

ON THREE

The Magazine For Apple III Owners and Users

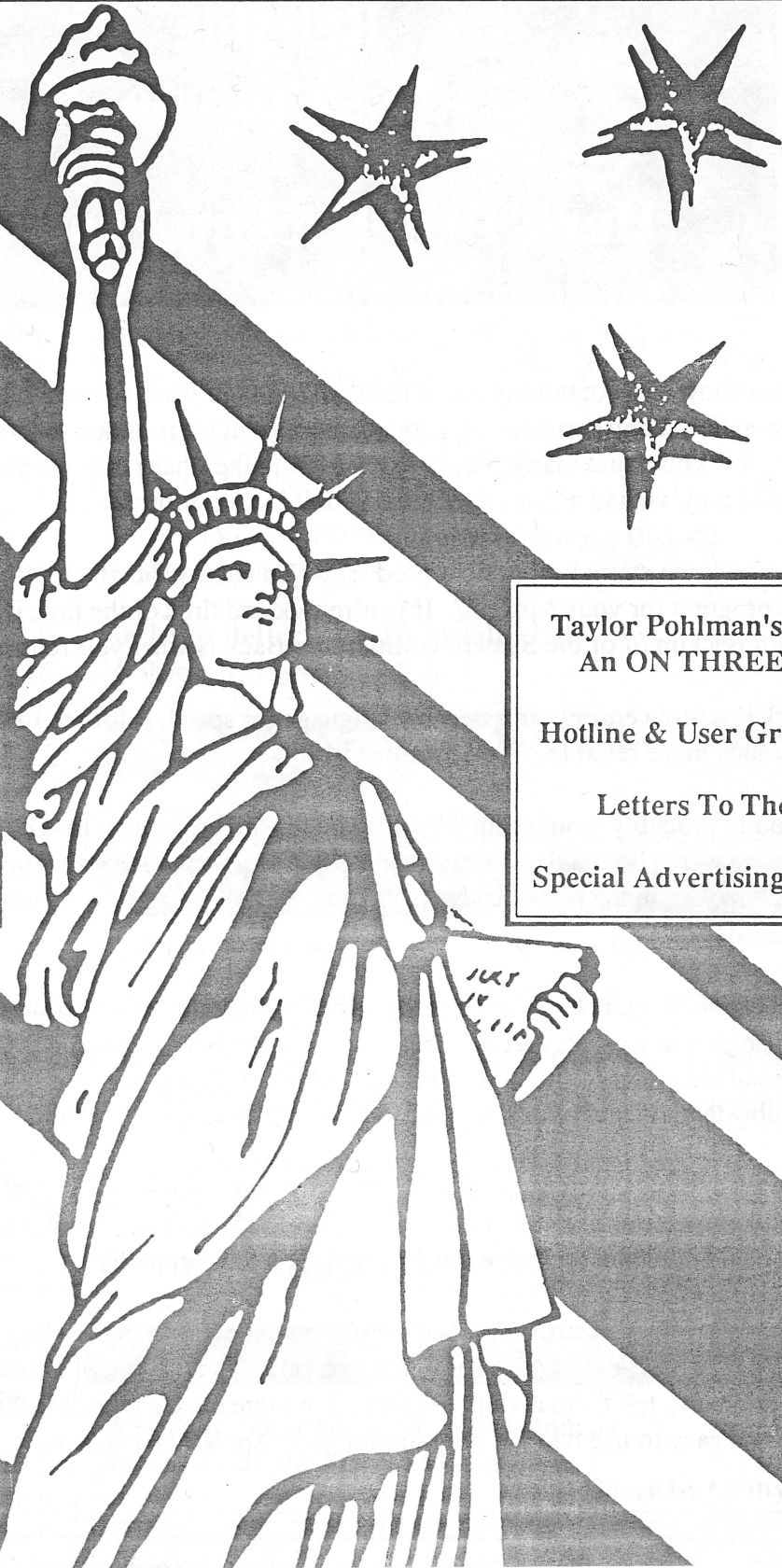
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Volume 5, No. 6

July 1988



\$4.00



Beyond 48K Emulation

Migrating From Catalyst To
Selector ///

Super Disk #2 Update

Installing Aladin...Again

Taylor Pohlman's Challenge:
An ON THREE Contest!

Hotline & User Group Listings

Letters To The Editor

Special Advertising Supplement

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Check Inside For Details

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Fast Reliable Easy To Use

Hard Disk Backup Program?

Well, you know I'm not talking about Backup ///! After years of complaints about Backup /// being too slow and in many cases losing people's important information we've decided to do something about it. We know that many people *never* backup their hard disk because Backup /// is sooo slow or because they've had a bad experience with it losing information.

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If there's enough interest in Go Back we will complete it. Now we **don't** want you to send in your money, or give us a credit card number. All we want is your assurance that you will buy Go Back if we spend the effort to finish it. Actually, we want the assurance of at least two hundred people. If we know that at least two hundred people will buy it, we'll finish it.

If you want a reliable, very quick and inexpensive (around \$50) program for backing up your hard disk, drop us a note or give us a call at (818) 701-1355. Just leave your name and address so we can notify you if and when the project is finished. It's that simple!

If you've ever had problems with Backup /// or worse yet, never backup your hard disk because it takes so long with Backup ///, please give us a call. If you know of another Apple /// user who has similar problems, tell them about this offer! The more people who call, the quicker you'll get a fast, reliable and easy to use backup program for your Apple /// hard disk.

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Table of Contents

Volume 5, No. 7

July 1988

FEATURE ARTICLES

The Beginning /// - Beyond 48K Emulation	5
by Richard and Lavona Rann	
Migrating From Catalyst To Selector ///	9
by Dr. Al Bloom	
Update On The TDM Super Accessories Disk #2	21
by Dan Martin	
An Even Better Way To Install Aladin ///	23
by Roger T. Harrer	
Taylor Pohlman's Challenge: An ON THREE Contest!	25
by David Ottalini	

DEPARTMENTS

Call Three: Hotline	2	Ranntings	19
A little help from our friends		Years Of Good Times	
Apple Sauce	3	Letters To The Editor	27
ON THREE is moving!		Q & A from the Apple /// experts!	
Apple /// User Groups	4	DeClassifieds	28
In an easy to read format		Buy or sell Apple /// stuff.	
ON THREE News & Views	11	Next Time In ON THREE:	28

ON THE COVER:

A look at one of the lights of freedom as we celebrate the Fourth Of July.

Cover by Cathy Consorti

Call Three: Hotline

The Call Three Hotline is a service whereby Apple /// users can contact fellow Apple ///er's who have expertise in a particular subject(s) pertaining to the Apple ///. These individuals are not compensated for their efforts so we all owe them a resounding **Three Cheers** for their generosity.

If you have questions, feel free to call the consultants listed below, but please observe the calling times listed. It would be a good idea to check the time zone so as to *not* wake someone up in the dead of night. If you are willing to spend a little time and help your fellow Apple ///er's, write ON THREE giving the necessary info. and we will be happy to add your name to the Hotline.

Name	Area	Telephone	Days	Hours	Zone	Subjects
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Ken Johnson	MA	(413) 536-7502	Su-Sa	6-9 PM	Eastern	BB,PA,MD,WP,MI
Don Loosli	MI	(313) 626-3848	M-F	9-5 PM	Eastern	GE,WP,SS,DB
Harry T. Hanson	NJ	(201) 467-0712	M-F	6-9 PM	Eastern	GE,PA,BB,CT
Edward Gooding, Sr.	VA	(804) 747-8751	Su-Sa	6-9 PM	Eastern	CO,SS,PR,MD,CT
Jeff Fritz	WV	(304) 599-7010	M-Sa	8-11 PM	Eastern	BB,DB,GE,MI,SS,TC,EP
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R.B. Thompson	NC	(919) 787-1703	Su-Sa	10-10 PM	Eastern	BB,DB,GE,SS,WP
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Kelly C. McGrew	WA	(206) 943-8533	M-F 7-9 PM	Sat Noon-6 PM	Pacific	DB,GR,SS,PR,MD,CT
Larry E Kalland	AK	(907) 272-4968	Su-M,Th-Sa	7-9 PM	Pacific	DB,GR,SS,PR,MD,CT
			Su-Sa	12 Noon-11 PM	Alaska	AC,CT,GE,SS,EP,WP
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J. Woretshofer	Netherlands	(043) 611704	Su-Sa	9-12 AM	Europe	CT,FO,GE,PA,QU,SO,WP,AE,EP
Salvador Garcia	Spain	(91) 234 5068	Su-Sa	7-10 PM	Europe	BB,GE,PA,MD,CT

Subject Table

SUBJECT	CODE	SUBJECT	CODE	SUBJECT	CODE	SUBJECT	CODE
Accounting	AC	Agriculture	AG	Assembly Lang.	AL	Business Basic	BB
Catalyst	CT	Cobol	CO	CP/M	CP	Data Base	DB
Education	ED	Emulation	AE	Financial	FI	Fortran	FO
General	GE	Graphics	GR	Micro-Sci	MI	Modems	MD
Modula-2	MU	Omnis 3	O3	Pascal	PA	ProFile	PR
Quark	QU	Quick File	QF	SOS	SO	Spreadsheets	SS
Telecomm.	TC	/// E-Z Pieces	EP	Word Proc.	WP	ON THREE	OT

Apple Sauce

by Bob Consorti

Transitions

Since ON THREE started business six years ago I've had the pleasure of bringing to market dozens of products for the Apple ///, //e-c and GS. Some of them did well, some did not. But throughout it all I have to say I've enjoyed my role in shaping the products coming to market.

We've weathered some good times and some very tough times. The subtitle for my column is *Transitions*. Now before anyone panicks, ON THREE isn't going away. But we will be changing our whereabouts. Yes, we're moving to a different locations!

I wish that I could tell you that we're moving into a larger office - but we aren't. Our GS products, which we hoped would start carrying the burden, have not been selling as well as we had hoped. You see in the Apple /// world we create a product, advertise it and we get immediate sales - even if they aren't tremendous.

In the Apple II market we create the product and then advertise it in someone else's magazines. We don't have the ability to directly mail to all the Apple II users as we do in the /// market. Because of this and the fact that it's next to impossible to get an honest review within a year of release of a product, our II product sales have been sporadic at best.

In any case as of July 31st ON THREE will be moving in an effort to streamline costs. You should note no difference in the service or support that we provide. **We will continue to be here when you need us.**

All correspondence and any items that you need to send in for repair should be directed to this address:

ON THREE, Inc.
Attn: Bob Consorti
8920 Yolanda Avenue
Northridge, CA 91324

All telephone orders should be directed to our current (800) 443-8877 number. Our toll-free order line will *not* change even though our *order* department will be mov-

ing out of California to Washington state. Because of this all California residents should use that (800) number as our California toll-free line will be disconnected at the end of July.

One side effect of this split personality in ON THREE is that if you have questions about a product you must call our technical support department at our California office. That new number is (818) 701-1355. Please note that the persons answering the order lines will *not* have a technician available to answer your questions. If you call the order line asking but the most rudimentary questions about any of our products they will refer you to the California number.

In This Issue...

The feature article this month is the Beginning /// by the Rann's. It explores the world *Beyond 48K Emulation*. They also look back on the years of good times we've had with our Apple ///'s in the regular Ranntings.

Dr. Bloom returns to the pages of ON THREE with some words on switching (he..he) from Catalyst to Selector.

Dan Martin shares with us an update to his review of the Super Accessories Disk #2 for The Desktop Manager and Dr. Harrer discusses an even better way to install Aladin on your hard disk.

With the PHASE III conference almost one year old, David Ottalini presents and ON THREE has agreed to sponsor Taylor Pohlman's challenge. This contest can bring you fame and a small fortune, so please read over his article.

We've been taking serious hits with or renewals (or lack thereof) so please look at your address label on the back cover of this magazine. To the right of your name is your subscription expiration date. If it reads JUL 88, this is your last issue of ON THREE! Please resubscribe today and enjoy uninterrupted service of your subscription to the only magazine devoted to the Apple ///.

Apple /// User Groups

If you want to meet other Apple /// owners and exchange ideas, tips and hints about the Apple ///, contact one of the user groups listed below. They're all willing and able to help new and old Apple /// users with the trials and tribulations of owning an Apple ///.

If you recently formed an Apple /// group or know of one that is not listed here, please contact ON THREE and we will include the updated information in this section.

California

Sacramento Apple /// User Group
1433 Elsdon Circle
Carmichael, CA 95608
(916) 482-6660

Orange County
Apple /// User Group
22501 Eloise Avenue
El Toro, CA 92630

L.A.-South Bay
Apple /// User Group
P.O. Box 432
Redondo Beach, CA 90277
(213) 316-7738

Apple /// Users of Northern
CA

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Mill Valley, CA 94942

International Apple Core
(Apple /// SIG)
908 George Street
Santa Clara, CA 95054
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Canada

Apples British Columbia
Computer
Society (Apple /// SIG)
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Burnaby, B.C.
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(416) 839-7779

The Astronic Club
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Apple /// Society of So
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Australia

The Beginning ///

by Richard and Lavona Rann

Beyond 48K Emulation

Last month we looked at the standard Apple /// emulator. It was an important feature when the /// was new and Apple /// software was in short supply. At that point, the /// could run any Apple II program, but over the next couple years a problem arose. Development of the Apple II continued, and that development brought greater power and memory size to the Apple II.

By early 1983, when the Apple IIe was introduced, the standard program size was 64K, and some users were using 3rd party (non-Apple) upgrades to push available memory to 128K and higher. Apple /// owners found that they could no longer run many of the programs written for the Apple II family because many commercial programs were beginning to require 64 - 128K.

Is the Apple /// limited to emulating a 48K Apple II Plus? The answer is an emphatic yes, and no. The truth is that there is more memory space in the Apple /// than is used for emulation. The emulator was designed for a maximum of 48K. Since the system has to have certain Apple /// information in the highest address positions (even when running under emulation), the Apple /// will not run full 64K Apple II software under standard emulation.

For a time that created a confusing situation. Some /// owners reported that they had Apple IIe software that ran just fine in emulation. At the same time, other /// owners could not get IIe software to work at all. Some programmers adjusted the code in the emulation program and made some IIe software work, but that was limited to only a few programs. What became apparent was that Apple II emulation was running into a hardware wall. Some 64K Apple IIe programs appeared to work but were usually not useful as they would bomb when data was entered because they exceeded the memory limit.

During that time period, several extended emulation programs were written and placed in the public domain. These gave access to some additional address space, but

not a full 64K. By and large, they are of limited use because they will only allow about 60K and by the time they became available, most Apple II programs that required more than 48K were set up for 64K or more.

The revised emulation disks did make room for slightly larger spreadsheets and databases in emulation, but did not solve the basic problem that many programs would not work. While these emulation programs may be useful for a limited group of specific functions, there is very little of general value in them. Unfortunately, the only true solution to the emulation was a hardware one.

TITAN BOARDS

The real solutions to 48K emulation limitations are hardware solutions. To get full 64K emulation, a board containing the memory that could be devoted to memory only and having a ROM chip that would direct SOS to this additional memory had to be designed. Titan Technologies Inc. brought out an add-on board to improve Apple II emulation on the ///. These boards fit in one of the four slots in the /// and add the hardware necessary to expand the emulation of the ///. They also added an Apple II game port for those who wanted to use Apple II joysticks or similar peripherals.

Titan's first board had 12K of RAM and expanded the Apple ///'s emulation to run 64K software. It was a limited solution because it was expensive, and it only added the minimum ability to run 64K software. At the time it was first introduced, the Apple IIe was already being enhanced so that it could run 128K software. Still, at the time, the Titan ///+II board was the only true solution to larger emulation capacity.

After several modifications and many delays, Titan finally introduced the /// plus IIe which brought the ///'s emulation up to the power of a 128K Apple IIe. Along with this extended emulation, it also added a number of

features that were to prove useful to many /// owners.

The Titan /// Plus IIe is really two cards that occupy slots two and three in the Apple ///. This large amount of space is essential for a hardware solution to the problem of running Apple II software. The two boards are tied together with a ribbon connector. In addition, the original Video Control ROM must be removed and a ribbon connector be put in the chip socket to connect the mother board to the Titan board set. In that way video control is shifted to the modified chip on the Titan board.

At first blush, the installation process is a bit frightening to people that haven't been inclined to look at the insides of the ///. Don't let this first impression deter you from adding this to your system if you have use for it. Installation is not as difficult as it may seem at first.

For once we can point to a good manual. The one that comes with the ///+//e explains the installation procedure in an excellent step-by-step manner. Not only does it tell where and how to make the modifications, but it give a few tips on techniques for actually doing the job. We know of several "novices" to hardware maintenance that have successfully done the installation.

The only problem that has been fairly common is that the /// is unusually sensitive to loose chips when the ///+//e has been installed. The vast majority of problems have been fixed once the installer checked all the chips on the Apple /// as well as on the Titan cards, and ensured that they are all firmly in place. (If you aren't certain how to do this, see the Beginning /// article: Repair and Maintenance of your /// in the April 1987 issue of ON THREE).

Once the Titan /// Plus IIe cards are installed, the new emulation functions much the same way as standard emulation except that there are more options. The package comes with an emulation boot disk that is used to replace the original emulation disk. The original emulation disk will no longer work!

The new emulation disk starts up with the following choices on its first screen:

- 1) START APPLE /// OPERATION
- 2) CHANGE IIe EMULATION
- 3) START APPLE IIe EMULATION

The Titan emulation selections are made by pressing numbers. Observe that the first option, number one, is:

START APPLE /// OPERATIONS.

Selecting this option boots SOS from your boot disk in the internal drive. This makes it a bit easier to switch between Apple II emulation and Apple /// operation.

To make the switch from an Apple II program back to the Apple ///, first save the data, exit the program and then hold down ⌘ while pressing and releasing RESET. The Titan emulation screen will appear. Then, put the SOS disk in drive 1 and select option 1).

A very real advantage available from this process is the relative ease with which you can go from one Apple II program to booting another Apple II program. By coming back to this screen (with the ⌘ RESET), you can boot another Apple II disk without having to reboot the emulation disk.

To go from Apple /// operations to Apple II emulation save the information in your Apple /// program and exit. Put the Titan start up disk in drive 1 and press CONTROL - RESET. The Titan board has an unfriendly peculiarity that you will have to watch for. Hitting the combination of CONTROL - RESET or OPEN APPLE - CONTROL - RESET while in emulation mode will cause the computer to hang up, and emulation has to be restarted.

Selecting option number 2) shows the emulation configuration menu. This is also very similar to the original Apple II+ emulation Disk. The exception is that the selections must be made with the number keys. This menu has four items: printer settings, communication settings, double Hi-res graphics, and save settings.

The double Hi-res graphics is something that was not in the original emulation options. It is a way of getting the 560 x 192 pixel graphics display in 80-columns that is available in some IIe programs. This option can be switched on or off as needed for any particular piece of software. The printer settings and the communications setting menu have been expanded to accommodate the newer programs available for the IIe.

Both these sets of options must be set in accord with your printer or communications needs.

WHAT YOU DON'T GET

One thing that is not available on the ///+//e is the "enhanced ROMS." This means that there are some programs like SuperCalc (which was designed for the IIc), that still won't run on the /// in emulation mode. Remember, the only way to get a machine that does everything that a IIe does, the way it would, is to buy a IIe. The ///+//e emulation mode appears to support over 95% of all Apple //e software.

Some of the newer Apple II programs require the 65C02 microprocessor found in virtually all of the Apple IIe's. You can easily replace the 6502 in your Apple /// with the 65C02 and then more Apple II programs will work in the ///+//e emulation.

You don't get the capability to run Apple IIgs ProDOS 16 programs. ProDOS 16 is the newer version of ProDOS that has been revised to take advantage of the new Apple IIgs. Unfortunately for /// owners, a IIgs Titan upgrade is not in the works. Even if there were, it would probably be cheaper to buy a new machine than a GS emulation.

OTHER ADVANTAGES

There are several additional advantages to the Titan boards. First is that the manual explains a simple modification to the ProFile controller card that allows the Profile to be used for both Apple /// and Apple II programs and files. In addition, the Titan /// Plus IIe board is equipped with a driver for a RAM disk. This allows part of the memory to be accessed as a RAM disk. While you are using the IIe emulation, much of the ///'s memory is available for a RAM disk, and the reverse is true when you are running Apple /// software.

RAM DISK BASICS

One way to enhance the performance of your Apple /// in both emulation and SOS operation is by using the RAM disk provided with the Titan /// plus IIe. Not only does it provide extra space for storing data and programs but because the space is within electronic memory, speed of access is greatly improved. One important thing to remember is that anything on the RAM Disk is not permanent and will be erased when the power is off.

To use the Apple /// memory as a RAM Disk while in

Emulation mode, it is necessary to have a copy of the ProDOS User's Disk. This is the equivalent of Systems Utilities for ProDOS. Like any other disk, a RAM disk needs to be formatted. To use the Apple /// RAM as an Apple II RAM Disk it must be formatted before use.

This is not a difficult operation, but it will take a little understanding of the way the Apple II runs. Start the Apple /// using the Titan /// plus IIe start up disk. Then place the ProDOS users disk in the internal drive and start the Apple IIe emulation. If we select option "S — DISPLAY SLOT ASSIGNMENTS" the following information will appear on the screen:

```
YOUR Apple IIe HAS:  
  
128 K of RAM  
  
APPLESOFT IN ROM  
  
SLOT 1:  I/O CARD  
  
SLOT 2:  I/O CARD  
  
SLOT 3:  80 COL. CARD  
  
SLOT 4:  PROFILE  
  
SLOT 5   PROFILE  
  
SLOT 6:  DISK DRIVE  
  
SLOT 7:  USED
```

We will not explain the meaning of each slot here though knowing how the Apple II functions is important if you are going to use emulation mode a lot. For our purposes it is important to look at SLOT 4 and SLOT 5.

Slot 4 is the location of the profile card. If your /// has a ProFile, and it's been modified per the instructions in the Titan manual to run Apple II programs, Slot 4 will be its location. Otherwise, it is an unusable address. If you did not do the modification to make your ProFile "visible" to emulation, it will not show up in the Slot 4 location.

Slot 5 also says PROFILE, but it is really where the /// plus IIe card places the Ram Disk. Now that we know where the RAM Disk will be, let's set one up.

Use "Escape" to return to the startup menu. Now select option "F — PRODOS FILER (UTILITIES)". This menu has five options and looks amazingly like SOS utilities.

(Really this is not too amazing because ProDOS is a subset of SOS and has much the same code.)

Choose option "F— FILE COMMANDS" and when the next menu comes up choose option "F — FORMAT A VOLUME." Remember that to use the Apple ///RAM as a RAM Disk we must reformat it as if it were an Apple IIe disk. The essence of a RAM disk is that it looks to the system as if it is an additional disk drive.

The option "F — FORMAT A VOLUME" will default to "SLOT 6" which is the normal disk drive location. On the /// is equivalent to ".d1, .d2, etc." All we have to do is to type in the number we want. In this case the RAM Disk is located in slot 5 - where the Titan board says it is.

We type in "5" for "SLOT 5" and then press "RETURN" The system will ask for a name. Of course, any distinctive name will do such as RAM or TITANRAM. The system will default to "BLANKnumber" like the /// does, and this can be difficult to work with. After the name has been entered the system will ask destroy ' / ' . Reply by hitting "Y" for YES and "RETURN." If you have a hard disk attached to the ///, we suggest that you have it turned OFF when you do this step, just to ensure that you do not accidentally reformat your hard disk.

Now that the RAM disk has been formatted, we are ready to use it. You use the RAM Disk just like you would use any other disk. Access it by using the path name.

WARNING: Remember that the contents of the RAM Disk must be saved to a different disk before the machine is turned off or switched to another mode (/// -> II, or II-> ///) or the info. on the RAM Disk will be lost.

Using the Ram contained in the Titan /// plus IIe as a SOS RAM disk is much easier for most /// owners. For Apple /// operations the Titan board is in SLOT 3, and is always recognized by the ///. To use the RAM Disk, the "RAM DISK DRIVER" which is included with the Titan board must be loaded into your SOS.DRIVER file(s) with the System Configuration Program. Once that is done, the RAM Disk will always be available during SOS operations. The RAM disk can be accessed like any other disk drive when the system is booted. Remember, once again, that what ever is in the RAM disk will be lost when your Apple /// is powered down.

The advantages to using a RAM Disk are mainly those of speeding up functions that have a lot of I/O operations. A database which is constantly searching and reorganizing data is a perfect example. RAM Disk access is considerably faster than hard disk and floppy drive access.

The data is already in memory, before a read takes place, so the data only needs to be copied to a different memory location rather than being read from as slow disk drive. READ/WRITE and Data Transmission time is cut down. Consequently, the performance is greatly improved.

Summary

Whether standard emulation is used or a Titan /// plus IIe board is used, they are easy to learn. We don't promise that all Apple II programs will be simple to learn. They do have a variety of "interfaces" and how friendly or unfriendly they are depends on the individual programs under consideration.

The actual emulation is simple to master and the basics of using an Apple II are not tough to master. There are several inexpensive books available on Apple IIe topics. Remember, what emulation does is attempt to make your /// work like an Apple II, so you may have to study a little to get the most good from it.

In the early days of the Apple ///, emulation was important because it allowed the /// owner access to much needed software. For the first couple years of the ///s life there was very little native mode /// software. Most owners came to rely on Apple II programs run in emulation. This meant that emulation was critical in that it helped the /// owner until Apple /// specific applications were available. After that early stage, emulation was still useful because it made the huge number of Apple II education, game, and productivity programs available for Apple /// users.

Today, with few programs being written for the ///, emulation has once again gained major importance. It is a link between the Apple /// and a good number of the newer Apple II programs. With the Titan /// Plus IIe, the old Apple /// can still run many new education, entertainment, and productivity programs that are currently available for the Apple IIe. Emulation is a very useful attribute of the Apple ///. ///

Migrating From Catalyst To Selector ///

by Dr. Al Bloom

Better, Or Just Different?

Quark's Catalyst and ON THREE's Selector /// are competing program switching utilities for the Apple ///. Selector /// is gaining in popularity against Catalyst. It is actively advertised and still supported by ON THREE. A lot of Catalyst users have switched to Selector recently. Still others are seriously considering switching. This article is aimed at those of you who are thinking about converting from Catalyst to Selector or are in the process of doing so.

This is not a review of Selector. Dave Ottalini did that in the November 1986 ON THREE. This is not a feature-for-feature comparison of Catalyst and Selector. Milt Johnson did a thorough job of that in the June 1986 issue of THE /// MAGAZINE. I'm going to concentrate on the mechanics of converting an existing Catalyst-based Apple /// system to Selector.

Installing Selector from ground zero is one thing. When you already have a "mature" system under the other hard disk program selector, Selector is a whole different ball of wax. My Catalyst-based system is certainly mature. I am a "from day one" Catalyst user (My serial number is 177) who has just received Selector ///. I've long since coped with Catalyst's eccentricities.

Selector was designed with a different philosophy, and it has different features. Different does not necessarily mean better or worse. Larry Bird and Michael Jordan are very different basketball players, but I'd be hard pressed to call one better than the other. Keeping that in mind, let's see what the installation and operation differences are between Catalyst and Selector.

Installing Selector

The first thing I noticed about Selector was its device driver file. All the drivers are "vanilla" versions from Apple Computer - no special versions of the otherwise standard drivers like Quark's own .CONSOLE driver.

That implies that you can't leave any programs via the "double apple ESCAPE" key combination. It also implies that you now have access to all The Desktop Manager's goodies from the main switcher menu. With Catalyst's .CONSOLE driver, TDM is inert when the main menu is displayed. With Selector, you don't have to "idle" in an application to use a TDM module or hear from the alarm clock.

Selector also has no extras like the .CATALYST and .UNUSED drivers. Selector's heart is patched into the operating system - note the SOS 1.3(s) on the boot-up screen. Without the .UNUSED drivers, you can no longer "dynamically load" drivers as you can under Catalyst. Selector's SOS.DRIVER file must contain every driver that you will ever need. For every application. You should check your Catalyst menu entries to (1) see what drivers you dynamically load and (2) add them to the Selector startup disk's SOS.DRIVER file.

While you're transferring your special device drivers to the Selector startup-disk, and if you have The Desktop Manager, do resist the urge to add the TDM drivers before you install Selector. Selector will not install with the TDM drivers present. Major blank-screen system hang. Power switch re-boot. Wait until Selector is installed before adding the TDM drivers. And only add them via TDM's driver automatic installation procedure. While you're looking at device drivers, check the name of your hard disk's driver. If it isn't .PROFILE, change it. Selector is firm on that point.

After you've modified the SOS.DRIVER file to match your system configuration, take an extra minute before leaving System Utilities to look at the volume name on your System Utilities boot disk. If it is not /UTILITIES, change it. The last step in the automatic Selector installation procedure requires your having a System Utilities boot disk BY THAT NAME. If your disk does not have that volume name, you get to power down and rename the

disk and completely re-do the Selector installation.

Installing Applications Under Selector

After Selector has successfully installed itself on your high capacity disk, you won't recognize your hard disk directory. Selector has set up a "skeleton" for each of the thirty commercial Apple /// programs it knows about. It has also installed a neat feature known as Run-Time Pascal. RTPASCAL is a stripped Pascal operating system that is designed only to run Pascal based programs like System Utilities, Lazarus and Backup ///.

RTPASCAL is a greyhound. I love how fast it launches System Utilities, some 30 percent faster than under the full Pascal development system. I love QUIT'ing System Utilities and seeing the Selector main menu instead of the Pascal command line. If it works for an application, it works well. However, it doesn't always work.

Mail List Manager is an example of a Pascal based program that dies under the combination of Selector and RTPASCAL. It does so for two reasons. First, MLM makes some system calls to describe the console screen that are (1) perfectly correct and (2) completely incomprehensible to RTPASCAL. If you have a Pascal based program that is well behaved under Catalyst but yields a spectacularly bollixed up screen under Selector, RTPASCAL is the problem.

The second problem with MLM is that it needs to have two system prefixes set, the SOS prefix and the Pascal prefix. Both Catalyst and Selector allow you to set the SOS prefix. Catalyst can also set the Pascal prefix via the "comma" in the executing program pathname entry (CATALYST/MLM,SYSTEM.STARTUP) in the main menu and via the "prefix" entry in the "Pascal Startup" menu. Selector has no ability to set the Pascal prefix.

There is a third problem with MLM (Isn't this a great example?) if you are not running the newest version (1.1) of the program. The original MLM (Version 1.0) has no graceful way to exit when you are through with the program. Under CATALYST you may "Double Apple ESCAPE" from programs that otherwise force you to re-boot, but SELECTOR doesn't have that feature. MLM Version 1.1 has an undocumented "gentle" exit. When the screen asks you to re-boot, Version 1.1 allows you to

press "Open-Apple-Q" to quit.

Editors Note: You can return to the Selector menu from some Pascal programs that don't have an exit or quit routine by pressing CONTROL \ and then the SPACE-BAR.

Catalyst can come to the rescue of Selector in solving the first two of MLM's problems. If you ran MLM under Catalyst, you already have a full-power Pascal run-time system on your hard disk. You also have Catalyst's Pascal startup system (the STARTUP and PASCAL.STARTS files) on your hard disk.

Just point your Selector menu entry for MLM to the CATALYST/PASCAL language file (for a "vanilla" Catalyst based system) and to the .PROFILE/STARTUP program file. When invoked, you'll find yourself at Catalyst's Pascal Startup Menu. Add an entry for MLM pointing to the CATALYST/MLM Pascal prefix and for the CATALYST/MLM/SYSTEM.STARTUP program.

At that point invoking Mail List Manager, or other Pascal based program with similar Selector or RTPASCAL problems, is a two-step procedure. First go to the Catalyst Startup screen, then select the program you want from its menu. When you leave the program, you'll be back at the Pascal command line, from which you may QUIT to the Selector main menu.

There is no similar fix for the "soft exit" problem. You can use the above procedure to invoke MLM 1.0 from Selector, but you can never return to the Selector menu. As I said, Selector does not offer the "double apple ESCAPE" from programs that adamantly invite you to press "Control-RESET" when they are finished. The answer is to change program versions. As I said, the MLM 1.1 has a "quit" option. The newer versions of PFS (B02 et seq) allow you to press "E" (for exit) from PFS's main menu. The "hard disk" versions of PFS are available from ON THREE.

Copy Protected Programs

Selector was not designed to deal with copy protected programs other than AppleWriter and the VisiCalc se-

Continued On Page 20

ON THREE News & Views

From The Desk of Bob Consorti

From one die-hard Apple /// owner to another, I welcome you to the Spring/Summer '88 edition of the ON THREE product catalog. For many of you this will be your first bit of information you've received on the many products that are available for the Apple ///. I encourage you to look over this guide. If you're a new or an old hand with the Apple ///, there's something in here for you.

Over the last six years we've dedicated ourselves to producing the best software and hardware for the Apple ///. This catalog shows the fruits of those labors, dozens of Apple /// specific products. From memory and disk expansion to productivity tools and games, ON THREE has led the way in the powerful products that you want.

In that spirit we're introducing a few new products in this catalog. For you Desktop Manager users there is Super Accessories Disk #3! Another one is the long awaited spelling checker for ///E-Z Pieces. If you have this wonderful integrated program you're probably painfully aware of the lack of a suitable spelling checker.

With our new StemSpeller /// your worries are over. Now you can quickly and easily check your ///E-Z Pieces word processing files for spelling mistakes. A great enhancement for those who want to, or currently do use ///E-Z Pieces for their word processing needs.

We're selling StemSpeller today because a year ago over one thousand people requested a ///E-Z Pieces spelling checker. As long as you continue purchasing what you've asked for, we will continue to create new products for the Apple ///.

Other products that we're working on include a high-speed replacement for Backup /// and an easier way to configure and optimize your drivers. Both of these items have been requested repeatedly from you, our valued Apple /// customers.

For new Apple /// owners, let me suggest our new /// Beginner Pack. Explained in detail on page 3, it has everything to get a new ///r up and running. For everyone, please sit back and read through the next few pages. There's something for everyone.

To all of the people who've supported us with their continued purchases over the years, a whole-hearted thanks! We look forward to continue fulfilling all of your Apple /// needs.

Bob Consorti

Bob Consorti - President, ON THREE

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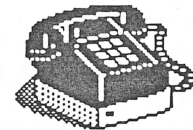
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Apple ///-IIGS Users:

Many Apple /// owners have changed to the new Apple IIGS over the last year. If you have a GS, give us a call. ON THREE now has a variety of software and hardware products available for the Apple IIGS. Included are The Desktop Manager and the ON-BOARD, a GS 4 MegaByte memory expansion card. We'll be glad to send you our free Apple IIGS product catalog.

12 Monthly Issues of ON THREE Magazine for As Low As \$20!

If you're one of the many that have let your subscription lapse this past month (or a year ago), have we got some deals for you! Resubscribe today at the low rate of only \$40 for a 12 issue subscription. That's our standard subscription price. Or if you like, order any product in this flyer and you can resubscribe for only \$20. That's 50% off the regular \$40 price.

But why should you resubscribe? Well, do you still have an Apple ///? If so you need ON THREE Magazine. It's the ONLY magazine that exists for the Apple ///. Please don't confuse us with other magazines that have abandoned the Apple ///. We're the last Apple /// magazine left and we listen to your needs.

From series for the beginner to articles for the most advanced Apple /// user, ON THREE Magazine helps you get the most out of your Apple ///. Resubscribe today and learn how to connect laser printers, hard disks, micro-floppies and more to your old Apple ///. Learn how to use ramdisks, spreadsheets, data bases, and word processing programs to their fullest. Timely reviews on Apple /// products (new and old) make ON THREE Magazine the only publication that can fill all of your Apple /// needs. With our Apple Slices column you can be kept abreast of all that's current in the Apple computer world. Whatever the reason, please be sure to subscribe (or resubscribe) today!

Apple ///'s, Memory Expansion & Disk Drives

NOTICE: The price of the micro chips with which we build our memory boards has skyrocketed! Prices are increasing daily with no end in sight. The prices listed below for Apple ///'s and Apple /// memory cards are valid as of the date of this printing. Please call for current prices. If you have been considering getting a spare Apple /// or upgrading your Apple /// to 256K or 512K, our advice to you is, "do it now, before prices climb even higher".

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Powerful reconditioned Apple /// computers. Limited 90 day warranty. Save hundreds of dollars on one of the worlds finest microcomputers. Please add \$35 for shipping, handling and insurance.

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If you need more memory but don't want to upgrade your Apple /// all the way to 512K, the 256K upgrade kit is for you. With 256K installed you'll be able to use programs like Selector, Draw ON, Desktop Manager and more! Includes installation instructions, 256K users guide, Apple /// Confidence Program, chip extractor, 256K confidence disk that tests memory and ensures that your 256K Apple /// is working properly, free technical support, 90 day warranty and a fully populated 256K memory board. All this for only \$169+\$10.

Memory Boards 128K

If you have ever worried about what you would do if your Apple /// memory went bad, here is an inexpensive way to get insurance. Have a spare 128K memory standing by and if trouble comes all you have to do is pop in your spare and go right on working. \$25+\$10

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All Thumbs? ON THREE will install your 256K or 512K memory board in your Apple /// for the new low price of just \$25 plus shipping charges. Please call (805) 644-3514 to schedule an appointment.

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Covers immediate replacement of your 512K memory board in case of failure. Cost per year when issued within 90 days of purchase: \$50 per year for the first board and \$40 per board for two or more boards: Any original purchaser of an ON THREE 512K memory board can also purchase memory board insurance for \$75 for a full years coverage.

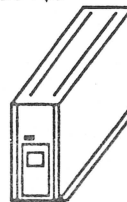
Apple /// Disk Drives

*UniDisk ///.5 800K Drive

The UniDisk ///.5 is a regular Apple 800K 3.5 inch disk drive for your Apple ///. If you have a hard disk but hate making back-ups, the UniDisk is for you! Back up an entire ProFile with just seven micro-floppies! No hard disk? Then this is a great way to say goodbye to your floppies! With Selector or Catalyst you can store all of your programs on the UniDisk and switch between them in seconds. The new 3.5 disks are so small they can easily fit into your shirt pocket but they're a lot tougher than regular 5.25 inch floppies. Complete with 800K drive, interface card, cabling, driver disk and complete instructions. \$499+\$10

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*The All NEW Sider 20 Hard Disk Drive



One of the advantages of a hard disk is that you can store virtually all of your programs and data files on it, greatly reducing the time it takes to do things - improving your productivity. Loading and saving files can be 10-20 times faster with the Sider hard disk. All in all it's a low cost, great hard disk and one of the fastest on the market.

All New Sider 20 Continued...

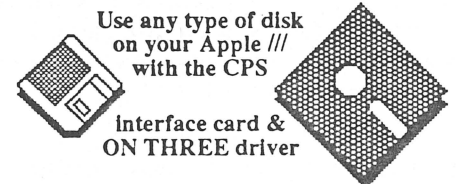
If you have a Titan ///+Ile board your choices have been very limited if you want a hard disk that worked in ///+Ile emulation mode. The Sider 20 expands your options by now working in the native Apple /// mode & the regular Apple II and the ///+Ile emulation modes.

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The NEW Sider 20 is complete with interface card, Apple /// driver disk, documentation and cabling. The NEW Sider 20 even supports Apple II DOS, Pascal and Apple II CP/M partitions through it's powerful installation utility. Our new Apple /// Sider 20 drivers automatically recognizes these partitions and allows you full access to the two SOS partitions in native Apple /// mode. The NEW Sider 20 is a truly great hard disk. \$949+\$35

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*CPS 800-400-140K Disk Drives



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While many of you select the UniDisk for your expanded storage needs, many /// owners have told us they wanted a low cost alternative to the the 800K Apple UniDisk 3.5 drive, for main storage or for backups.

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CPS 5 1/4 inch 140K Drive: \$139
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The /// **Beginner Pack** has guides and programs that will teach, amuse and entertain you as you learn how to use the Apple ///. Please read the full product descriptions of these products elsewhere in this catalog. If you purchased them separately they would cost \$216.60. We're offering the /// **Beginner Pack** for *only* \$99+\$7 for s/h. Save over \$100! Contains:

- 1) McGraw Hill Guide to the Apple ///
- 2) Lazarus file restoration utility
- 3) ThreeWorks
- 4) System Utilities Product Training
- 5) Will Someone Please Tell Me What An Apple /// Can Do?
- 6) Crossword Scrambler
- 7) Mr. Sandman
- 8) Apple /// Card Machine
- 9) Apple /// Fruit Machine

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Informative 276 page book explains the Apple /// in detail, everything from getting started with the System Utilities to programming. Complete instructions for the operation and care of your /// make this book a valuable aid for all ///rs and a necessity for every new Apple /// owner. The Guide is only \$29.95+\$3.

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The worlds only monthly magazine that's devoted solely to the Apple /// computer. **ON THREE** contains articles of lasting interest, answers to your technical questions, new programs, in depth product reviews, user groups and hot liner listings, editorials and up to the minute news of what's happening in the Apple /// world. You'll get substantial product discounts (available only to subscribers) that will more than pay the cost of your subscription!. If you have an Apple /// you need the **ON THREE** Magazine. USA 12 issues \$40: For First Class Mail add \$12: APO, FPO, Canada and Mexico \$60: Europe, South America, Asia, Pacific Islands and Australia \$84.

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Instructions on using the System Utilities program to format, copy, rename disks, list, copy, rename, delete files and make subdirectories. A section on the System Configuration Program helps you to configure your Apple /// and application software programs to communicate with other peripherals such as disk ///s, the ProFile hard disk and printers. Gives an overview of the features of the System Utilities program and enough knowledge of the tasks involved to use your Apple /// with applications programs, data files and peripherals. Contains Sample Files disk and exercise booklet. \$14.95+\$3

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Bibliography of everything written or created for the Apple /// computer with listings of all published magazine and newspaper articles, a glossary of /// related terms, listings of the Apple /// bulletin boards, books, clubs, user groups, publications, vendors software and drivers with current version numbers, error codes, public domain software, Apple /// tips and more! Requires ///E-Z Pieces. A must have for all new Apple /// owners. \$39.95+\$3

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DOM #4 - Emulation Patch, Access /// Startup, Pascalculator, Radiate Graphics Demo, musical melodies, Draw ON /// pictures
DOM #5 - Access /// Startup, Ben's Super Slot Machine, PFS-WPL Merge, Decision Support SpreadSheet, Draw ON Graphic Demos
DOM #6 - Business Basic Program Lister, Noisemaker, Documentation Programs, Spirograph, Surface, Golfball, D.O. pictures & fonts.
DOM #7 - Imagehelper, Sorting and Printer Control
DOM #8 - Directory Sorter, Drive Cleaner and File Reader
DOM #9 - Graphics, Music and more
DOM #10 - Graphics Football Pool, Useful Pascal Prompt procedure
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Disks of the Month are priced at \$14.95 each + \$2 s/h. Two or more DOM's are only \$12.50 each + \$4 total s/h.

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Fully integrated spreadsheet, word processor and data base manager. /// E-Z Pieces combines the power of the three most commonly used program with the ability to quickly and easily transfer data among them. This program was written by the author of the Apple II program AppleWorks - the best selling software package on any computer! AppleWorks & /// E-Z Pieces look and function exactly the same, even the data files can be swapped between Apple II and Apple ///. Utilizes the full memory available in your Apple ///. 180K on a 256K Apple ///, 414K+ on a 512K machine! This best seller was originally \$245. Now only \$135+\$3.50.

*Draw ON /// THE Graphics Tool for the Apple ///

Transform your Apple /// into a combination drafting table, easel and sketch pad! Graphics can be created with the Apple mouse, Trackball, joystick or keyboard. Adjustable grids, built-in self help screens, rubber banding of lines and easy to follow menus make Draw ON /// easy to learn, yet very powerful for more advanced users.

A spiral bound, Apple style manual compliments this program. Create bar, pie or scatter charts. Add colors, fill areas with textured patterns and add text in a variety of fonts and sizes. Cut and paste facilities let you to pick up a piece of your drawing and move it, shrink, expand, rotate and invert it. Zoom in for detailed work. Add borders, textures, different typefaces!

You can even design your own fonts. Complete font templates and samples provided. Prints graphics to an Apple DMP, ProWriter or ImageWriter. All Epson printers (MX, RX, and FX) are supported. If you have the Pkaso or Pkaso/U interface card you can print to your Centronics, NEC, OkiData, IDS Prism and others.

Graphics Tablet version available for \$15 extra. Requires at least 256K of memory. Installs under Selector /// or Catalyst. State printer & interface type when ordering. Regularly \$179, now only \$129+\$5!

**BPI General Accounting

Double entry bookkeeping system. The general package includes accounts receivable, payable and payroll ledgers. Prints out checks and reports. Requires 256K and a hard disk drive. When running under Selector or Catalyst with the Desktop Manager it requires 512K. Was \$495, now only \$99+\$7 - save over \$400!

**BPI Add-On Modules

Accounts Payable: Was \$495, now \$99.
Accounts Receivable: Was \$495, now \$99.
Job Costing: Was \$495, now \$99.
Payroll: Was \$495, now \$99.

Please add \$7 shipping for each module.

Utility Programs

*Backup ///

Allows you to make a back-up of the files on your ProFile and restore those files to the hard disk. Backup /// may be used with all regular hard disks and floppy disk drives, including the 800K 3.5 inch drives. Your data is your most valuable asset. Don't be caught unprepared. Please backup your files regularly. \$49.95+\$3

Lazarus /// File Restoration

If you make a mistake and erase that one file that you can't afford to lose, Lazarus /// is all the magic you'll need to bring it back from the dead! Lazarus can restore files on all Apple /// hard disks and floppy disk drives. Completely menu driven, works in seconds! Get Lazarus now, before you need it! \$49.95+\$2

RAM Diagnostic Disk

The diagnostic disks will test the memory and general well-being of your Apple ///. If you've had problems with your Apple ///, get the diagnostic disk today. When ordering please specify 128K, 256K or 512K diagnostic disk. \$15+\$2

Selector /// Program Switcher

The state-of-the art program switcher that eliminates the need to swap disks when changing applications. With Selector you can now put all of your programs on your hard disk (or large capacity floppy) and run them from there. Switch from application to application in seconds, not minutes!

Programs such as Apple Writer, VisiCalc, Draw ON /// and hundreds of others work perfectly with Selector. Startup your /// with Selector and you're done for the day. Requires a 256K or 512K Apple /// with large capacity disk drive. Only \$99+\$7.

The UncopyProtect Driver

Allows you to make back-up floppies of VisiCalc, Advanced VisiCalc and AppleWriter ///. ON THREE does not condone duplicating copyrighted programs. But, as these programs are no longer supported its a big problem in the event of a disk crash. UncopyProtect Driver allows you to make backup copies of the above mentioned programs for legitimate disk archival purposes only. \$29.95+\$3

Programming Languages

*Apple /// Pascal Version 1.1

Develop and execute UCSD Pascal programs quickly. Take advantage of the ///'s power. Use 64K for program data, the entire available memory for code and graphics. Full integration with SOS gives the benefit of both UCSD Pascal and support for larger mass storage. Incorporates full IEEE standard numerics including single, double and extended precision types. Easy to use. Was \$250, now only \$99+\$7. Save over \$190!

*Apple /// Pascal Update (Debugger Version 1.2)

Updates the standard Apple /// USCD Pascal with a powerful debugger. Includes file selection and many other features. A must for serious Pascal program development. Does not contain all of the manuals as in version 1.1. This is an update! \$49.95+\$7

*Apple /// Business Basic

This is one of the most powerful basic languages available for any computer! Apple /// Business Basic lets you write complex business, educational or game programs for the Apple ///. Limited supply. Was \$125, now only \$99+\$5.

*Apple /// Cobol

Apple /// Cobol is a high intermediate level implementation of Cobol. Provides main-frame power on your Apple ///. A must for engineers. Was \$495, now only \$99+\$5.

Apple /// Fortran Compiler

Apple /// Fortran 77 works under the Pascal language system (required). You can link your Pascal, Fortran and assembly programs together in this powerful implementation of Fortran. Only \$59+\$5.

Programming Guides

SOS Reference Manuals is the complete guide to SOS programming. Only \$59+\$3.

Device Drivers Writer's Guide guides you in writing drivers. Only \$29.95+\$3.

Desk Accessories (Available From All Programs)

The Desktop Manager

The Desktop Manager (TDM) is a utility that allows you to use desk accessories like those on the MacIntosh™. They are utility programs that you use within other programs. You can be using /// E-Z Pieces or any other Apple /// program and a simple keystroke will freeze your program and display the TDM menu. Simply highlight the accessory you want, press RETURN and in a moment it will be up and running. When you're finished, press escape and you'll be right back in your program.

With TDM you can throw away your paper, pen, calculator, appointment book and more! We've included a number of standard features to enhance your productivity. TDM is also expandable. You can design the system that best suits your own needs. TDM has a built in: Note Pad, Appointment Calendar, Calculator, Pickup & Paste, Built-in self help screens and more.

Add new accessories such as macros, disk utilities, a communications program, games and more at any time.

The Desktop Manager requires an external disk drive of any capacity and a 256K or 512K Apple ///. TDM uses about 32K of memory. A hard disk or large capacity floppy disk drive is highly recommended. Works with Selector, Catalyst and ALL other Apple /// programs. Only \$99.95+\$6.

ASCII Chart

This Desktop Manager add-on lists the decimal, hexadecimal and corresponding character values of all ASCII keyboard characters. A second screen shows the decimal and hexadecimal equivalents of keypresses which include the control key. Keypress table can be invaluable when you need to know printer commands to enable different printer modes. Only \$9.95+\$3.

The Communications Manager

The Communications Manager (TCM) is a powerful tool that allows your Apple /// to communicate or talk to other computers or services such as Dow Jones™, CompuServe™, The Source™ and others. Complete VT-52 terminal emulation makes this program really powerful.

You can record incoming text to a printer or disk file for later viewing and transmit standard ASCII and Pascal Textfiles automatically. TCM has every feature of the other Apple /// comm. programs plus error free transmission of files via the popular XModem & Binary II transfer protocols.

TCM also supports Turbo Downloading for ultra fast file XModem downloads. Turbo downloading gives 2400 baud performance on 1200 baud modems!

TCM Continued...

Included with this package is a version of TCM that runs as a stand-alone program and a version that can be run as an accessory under The Desktop Manager. If you have The Desktop Manager you have the best of both worlds! You can be inside /// E-Z Pieces or VisaCalc and send a spreadsheet or data base file directly. Only \$49.95+\$3.

Disk Manager

This TDM add-on allows you to list, copy, delete, rename, lock/unlock files and list the devices, copy, format, rename and verify disks. Virtually all the features of the System Utilities available in an instant. If you've ever typed in info. and then found that you didn't have a blank disk to save it on, the Disk Manager can be a lifesaver.

Are you sick of not being able to remember the names of certain files? Worry no more - It's Disk Manager to the rescue! You can even copy files to the printer! Instead of the few minutes that it takes to boot the System Utilities, Disk Manager is ready in a few seconds and it takes no additional memory away from your programs! \$44.95+\$3

The Graphics Manager

The Apple // version is being acclaimed as the best graphics printing program *EVER!* The Apple /// version is even better! The Graphics Manager (TGM) allows you to take any Apple /// black/white or color and any Apple // black/white hi-res, color or double hi-res. color or Print Shop image and print it the way you want it!

Sophisticated image analysis lets you take your entire picture, or any portion of it, and expand it to fill an entire page or shrink it down to a small section. Rotate, invert or flip the image to suit your needs. TGM is the *ultimate graphics printing utility!*

Included with this package is a version of TGM that runs as a stand-alone program and a version that can be run as an accessory under The Desktop Manager. Learn what people in the Apple // world are all talking about! Get the original! Get The Graphics Manager /// today! \$39.95+\$3

Macro Manager

One of the most popular add-on accessories for TDM. It's a keyboard macro program that can redefine any keystroke to be a series of keys. Thousands of keystrokes may be assigned to a single key.

You can set a certain key to contain the name of a city, state, zip code or any other commonly typed item. Phone numbers, salutations or *anything that you type* can be setup to as a macro and played back at a moments notice - via a single keypress!

Macro Manager Continued...

Our innovative Macro Recording lets you type in the information as you usually do and will automatically assign you a key. You can use up to 50 different macro keys at once and switch between sets of macros (MacroMaps™) in just a few seconds.

The Macro Manager eliminates repetitive typing and improves your personal productivity by making the /// faster and easier to use than ever before. Like all the other TDM accessories Macro Manager uses no additional memory. Only \$44.95+\$3.

Super Accessories Disk #1

Contains the following TDM accessories: Printer Setup lets you send complex controls to your printer via menus, TypeWriter, Labeler, New Desktop Setup allows better control over the Clipboard, Make Subdirectory, Menu Manager which provides submenus so you'll have an infinite number of accessories on your Apple ///.

Best of all, each accessory has built-in self help screens and the standard ON THREE power and ease of use. Only \$39.95+\$3.

Super Accessories Disk #2

Contains the following TDM accessories: File View lets you view another file within a file: Change Font: Show Time (no need to go back to Systems Utilities to change the date or time) plus there's an elapsed timer in this module: Change File Type; File Print, Print Screen better than screen dump, you can opt to Print Screen, Form Feed Printer or Line Feed Printer: Reload and Exit: PKASO U commands and The Warning Module. Only \$24.95+\$3.

Super Accessories Disk #3 New!

Contains the following TDM accessories: Accessory Manager lets you customize your TDM menus, rename accessories & more. Character rulers displays rulers on the screen to help you align text. Hex View/Hex Print lets you view or print any file in hexadecimal form. Info Help lets you enter any type of info into a TDM window for instant recall. SOS Errors is an Info Help accessory that lists all SOS errors. Block View/Edit is a powerful disk block editor. Included are both a stand-alone and TDM version. A great value at only \$29.95+\$3.

Programmers Toolkit

Now you can write your own accessories for The Desktop Manager. The toolkit contains built-in routines that you can add to your accessories to easily, design and move folders, use a standard error, line input routine and more. Only \$19.95+\$2.

Clocks, Modems, Printers & More

Apple /// Clock

We stockpiled the ON THREE O'Clocks before chip prices went crazy, so we're reducing the price \$10. Did you know that the Apple /// has provisions for a built-in clock and calendar? ON THREE O'Clock is easy to install. Does not require a slot. Compatible with all Apple /// programs. Simply save your files and the time will be saved along with it. Use the System Utilities to see the date the file was created or last modified. Includes battery holder, cable, clock chip and easy to follow instructions. Battery not included. Only \$39.95+\$3.

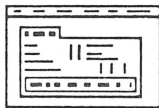
Apple /// Modems

Modems are the perfect way to enter the wonderful world of communications. Combined with ON THREE's Communications Manager (or other comm. program) you can talk with other Apple /// users on CompuServe™, the Source™, Dow Jones™ and other information services.

We offer both a 1200 and a 2400 baud modem of superb quality. Fully Hayes compatible with auto answer/dial, these modems come in rugged cases and are an exceptional value.

1200 BAUD...\$159.95+\$10
2400 BAUD...\$259.95+\$10

*Modem - Comm. Manager Combination



Order a 1200 or 2400 baud modem and you can get The Communications Manager (TCM) for 1/2 price. TCM is simply the best communications package available for the Apple ///. For a limited time you can get everything you need to get started in the wonderful world of telecommunications and get TCM for only \$25+3.

**CP/M Softcard ///

The CP/M Softcard from MicroSoft lets you use the thousands of business, science and education applications based on the widely used CP/M operating system and the Z80 processor.

This reconditioned Softcard /// includes the complete interface card, manuals and everything else you need to start using CP/M on your Apple ///. Also includes Microsoft Basic and an 8080 assembler, debugger, editor & utilities. Originally \$499! Today it's only \$99+\$7.

Apple Mouse

With the Apple Mouse and Interface Card installed in your Apple /// you can use such programs like Draw On ///, the Graphics Manager and other Apple /// programs faster and easier than possible before. Fun to use and installation's a snap! Requires one of the slots inside your ///. You'll enjoy your Apple /// programs much more using the Apple Mouse. \$160+\$5

TrackBall /// New!

A low cost alternative to the Apple Mouse. And it's compatible with ALL major Apple /// programs.

TrackBall /// is like an inverted mouse with two buttons, instead of the single one on the mouse. Instead of pushing and pulling the mouse around your desk the TrackBall unit remains stationary while you roll the first little ball back and forth. The 2nd button can adjust the sensitivity of the TrackBall.

TrackBall /// comes with a replacement .MOUSE driver that you add to Draw ON and other popular programs. Complete with trackball, interface card, driver disk and instructions.

TrackBall /// can also be used as cursor keys in all Apple /// programs, including Desktop Manager, Visicalc, /// E-Z Pieces & more! Specially priced at only \$89.95+\$6.

Purchase Draw On /// at our regular low price and you can order a Mouse for just \$80 or the TrackBall for only \$44.98.

- Limited time, order yours today -

Parallel Interface Card

The Universal Parallel Interface Card allows you to connect any printer that uses a parallel interface to your Apple ///. Includes interface card, cable, driver and documentation. Works great with all Apple /// programs! Only \$99+\$7.

**Color Printer

The IDS Color Prism is the original & best color printer available for the Apple ///. Includes the Pkaso parallel interface card and all necessary cabling, drivers and original manuals.

Use it with Draw ON, Graphics Manager or your own programs to produce stunning color charts, graphs and other images. Includes color & B/W ribbons. Originally priced at over \$1800! Get this great color printer and interface for the new low price of just \$599+\$25.

The price will go down \$50 per month until someone purchases this great printer. But don't wait too long, it might not be here much longer!

Titan ///+//e

Brand new Titan ///+//e cards are now available. This is a two board set that allows you to use virtually all Apple //e programs on your Apple ///.

When you want to use Apple //e programs, just boot the Apple //e emulation startup disk and your Apple /// will magically be transformed into an Apple //e. To change back to your Apple /// programs, just put the Apple /// disk in and reboot!

The Titan boards will even work with the ProFile, new Sider drives, UniDisk and CPS drives in Apple //e emulation mode.

Some Apple //e programs require the 65C02 microprocessor that is different from the regular Apple /// 6502. The 65C02 is available to those who need it for only \$29.95+\$2.

The Titan ///+//e was originally \$499, now while supplies last you can get one for only \$399.00+\$10!

Miscellaneous Items For Your Apple ///

Magazine Binders

Now you can put ON THREE in its place, for keeps! An attractive vinyl binder will keep your ON THREE Magazines clean, neat, in sequence and ready for quick reference at any time. Each binder holds twelve ON THREE Magazines. Why not order several and get your ON THREE Magazines in order! \$9.95+\$3

Dust Covers

A frequent cause for computer crashes or failure is common dust, which affects the delicate components in your computer. Our sturdy vinyl dust cover is an absolute must for protecting your Apple /// from the ravages inflicted by dust, dirt and static. Remember when not in use, keep your Apple /// covered! Comes in two sizes.

Apple /// with monitor: \$11.95+\$3
Apple /// with monitor & profile: 12.95+\$3

"I Love My Apple ///" Tee-Shirts, by HANES

These popular Tee-Shirts for the Apple /// enthusiast are sure-fire conversation starters! They come in the following colors: silver, blue, yellow, white, cream and tan, with a multi-colored decal that proclaims, "I Love My Apple ///".

Made of 100% cotton, they are comfortable, washable and top of the line HANES quality. Sizes: small, medium and large.

Please be sure to give your size and list second and third color choice, because not all colors are available in all sizes. Certain to become a collectors item, they make a thoughtful gift for your favorite Apple ///er! Only \$11.95+\$3.

Program Updates

ON THREE can update the programs listed below to the current version. Just mail us your original disks with note explaining which version you want. We'll update your disks and send them right back to you.

AppleWriter Version 4.0 \$15+\$2
Business Basic Version 1.23 \$15+\$2
(Free if Basic was originally purchased from ON THREE)

- Please include return postage -
Draw ON /// Printer Update: Versions available for: Apple DMP, Epson, Pkaso, Pkaso/U and Graphics Tablet \$15+\$2
Graphics Manager ///: Specify the color or black and white version. \$15+\$2
PFS File, PFS Report and Word Juggler (Copyable): These disks can be backed up with the regular System Utilities program and can be used on Catalyst or Selector without requiring a key disk. \$15+\$2

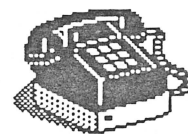
Order Form

Order by calling TOLL FREE: (800) 443-8877

Customer Service and Questions: (818) 701-1355

ON THREE
Your Apple /// Experts

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Northridge, CA 91324 U.S.A.



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Ask About Our Quantity Discounts!

VISA, Master Card, American Express, money orders or checks accepted. Add \$3 for C.O.D. Add 3% surcharge to total on orders charged to American Express. CA residents must add 6% sales tax. Overseas customers can pay by credit card, international money order, a check drawn on a U.S. bank or bank transfer. Call first to ascertain foreign shipping costs and mode of transport. Returns must have prior approval and are subject to a restocking fee. We do not copy-protect any of our software products so there are NO returns allowed on software. Not responsible for typographical errors.

QUANTITY	PRODUCT DESCRIPTION	EACH	TOTAL	SHIPPING

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Company _____
Address _____
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Exp. Date _____ Phone _____

PRODUCT SUB TOTAL _____
SHIPPING SUBTOTAL _____
C.O.D. (\$3.00) _____
6% CA SALES TAX _____
3% AM/EX SURCHARGE _____
GRAND TOTAL _____

ON THREE - Dedicated To The Development Of Quality Products For The Apple /// Computer

Exciting New Products For Your Apple ///

StemSpeller ///. A Spelling Checker For /// E-Z Pieces

Compatible with standard ASCII files, Pascal Text, StemWriter and most importantly, /// E-Z Pieces word processing files!

StemSpeller /// is fast and very easy to use. Simply save your file in /// E-Z Pieces, run the StemSpeller program and check the spelling of your file.

StemSpeller will notify you of any misspellings and allow you to make changes on the spot! You can even add your unique words to the StemSpeller dictionary.

When you're finished spell checking your document, StemSpeller will automatically save your corrected file to disk. You can go right back to /// E-Z Pieces, load up the file and print it, or make further corrections.

StemSpeller /// comes with a 50,000+ word main dictionary and the ability to create auxiliary dictionaries of words you commonly use. 100% assembly language for speed. Comes as a standard interpreter that can be run by itself or loaded and run under Selector or Catalyst. In stock and available for immediate delivery. Requires a 256K or 512K Apple ///. Only \$69.95+\$5.

Technical Support From Your Apple /// Experts

Technical support is FREE on any product that you've purchased from ON THREE within the last 90 days. After that time, or on any non ON THREE product there is a modest fee for technical support. \$5 for the first three minutes and \$1 per minute thereafter with a \$15 minimum.

Our experts know everything there is to know about the Apple /// and virtually all of its software and hardware. If you're having a problem with your Apple ///, give us a call. There's nothing worse than spending your precious time trying to figure something out, when one of the people on our staff can help you in a few minutes.

The support line is open Monday through Friday 9 AM to 5 PM Pacific time. Please have your product serial number (if applicable), purchase date, your credit card number and a list of the problems you're having ready *before* calling.

Technical Support (818) 701-1355

StemWriter /// - Powerful Document Preparation

This new word processor from Australia lets you view two files simultaneously and combines all of the features you wanted in a word processing program!

Now you can design your own templates, make headlines, adjust column width, utilize on-screen over-strike & underlining, date stamp documents, count words, label and personalize form letters.

StemWriter has four levels of on-screen subscripts and superscripts, utilizes a desktop like /// E-Z Pieces and the four arrow keys to "see and point". It even uses the full memory available in your Apple ///.

Built-in macros, file management, utilities program and other special features makes StemWriter the premier word processor for the Apple ///.

Compatible with dozens of printers, StemWriter works on a 128K, 256K or 512K Apple /// and costs only \$99+\$7.

A year ago over 1,000 people asked us for a /// E-Z Pieces spelling checker. If you were one of them, please order it today. Doing so will help fund our continued Apple /// development efforts.

Ranntings

by Richard and Lavona Rann

Years Of Good Times

It is amazing to us just how much time we have spent using our Apple ///, or to be completely honest, we own more than one ///, so using our Apple ///s. Our first Apple /// was purchased during the summer of 1982. That date is almost two years after the /// was first announced. For those of you that don't remember, the Apple /// was announced in September of 1980.

By October, dealers had pre-release models of the /// that proved to have several hardware bugs. The /// was literally taken off the market for an entire year to iron-out the bugs before it was reintroduced in November of 1981. In spite of the problems, when it was introduced, the Apple /// was the most powerful personal computer on the market, and it remained so for a number of years.

IBM introduced its first PC in 1981, but it was not until 1982 that it actually shipped. Despite IBM's challenge, Apple proved that it was a leader and major contender in microcomputer technology. Apple was at the head of the line in delivering a hard disk and an operating system and file structure that could make full use of larger storage devices on microcomputers. Yes, it was the ProFile and the SOS operating system on the Apple ///.

Apple has kept the pressure on by developing new technology and approaches to use of technology. Apple continues to be at the head of the pack in bringing new micro-technology to market. We all remember that Apple introduced the Lisa in 1983 with features that IBM is beginning to implement now, some five years later.

It seems as if Apple products have always been ahead of their time. Like the test pilots Chuck Yeager talks about in his autobiography, Apple is constantly "pushing the envelope." New technology has been one of Apple's most constant traits, and we all know.

The operating system on the Apple /// was so far ahead of

its time that many vendors are just now beginning to come out with operating systems that surpass its capabilities. Even Apple did not have a hierarchical file structure on the early Lisa's and Macintosh computers. They had to add it later.

It is sort of fun to watch the Apple ProDOS operating system, in use on the Apple II family machines, move to incorporate more ideas from SOS as it also gains features that are not available on our ///'s. There was a lot right with the Apple /// and it is easy for people to forget that when faced with the general non-acceptance of the machine.

It is not surprising for us, as we watch our Apple ///s age, that we feel a certain pride in having been associated with, if not the most popular computer, at least one of the most inventive. It was, after all, the first micro designed to be used in business. It looked to involve a whole new group of computer users. These people had little regard for the machine; their primary concern was for what a computer could do. For the first time a microcomputer became a tool. Something that was more important for what it could do rather than for what it was.

As much as it would be nice to wish ourselves back to 1983 when the /// was at its height and a world of possibilities lay ahead, it is impossible. The ///, for better or worse, never caught on with the majority of business people. Regardless, it is still the same capable machine that it was eight years ago when it was introduced. Nothing in the /// has diminished. If there has been any changes, they are within us. Our expectations have changed over the years. The things we want from our computers have changed, our Apple ///s have remained virtually constant.

Perhaps, this is more an Apple phenomenon than anything else. We are so conditioned to Apple computers

being on the leading edge of technology that anything less becomes difficult to accept. In that sense, Apple's very success has created one of Apple's major problems. We feel that we must keep current with technology, and we feel cheated with anything less. Apple attracts the "Technology Junkie" in all of us.

Now, when we look at the Apple /// which at one time was the most powerful microcomputer made, we see its weaknesses. Instead of focusing on what it can do, we tend to focus on what it cannot do. In short, our personal negative feelings are projected onto the Apple /// when the /// itself, remains neutral and constantly reliable.

We have been captured by technological junkieism a time or two. In our work writing about computers we've collected copious amounts of software and hardware. It should not be surprising that each Apple announcement is greeted by a twinge of desire whether the item being announced is of any real use to us or not. Whether we need it doesn't matter. We want it, that's all. What is more, not having it causes us to feel deprived.

Do we really need the forty or fifty pieces of software we own for the Apple ///? Obviously not since we only use three or four with any regularity. Yet there was a compelling reason for buying each one of those pieces of software, useful or not. In all honesty, we had a number of excellent reasons for buying much of that software which had little to do with wanting to use it, but that does not explain everything. We must constantly remind ourselves that we project part of ourselves into each of those decisions. Not only does it cost money, it costs time.

We invest a part of ourselves with each purchase. On the other hand, we get more than software. Yes, we do get the item purchased, and hopefully the functionality that was promised by the seller, but we get something else. We get an affirmation that our choice in computers was not bad because we just proved that it could do more for us. Each purchase has a tendency to draw us closer to our computer by adding intellectual interest, and at the same time subtly telling us that our decisions are the correct ones.

So today we must constantly force ourselves to look at the true value of our ///s rather than the emotional baggage we carry about microcomputers. Our ///s have functioned well for over six years. For much of that time

they have run day and night. In essence, they are machines designed to function exactly the same every day, and that is exactly what they have done for all those months. They are constant in their reaction to our commands. Their value should be in their work not in some idea of new or old.

So why is this important? Because the Apple /// is still a good computer. It can do most of the things other computers can do, and in many cases do them better. It is excellent as a textual word processor, and well above average for running spreadsheets. That is not to say technology has not made advancements; eight years is a long time in a high tech field like computers.

There are new things and they do have value, but many of the older things have value too. What we need is to rekindle some of the old feelings about the Apple ///. One of the best ways is to get something new. A piece of software or hardware that is different, that will take some learning. With so many product values around for the Apple ///, it won't even take that much money. What it will do is rebuild the excitement that is still there. ///

Continued From Page 10

ries. In general, a copy protected program can be partly installed under Selector, but you must put the original copy-protected "key" disk in the onboard drive when they are invoked. Some copy protected programs simply cannot be run normally.

A problem for a Catalyst user is that copy protected programs may have been "Catalyzed" when installed under Catalyst and thereby rendered useless for anything but reinstallation under Catalyst. The public domain program FIXER is available from major user groups to un-Catalyze those disks.

There are ways around the copy protection problem. Mel Astrahan developed a way to run Word Juggler under Selector. ON THREE has it available. Likewise, ON THREE has a method of creating unprotected copies of Apple Writer, VisiCalc and Advanced VisiCalc, via the Uncopyprotect driver.

Continued On Page 21

Update On The TDM Super Accessories Disk #2

by Dan Martin

The New Super Accessories Disk #2

Super Disk #2 author, Earl Brelje, wasn't pleased with the comments I made about his accessories for The Desktop Manager in my review back in December 87. SO HE FIXED THE ACCESSORIES! I wanted to get back to all Desktop Manager users to let them know of the changes he has made.

Show Time +

In December, I commented that the Elapsed Time feature rendered the Apple /// to be a large stopwatch since one could not leave the module and keep the timer running. Earl has changed that. Now I can accomplish task timing and still use the Apple /// for the task. Not only that, but now I can print the time, date and job time with the usual **C H** used in other accessories - a handy feature for time stamping material. Earl also fixed the window position storage I noted previously as well.

Print Screen

Earl has come up with the ultimate screen dump for TDM users! In the new Super Accessories Disk #2, Earl has added the option for defining a "screen port" that permits less than full screen dumps to the printer. Of course, full screen dumps are still an option for those occasions when you need them. Line and form feed controls allow presentable snapshots of what you see on your screen.

Pkaso/U

Earl adds some extra features in this information screen for the Pkaso/U parallel printer interface card used by many Apple /// owners. Even more significant is that this update was an inspiration for adding a great new module to the next Super Disk Series.

File View

Although not technically a Super Accessories Disk #2 change, Earl has prepared a special version of the File View module that works better with the TrackBall ///.

The main difference is that now the user may define the ASCII codes that advance the lines and pages of information viewed with this accessory, or move back to the beginning of the file.

The control screen is invoked as the help screen when the viewed file is presented. Earl has asked ON THREE to include this upgrade with the TrackBall /// driver. By matching the codes to those generated by the Trackball ///, it's easier to scroll line by line.

Ed note: It's now included with each TrackBall /// at no additional charge.

Original owners of Super Accessories Disk #2 may receive the upgrade by returning their original disks plus \$2 to cover shipping and handling to ON THREE. ///

Continued From Page 20

You can remove the copy protection from PFS with a disk editor and instructions that I'm a wee bit uncomfortable about saying out loud. The PFS people have been so unsupportive of the Apple /// that no one should feel any qualms about removing protection.

Summary

I hope I've covered the high points in converting from Catalyst to Selector. More, I hope that my experiences and insights will keep others from stubbing their toes too badly should you tread the same path. Not all of you are as blind stupid stubborn as I am. I tend to believe that if I butt my head against a problem long enough, from enough different directions, it'll get solved. So far I've been right with respect to Selector. As I work more with the product, I suspect I'll learn more solutions. ///

Continued From Page 27

undelete files. Although our office has three Apple II's, I personally own an Apple IIGS. I recently ran across a machine language utility program for the Apple II that creates a utility to access my ProDOS disks by block and change the directory to undelete a file.

I have done a great deal of Basic and machine language programming with my GS and wonder about the availability of helpful Basic and machine language programs for the Apple II. The half hour or so it took me to create an undelete utility certainly makes me wonder why this can't be done with SOS files for the Apple II. The savings are obvious since Lazarus costs \$49.95.

Some time ago we asked about information on the Corvus hard disk systems. We were given the name and phone number of Mr. William Prince. I recently tried to call and was informed the number is no longer in use. Would you have his new number or another lead for us?

We appreciate the ON THREE magazines and the usefulness of the Apple II computers in our offices. We are fortunate that someone is keeping up with these fine computers and providing upgrades and new software.

Sincerely,

Joseph P. Dapra
P.O. Box 549
North Platte, Nebraska 69103

Dear Mr. Dapra,

If you have the experience in assembly program it sounds as if you can create a file recovery program for the II. The file formats of SOS and ProDOS disks are similar, though deleted files are different on a II than on an Apple II ProDOS disk. Depending on the version of ProDOS you are using deleted files have their index blocks cleared, pages swapped or aren't changed at all. SOS doesn't change the index blocks.

One thing that you must NOT do is simply setup the file entry to say that the file position is active. Doing that will cause directory structure damaged errors. In addition to this you must compute a new block bit map and make sure that no other file owns the blocks that were used by the deleted file. Also the directory and subdirectory file counts and other fields must be updated, along with the back ptr. information within the file entry itself.

The SOS Reference Manuals will be able to show you of these differences and give you the knowledge to

do your own undeleting program. You will also want to look over the Apple II ProDOS Reference Manuals to determine the latest deletion method being used.

If you are going to be using a undelete utility on the Apple II please make sure to consistently use only one version of ProDOS. ProDOS 8 1.4 is the most current release. If you use multiple versions, chances are the files deleted were deleted by different methods, making it next to impossible to restore them. Since you have a GS I'll recommend a program called LifeGuard. It undeletes files and is written specifically for the Apple IIGS.

I'm sorry but we don't have a current number on Mr. Prince. Perhaps one or more of our readers who know his whereabouts can contact you. If anyone knows about the Corvus system I hope they read this and respond.

DMP Printing / Pascal Programming

Dear ON THREE,

FRUSTRATION! I recently acquired a used Apple Dot Matrix printer. I also recently purchased Three-Works from ON THREE. Scanning through Three-Works, I discovered a reference to the April 1983 issue of ON THREE which had a program for printing in different font styles on the Apple Dot Matrix printer. Getting put my Pascal software, I typed the program in.

The first stumbling block came in the Save PROCEDURE which has the steps:

```
Temp := Temp + (CH [CR, Row, Column] # Count);  
COUNT := COUNT # 2;
```

The program would not compile because of the # symbol. I tried changing this to a + and then I could compile the program. I had to make the same change to two steps in the ReadFont PROCEDURE. However, when I ran the program I got garbage for a printout. What is the correct symbol to use?

The second stumbling block I discovered when I was reviewing the Load PROCEDURE. I had to go to page 207 of the Pascal Programmers Manual, Volume 1 to find out the meaning of the step which reads:

```
UNITWRITE (6, Bits, 1, 0, 12)
```

There I found that the 6 is a printer designation. but I have an Okidata printer identified as .PRINTER and the Apple printer is identified as .GRAP as it's connected via a Grappler interface card. In that manual I also found out about non-standard devices being assigned numbers in the range of 128 and up.

Continued On Page 24

An Even Better Way To Install Aladin /// On Your Hard Disk

By Roger T. Harrer

In Steve Brineaux's article "A Better Way to Install Aladin /// on your Hard Disk" in the March issue of ON THREE, he describes how to use a disk block editor to change the Aladin programs so that they can be used under the Selector /// or Catalyst program selectors.

I though some readers might be interested in a way to install the Aladin /// relational database system for use under Catalyst which does not require editing the programs. I'll conclude with a couple of other comments about the program.

It would be a good idea to read Brineaux's article for some general background information, and to review the Catalyst instructions for installing Pascal programs before attempting this procedure. Also make sure you are using Pascal version 1.1 or greater with Catalyst. Pascal has some features that allow my installation method to work, even though you might not expect it to work after reading Mr. Brineaux's description of ALADIN.

First make sure your system does *not* include a hard disk with the volume name of /PROFILE. If it does, rename the disk something else by using the System Utilities or similar program.

Setup a subdirectory called CATALYST/ALADIN on the hard disk on which Catalyst is installed. Into this subdirectory, copy the files VERSION.ID, SYSTEM.STARTUP and SYSTEM.LIBRARY from the /ALADIN3BOOT diskette. Change the name of SYSTEM.LIBRARY to SYSTEM.STAR.LIB as you copy the file over to the hard disk. Copy the files ALADIN.CODE and ALADIN3.INFO from the /ALADIN3BOOT diskette to the root directory of this hard disk. Do NOT put them in a subdirectory.

Next, follow the standard catalyst procedure to set up Aladin on the Catalyst menu. Specify CATALYST/PASCAL as the interpreter path and CATALYST/

ALADIN,SYSTEM.STARTUP as the program path. Then run Aladin from the Catalyst menu, and complete the installation by following the on-screen prompts. Refer to the 'Optional Information of the Apple /// Startup Procedure' in the Aladin manual.

If you don't have a volume named /PROFILE in the system, Aladin will ask, "Directory of your ALADIN 3 =?". You will want to respond with the name of any directory or subdirectory where you want to put your Aladin database files. Aladin will then prompt you to insert the other program disks and will copy the following files to the directory you just specified:

ALADIN3I.CODE, ALADIN3I.INFO, ALADIN3E.CODE, ALADIN3E.INFO, and the CAR database files. Aladin will store the location of these files in the ALADIN3.INFO file which you placed in the Catalyst hard disk root directory.

A similar procedure could probably be worked out for use with Selector ///.

Caution: If you have to re-install any of the Aladin programs, or want to change the location of your default database volume, I recommend that you remove all of the Aladin program files with the System Utilities and go through the entire installation again. Aladin keeps track of where its parts are and, as Mr. Brineaux states, you must let Aladin do the final part of the installation unless you are going to alter the program the way Mr. Brineaux outlines.

Aside from not needing a block editor, the advantage of this procedure is that it allows you to automatically store your database files on a different hard disk volume from the one which contains catalyst and your other program files. For instance I have a 20 megabyte hard disk which is divided into four volumes, named /HD1 through /HD4. /HD1 is used exclusively for Catalyst and programs, which /HD3 is the location of my Aladin databases.

Most users have probably been driven near the brink of insanity trying to use the Aladin manual. I'll offer a couple of tips that may not be obvious. For any particular database, there is another way to specify different locations for database files, and change some other parameters. This is explained in the Non-Standard Configurations section in the manual, and further described in the Document Clarifications. Note that these changes can easily be made defaults as explained in "Temporary or Permanent Reconfiguration" on page S24.

Also, the manual never explains how to exit the Init/Exec screen when quitting Aladin. ESCAPE takes you to the Pascal command level. Or, press ⌘ ⌘ ESCAPE to return directly to the Catalyst menu if you are using Catalyst.

Aladin is certainly one of the most powerful databases you can use on the Apple III. However, one should not assume that it will do everything other relational databases will do - just as Keystroke or Omnis III don't have

some of Aladin's capabilities.

My experience is that Aladin is difficult to learn and the Apple III version has some programming problems. The report writer has no editing capability, which is very frustrating. Data entry and maintenance is cumbersome compared to other database systems. The manual is much too wordy and self-congratulatory, and the reference section doesn't contain nearly enough information, forcing you to wade through the tutorial again and again. Some of the advanced capabilities that you may buy such a program for are only hinted at, rather than explained with examples.

Nevertheless, once you have waded through all the difficulties, it can be a real joy to see Aladin kick out a report containing information from several files, sorted and organized just the way you want it. Or to find, almost instantly, a record out of ten thousand using one of a dozen or more key fields. ///

Continued From Page 22

All I could find in the Standard Device Drivers Manual was to refer to the Pascal manuals for information on device unit numbers! With nothing to lose I changed the 6 to a 128 and recompiled and ran the program. I still got garbage but it was better looking garbage. The same for #'s 129 and 130. Then I tried inactivating my .PRINTER. That didn't work either.

So, now I am writing to you for help. If someone there can tell me how to fix the program, I'd appreciate it. I'd even be willing to buy the disk of the month if you can guarantee that it will work.

Sincerely,

Harlan E. Hommes
St. Charles, Missouri

Dear Mr. Hommes,

No need to buy the disk of the month, you've almost got it right. The correct symbol is the * sign (SHIFT 8). Using a + instead of the times symbol will indeed cause some problems. Sorry about the confusion. I looked at that issue and it was too hard to read. All of the current program listings are done on an Apple LaserWriter printer giving much better and more distinct printouts.

The parts of the program that direct output to the

Pascal unit #6 (.PRINTER) should be changed to the correct Pascal unit number for your printer device. You're probably asking what's the Pascal unit number for your printer! It's simple. Just go into the Pascal Filer and press V to list all the volumes on-line. The number to the left of your printer device name is the number you should use in place of the standard #6 in the program.

If you recompile the program with that new printer unit number and the other changes everything should work without any more problems. One last thing: Since you're using the Grappler interface card with your Apple DMP, I'm assuming that you're using the Sun or Alpine printer driver to communicate with it. If so, make sure that the printer is setup in blind output mode. This is explained in the Sun printer driver guide.

The program will attempt to send all different characters to the printer, including ones with their high bits (bit 7) set. The default Grappler driver traps certain characters to perform special features. You must set the driver up in blind output mode so as to *not* trap any characters. If you do the printer will not receive the correct character information and you will indeed get garbage on your printouts. ///

**Remember, if you have questions about the Apple III, we can probably answer it - for free!
All you have to do is mail it to us.**

Taylor Pohlman's Challenge: An ON THREE Contest!

By David Ottalini

Or How To Make Your Apple /// Look Like A Mac!

"...The /// was an outstanding machine for Basic because it was and is an outstanding machine, period. And if you use it, you can do some pretty amazing things in Basic."

**-Taylor Pohlman
Apple Computer**

Taylor Pohlman should know about doing amazing things with our Business Basic. After all, he was one of the people at Apple responsible for its development. And as you'll remember, he wrote a series of 23 articles specifically on Business Basic for the old Softalk Magazine.

At last year's Phase /// Conference in Chicago, Taylor conducted a seminar on Business Basic, and among other things, announced he was placing those 23 Softalk articles into the Public Domain. He also issued a challenge, one which ON THREE has decided to take on in the form of a contest for all subscribers. The challenge is to come up with the best program in Business Basic that provides a MAC/GS-like interface.

Now before you start thinking that it's an impossible task, here's what Pohlman said (in an edited form) to those attending his seminar during Phase ///:

If you are familiar with the SOS interface and particularly with the controls called Status Calls and so forth, it is possible to retrieve from the console in a number of ways characters from the screen. And one of the key things about doing any kind of overlay window on the Apple ///...is to be able to save the current contents without necessarily knowing what they are and then being able to restore them.

Don (Williams) and I had a long argument about some of those SOS calls. In particular, one of the issues was how

to return information from SOS calls. Most of the SOS calls that you want to do and most of the calls to the Console Driver that you want to do, a 255 character string is more than enough to get the information back. It's very convenient to get that information out of the string. Unfortunately, for the really interesting Call you'd like to do, to get a piece of the screen, save it, manipulate it, and blast it back, 255 chars. just doesn't seem to do it.

I had an idea of doing a multi-window word processor based on some of the things I'd done in the articles with edit routines and so forth and it looked to me to be real possible. But unfortunately, being able to only save and restore 255 characters at a time was pretty useless. And then a guy at Apple (whom I won't name) thought he was going to solve the problem. He created an Invokable, which saved and restored the entire screen. Pretty neat except he saved it to a buffer that you couldn't get to or modify and all you could do was slap it back onto the screen.

So I sort of abandoned the idea and went away. But I've been working recently and...based on that 255 characters it turns out you can do pretty decent dialog boxes and you can do pretty decent pop-up menus and you can also do a really good job of pull-down style menus within programs. The basic technique is to write a series of routines that notices either cursor position, particular state of the key to move back and forth, puts itself into a mode and uses Command (which is the way I'm doing it) to get you into a mode that pops menus up, simply slide across with the bar, slide down with the down arrow, do a menu pick, pull dialog boxes up and so forth all by grabbing a piece of screen real estate, saving it away, modifying it and blasting it back.

One of the neatest features of the Console driver is the windowing capability. And for high-performance writing to the screen to a particular area. Absolutely nothing

beats it, especially multi-line reconfiguring of the window on the screen and blasting characters to that window without any intervening returns or writes.

Let's say, for instance you wanted to do a 20 character by five line thing to the screen. That would be 80 bytes. 80 bytes in the string, no intervening character returns or anything. Make sure your window is set to that size temporarily and do a print to the screen in one or blast the screen with a Console command and you will write those characters instantaneously to the screen.

Now it's possible to use that technique to do all sorts of quick writes. In fact, anyone read the old article about scrolling in text mode, horizontal scrolling? Remember the technique there was to create a window that was one character wide on the right or left hand side of the screen and write the 24 characters it took to do those lines to the Console drive. When you write that 24 characters and the window is only one character wide, the console driver automatically spills them down the screen and the write is instantaneous. Try to do that by cycling through 24 turns through a For-Next statement...dogmeat! It just doesn't work.

So the fact that the Console does such a great job of windowing, the fact that you can get characters very quickly from the screen into a reasonable size buffer and the fact that you can blast them back to the screen almost instantaneously means you can do an outstanding job at implementing some of the features you see in both MS-DOS applications and certainly in MAC-style applications. (You can) put more of an interactive kind of

interface on the programs. And I would challenge you to try some of those techniques out.

Get your old Standard Device Drivers manual out. Funny, most people program with the Basic manual. I used to program mostly with the Device Drivers manual, because the one thing that was beautiful about Basic was and is that you have such access to this incredible Assembly language machine underneath the Basic program. And if you don't take advantage of that, your applications really won't be as good as they can be.

Pohlman's challenge is a good one, from which all Apple ///ers could benefit. The contest works this way: You must submit your Business Basic MAC/GS-Interface program by December 1, 1988 as a working Business Basic program. It should run under Business Basic version 1.23 and should operate on a minimum 128K machine. We would also like a short article to accompany the program on disk, explaining how you developed the program and how to use it.

ON THREE will publish the three winning programs and their accompanying articles, and include them on a future Disk of the Month. In addition, the three top winners will receive as follows:

- First Place: \$100 worth of ON THREE products
- Second Place: \$50 worth of ON THREE products
- Third Place: \$25 worth of ON THREE products

Judging will be done by ON THREE and all decisions are final. So get hacking out there and let's see what you can come up with. Let the contest begin! ///

AUTHORS WANTED!

We are accepting article submissions for review and possible publication from readers who are willing to share their Apple /// knowledge and experiences with others. If you would you like to contribute to the pages of ON THREE Magazine, here's your chance! We're looking for articles of general interest, short programs, tutorials, hints on getting things done easier & more efficiently, games and anecdotes. Anything goes!

Just send your article or program on diskette to ON THREE. If it's chosen for publication we will check it for accuracy and even correct those silly spelling errors. Before you know it, you will become a rich (at least in spirit) and famous author. Your work will be read by a worldwide, captivated & spellbound audience.

For a copy of our author guidelines, please send a self-addressed, stamped envelope to ON THREE Magazine, 8920 Yolanda Avenue, Northridge, CA 91324, or give us a call at (818) 701-1355.


Letters To The Editor


by Bob Consorti

Questions and Answers from your Apple /// Experts

Catalyst & Exiting Programs

Dear Editor,

In the April issue, R.B. Thompson, Jr., in **Program Hangup Problems**, writes about difficulties when using the Catalyst program selector. He explains several problems in using the  ESCAPE command to return to the Catalyst program menu, particularly if you've written your own programs in Basic or Pascal.

He doesn't mention that  ESCAPE will often not return you to the menu from programs that were installed on the Catalyst menu when the 'Max Files Allowed Open' parameter in the Catalyst menu editor is set to 0. If you set this item to 2, for example, you may be able to leave the program by other than the normal exit procedure for that program.

Setting Max Files to 0 is a safety feature that prevents damaging directories and losing data. This can happen sometimes (in Aladin, for example) if you don't exit from the program properly. Some other programs (VisiCalc) don't give you a choice - they disable certain keys or sequences so you can't make the mistake of bailing out of the program at the wrong time.

Sincerely,

Roger T. Harrer
Pocatello, Idaho

Dear Mr. Harrer,

Thanks for the tips on exiting to Catalyst. One of the worst things that you can do to an Apple /// is to shut it off while you're in the middle of a program. If the program has files open on a disk drive, shutting the machine off can leave the files half written, and can cause the infamous 'Directory Structure Damaged' problem.

To see if your hard disk has this problem you should use the System Utilities program to list ALL the files on the disk to the screen. At the end of the listing, the number of files listed and the number of blocks available will be displayed. If it also displays a line indicating that

the directory structure is damaged, you have a problem.

To recover from this problem you must make a complete backup of the files on your hard disk with a backup utility. Then you must reformat (erase) your hard disk with the System Utilities program. Now you must go through the restore process. When finished, your hard disk will no longer have the directory structure damaged problem and you can continue using your Apple ///.

UK User Wants To Communicate

Dear Sirs,

I would like to buy communications software and hardware for my Apple ///'s to enable communications with British Telecom's Telecom Gold service and other database/bulletin boards in the UK and elsewhere.

Could you possibly advise me what to buy, or at least who to contact for advise and costs etc. in the UK?

Many Thanks,

Brian Hickman
Oxford, England

Dear Mr. Hickman,

Any modem and communications package for the Apple /// will work in the UK on your machine. We offer both the software and hardware you will need to get started in telecommunications.

Our communications software, the Communications Manager is a very good tool to get started in telecommunications. It is priced at \$50. We also offer a 1200 and a 2400 baud modem. The costs are \$159.95 and \$259.95 respectively. If you purchase a modem from us you can get a Comm. Manager for 1/2 price.

Apple /// - // File Deletion/Recovery

Dear Sirs,

We are interested in the utility disk Lazarus /// to

Continued On Page-22

MOVING?

If you are in the process of moving, please give us a *minimum* of one months notice. Because the magazine must be printed and mailed prior to the date on the cover and because it takes us a short while to update our records, tell us before you are moving. Doing so will assure that your copy of ON THREE won't be lost in the mail or get to you late.

DeClassifieds

FOR SALE: Apple /// 128K, monitor, two 360K drives, UPIC, cable, AppleWriter ///, PFS, VisiCalc, other software, all manuals. Original owner, hardly used, excellent condition, must sell - need new golf clubs. \$500 or best offer. Call Chuck Wolf at (201) 647-3862.

FOR SALE: Apple Letter Quality printer \$400. Okidata Pace-mark 2350 printer \$700. Three 5 megabyte ProFile's \$300 each. Two 256K Apple ///'s with Monitor ///'s \$400 each. Complete Great Plains Accounting package: Payable, Receivable, Payroll and General ledger for only \$150. Call Cathy at (316) 792-5653.

FOR SALE: One Apple /// 256K, ProFile & monitor, mint condition with complete BPI accounting package. Call Duke Kovicic. (416) 839-7779.

FOR SALE: One 256K Apple /// with monitor, ProFile, Color Plotter and some System Software. \$600 or best offer. Call Wayne (805) 644-1493 or leave message.

FOR SALE: Complete small business Apple /// system. Apple /// with monitor, Apple /// with monitor and ProFile, external drive and printer. Software: Visicalc ///, Personal Pearl Data Base, AppleWriter /// and more. Sell system for \$1500. Call Joe (619) 475-7558.

DeClassifieds Work!

Been searching for hard to find hardware or software? Need to sell some excess equipment? Try an inexpensive DeClassified ad in ON THREE Magazine. Our readers tell us that they really get results! Place your ad by phone or mail. All copy must reach us 45 days prior to publication date, e.g. July 15 for the September issue.

Rates \$1 per word \$25 minimum.

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Northridge, CA 91324
Or Phone (818) 701-1355

Make Backup Copies Of AppleWriter, VisiCalc and Advanced VisiCalc

with the ON THREE *Uncopyprotect Driver*. ON THREE Hasn't changed its policy regarding duplicating copyrighted programs, but since many Apple /// software products are no longer supported, owners of AppleWriter ///, VisiCalc and Advanced Visicalc are facing the problem of what to do when their program disks "Crash."

After much consideration we decided to make a product to solve this problem. The *Uncopyprotect Driver* will allow you to make backup copies of these three programs. For the first time you can put your master disk in a safe place and boot from the duplicate.

The *Uncopyprotect Driver* is economically priced at only \$29.95 plus \$3 shipping and handling. The *Uncopyprotect Driver* comes complete with full documentation and will work with Selector /// and Catalyst. The *Uncopyprotect Driver* is sold for legitimate Archival purposes only. ON THREE does not and will not and will not condone program copying for any other purpose.

Next Time In ON THREE:

The Return Of StemWriter (The better late than never 2nd part of the review)

Super Accessories #3 Review

1987 ON THREE Bibliography

Using Your Apple /// Modem

And our regular mix of letters and other information to help you get the most out of your Apple ///.

SMART APPLE /// USERS



USE SELECTOR ///

Because SELECTOR /// is a state-of-the-art program switcher that makes instantly available, without rebooting, a wide range of applications programs that are stored on your hard disk or high capacity floppy, such as UniDisk. Programs such as the ones listed below and more! When you start up your system just boot Selector /// and that's it for the day! No more frustration looking through stacks of floppies or searching through sub-directories!

Access ///
Access 3270
Advanced VisiCalc
Apple II Emulation
AppleFile ///
Apple Speller ///
Apple /// Pascal
AppleWriter ///
Backup ///
BPI
Business Basic

Business Graphics
Cobol
Draw On ///
Communications Manager
Desktop Manager
EasyTerm
Graphics Manager
Graph'n'Calc
Haba Merge
Keystroke Data Base*
Keystroke Report Generator*

Lazarus ///
Macro Manager
Multiplan
Nexus
PFS: File*
PFS: Report*
Quick File ///
Script ///
Senior Analyst ///
/// E-Z Pieces
VisiCalc ///

Selector /// allows the above copy-protected programs followed by astericks to be placed on your hard disk, but requires that the 'key' or boot disk for those programs be placed in the built-in drive before starting that particular program. If one of your programs does not appear on this list, it will, more than likely, work under Selector ///. The Selector /// utility will not work with the copy-protected Word Juggler program. Selector /// is not copy-protected. Selector /// requires an Apple /// computer with at least 256k of memory. **Now only \$99 plus \$7 s/h**

/// E-Z Pieces & StemWriter Spelling Checker Available Today!

When we asked people what new software that they would like to see for their Apple /// some time ago, the overwhelming favorite was a spelling checker for the popular /// E-Z Pieces program. Well, it's ready!

StemSpeller /// is now available from the folks down under. Compatible with standard ASCII files, Pascal Text files, StemWriter files and most importantly /// E-Z Pieces files, this fast and easy to use spelling checker will knock your socks off with its speed and versatility.

It comes complete with a 50,000+ word main dictionary and the ability to create auxiliary dictionaries of words that you commonly use.

StemSpeller /// is 100% assembly language for speed and comes as a standard interpreter that can be run by itself or loaded and run under Selector and Catalyst.

As with all ON THREE products it isn't copy-protected and comes with our full product support and limited warranty.

StemSpeller /// is available today for only \$69.95 plus \$5 for shipping and handling. Since over one thousand people asked us for this product we expect to have a hard time keeping them on the shelf. Be the first on your block (or city) to be able to spell check your /// E-Z Pieces word processor files. Order StemSpeller /// today!

If you are one of the many who requested the Spelling Checker for /// E-Z Pieces, we're counting on your order today!

- Δ Compatible with /// E-Z Pieces Word Processing files, StemWriter files, regular ASCII files and Pascal Text files
- Δ 50,000+ word main dictionary with auxiliary dictionary capability.

ON THREE, Inc.
Your Apple /// Experts
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Northridge, CA 91324

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PAID
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Ventura, CA

ON THREE Is Moving!
Check Inside For Details