

When first entering Tree Surgeon a list of volumes will be displayed on the right hand side of the screen. Use the up or down arrow keys to select the volume you wish to perform maintenance on and press the <RETURN> key. The directory tree structure of the drive you select will then be displayed on the right side of the screen. Use the arrow keys to select the subdirectory you wish to work with and press the <RETURN> key

The Tree Surgeon display is very much like the EasyAdd display. The left side of the screen shows the files in the current subdirectory. The right side of the screen shows the directory tree structure of the drive.

The top two lines of the screen are quite different from EasyAdd however. The top line will display the current path of the subdirectory being displayed. On the right side of the top line the date and time will be displayed if you have a ProDOS compatible clock. The second line shows a horizontal menu of commands.

```

Path: \HARD1                               Dec 3 1998   9:18 pm
File Copy Format: Delete Unlinkage Verify Setup Format Quit

```

NAME	SIZE	DATE	TIME	FILE
EDIVSYSTEM	178	1	198	
EDIV	178	1	198	
EDIVSYSTEM	178	1	198	

```

Total 61 files: 19072 Bytes Used: 4000 Bytes Free: 35000

```

TAB selects new sub: +/- Mark/Unmark all files: SPACE selects action

NOTE: The clock display only updates when a key is pressed.



Keystrokes may have a different effect depending on what portion of the screen you are in. Possible keystrokes and their effects are listed below:

LEFT SIDE OF SCREEN (catalog)

- Up or Down arrow - Moves the cursor up and down the catalog of files. Moving the mouse up or down will also move the cursor.

Right arrow	- Marks the currently highlighted file.
Left arrow	- Unmarks the currently highlighted file.
Equal sign	- Marks all files in the current catalog.
Minus sign	- Unmarks all files in the current catalog.
Period	- Scrolls the catalog down one full page.
Comma	- Scrolls the catalog up one full page.
Return	- If no other files are marked Return will mark the current file and place the cursor on the action menu. If files are marked, Return will simply go to the action menu without marking the current file. A single click on the mouse button will also cause the same action.
Tab	- Sends the cursor to the directory tree on the right side of the screen. This has the side-effect of cancelling any marks that were made in the current subdirectory.
Esc	- Sends the cursor to the action menu at the top of the screen.

A double click on the mouse button will also cause the same action.

Closed Apple

+

Right arrow

- Moves the center line one column to the right. This will allow you to see more of the catalog fields at one time.

Closed Apple

+

Left arrow

- Moves the center line one column to the left. This will allow you to see more of the directory tree at one time.

Control-C

- Exits Tree Surgeon.

Any other character

- Will send the cursor to the next entry in the catalog that begins with that character.

RIGHT SIDE OF SCREEN (Directory tree)

Arrow keys

- The arrow keys will move the cursor through the directory tree. Moving the mouse will also cause the same action.

Plus sign

- Adds a new subdirectory with the currently highlighted directory as the parent.

Minus sign

- Deletes the highlighted subdirectory. The current subdi-

rectory must be empty before it can be deleted.

Question mark

- Scans all available drives for mounted volumes, and allows you to select one.

Tab or Return

- Selects the highlighted subdirectory and will send the cursor back to the catalog.

TOP OF SCREEN (Action menu)

E,C,R,D,U,L,V,S,F,Q

- These keys will place the cursor on the next function which begins with the same letter.

Return

- Selects the currently highlighted function.

Esc

- Sends the cursor back to the catalog portion of the screen.

Control-C

- Exits Tree Surgeon.

Operations may be performed on one file at a time or on multiple files using the 'mark/unmark' option. When several files are marked, the COPY, DELETE, UN/LOCK or VERIFY functions will work on each of the marked files. This is especially helpful when copying or deleting multiple files at a time. Files may only be marked in one subdirectory at a time.

Marking a file can be accomplished by highlighting the filename and pressing the right arrow key. Square brackets will appear at both ends of the catalog entry, signifying that this entry is marked for some future action. You may unlock the file by using the left arrow key.

The following are step-by-step descriptions of how to use each function on the action menu:

EXEC

1. Use the up or down arrows to select the file to be executed from the catalog and press the <RETURN> key.
2. The cursor will go to the action menu at the top of the screen. It will already be highlighting EXEC by default. Just press the <RETURN> key.
3. If the file has the type 'SYS', 'S16', or 'BAS' it will be executed, and if the program being executed follows ProDOS rules you will be returned to the EasyDrive menu when you quit the program.

COPY

1. The copy function works on one or more file at a time. Simply select the source file(s) from the catalog by highlighting and pressing the <RETURN> key or using the mark/unmark feature.
2. The cursor will then go to the action menu where you should use the right arrow key to highlight COPY (or press the <C> key) and press the <RETURN> key to select.
3. The cursor will then go to the subdirectory tree on the right side of the screen. You must now select the destination by selecting a second subdirectory or volume to copy to. To select a subdirectory on the same disk just use the arrow keys to highlight the name of the subdirectory and press the <RETURN> key. To select a second volume as the destination press the <?> (question mark)

key. A list of available volumes will be presented to you. Use the up or down arrows to select the new volume and press the <RETURN> key. You may then select the subdirectory from the second volume by using the arrow keys to highlight the subdirectory and press the <RETURN> key.

4. The file(s) will be copied one at a time. Control will be returned to you when the copy function is complete.

RENAME

1. Select the file from the catalog that you wish to change the name of by using the up or down arrow keys and pressing the <RETURN> key.
2. The cursor will go to the action menu at the top of the screen. Use the right or left arrows to highlight the RENAME function (or press the <R> key) and press the <RETURN> key.
3. The name in the catalog will be replaced with a blank. Fill in the blank with the name you wish to change it to. Remember you must start the name with an alphabetic character and use no special characters other than the period. Also the file must not be locked. Press the <RETURN> key when you have finished typing the new name in.
4. If the rename operation is successful, the new name will appear in the catalog immediately. If the operation failed for some reason (ie. the name was illegal, or a file of the same name already exists in this subdirectory) the old name will re-appear.

DELETE

1. Select one or more files from the catalog by either highlighting the file you wish to delete and pressing the <RETURN> key or by using the mark/unmark feature and pressing the <RETURN> key.
2. The cursor will go to the action menu at the top of the screen. Highlight the DELETE function by using the right or left arrows (or pressing the <D> key) and press the <RETURN> key.
3. The file(s) will be deleted one at a time. When the operation is finished control will be returned to you.

UN/LOCK

NOTE: The locked or unlocked status of each file is displayed at the far left edge of the screen. If a file is locked it will be preceded by an asterisk (*). If a file is unlocked it will be preceded by a space (' ').



1. The lock/unlock function works as a toggle. If you use it on a locked file, it will unlock the file. If you use it on an unlocked file, it will lock the file. Select one or more files from the catalog by either highlighting the file you wish to un/lock and pressing the <RETURN> key or by using the mark/unmark feature and pressing the <RETURN> key.

NOTE: Since the UN/LOCK feature is a toggle it is possible to both lock and unlock files during the same pass. Simply use the mark/unmark feature to select all of the files. The locked status of each file will be reversed.



NOTE: When using the mark/unmark feature notice that the asterisk denoting a locked file obscures the left mark bracket. Please take careful note of the locked status of a file before using the mark/unmark feature.



2. The cursor will be placed on the action menu at the top of the screen. Use the left or right arrow keys to highlight UN/LOCK (or press the <U> or <L> keys) and press the <RETURN> key.
3. The file(s) will be locked or unlocked one at a time. Control will be returned to you when the operation is completed.

VERIFY

1. Select one or more files from the catalog by either highlighting the file you wish to verify and pressing the <RETURN> key or by using the mark/unmark feature and pressing the <RETURN> key.
2. The cursor will go to the action menu at the top of the screen. Highlight the VERIFY function by using the right or left arrows (or pressing the <V> key) and press the <RETURN> key.
3. The file(s) will be verified one at a time. If an error is detected an error message will be displayed, otherwise control will be returned to you without an error message.

NOTE: The verify function only checks to be sure there is no media corruption. This would include bad sectors or (in some cases where directory or index information has been corrupted) sectors which do not exist on the current disk. No further checking is done by this function.



SEEK

1. This function ignores any files that have been selected from the catalog. Simply press the <ESC> key.
2. The cursor will jump to the action menu at the top of the screen. Select the SEEK function by highlighting it with the right or left arrow keys (or pressing the <S> key) and pressing the <RETURN> key.
3. A prompt will appear at the bottom of the screen asking you to enter a file specification. You may enter the full name of the filename you wish to match, or a partial name ended with an equal sign ('='). If you end the filename with an equal sign, all filenames that begin with the letters before the equal sign will be counted as matches. You may enter your filespec in either upper or lower case. The search is not case sensitive.
4. The current volume will be searched for matches. When a filename is matched the pathname of the matched file will be displayed. Press the <RETURN> key after each path is displayed to continue the search. At any prompt the <ESC> key may be pressed to terminate the search.
5. When the search is complete (or the <ESC> key has been pressed) the number of occurrences will be displayed. Press the <RETURN> key.

FORMAT

1. The format command ignores any filenames that have been selected from the catalog. Press the <ESC> key.
2. The cursor will go to the action menu at the top of the screen. Highlight the FORMAT command by using the right or left arrow keys (or pressing the <F> key) and pressing the <RETURN> key.

3. A prompt will appear at the bottom of the screen asking for the slot number of the device you wish to format. Type in a number from 1 to 7.
4. A second prompt will appear asking for the drive number of the device you wish to format. Type in either a 1 or 2.
5. If the disk mounted in the drive has not yet been formatted the format will proceed to initialize the disk. If the disk has already been formatted a prompt will appear giving you the opportunity to abort the format.
6. If you wish to abort formatting the volume press the <ESC> key. If you wish to destroy the contents of the volume and continue to format the disk press any other key.
7. When the initialization is finished control will be returned to the program.

QUIT

1. This command ignores any files that have been selected from the catalog. Press the <ESC> key.
2. The cursor will go to the action menu at the top of the screen. Highlight the QUIT function by using the right or left arrows (or pressing the <Q> key) and pressing the <RETURN> key.
3. The Tree Surgeon program will be aborted and control will return to the EasyDrive menu.

NOTE: For specific instruction on how to install a program to the EasyDrive menu using Tree Surgeon and EasyAdd refer to Appendix A.



Chapter 10

OPTIMIZER

The disk optimizer utility is designed to 'de-fragment' files on any ProDOS volume. During the use of your hard drive (or any ProDOS disk) many operations occur on the files that are contained on the drive. Data files can contract and expand as you add or delete data from them, and other files can be copied onto or deleted from the disk. The net effect of these operations is that available storage can become fragmented (split into small portions) all over the disk. When this happens and a new file is created or copied onto the disk, ProDOS can locate that file across several of the fragments of free storage, thus fragmenting the new file all over the disk.

This is not a dangerous situation, however ProDOS takes longer to read a fragmented file than it does to read a file that is all in one place (contiguous). The disk optimizer has the job of re-arranging your disk to make all of the files contiguous, so that ProDOS can read the files in the shortest amount of time possible. Occasional use of the disk optimizer can save you a lot of time with disk intensive programs!

Before you use the optimizer you should be aware of several implications. There is an element of danger in using any application of this nature. It is important that you understand what those dangers are in order to minimize risk. We strongly suggest you follow these rules:

Rule #1 - Only use the disk optimizer after making a backup of your drive.

ALL utilities of this nature must necessarily re-arrange intimate portions of data on the disk. We have taken great pains to make our optimizer one of the safest ones on the market, however it pays to be careful!

Rule #2 - NEVER interrupt the operation of the optimizer.

You MUST let it run until it finishes! This will most likely take a long time, perhaps even several hours! Because of this we suggest that you run the optimizer at the end of the day. Start it up and let it run overnight.

Our optimizer is not designed for speed. Several of the risky time-saving options available in other optimizers have been omitted. Other similar utilities operate faster because they use large buffers of memory to cache data from the drive. Our optimizer does very little buffering in order to make sure that at any given time the drive will have maximum recoverability in case of an interruption. Some interruptions cannot be helped (ie. power failure, kids running by the outlet that your computer is plugged into, etc.). Other dangers might include programs which leave problems on the disk which an optimizer doesn't expect. Should something like this happen, a faster utility will lose all of the information that was in ram. There is no way to guarantee total recovery, but our optimizer has gone to great lengths to avoid total disaster.

Since you may not always want to wait the full duration of the optimization or leave your computer on overnight we have added a feature to give you most of the advantage of the optimizer in a fraction of the time. You have the option of optimizing only the directory information on the drive. This will speed up programs like Tree Surgeon or Copy II+ which need to scan the directory information.

You may also want to be sure that your hard drive needs to be optimized before you invest the time needed to optimize the drive. You may use the STATUS program to check just how fragmented your drive is. To use the status program follow these instructions:

1. Select STATUS from the user menu by highlighting it with the arrow keys and pressing the <RETURN> key.

2. A list of mounted volumes will be displayed. Use the up or down arrows to select the volume you wish to optimize and press the <RETURN> key.
3. The drive will be scanned. When the scan is completed a graph will be displayed indicating the percentage of files which are in a fragmented state. A recommendation for optimization will be displayed at the bottom of the screen.

To use the optimizer follow these instructions:

1. Select OPTIMIZER from the user menu by highlighting it with the arrow keys and pressing the <RETURN> key.
2. A list of mounted volumes will be displayed. Press the <ESC> key to abort if you have not yet made a backup. Otherwise use the up or down arrows to select the volume you wish to optimize and press the <RETURN> key.

NOTE: The optimizer will work on ANY ProDOS volume. It works with 3.5" and 5.25" drives as well as any size of hard drive (up to 32meg). It requires only 128k of memory.



3. If you are sure of your selection, answer YES to the safety prompt by highlighting 'Yes' with the right or left arrow keys and pressing the <RETURN> key.
4. Select whether you wish to optimize only the subdirectory information or all of the information on the volume by highlighting your choice with the up or down arrow keys and pressing <RETURN>.

5. Do NOT interrupt the process for any reason unless you are prepared to restore the backup you made previously.
6. When the optimizer is finished it will display a message indicating that the process was completed successfully. Press any key to continue.
7. You will be returned to the EasyDrive menu.

INSTALLING APPLICATIONS USING TREE SURGEON

At times you may run across an application that you want to install on your hard drive that is not contained in the installation script database. When this happens you can still install the application with any program that can copy the necessary files onto the hard drive. Tree Surgeon will do this quite nicely.

There are a few things you will need to know about the application before you copy it to your hard drive. You will need to know all of the files and subdirectories necessary in order for the application to work. Consult your applications user manual before beginning with the copy process. You will also need to know if there is a copy-protection scheme installed on the original disk. Many copy-protected applications cannot be installed onto a hard drive.

Follow these instructions to install the application:

1. Insert the original application disk into one of the drives on your computer and then select Tree Surgeon from the users menu by using the up or down arrow keys and pressing the <RETURN> key.
2. A list of available volumes will be displayed on the right side of the screen. Select the volume name of the application disk that you just inserted and press the <RETURN> key.
3. The subdirectories on this disk will be displayed on the right side of the screen. Select the subdirectory you wish to copy and press the <RETURN> key.
4. The files (if any) on this disk will be displayed. Use the right arrow key or the equal sign ('=') to select all of the

files that need to be installed on the hard drive, and press the <RETURN> key.

NOTE: Selection of the files to be copied can only be done one subdirectory at a time. You will have to repeat this process for each subdirectory and disk involved in the application.



5. The cursor will move to the action menu at the top of the screen. Select the COPY function by using the right or left arrow keys (or pressing the <C> key) and press the <RETURN> key.
6. The cursor will then move to the subdirectory tree at the right side of the screen. Press the <?> (question mark) key. A list of available volumes will be displayed. Select the destination volume (your hard drive) by using the up or down arrow keys and press the <RETURN> key.
7. The subdirectory tree for the destination drive will be displayed. If an appropriate subdirectory does not already exist for this application, press the <+> (plus sign) key.
8. A blank space for the new subdirectory name will be displayed in the subdirectory tree. Type in the new subdirectory name and press the <RETURN> key.

NOTE: Try to make the subdirectory name meaningful to the application. For instance, it is a good idea to name the subdirectory that contains AppleWorks something like AW or APPLEWORKS. It would not be a good idea to name the AppleWorks subdirectory XYZ45. Some applications require that the subdirectory be named some-



thing specific. Please refer to your applications manual in order to determine the specific needs for the subdirectory.

9. If the subdirectory name is a legal ProDOS name and no files or subdirectories match that name, the subdirectory will be added to the tree. Use the arrow keys to highlight the new subdirectory name and press the <RETURN> key.
10. The files will be copied and the subdirectory tree for the original disk will be returned. Repeat this process until all of the needed subdirectories and disks are copied onto the hard drive.
11. When finished copying files you may wish to test the program to make sure it was installed correctly. You can do this by highlighting the executable file and pressing the <RETURN> key. The cursor will go to the action menu. Make sure the cursor is highlighting the EXEC function (by default) and press the <RETURN> key. If the program does not execute correctly you should double-check everything you have done so far and consult your application manual. Once you are sure that the application is installed on the hard drive in a usable manner you must return to the EasyDrive main menu. If you are still in Tree Surgeon you may do this by pressing the <ESC> key. The cursor will go to the action menu at the top of the screen. Use the right or left arrow key to highlight the QUIT function (or press the <Q> key) and press the <RETURN> key.
12. You will be returned to the EasyDrive main menu. By default the main menu is displayed when entering EasyDrive. If you wish to add your application to another menu, make sure that menu is displayed on the screen before continuing. Press the <ESC> key. The

cursor will be moved from the user menu to the horizontal menu at the top of the screen.

13. Use the right or left arrow keys to highlight the EasyAdd function (or press the <E> key) and press the <RETURN> key.
14. The EasyAdd display will come up with the directory tree of the current drive. Press the <TAB> key to go to the directory tree.
15. If the current volume is not the volume that you just copied the application to press the <?> key (question mark). A list of available volumes will be displayed. Use the up or down arrow keys to highlight the volume you copied the application to and press the <RETURN> key.
16. The subdirectory tree will be displayed. Use the arrow keys to highlight the subdirectory that you copied the executable file to and press the <RETURN> key.
17. The filenames in that subdirectory will be displayed on the left side of the screen. Highlight the executable file and press the <RETURN> key.
18. A prompt will appear at the bottom of the screen asking for a title. This is the label that will appear on the menu screen denoting this application. Enter a meaningful title and press the <RETURN> key.
19. EasyAdd will confirm the addition with a message at the bottom of the screen. Press the <RETURN> key once more.
20. You may now return to the EasyDrive menu by pressing the <ESC> key and answering YES to the safety prompt.

The application should now appear on the menu of your choice and be fully executable from the menu.

If you have just installed GS/OS you may be running into some unexpected problems. Because of its complexity, GS/OS is a very difficult operating system to diagnose problems in. Here are a few tips that will help insure smooth installation and use of GS/OS.

1. Make sure you install GS/OS with the installer program that comes with GS/OS. If you are using a hard drive or other peripherals, make sure that you have installed the drivers necessary (again, using the GS/OS installer program).
2. The thermometer screen that shows at boot time has a bug in it that can affect the use of some graphics programs. We have accounted for this as best we could inside our launcher program. If you still have problems with graphics programs you may want to use the Thermometer Switcher utility from the back side of the EasyDrive installation disk to disable the thermometer screen. You will have to copy this file manually from the EasyDrive disk since it does not get copied during the installation process (the name of the file is TSWITCH). To use this utility follow these instructions:

- a. Execute the Thermometer switcher program. You may do this by installing it onto an EasyDrive menu or by using the Tree Surgeon EXEC function.
- b. The program will scan all available volumes for one that is a GS/OS boot disk. If more than one GS/OS disk is found you will be prompted to select one. Use the up or down arrows to select the correct volume and press the <RETURN> key.
- c. The program will then read the existing state of the thermometer (enabled or disabled) and display the action that will be performed. Thermometer Switcher will automatically know to set the thermometer status to the opposite of its current state. Press the <ESC> key if you wish to abort without changing the status of the thermometer screen. Press the <RETURN> key to perform the displayed action.

Technical Support

If you are experiencing problems with EasyDrive we have a technical support staff you can contact to receive free assistance.

Before you call:

- 1) Be sure your computer matches or exceeds the minimum requirements specified in the **'REQUIREMENTS'** section of this manual.
- 2) If you are using a backup copy of EasyDrive be sure that you have made a good copy.
- 3) Make sure you have read the section of the manual that refers to the portion of the EasyDrive program you are having a problem with.

Information to have ready when you call:

- 1) Be sure you know what version of EasyDrive you are using. You can find this number on the EasyDrive menu by selecting the 'Q' function from the horizontal menu.
- 2) Be sure you know what type of machine you are using. It is also helpful to know what revisions of ROM or motherboard you have, however the technicians will be able to determine this information if you do not know it.

- 3) Be sure you know what type of hard drive you are using, and additionally what slot it is being used in. If you are using an Apple 3.5" drive it is helpful to know whether you are using a UniDisk or regular Apple 3.5.
- 4) Be sure you know what additional cards you are using and what slots they are in.
- 5) Be sure you know what software you are using EasyDrive with when the problem occurs.
- 6) Be able to clearly and concisely describe the problem you are having. It may help for you to sit down with the program and write down the steps that you take when the program exhibits the problem. It may also be advantageous for you to call from a phone near your computer. In this way the technicians can step you through techniques and fixes while you are on the computer.

Knowing this information before you call will allow our technicians to quickly pinpoint the problem you may be having. They will try to answer your questions as quickly as possible, however, sometimes a problem might be too complicated to answer over the phone. In such a case they may ask you to send in your disk or a backup of your disk for closer inspection.

Our technicians are not there just for problems, however. If you want to use EasyDrive in a way not explained in this manual, they may be able to suggest techniques you might want to use to help you get the most from EasyDrive. They may also be able to suggest an optimal hardware configuration for your needs

should you be interested in upgrading your system.

If you also have a modem in your system you may want to handle the problem via one of our electronic support channels. We are now offering support via a local Bulletin Board System as well as the national telecommunications services. Here's where to find us on these services

Quality Computers	- (313) 681-7672
Genie	- 'A2' Sig, Independent Developers Online
CompuServe	- Address: 73477,3364
AppleLink	- Address: Walker A
The Source	- Address: BFR475
MCI Mail	- Address: Quality Computers

Otherwise you may contact us through mail or telephone:

Quality Computers Technical Support
15102 Charlevoix
Grosse Pointe Park, MI 48230

(313) 331-1115 10:00am - 5:30pm EST: Monday - Friday

Downloaded from www.Apple2Online.com

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EasyDriveTM

The first complete software interface for your hard-disk.

HOW IT WORKS

EasyDrive brings speed and manageability to your hard-disk by bridging the gap between it and your computer. EasyDrive easily installs itself onto your hard-disk, and then goes to work installing your programs. When the programs are installed, you just choose the application you want from the EasyDrive menu. Running programs, removing programs, backing up, restoring, indexing, copying, moving files, and dozens of other functions are performed on screen. You punch in the commands. EasyDrive does all the work.

REQUIREMENTS

EasyDrive requires no special knowledge or equipment. All you need is a hard-disk, and an Apple IIe, IIgs, or compatible computer.

SPECIAL FEATURES

- Complete control of all hard-disk operations
- Automatic installation
- Automatic loading
- Menu-driven simplicity
- Automatic upgrading of ProDOS operating system
- Fast, accurate back up and restore
- File indexing
- Complete statistical display
- ProDOS compatibility
- Plus much more!

EasyDrive even comes with easy tree selections. By simply using an arrow key you can command your hard-disk to copy, move, delete, verify, view, or lock.

This package contains the EasyDrive program on disk, an application guide and a ProDOS user's manual.



Quality Computers

POWER FOR PERFORMANCE

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