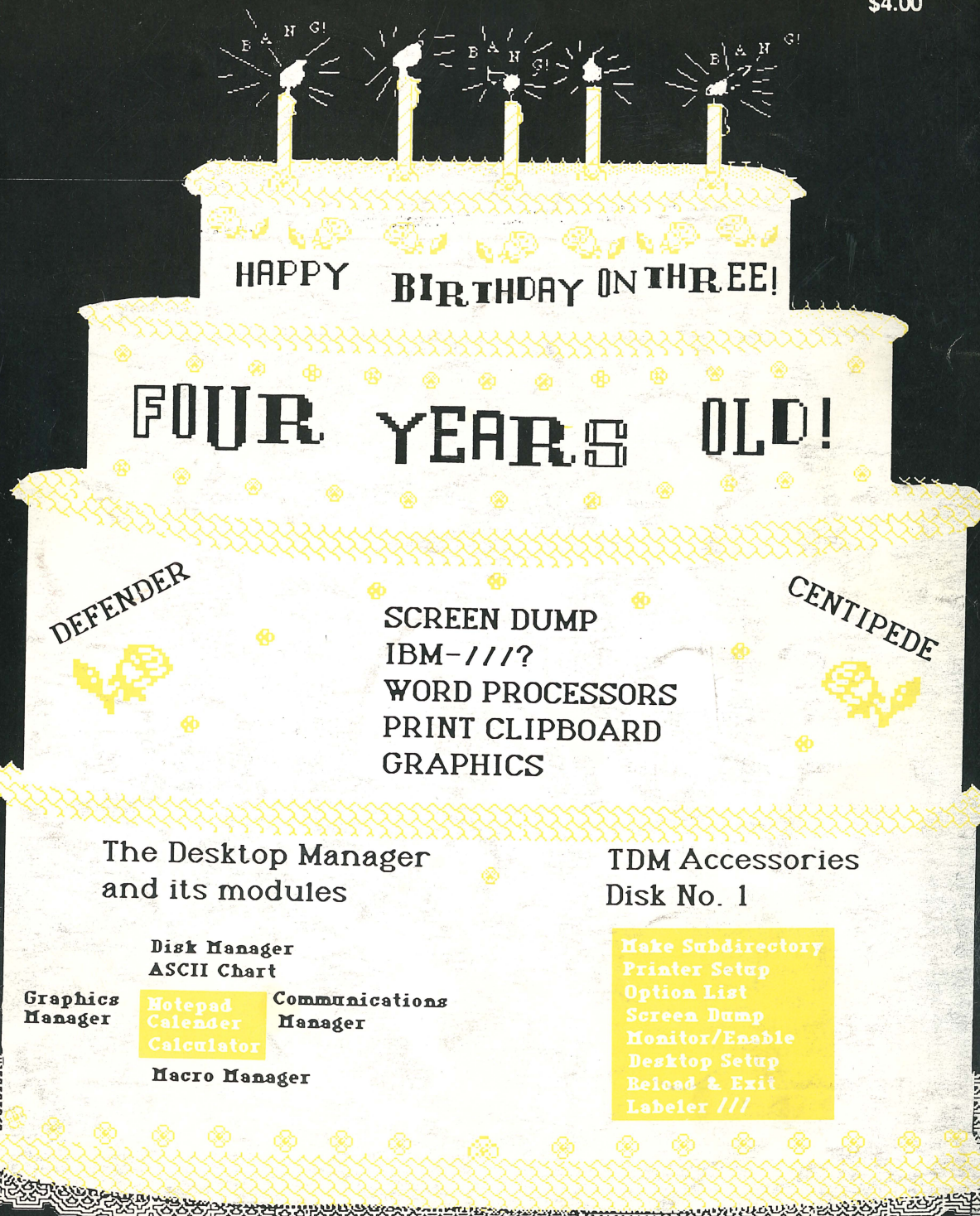


ON THREE

The Magazine For Apple III Owners and Users

Volume 4, Number 8

August 1987
\$4.00



DEFENDER

SCREEN DUMP

CENTIPEDE

IBM-///?

WORD PROCESSORS

PRINT CLIPBOARD

GRAPHICS

The Desktop Manager
and its modules

TDM Accessories
Disk No. 1

Disk Manager
ASCII Chart

Graphics
Manager

Notepad
Calendar
Calculator

Communications
Manager

Macro Manager

Make Subdirectory
Printer Setup
Option List
Screen Dump
Monitor/Enable
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Reload & Exit
Labeler ///

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This extra is error free transmission of files via the popular **XModem** and **Binary II** file transfer protocols. This means that you will be able to transfer programs and data - all types of files - between your Apple /// and virtually any other computer.

The Communications Manager has all of the easy to use features of other **ON THREE** products, and it's the most powerful communications package available for your Apple ///. It's the *only* communications package available today for your Apple /// that completely supports the powerful **Xmodem and Binary II** protocols. It also supports **Turbo Downloading** for ultra-fast file XModem and Binary II downloads. Turbo Downloading gives 2400 baud performance on 1200 baud modems!

Included with this package is a version of **The Communications Manager** which runs as a stand-alone program and a version that can be installed as an accessory under **The Desktop Manager**.

If you have The Desktop Manager, you get the best of both worlds. You can be inside /// E-Z Pieces or VisiCalc and send a spreadsheet or data base file directly! The hundreds of Apple // AppleWorks templates available on bulletin board systems like CompuServe and others can now be yours! Thousands of pictures and other graphics images on CompuServe and other systems can be downloaded to your Apple /// with ease - with **The Communications Manager**.

*While other communications packages for the Apple /// cost nearly \$100, you can pick up The Comm Manager for **\$49.95 plus \$3 shipping and handling**. What an incredible buy!

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ON THREE

The Magazine For Apple III Owners and Users

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ON THE COVER:

HAPPY BIRTHDAY TO US! With four years under our belt, we've been so busy that we'd nearly forgot to celebrate. Taste our DTM Accessories Disk in this issue as well as some new games on the ///, graphics and a briefing about word processors.

512K Memory Upgrade NEW Sale! As Low As \$254!*

We know that there are still 90,000+ Apple ///s out there that have not upgraded to 512K of memory and we are committed to letting all Apple /// owners enjoy the benefits of an enhanced Apple ///. Order a 512K Memory Upgrade for the low purchase price of \$324, and in addition to the normal rebate, get \$35 worth of ON THREE software free! This brings the price of the most exciting Apple /// enhancement down to as low as \$254 after rebate!!!

If you've been waiting to get a 512K upgrade, or simply debating if it's worth the cost - let me tell you that it is, and now's the time to buy! Try the \$35 now, \$35 later plan! The purchase price of the 512K Memory Upgrade is \$324. Return your old 256K memory board for a \$35 future credit slip. Order now and you will get your choice of \$35 worth of ON THREE software for FREE! That brings the price of the 512K Memory Upgrade down to only \$254 after rebate and free software.

What the 512K Memory Upgrade Can Do For You

Expand your spreadsheets, let your data bases grow, use larger word processing documents, be able to use the new desk accessory packages and more! With a 512K equipped Apple ///, your programs will have all the room they will ever need. Enjoy a full 414K desktop in /// E-Z Pieces, 442K in Advanced Visicalc, 455K in VisiCalc, 456K in AppleWriter, 456K in Business Basic - the list goes on.

Have you ever had problems running large programs such as State Of The Art, BPI, Omnisc 3, Keystroke, Draw ON /// or others? Does Catalyst or Selector leave your programs screaming for memory and you screaming when the programs crash? A 512K Apple /// has enough memory to use the largest programs available today with room to spare. Your old Apple /// will be able to do things few personal computers can.

The 512K Memory Upgrade is easy to install and even easier to use. It doesn't use a precious expansion slot because it's a replacement memory board. Hidden inside your Apple /// is a 128K or 256K memory board. Simply take the old board out and put in your brand new Apple /// 512K board.

It's sooo easy (and inexpensive!), why don't you have one yet? Order one today and start to get the most out of your Apple ///. Your programs will love you for it and you'll begin to love your programs more.

The 512K Memory Upgrade includes:

- Δ Complete installation and guide for use.
- Δ System Utilities 1.2 which permits larger driver files.
- Δ 512K Memory Confidence Program which tests all memory and ensures that your 512K Apple /// is working properly.
- Δ Industry leading six month warranty!
- Δ And of course, an Apple /// 512K memory board with state-of-the-art 256K memory chips.

- Δ Ultra-fast RAMDISK driver with demonstration programs.
- Δ 512K Upgrade utility which updates your programs.
- Δ Free technical support on the 512K upgrade

256K Memory Upgrade NEW Sale! As Low As \$89!*

If you don't want to upgrade your Apple /// all the way to 512K, but want more memory for your ///, order the 256K Memory Upgrade today! It's specially priced at only \$89. Hurry, supplies are limited.

With a 256K equipped Apple ///, you will be able to use the newer programs that require a minimum of 256K. Programs like Selector ///, Catalyst, Draw ON, The Desktop Manager, Lazarus and more! The price of the 256K Memory Upgrade may never be this low again. If you decide that you want to upgrade to 512K, we even offer a generous rebate on your 256K board.

The 256 Memory Upgrade includes:

- Δ Complete installation and guide for use.
- Δ 256K Confidence Program which tests all memory and ensures that your 256K Apple /// is working properly.
- Δ Free technical support on the 256K upgrade
- Δ Industry leading six month warranty!
- Δ And of course, an Apple /// 256K memory board.

How To Order

The purchase price of the 512K Memory Upgrade is \$324 plus \$10 shipping and handling. After installing your 512K board, return your old 256K memory board for a \$35 future software credit. The 256K Memory Upgrade costs \$99 plus \$10 shipping and handling. After installing your 256K board, return your old 128K memory board for a \$10 future software credit.

We recommend that a 128 to 256 or 128 to 512K upgrade be done by ON THREE or a registered Apple dealer. ON THREE will install all upgrades for only \$50. Same day turnaround on memory board installations! Please call for an appointment.

Spare 256 & 128K Memory Boards*

If you've ever worried about your Apple ///, here's an inexpensive way to get insurance. Pick up a spare 256K memory board for only \$89 or a 128K memory board for only \$25! If your Apple /// memory ever goes bad, just pop in the spare and continue working. For as low as \$25, it's insurance you can't afford to be without. The purchase price of a spare 128K memory board is \$25 plus \$10 for s/h.

NEW From ON THREE - Memory Board Insurance!

Have you ever wondered what would happen if your Apple /// suddenly went bad? Has your machine ever sputtered to a halt? How would you get things done while you waited for your Apple /// to be fixed by a place halfway across the country?

Well, ON THREE has the answer with **256K and 512K Memory Board Insurance!**

For only \$50 (or less!) per year, ON THREE will provide an unlimited extended warranty on your Apple /// 256K or 512K Memory board. If your memory board goes bad, we will ship you via overnight mail a replacement 256K or 512K memory board. As soon as you get the new memory board, send back the faulty one in the handy package we provide.

All current 256K and 512K Apple /// owners are eligible to participate. Simple phone in your order or send in a check for \$50. At the time of the order you must specify if you're using a 256K or 512K system. An official ON THREE Insurance certificate will be issued in your name and immediately mailed to you.

We even offer multiple purchase discounts. The per year premium on two 256K or 512K memory boards is \$40 per board. If you have three boards the costs is \$35 per board and if you have four or more memory boards, the fee will be \$30 per board. Does not cover pre-existing problems.

Hurry, order your insurance policy today - before it's too late.

*All prices are good through August 31.

Apple.Sauce

by Paula Sheppard

Time for a celebration

It's all in the cake

I hope everyone will have a chance to eat at least one slice of cake as inviting as the cake on the cover. The cake is in commemoration of this month's review of *ON THREE*'s first 1987 software release.

In this issue, writer Earl Brelje has reviewed *ON THREE*'s Desktop Manager Accessory Disk No. 1. In Earl's review of Accessories Disk No. 1, also known as the Super Disk, he mainly covers the modules and not the updates. Next month, you can look forward to his review of the updates to the original Desktop Manager which are all included on this disk.

Among the new modules reviewed are the Screen Dump, Option List, Reload & Exit, Labeler ///, Make Subdirectory, Monitor Enable, Printer Setup and the Menu Manager. With all of these extras, your Desktop Manager will be even more powerful and helpful in the ///'s every day use.

So you've been waiting for "Three Shorts" to continue in the magazine? Can you settle for "Two Shorts?" We certainly hope so! This time, besides the intermediate and expert users, we are asking the beginners to get ready, set, program! The two programs by Rick Gauger are simple enough for everyone to enjoy. So jump in for a fun filled few minutes of sound and graphics!

While you're having fun playing at the ///, why not make a day of it by adding a few games from Ed Gooding's article, "Joystick ///." Ed shares the secrets to playing Apple II games on /// without a Titan board!

While this issue is full of fun and surprises, we can't forget the biggest surprise. This month, *ON THREE* technician, Terry McNeese, takes a shot at reviewing a program which will allow your /// to transfer files to the dreaded Big Blue. It even *fools* one of the floppy drives into believing it is an Apple drive. The program is called Match-Point and Terry lets you know what to expect from it.

If you've just joined the /// family and are in need of a word processing program, you're not too late to tune into "The Beginning ///" series to track down a word processing program. Richard and Lavona Rann discuss, in great length, the three most common word processing programs for the /// - AppleWriter, /// E-Z Pieces and Word Juggler. They'll help you decide which one is for you!

Rutherford Thompson, Jr. will continue with the "Glossary of Terms" this month and we can look forward to the Rann's fine "Ranntings" column which will tackle the famous question, "What's in a name?" Richard and La-

vana have the complete story on what is legal and illegal to do with Apple Computer's trademarks. Some /// users may not even know which symbols, pictures, etc., are exclusively trademarks of Apple Computers of Cupertino, Calif. This makes the column a must for every reader.

Spelling Checker

For those who have been patiently waiting for the Spelling Checker, it may be awhile longer as *ON THREE* wants all /// users to decide whether or not they really want the Spelling Checker. Just like the /// E-Z Pieces Update, *ON THREE* president Bob Consorti is asking you to please call and give your name and credit card number (you will not be billed for the Spelling Checker until it is shipped to you). Through this process, the company can determine whether or not the /// community is really interested in the project. If there is enough support for it, the project will be completed. If you have already called and left your name and credit card number, you need not repeat the process.

As you know, Apple II and IIGS products have allowed *ON THREE* to continue supporting /// products. With few exceptions, programmers are programming on the IIGS and then converting these to /// programs. We do need to know what you as a consumer want to see. We are in business to make you happy, so you will decide what will be made for the ///. An example of your input is the Accessories Disk No. 1. For another accessory disk, just write and let us know what you would like. Most importantly, make sure you call or write *ON THREE* today to voice your opinion on the Spelling Checker.



ON THREE

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Selector /// is a state-of-the art program switcher.

A program switcher is a utility that functions as your computerized personal secretary. Its purpose is to make instantly available to you, without rebooting, a wide range of applications programs stored on your hard disk or high capacity floppy (such as UniDisk). Programs such as AppleWriter ///, Quick File /// and more than two dozen others.

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- | | | |
|----------------------|-------------------------|----------------------|
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| ✓ AppleFile /// | ✓ Easyterm | ✓ PFS: Report * |
| ✓ Apple Speller /// | ✓ Graph'n Calc | ✓ Quick File /// |
| ✓ Apple /// Pascal | ✓ Haba Merge | ✓ Script /// |
| ✓ AppleWriter /// | ✓ Keystroke Data Base * | ✓ Senior Analyst /// |
| ✓ Backup /// | ✓ Keystroke Report | ✓ VisiCalc /// |
| ✓ BPI | ✓ Generator * | ✓ /// E-Z Pieces |
| | ✓ Lazarus /// | |

*Indicates boot disk required in internal drive.

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Address _____

City _____

State _____ Zip _____ Phone _____

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☐ M/C ☐ Visa ☐ AE*

number _____ exp. date _____

Signature _____

*3% surcharge on American Express
California residents add 6% sales tax.

The Beginning ///

by Richard and Lavona Rann

A quest for a word processor

An Apple /// owner's overview of word processing

Nearly everyone that uses an Apple /// does some word processing on it. Two of the most common questions we get from new owners are: "What word processors are available, and which one should I get?" A significant percentage of these people know about as much about word processing as we did when we decided to buy our ///. Considering that our primary, initial purpose for buying the /// was for word processing, you might expect that we were well versed. We did have quite a bit of computer savvy and knew what computer language editors could do, but we hardly knew a thing about word processing. It was a whole new field of its own. Hopefully, we can give you an overview of that field, its buzz words, history, and a set of tools for use in your valuation of which word processing software is right for you.

History and definition

The concept of word processing has grown from humble beginnings. Its roots go as far back as the 1870s when Remington introduced the first office typewriter. Since then, there has been a consistent effort to automate office functions and make the flow of paper more efficient. IBM's introduction of the electric typewriter in the 1930s, was a major step which was closely followed by the introduction of typewriters that created paper tape. Paper tape worked a lot like a player piano roll, it allowed additional copies to be made by running the tape back through the machine.

The first time documents could be changed when *played back* was when IBM introduced the Magcard typewriter, which put documents onto magnetic cards. These magcard typewriters didn't stay around for long, but were the first major breakthrough into modern word processing. From our 1980s viewpoint, they were severely limited. One magcard could only hold about as much as would fit on a single sheet of paper, and the only functions supported were to key in original text, rekey to replace text, and type the contents of the whole card. Also, a person needed fairly extensive training to learn to navigate through all the cryptic commands necessary. In spite of these limitations, the machines sold well, provided flexibility that had previously been unknown, and were a significant improvement to office productivity.

Office copy machines were introduced just after World War II, and further shifted emphasis away from the need to produce copies of typed documents. Flexibility and productivity issues became paramount. Typing pools and executive secretaries began to use these tools to improve the processing of text. Although we don't know who coined the phrase *word processing*, we do know that it was

creeping into use in the early 1960s, as a new name for the typing pool.

If the magcard typewriter is one of the parents of word processing, the other must be the computer. By the 1960s, programmers on mainframe computers were writing programs in codes and words instead of binary numbers, and were able to use keyboards to enter and change programs and data. In true hacker style, they developed tools to make the process of entering and changing programs easier and more efficient. These tools were *programmer friendly* programs that had functions analogous to those of the magcard typewriters. Companies, spurred by a shortage of programmers, encouraged development and institutionalization of these tools, and the development of added functions to increase programmer productivity. The descendants of these programs are the current generation of *program editors*.

The marrying of the computer - with its widely functional program editors - to the magcard style of text processing and printing, resulted in what can now be recognized as word processing. When improvements in computer technology made computers small enough and cheap enough for production and sale of special purpose machines, many companies were quick to jump onto the bandwagon. They provided special computers which were set up to service *word processing* units. Later, when microcomputers were introduced, it was only logical that program editors and word processing would be early on the list of tasks to be supported.

What should be expected from word processing software?

The early word processing programs converted typewriter functions to computers, and were little more powerful than standard business typewriters of the time.

Their primary value was in the time saved in the error correction and change process. The savings from not having to redo an entire document to correct an error is significant and was the cost justification of our ///. Many professional writers were among the first to move to word processors for the same reason. Imagine, if you can, the task of typing the manuscript of a novel, or a technical manual, without typing errors. The number of pages that would have to be re-typed in order to get a perfect copy, even if done by a superstar typist, is staggering.

By the end of the 1970s, companies like Wang and Lanier had provided word processors with much of the functionality of program editors. They left the typewriter far behind. A number of standard functions are available in every Apple /// word processor that we have seen. Adding,

deleting, reformatting, and re-arranging can be simply done. Other functions have been added since the 1970s and many of these are available in the various programs for the ///. Let's look at some of the more standard word processing functions and the terminology that has grown to cover them.

The term *editing* is generally considered to cover the entire process of entering new text, deleting text, and moving it around. The general editing functions are what we deal with most. They are used so much that the regular user of any word processing program will find that these functions become automatic.

In every case, the cursor indicates, on the screen, where the next text editing will automatically occur. There are usually a number of commands devoted to controlling cursor movements. There are always commands to move the cursor right or left one character or one word; to the end or beginning of the line; or to the end or beginning of the document. A major difference between word processing packages is the way these standard features are structured into commands, and how that relates to the way you work. Some programs provide special extensions of these functions, such as a way to move directly to a specific page of text, or to a specific portion of the document (i.e. the middle).

Normally, word processors default to what is called *insert mode*. What this means is that any characters typed will be inserted into the document at the place indicated by the

cursor. There is also usually a *replace mode* that writes over the characters instead of inserting. Some people never use the replace mode (sometimes referred to as *overstrike mode*), but personal preferences are important. Think about what methods are best and easiest for you.

Cut and paste

Cut and paste are the terms that are used to cover the whole concept of deleting and moving text within a document. This very important part of text editing allows you to move whole sets of words to different places in your documents. Since Apple /// word processing programs are keyboard based instead of mouse based, the process of moving data is not always as straight forward as we may like, but there is always a way to copy, delete, and move blocks of characters. Comparisons get tricky because it is common for each program to have more than one way of doing each task.

To get a good feeling for the overall useability of a program, look at the ways that it allows you to move data. This will also give you a means to compare different programs. Remember, that useability is in the eyes of the user. What is reasonable for some of us, is not for others.

AppleWriter /// has its simplest move option built into its delete operation. Move data by deleting it, and then re-inserting it from a "storage buffer". This buffer is not common in Apple /// programs and is one of the features that is unique to Applewriter ///. It is not dis-similar to the "undo"

ON THREE *presents...*

ASCII Chart

Ascii Conversion Table

Dec	Hex	Cr	Dec	Hex	Cr	Dec	Hex	Cr	Dec	Hex	Cr	Dec	Hex	Cr	Dec	Hex	Cr
0	00	NUL	19	13	DC3	38	26	&	57	39	9	76	4C	L	95	5F	-
1	01	SOH	20	14	DC4	39	27	'	58	3A	:	77	4D	M	96	60	`
2	02	STX	21	15	NAK	40	28	(	59	3B	;	78	4E	N	97	61	a
3	03	ETX	22	16	SYN	41	29	)	60	3C	<	79	4F	O	98	62	b
4	04	EOT	23	17	ETB	42	2A	*	61	3D	=	80	50	P	99	63	c
5	05	ENQ	24	18	CAN	43	2B	+	62	3E	>	81	51	Q	100	64	d
6	06	ACK	25	19	EM	44	2C	,	63	3F	?	82	52	R	101	65	e
7	07	BEL	26	1A	SUB	45	2D	-	64	40	@	83	53	S	102	66	f
8	08	BS	27	1B	ESC	46	2E	.	65	41	A	84	54	T	103	67	g
9	09	HT	28	1C	FS	47	2F	/	66	42	B	85	55	U	104	68	h
10	0A	LF	29	1D	GS	48	30	0	67	43	C	86	56	V	105	69	i
11	0B	VT	30	1E	RS	49	31	1	68	44	D	87	57	W	106	6A	j
12	0C	FF	31	1F	US	50	32	2	69	45	E	88	58	X	107	6B	k
13	0D	CR	32	20	SP	51	33	3	70	46	F	89	59	Y	108	6C	l
14	0E	SO	33	21	!	52	34	4	71	47	G	90	5A	Z	109	6D	m
15	0F	SI	34	22	"	53	35	5	72	48	H	91	5B	[	110	6E	n
16	10	DLE	35	23	#	54	36	6	73	49	I	92	5C	\	111	6F	o
17	11	DC1	36	24	\$	55	37	7	74	4A	J	93	5D	]	112	70	p
18	12	DC2	37	25	%	56	38	8	75	4B	K	94	5E	^	113	71	q

RETURN
for more
ESCAPE
to leave.

This Desktop Manager module 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. This keypress table can be invaluable when you need to know printer commands to enable different printer modes. The ASCII table is a necessary tool for programmers of all skill levels. Why not have them both at your fingertips? Only \$9.95 plus \$3 s/h.

command found in many of the *Mac* and newer IIGS programs. This feature provides a way to recover inadvertently deleted text. The maximum size of the buffer is 128 characters. Thus, if you delete more than 128 characters, you can only retrieve the last 128. To move more than 128 characters, you must use a more complex method.

Three E-Z Pieces and Word Juggler use a prompted approach for moving. Instead of saving data from deletes for moving, they both have specific move commands. The biggest difference between them is that /// E-Z Pieces expects you to have the cursor on the start of the text to be moved *before* the move command, and Word Juggler doesn't care because it asks you where the start is. Both use English to ask you to indicate the end of the text to be moved, and finally where it is to be inserted. This use of English prompts is considered an advantage by some, because of the smaller amount of command information that must be memorized.

If you commonly find yourself wishing that the deletion just completed could be undone, you might find the AppleWriter /// feature very important. However, if you copy data a lot within documents, you may want one of the other programs.

Copying data is similar to moving it. To copy data in AppleWriter, first delete it, insert it back where it was, move the cursor and insert it again. The approach is fine if you don't do it often, but many people find a copy command is easier to remember and use. The copy commands in /// E-Z Pieces and Word Juggler parallel the move commands in every way except that they do not delete the original text.

Find/replace

One of the nicer word processing functions is making changes and corrections. A *power tool* in this process is the find/replace function. All three of the common Apple /// word processors have very similar ways of doing this. What surprises us is the number of people that forget this functionality and what it can do.

The find or *search* command will move to a specific portion of text quickly. Generally, the cursor has to be at the beginning of the document, unless you want to look at only a later portion of the document. Then you start the command and enter a *text string* that the computer will find for you. The text string is a group of characters that you want the computer to match *exactly*. The text string may normally contain a word, spaces and/or special characters. Depending on the individual word processor, capitalization may or may not be considered in the matching criteria.

Let's look at an example of the find command's use. Suppose you wrote this article, stored a draft of it yesterday and now want to change something in this find/replace section. Rather than moving slowly through the pages in search of this section, just load the document and use the find (search) command to position the cursor at the first use of the text string *Find/replace*. You would then be quickly at the text that needed work.

Another way it's useful is when you write something that is very similar to a previously stored document, such as a

periodic invoice or a quarterly plan. Just load the latest version and use the find/replace function to find all occurrences of things like dates and replace them with the new information. Lavona uses this approach in writing performance reviews and expectations for her staff. To complete the documentation for a performance review, all she does is take the expectation document from the prior period, change all occurrences of *expectations* to *results based on expectations*, change all the date fields, and finally insert the results after each individual expectation.

What is WYSIWYG?

If you have seen reviews for newer word processors, you have probably seen the initials WYSIWYG. They stand for *what you see is what you get* which is a definition of one approach to showing word processing information on the screen while you are working. The concept basically refers to the ability to see each document on the screen in exactly the same way it would appear on a printed document. It is a nice concept, but is not always a reasonable possibility. None of the Apple /// word processors supports a *pure* version of WYSIWYG. The reasons are pretty basic in that the screen size is a fixed 80 characters by 24 lines and the word processors work in text characters instead of graphics. If you want to display a full 8 1/5 by 11 letter on the screen, or worse yet, a wider page, it must be done in pieces. The approach taken by Word Juggler and /// E-Z Pieces was *state of the art* when they were written, but it is one of the few areas where Apple /// word processors cannot compete with many of the newer ones.

The closest thing to WYSIWYG in Applewriter /// is to change the output device to .console and print the page to the screen. This, of course, only gives you 80 columns at a time and 24 lines, but it does show you how your tabs, and margins look. You can scroll to see more of the document.

In Word Juggler, you can get a little closer to WYSIWYG. Just key the period on the numeric key pad and it will display a formatted version of the document. Of course, your screen size limitation still exists. You do have a certain amount of control over what part of the document you want on screen as you can scroll through the document by using arrow keys instead of just moving on to the next full 24 lines.

Three E-Z Pieces is the newest of the three programs and is closest to WYSIWYG. It doesn't require "printing" the document to see it in near print format. It actually re-formats material on the screen whenever the formatting commands are changed and it shows a dotted line across the screen where page breaks will occur.

Desktop publishing

Of course all three programs are limited, compared to graphics based systems, as they do not show font changes, superscripts, subscripts and character size changes on the screen the way they will print on your printer. We don't feel this is a big problem for most personal, business letter, and document processing. It can be a major limitation for fancier work approaching what is now referred to as *Desktop publishing*.

Apple Computer, Inc. and Aldus Corporation, the publish-

er of PageMaker™, coined the phrase *desktop publishing* to refer to the combination of the Apple Macintosh with PageMaker and a LaserWriter printer. The phrase has now grown to be more generic and refers to high quality word processing and printing that includes a variety of type styles, sizes, and the integration of graphics. The closest that we can get to this using only the Apple /// is to use *ON THREE's* Graphics Manager™ to print graphics on pages produced by our word processor.

A very viable desktop publishing solution is to prepare all the text on the /// and move it to a Mac or IIGS for the addition of the *bells and whistles*. All of this magazine is written on a /// and then moved to the Mac for formatting. We have found that the higher print quality and the variety of styling available on the IIGS makes it worthwhile for us to take our more important Apple /// documents over to the GS for styling and printing. *But*, the important thing is that we still use the /// for most of our word processing. It is quick, easy to use, and has all the functions necessary for the vast majority of word processing tasks. We feel that most people primarily using a /// for word processing should be perfectly happy with that approach for a number of years.

Command approaches

Speaking of approaches, let's compare the overall approaches of these three major word processors to command structures. The earliest version of AppleWriter /// was similar to a program editor. In fact, the manual interchangeably refers to the product as a *word processor* and as a *text editor*. The commands are basically pneumonics or codes that are supposed to be easy to remember. Generally, one would use the control key and a combination of codes to accomplish a task. For instance, to print a document, use CONTROL NP which stands for New Print. In order to force the text to start on a new page, start a line with .FF. The use of a period at the beginning of a line tells the program that the line is an instruction. The instruction FF stands for form feed. Once you learn more common code sequences, you can do a lot.

Word Juggler was designed to be more *user friendly*. It generally appeals to those that have never gotten into the mode of using codes. During the learning process, it is generally not as comfortable for a programmer, but is more comfortable for someone that has been used to a typewriter. The program comes with two templates to put on the keyboard of your ///. One template goes above the top row of keys, and the other goes around the numeric keypad. These templates identify the keys and their values as commands. The top row keys need the ESCAPE key to be used before them, but the numeric keypad keys are just used by themselves. However, you cannot use the numeric keypad to enter numbers into your documents. To print a document in memory to the default printer, hold the SHIFT key down and press the . (period) on the numeric key pad. To force text to start on a new page, use the ESCAPE key followed by the SHIFT 6 keys on the keyboard.

The /// E-Z Pieces word processor uses several commands that are common to the other portions of the program and uses an OPEN-APPLE OP command to show a screen of options that can be set for formatting. To use, key in each

option by using the two character code selected from the menu displayed. To print a document, use OPEN-APPLE P, and it will ask a) whether you want to print all or a portion of the document, and b) the number of copies you want. These options are available in the other programs, but are requested differently, thus allowing for a simpler default. To force to a new page, the options screen must be used.

Finally, AppleWriter was upgraded to release version 2.0 and 4.0 which have some of the *ease of use functions of Word Juggler*. These versions allow for mapping of the keypad for special functions so that you can use more commands with one instruction and make your own template for ease in remembering them.

Documentation

At one time, documentation was a major difference between the three programs. The original Applewriter /// documentation was abysmal to say the least. This was corrected with the release of version 2.0. Now, all three programs have documentation that shows samples as well as having good explanations and reasonable indexes.

Spelling checkers

When Word Juggler was released it was the first Apple /// program to include an integrated spelling checker into a word processor. That is one of the reasons that we bought it, even though we already had Applewriter ///. It provides for word counts (very important to professional writers), for simple identification and correction of words not in the dictionary, and finally, for creation of user specific dictionaries. When Applewriter /// 2.0 came out, Apple Speller was also released to fill this need for AppleWriter users. Haba never did come out with an integrated speller for /// E-Z Pieces.

Power features

In addition to the approach issues and the overall capabilities mentioned above, you need to look at the special features available for each package and how they relate to your needs. Each product has limitations and special features that are not in the others. One feature that AppleWriter /// users are most fond of is the WPL language. It provides basic programming capability to set up functions and combinations of functions that were not originally included, or were tedious, in the program as sold. It does provide a lot of capability, but the cost is complexity. It is another reason that this program appeals more to the hacker/programmer among us instead of the more business oriented user. It is also why those that have used it are unlikely to be happy with other word processors.

Mail merge and other special functions may be of interest to you and are each handled, or not handled, differently by each of the products. In the future, we plan to do an article on each of the three products to provide you with a better insight of their strengths and weaknesses, and get a good working knowledge of their use. We use all three, because we do a variety of things. We have found that these programs are inexpensive enough to make it reasonable to have the right tool for the right purpose. You may not want to go that far, but a study of each is definitely worthwhile.



Super Desktop

by Earl T. Brelje

Accessories, updates, more fun

The accessory disk recently released by *ON THREE* contains some modules that were originally printed in the magazine or could be downloaded from the *Three's Company* bulletin board, updates for setup and notepad options, two new modules that are very handy, and one that has become essential with the release of this disk.

The first thing you will notice when opening the package is the User's Guide. The original Desktop Manager user's guide was obviously printed on a dot matrix printer. The manual for this disk was printed using *ON THREE's* new LaserWriter. The print quality is such that you may want to check to see if you can fit one in your budget. Apple's LaserWriter is out of the average user's price range, but I have seen ads for LaserJets for less than \$2000 and other brands below \$1500. That's less than twice what I paid for my MX 100 four years ago. Unbelievable! Guess I'll have to start saving pennies again. Oh well, enough day dreaming.

Updates

I won't be covering the updates for the Desktop Manager in this issue, but you can look forward to a brief overall view of them in the following issue. As I mentioned before, they are included in the Accessory Disk #1.

New Desktop Modules

Screen Dump

This module was printed in the December 1986 issue of *ON THREE*. Its operation is simplicity itself. When selecting *Screen Dump* from the Desktop Menu, whatever is currently on the screen is sent directly to the printer. Control codes and other non-printable characters are filtered out before being sent so your printer will not go crazy.

Option List, Reload & Exit

The *Option List* was on the *Three's Company* bulletin board and the *Reload & Exit* module was printed in the February 1987 issue. Both of these modules are extremely handy when adding new modules to the Desktop. Option List, when selected from the menu, will display all the modules in the Desktop subdirectory. It lists the option letter and the name that appears in the menu as shown in Figure 1. The Option letters not used are blank.

When selected from the menu, the Reload & Exit module does exactly as the name implies. Before this module, you had to reboot the Apple /// to re-initialize the Desktop Manager so that it would recognize new modules. Reload & Exit clears the data table in the Desktop Manager and then exits to your original program. The next time you call the Desktop Manager it will re-initialize the Menu and the new modules will be recognized. If you have the *Disk Manager* the addition of these two modules makes adding

Figure 1
Section of Option List Screen

```
OPTIONA.....Disk Manager
OPTIONB.....Calendar
OPTIONC.....Calculator
OPTIOND.....Macro Manager
OPTIONE.....Change Font
OPTIONF.....
OPTIONG.....File Print
OPTIONH.....
OPTIONI.....File View
OPTIONJ.....Printer Setup
OPTIONK.....Labeler ///
```

new modules a fast and simple job.

Make Subdirectory

This is the one *ON THREE* missed in the Disk Manager. Select it from the menu and enter the pathname for the new directory in Figure 2.

Figure 2
Make Subdirectory Folder

Make Subdirectory

```
This module allows you to create a subdirectory. At the prompt
enter the entire pathname of the new subdirectory to create.
You can only create a subdirectory under an already existing
subdirectory. In other words, you can't create .DI/PIES/APPLE
if .DI/PIES doesn't exist. You will have to create PIES first.
```

```
Press RETURN to accept or ESCAPE to exit. By Tim Harrington
```

This module will be especially appreciated by those with the Disk Manager. You don't realize how much time is wasted using the System Utilities until you have used the Disk Manager. Having to quit whatever you are doing and load the System Utilities, even when using a program switcher like Catalyst or Selector, is still a pain and waste of time. With the addition of the *Make Subdirectory* module, the System Utilities should only have to be used for the System Configuration Program. I doubt if anyone will mourn its passing.

Monitor Enable

The *Monitor Enable* module allows you to enter the Apple /// monitor from any application. If you want to see the state of any memory location this will help to do it. This module is not a necessity for the average user. A quote directly from the user's guide, "Please note that this

accessory can cause serious harm to your system if used incorrectly." If you don't know what you are doing, do not use this module. The User's Guide includes a list of the Apple ///monitor commands and instructions. on how to enter the monitor. This is the only module I haven't used. When I do use it, it will be without the hard drive on, and only floppies that are expendable in the disk drives, at least until I know what I am doing.

Printer Setup

This module sends control codes to the printer without the user needing to page through the manual. A user can easily setup his printer for **bold**, *italic*, underline, compressed print or any other option that is supported by his printer. A user can configure up to three printers, then select and control any one from the easy-to-use menus. After selecting Printer Setup from the Desktop Menu, the folder in Figure 3 will be displayed.

Figure 3
Printer Setup main menu

Printer Setup				
Select Printer Effect		Select Pre-Set Effects		
Defaults	6 lines/inch	#1	#2	#3
Bold	8 lines/inch	#4	#5	#6
Italic	Form Feed	#7	#8	#9
Underline	Set CPI	Select Printer Typewriter		
Reset Printer	Special			
Highlight with ARROWS, press RETURN to select. *-? For Help				

The first time you use the printer setup you will have to select the printers on your system. Moving the highlight to the "Select Printer" item on the menu will display the folder in Figure 4.

Figure 4
Select a printer menu

Printer Setup	
Select Printer	
Printer Selection Menu	Current Printers
Add a Printer	Pkaso/U
Remove a Printer	Epson
Select a Printer	< Empty >
Printer Information	Selected Printer
Change Printer	Epson
*-? for Help	

Select "Add a Printer" from the menu and the folder in Figure 5 will be displayed.

Four distinct families of printers are directly supported. If your printer is not one of these, the Custom Printer will take care of all others.

A note here for Pkaso owners. The Custom Printer can be set up with Pkaso commands. Have you ever quit an appli-

Figure 5
Select Printer folder

Select Printer	
Select the desired printer to add by highlighting it using the arrow keys and RETURN to accept or ESCAPE to exit.	Available Printers
If your printer isn't listed here, you must select Custom Printer and enter the printer control codes manually.	Apple ImageWriter/DMP Epson and compatibles I.D.S. Okidata Custom Printer

cation, started another and then found out the Pkaso was left in **bold**, *italic*, or compressed print? You will definitely appreciate this module.

As one can see, this module is not only user-friendly but self explanatory, or to put it another way, what we have come to expect from *ON THREE* software. At every step along the way, each folder contains all the information needed or a help screen is available.

After selecting the printers on your system, you can give each printer a name other than that shown. For instance, instead of ImageWriter, call it Color Printer. You will be asked for the SOS device name that all your other programs use. If the printer selected was one of the standard ones, you now only have to select Printer Setup from the Desktop Menu and move the highlight to the selected effect, and press RETURN to send it to the printer. If the effect you want is not shown, select "Special" and type in the special codes required. These can be entered by actual keystroke, decimal number, or as a hexadecimal number. When selecting a printer effect from the menu, if the effect has different commands for turning the effect OFF or ON a small menu will appear, use the arrow key to select which option to perform as shown in Figure 6.

Figure 6
Off/On Menu

Select Print	On/Off Menu	Effects
Defaults	Use the left and right arrow keys to highlight either On or Off and RETURN to accept.	#3
Bold		#6
Italic		#9
Underline	On Off	
Reset Printer	ESCAPE to leave.	er

Simply press RETURN and the desired effect will be turned on or off. If you chose Custom Printer from the selection menu, then enter the codes for each Printer Effect. All codes can be entered into the Printer Setup by keystroke, decimal or hexadecimal entries. As you can see from Figure 4, I have one printer called Pkaso/U. With the Pkaso/U commands installed in the Printer Setup Module and the Pkaso/U Command Module I wrote (*ON THREE* April, 1987), I haven't had the Pkaso manual out in months, and I don't miss it at all.

In Figure 3, there is an area called Pre-Set Effects. If you already have the *Macro Manager* module, you know how helpful this feature is going to be. Move the highlight to one of the Pre-Set numbers, press OPEN-APPLE A to turn on the recording feature. A simulated tape appears on top the folder, move the highlight over the standard Printer Effects, press RETURN to select a effect, turn it off or on as required. These keystrokes are not sent to the printer but

are recorded for future use. They are also displayed on the tape, making it easy to verify that all the commands you want are there. This macro capability allows a user to send up to 52 printer effects to the printer with a single keystroke. After selecting the effects, press OPEN-APPLE RETURN to end recording. You can then give an eight character name to the effect recorded. From that point on you can send the effects recorded to your printer simply by highlighting the desired effect and pressing RETURN.

From the menu in Figure 5 you can also select Typewriter. This displays a column count and allows a person to use the Apple /// and printer as a typewriter. Type in the information you want to print one line at a time. Use the backspace to correct your typing but press the RETURN key and you'll need a bottle of correction fluid if it's wrong.

Labeler ///

This module allows you to easily address envelopes or print mailing labels. When selected from the menu, a folder will be displayed that has the appearance of an envelope as indicated in Figure 7.

Figure 7
Labeler /// main screen

On this envelope, you can enter up to 11 lines of text, with a maximum of 44 characters each. As usual, complete help screens are a keystroke away. With the commands provided, after typing a line of text, one can move the line any place on the envelope. The line can be exchanged with the one above or below it, or moved left or right as required. After designing the label, press OPEN-APPLE H to print a hard copy. The *Print Selection Menu* will be displayed. From this menu a user can select to print up to 99 copies. Also, the number of blank lines between the labels can be selected. With a three line address to print, using one inch labels, set the "Lines" between labels option to 3. Perfect labels every time. As you can see from this description, you can print just about any type or size of label needed. Also, the text pickup feature of the Desktop Manager can be used to pickup the label information from any other program and paste it into the Label Maker. When pressing ESCAPE to leave *Labeler ///*, the last used label will be saved to the disk and restored the next time the Labeler is used.

Menu Manager

This is the module that has become essential. With the addition of the modules on this disk to the other modules previously purchased, plus the ones I have written myself, I currently need 27 slots for modules. Since the main Desktop Menu will only hold 21, this module is definitely needed. The limit on the number of modules usable by the

Desktop Manager has been raised from 21 to hundreds.

The first time you select the *Menu Manager* from the Desktop Main Menu you will be asked the name of the subdirectory to be used. See Figure 8.

Figure 8
Menu Manager Pathname screen

As shown in Figure 8, I have set up, under the Desktop subdirectory, another *ON THREE* subdirectory called *extras*. In this directory I put the modules I use infrequently as shown in Figure 9.

Figure 9
Subdirectory Listing

```
DESKTOP.MENU
OPTIONB
OPTIONA
OPTIONO
SCREEN.DATA
DMG.PAPER
DMG.INST
DMG.MENU
OPTIONG
DMG.DATA
NOTE.PAD
NOTE.HELP
NOTE.FIND
NOTE.PRINT
```

In Figure 9, notice that if you move a module into the subdirectory, make sure that all sub-files needed by that module are also included in the directory. Because you tell the Menu Manager where to find the modules, it is not necessary to have a subdirectory. Another option is to use the root directory of the disk drive, or for faster action when calling the modules, copy the modules into a RAM disk when starting the Apple ///. The module will be on the Desktop before you can take your finger off the RETURN key. Figure 10 is a sample of a SubMenu. By pressing OPEN-APPLE N, a person can rename the sub-menu as desired. I use the --, as suggested in the User's Guide in front of the name to make it easier to spot it in the Main Menu.

When you call the Menu Manager, it will appear in the upper left corner of the screen. It can be moved any place on the screen and from then on that's where it will appear. A help screen is provided with the commands available for

use in the Subdirectory Module. A Reload & Exit is provided to update the menu after adding new modules, a rename for the menu and OPEN-APPLE P allows you to change the path to the menu.

Only 18 modules can be entered in a SubMenu but there can be SubMenus in SubMenus. A module in a SubMenu will act differently then when placed in the Main Menu. If

Figure 10

Extra Stuff
Note Pad
Make Subdir.
Graphics Mgr.
Monitor/Enable

you have the *Appointment Calender* in a SubMenu, you

won't be alerted when an appointment is due.

When exiting from a module in a SubMenu, you return to the main menu instead of the SubMenu.

The Menu Manager module makes the Desktop Manager infinitely expandable.

In the IBM world of Terminate-Stay Resident programs, Sidekick, Notepad, etc, getting two different programs to work together can be a nightmare. The Desktop Manager is a dream to set up and work with.

Bottom Line

The Accessories Disk # 1 is available from *ON THREE* for \$39.95 plus \$2 shipping and handling. In my opinion, the Labeler ///, Printer Setup, or Menu Manager are worth the price of the disk. With all three, plus the others, on one disk, it's a steal.

The Desktop Manager has made using the Apple /// much easier and faster. The modules on Disk #1 just make the /// that much better.



The same company that has been supporting your /// is ready to help you with your Apple IIc and IIe by offering ...

The Graphics Manager

- The **Graphics Manager** is a new and exciting utility for your Apple IIe or IIc. Print black/white hi-res, double hi-res, full 16 color double hi-res and Print Shop™ graphics images in an infinite number of sizes and positions. Copy any number of images onto the same page. Point and click graphics interface makes it easy!
- For the first time you can print your graphics the way *you* want them. Sophisticated image analysis lets you take your entire picture or a portion of it, expand to fill a page or shrink it down to a small section. Rotate, invert or flip the image to suit your needs.
- There are plenty of programs for creating graphics, but until the **Graphics Manager**, you had to settle for second rate print outs! Order the Graphics Manager today and start enjoying print outs that are better than the originals. **Not copy protected!**
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Works with these popular printers and interface cards.

Black and White Printers

- Apple Dot Matrix
- Epson MX, FX, RX
- OkiData 84/92/93
- Star (Gemini)
- ImageWriter
- ProWriter
- HP ThinkJet
- Fujitsu DPL-24

Interface Cards

- Apple Super Serial
- PKASO/PKASO U
- MicroBuffer II
- Dumpling-GX
- Apple PIC
- Grappler (All)
- Print It!
- Dumpling-64

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product for your Apple!

Glossary of Terms

by Rutherford B. Thompson, Jr.

The /// from A-Z

(Editor's Note: This is a continuation of "Glossary of Terms" from last month, specifically designed to help beginners with their new Apple /// vocabulary.)

CONTROL - Located on the left side of the keyboard, just left of the letter "A." This key, like OPEN APPLE and CLOSED APPLE, modifies the meaning of other keys for special operations with some programs or operating procedures. When used, it is depressed then the other key is pressed, just as when using the shift key.

CPU - Central Processing Unit. The *mother board*. The area where all the computer's work is done, except storage.

Cursor - The symbol, typically a light rectangle, that moves across the screen and indicates where entering of data or editing takes place. Sometimes the cursor is a cross or an underline.

Decimal numbers - The numbering system based on 10 digits. It is the one we normally use. Compare with binary, hexadecimal and octal numbers.

Device - A device is a part of the Apple ///, or a piece of external equipment, that can transfer information into or out of the Apple ///. Some devices are the keyboard with the screen (.console), disk drives (.d1, .d2, and .profile), printer (.printer), RS232 (.rs232), grafix (.grafix), audio (.audio), .RAM "disk drive" and others. Note: There is a period preceding the designation of a device. Devices may be built-in (.console), peripheral (.printer), or even software (.grafix). Device names have a period followed by a letter as the first two characters; up to 14 additional letters and numbers may follow.

Device drivers - These are programs that enable the computer operating system to communicate with the input/output devices such as the keyboard, screen, printer and disk drives. Do not confuse drives (hardware) with drivers (software). Drivers drive drives, and other devices. SOS.DRIVER is the file which contains the information to control the devices available for use. See Apple /// Standard Device Drivers Manual.

Directory - This is the repository for file names. It is an index of files, or other directories. See volume. A directory may also be called a catalog or cat.

Directory name - A one to 15 character name by which one can refer to a directory. It must be composed of only letters, digits and dots. The first character must be a letter. Lower case letters are almost always acceptable and will be transformed by the Apple /// to the uppercase.

Disc or disk - Magnetic material on which computer information is stored. Floppy disks or floppies for Apple /// are contained in 5.25 inch square protective sleeves. They are sometimes referred to as diskettes. The hard disk is in the Profile cabinet and is accessed directly electronically as .PROFILE. A RAM disk (.RAM) is not a disk but an internal storage medium which can be used as a disk. However, once the power to the computer is turned off .RAM loses its memory. The capacity of disks is measured in blocks.

Disk drive - This is the hardware which reads information from or writes information on a magnetic disk. The Apple /// has one built-in disk drive (.d1) and can use up to three additional drives, one attached directly to the computer by a ribbon cable and the others, daisy chain fashion to this one. With the addition of an interface card and hard disk, such as ProFile may be added. With 512K byte memory upgrade, an electronic RAM memory which functions like a disk is available. This is, however, volatile and will be lost when the computer loses power or is rebooted.

Diskette - A 5 1/4 inch diameter floppy disk. The disks used by Apple /// disk drives is this size. See *disk*.

Driver - See *device driver*.

File - The program or data generally stored on a disk.

File name - A name ranging from one to 15 characters in length by which one can refer to a file. The name must be composed of only letters, digits and dots. The first character must be a letter. Lower case letters are almost always acceptable and will be transformed by the Apple /// to uppercase.

File type - The type of information in a file, as given in directories or catalogs. Type names may differ depending upon the program giving the catalog. Basicprog (BASIC) = a program in BASIC. Asciifile (TEXT) = a file of characters. Sosfile (SYSTEM) = system program file. Datafile (PASDTA) = Pascal dat file. Codefile (PASCOD) = machine language program file. Fotofile (FOTO) = screen image file. Datafile (BINARY) = Assembly language. Directory (CAT) = directory or subdirectory. Textfile (PASCTXT) = Pascal file of characters and some formatting information.

Format - To prepare a disk for use. A disk must be formatted before Apple /// can write on it. Formatting causes a disk to lose permanently any information it might have once contained.

Handshake - A protocol in communications in which the

MEMO FROM ON THREE

SUBJECT: TECHNICAL SUPPORT
DATE: JULY 1, 1987

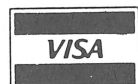


ON THREE, Inc. warrants all of its products and offers full technical support for a period of up to ninety days. This has always been our policy and we will continue to help our valued customers as much as we can. However, of late, the abuses to our limited technical staff have been overwhelming. Every day we receive dozens of calls from /// users with questions on products that were bought years ago, questions on software the caller frankly admits he/she has copied from a friend or other source "but doesn't have the manual and can you step me through the program?", calls concerning products that were purchased from companies and dealers that have gone out of business or refuse to support Apple /// products. We receive calls from Apple /// users who insist that because Apple, Inc. or their dealers won't assist them, we must help them with products that are not even ours, "because ON THREE is the only company still supporting the Apple ///." The majority of these calls come in over our toll free order line, which is toll free *only* because ON THREE is paying for the call! Our phone bills have been positively astronomical! All of this free technical support has put tremendous strain on our limited time and resources. ON THREE is not subsidized by Apple, Inc., as many people believe. If ON THREE is to survive financially, and stay in a position where we will be able to continue to develop new hardware, software and programs for the Apple ///, we must regretfully change our present policy of unlimited free technical support because quite frankly, we can no longer afford to do so. Because of these circumstances we are forced into the position of having to change our rules concerning free technical support on certain products: Effective immediately: **ON THREE will no longer offer unlimited, FREE help and assistance on products that:**

1. Were not purchased from ON THREE.
2. Are not ON THREE products.
3. Were obtained from an unauthorized source.

If your call falls into any of the above categories, we will still try to assist you to the very best of the ability of our staff. However, at the start of your call, which must be made *only* to the 805-644-3514 line, we must ask you to give your credit card number and expiration date. You will be charged at the rate of \$5 for the first three minutes and \$1 per minute for each additional minute thereafter.

THANK YOU FOR YOUR UNDERSTANDING AND COOPERATION



The following excerpts concerning the technical assistance offered by other companies is from an article titled, "EASY LISTENING ON THE SOFTWARE CIRCUIT", by editor George Gendron. This story appeared in the February 1985 issue of INC. magazine.

"Even the expense of making long distance phone calls to software publishers would be tolerable, except that getting through to a consoling voice often strains the bounds of patience.

Ashton-Tate: Called and got right through but was transferred to a recording that advised me to have software serial number ready and described A-T's commitment to the customer. Message prattled on for a good 80 seconds. No support was forthcoming, only Easy-Listening' FM. Was listenin' uneasily to "Try to Remember (the kind of September)" when a voice interrupted, "Our support technicians are still busy." Kept holdin'. Twelve minutes later, still no surcease; lots of hearts and flowers, though. Hung up. Elapsed time; still tickin'.

Context Management Systems: Picked the phone right up. No wonder there was such speed. The company no longer offers technical support. "Try the dealer you bought it from," I was told. Elapsed time: 8 seconds.

BTI SYSTEMS: The line was busy 10 straight times. At last a recorded voice answered: "All our support representatives are currently busy," Held the dead line for 2 minutes. Finally a *real* voice answered, "All of our support representatives are currently busy." Left name and phone number. Was called back in half an hour. Elapsed time: 40 minutes.

IBM: They answer questions like everybody else - except their support can cost \$40 a query."

receiving device sends back a signal acknowledging that it successfully received a character or a set of characters. This triggers the next transmission from the sender.

Hard copy - A print out of a file on paper as opposed a copy on a magnetic disk or a volatile copy on a memory chip in the machine.

Hard disk - The hard disk is a storage system consisting of two or more rigid disks, a disk controller which is packaged in a sealed cabinet. Profile is one such hard disk. It has a capacity of 9728 blocks. The standard 5.25 floppy disk has a normal capacity of 273 blocks. Thus, the Profile has the capacity of nearly 36 floppy disks. In addition, the hard disk transfers information to and from the computer at a much greater speed than floppies or unidisks.

Hardware - Electronic and/or mechanical equipment use with a computer. Such items include the computer itself (main frame), monitor, disk drives, printer, modem and hard disk.

Hexidecimal numbers - Numbering system based on 16 digits. This system is convenient in working with computers since two bytes (one ASCII character) requires only two digits. The 16 digits are represented by 0 through 9 plus A through F. The decimal number 15 is represented by F in the hexidecimal system. The 256 ASCII characters are represented in the hexadecial system by the digits 00 through FF. Decimal 197 = Hexidecimal C5 = Binary 11000101.

Input/output - Input /output devices include disk drives, keyboards, printers. I/O Failure message usually means that somehow the information from a disk did not get to the computer and one must reboot the computer with the loss of anything that was not stored on a permanent storage drive, such as a disk.

Interface - That which permits the computer to communicate with a device, or two devices with each other. Also, that part of a computer program interacts with the operator, e.g., input and output of data.

Interpreter - This is a program that lets the computer run programs written in a given language, such as Apple Business BASIC or Apple Pascal. the interpreters are SOS files which *interpret* the language of the program into the language of the computer, i.e. machine language.

Joystick - A lever and a button which can be used to control the position of the cursor and the operation of the computer. Named for the lever that was once used in airplanes to control the elevators and ailerons. It has similar functions to the mouse.

Kernel - See SOS.

Load - to bring into computer memory. You load the operating system when you boot the computer. You can also load device drivers, programs and data.

Machine language - The fundamental language understood by the computer. It is written in the binary number code. All other languages must have an interpreter to

convert the program language into machine language.

Menu - A list of options one may have in using a program. Instructions for placing your order from the menu will be given.

Modem - A device (hardware) used to connect a computer or a terminal to a telephone line so that the computer can be operated by a remote terminal. The connection between the computer or terminal and the modem is made by RS-232C connection and cable. The modem may be addressed as a device using the name .RS232. This is an obvious reference to the connector.

Mouse - A device for controlling the cursor and the operation of the computer by pushing it in various directions on a plane surface, then pushing ia button when the cursor is in position. Similar function to the joystick.

MPU - Microprocessor Unit, also known as a chip. The silicon circuitry that does the work on the CPU or motherboard.

Numeric Keypad - The set of 13 keys to the right of the main keyboard which includes the numbers, period, minus sign and the ENTER key. Usually these may be used interchangeably with the similar keys on the main keyboard, but the computer can distinguish between the two sets, and for some programs they have a different meaning. This is the case with Word Juggler, AppleWriter ///s latest version, Draw ON ///, Macro Manager and many others. In many programs they keys on the numeric pad are combined with the CONTROL key or with the OPEN or CLOSED APPLE keys for special purposes.

OPEN-APPLE - Located on the bottom row of the keyboard right of "ALPHA LOCK" key. This key, like CONTROL and OPEN APPLE, modifies the meaning of other keys for special operations with some programs or operating procedures. When used, it is depressed then the other key is pressed, just as when using SHIFT. This key will add 128 to the numeric code of any keystroke, thus doubling the number of possible keystrokes.

Operating system - This is a program that controls the computer's operation in a uniform manner. SOS.KERNEL is the boot file containing this program.

Parallel interface - An interface in which all bits of a character are transmitted simultaneously, using separate wires for each bit. The Apple /// Universal Parallel Interface Card (UPIC) is an example. It can be used to operate various printers or other devices capable of handling parallel information. Compare with serial interface.

Pascal - Like Business BASIC, this is a language that Apple /// can understand, provided that the Pascal language SOS interpreter files are loaded.

Next month, we will continue in this word study of Apple /// terminology starting with the definition of a pathname. So be sure to tune in. If you have been following this column, you may want to clip or copy these articles from the magazine so you will always have them at hand as a reference source.



It's a ONE WAY Street for Apple /// Users!

This current ON THREE price list is the ONE WAY street!

Product	Price	S/H	Product	Price	S/H
Software					
Apple File ///	\$99.00	\$7.00	ON THREE O'Clock	\$49.95	\$3.00
Apple /// Fortran (requires Pascal)	\$99.00	\$5.00	Reconditioned 512K Apple ///		
Apple /// Pascal	\$99.00	\$5.00	w/monitor ///	\$1148.00	\$50.00
Backup ///, users guide and disk***	\$50.00	\$3.00	Titan /// Plus //e	\$199.00	\$7.00
BPI General Accounting	\$99.00	\$7.00	Xebec Sider 10Meg Hard Drive	\$800.00	\$35.00
Business Basic***	\$99.00	\$3.00	Xebec Sider 20Meg Hard Drive	\$950.00	\$35.00
Card machine			256K Apple /// w/ monitor	\$749.00	\$50.00
(Black Jack game)	\$24.95	\$2.00	256K Memory Upgrade,		
Fruit machine (Slot machine game)	\$19.95	\$2.00	128 to 256K	\$150.00	\$10.00
Card machine/			512K Memory Upgrade,		
Fruit machine combination	\$39.95	\$3.00	256K to 512K		
Crossword Scrambler	\$9.95	\$3.00	(Remit \$324 and receive \$35)		
			credit when old board is returned.)	\$324.00	\$10.00
Desktop Manager	\$129.00	\$6.00	65C802 Chip	\$90.00	\$2.00
Communications Manager**	\$49.95	\$3.00	Other services and products		
Desktop Manager/ON			Device Driver Writers Guide	\$19.00	\$3.00
THREE O'clock combination	\$163.95	\$8.00	Draw ON /// Printer Update	\$15.00	\$2.00
Disk Manager* (utilities)	\$44.95	\$3.00	Dust Cover for Apple ///	\$11.95	\$2.00
Graphics Manager ///, //c, //e**	\$39.95	\$3.00	Dust Cover as above plus profile	\$12.95	\$2.00
Macro Manager*	\$44.95	\$3.00	Grafix Manager Update	\$15.00	\$2.00
ASCII Conversion Table*	\$9.95	\$3.00	I ♥My Apple /// T-Shirts		
Desktop Accessories No. 1*	\$39.95	\$2.00	sm., med., lg., x-lg.		
Desktop Tool Kit	\$19.95	\$2.00	yellow, blue, white, silver	\$11.95	\$3.00
			I ♥My Apple /// Sweatshirts		
Disk of the Month (D.O.M.)	\$14.95	\$2.00	sm., med., lg., x-lg.		
Two or more D.O.M.'s	\$12.50 ea	\$4.00	yellow, blue, white, silver	\$18.95	\$3.00
Draw On ///	\$179.00	\$5.00	I ♥My Apple /// Caps	\$5.95	\$2.00
Draw On /// Graphics			ON THREE back issues	\$5.00 ea	
Tablet Version	\$229.00	\$5.00	ON THREE Magazine Binders	\$9.95	\$3.00
Lazarus /// file recovery utility	\$49.95	\$2.00	ON THREE subscription	\$40.00 per year	
Mail List Manager***	\$99.00	\$7.00	Resource Guide for the		
Quick File ///	\$50.00	\$7.00	Apple /// computer***	\$15.00	\$3.00
RAM Diagnostic Disk***			Service Referral Manual and		
Specify 128K, 256K or 512K	\$15.00	\$2.00	Schematics for Apple ///***	\$99.00	\$5.00
Sandman** (Arcade game)	\$19.95	\$2.00	"Will Someone Please Tell Me		
Selector /// program			What Apple /// Can Do?****	\$3.00	\$2.00
switching utility	\$99.00	\$7.00	3M double sided double		
Sider10, 20 mb			density disks for use as A3		
Driver and Documentation only	\$159.00	\$3.00	and A143 (10 count)	\$39.95	\$2.00
/// E-Z Pieces	\$135.00	\$3.50	512K or 256 Upgrade Installation		
Unidisk ///.5 disk and			(by appointment only)	\$50.00	
documentation only	\$50.00	\$3.00	*Background module for Desktop Manager		
Unprotect Driver	\$19.95	\$2.00	**Runs as standalone or Desktop Manager module		
Hardware			***Registered Trademarks of Apple Computer, Inc.		
Apple /// Unidisk ///.5 (800K 31/2"			#Quantity Limited		
disk drive w/interface, driver &					
documentation)	\$499.00	\$10.00			
Apple //e Mouse and Interface					
card (Use with Draw ON and					
Desktop Manager)	\$160.00	\$5.00			
Interlace Kits***	\$75.00	\$3.00			
MicroSci A3 140K Disk Drive#	\$225.00	\$6.50			
MicroSci A143 560K Disk Drive#	\$325.00	\$6.50			

Remember: Call the orderlines to find out about updates! When ordering an update, please enclose \$1 for postage.

Ranntings

by Richard and Lavona Rann

More than a name

What's in a name?

When Shakespeare put those words in Romeo's mouth his purpose was to show the the quality that lay behind the simple name. So, "That which we call a rose by any other name would smell as sweet," is true to Shakespeare's purpose. The name is only a label and not the essence of the object. Whatever a rose is has little to do with the name rose or *rosa* as it appeared in Latin. Recent events have brought this conflict between essence, name, and use so elegantly phrased by Shakespeare to the world of Apples.

Last year Apple stepped up its pressure to protect its *copyrights* and *trademarks*. One of the results was the *Look and Feel* ruling. Basically this ruling said that Apple, and other computer makers, had a right to protect the look and feel of the hardware, software, and operating systems. At about the same time, Apple informed its developers that they could no longer use the name *Macintosh*, or *Mac* in their product names without first signing a licensing agreement with Apple. Apple's legal department prepared a position which said the use of the name was misleading to the public because it implied that Apple made or directly supported the product and unless the name was specifically contracted for, it represented and infringement of Apple's trademark. Included with the names in this restriction was the use of Apple's logos and various slogans and art work.

An example that comes relatively close to home is the phrase "Apple III Forever". In fact, Apple does not allow the use of the word *Apple* to appear in any context except to as it refers to Apple Computer, Inc. nor does it allow the use of *any kind of Apple image* or of rainbow striping. The company even says if the trademark *Mac* is licensed for a product, it must receive top billing. *MacCharlie* is all right, but *CharlieMac* is not.

User groups

In the materials Apple supplies its developers there is a section on Apple's legal requirements. The section includes a two and a half page list of Apple's trademarks. All of which may not seem very important to the end user of Apple products. It is, after all, the standard atmosphere that developers survive in regularly. Hardware and software development is a business, and Apple must protect its business interests. It is proper that Apple do this to protect the thousands of people who depend on Apple's prosperity for their livelihood. But, Apple has extended these and other demands to its user groups and can be expected to extend the pressure outward towards anyone distributing public domain and/or shareware or royalty software.

The user group pressure appears to have started when Apple corporate (software licensing and the legal depart-

ment) became aware that user groups were distributing bootable disks in their public domain libraries. We, personally, had discussed the SOS issue with several people in Cupertino because we wanted to legally provide /// users with things no one was providing in a technically legal manner. Providing any disk containing SOS.KERNEL that is not specifically licensed by Apple, is technically in direct violation of copyright laws. This also applies to ProDOS and DOS 3.3.

Apple charges developers annual fees for each program that contains one of its operating systems. This is not unreasonable since, in theory, the developer intends to make money from every program he licenses. User groups often have hundreds of public domain disks in their libraries. Since user groups are not-for-profit organizations, there is no expected profit to make it worth an investment in licensing. Paying a \$75 fee per year per disk would be ruinous. *Public domain* disk charges from user groups would increase significantly if it were to work at all. Only very large user groups would be able to afford the licensing and public domain software would either go on *illegally* or be severely cut back in quantity and variety.

When Apple recognized the problem, the company indicated that it would try to grant a special license to user groups to allow the practice and still maintain the validity of Apple's copyrights. The resulting *fix* for the problem was announced at Appleworld '87 and again at the 1987 National User Group Conference. The *fix* avoided the real issue. Apple proposed to license user groups to distribute system software, but not on bootable disks.

The offer that each user group was mailed comes down to this: The user group may license a machine's system software for \$75 a year. Under this agreement there are two classes of software: one for the Macintosh family, and one for the Apple II family (SOS will be included in the II family, *if specifically requested in writing*). For that fee, the user group will be provided with each new release to the operating system along with the necessary technical information as it is published. The user group can then distribute the software to its members if they provide an end user license agreement with the disk. They still cannot make bootable disks without licensing each individual program (disk) on an annual basis. While this provides advantages to the user group, the major benefit is to Apple. It improves the distribution channel for its system software updates. Now dealers are not the only ones to have this software. User groups can help considerably in the quick distribution of fixes and upgrades. Thus, the dealers are relieved of some copying and non-productive time and at the same time, a wider range of users can be reached quickly.

In an effort to implement this policy, a representative of

ON THREE Presents...

Reconditioned 512K Apple ///'s

with Monitor ///

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- for yourself
- for your office
- for a friend
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plus: \$50 shipping and handling

OF COURSE!

Backed by *ON THREE's*
limited 60-day warranty

Only *ON THREE* sells 512K Apple ///'s—the world's finest microcomputer. *ON THREE* provides complete support at no extra cost, plus a full line of *ON THREE* peripherals and sophisticated software.

NEW LOW PRICE!

Graphics Manager \$39.95 *plus \$3 s/h*

If you've been holding out for a lower price on the Graphics Manager for the ///, here it is! Take advantage now. The complete graphics utility for the Apple /// interfaces to **Draw ON** ///[™] and all graphic programs and allows printing enlarged or reduced portions of the graphics screen, normal or inverted, single or double density with four rotation values.

For the first time you can load directly any DOS 3.3 or ProDos Hires or double Hires graphic files (including "Print Shop") and of course SOS fotofiles or other binary graphic images.

Comes complete with full documentation and diskette containing standalone SOS interpreter and *ON THREE's* Desktop Manager module. All popular printers, serial and parallel interfaces supported and limited color graphics capability is included.

Apple's software licensing department, Teri Drenker, attended sessions with user groups at this year's User Group Advisory Council and AppleWorld. She was surprised that user groups actually used the word *Apple*, or *Macintosh* in their user group names. Apple corporate had never considered that user groups might identify themselves with Apple in this way. Apple had really lost touch with what has happened in the real world.

Just three months after her first meeting with user groups, Drenker had a draft proposal ready to discuss at the 1987 National Apple User Group Conference. To her credit, during the short intervening time, Drenker had arranged a licensing agreement (based loosely on the Apple developers agreement) that would allow user groups to use Apple and Macintosh in their user group names. However, the agreement excluded all use of other Apple trademark names and Apple logos. Almost all user groups use some form of the apple with a missing bite. It has become part of their identities as groups. They use it on newsletters, business cards, and letterheads. In short, everywhere that the words Apple or Macintosh are likely to appear.

As with the system software issue, this also brought out a more general problem that could affect any user of Apple products. It is, according to Apple, illegal for anyone to use the Apple symbol (even just the outline) without licensing its use and always including the registered symbol and a note that the mark is registered by Apple Computer, Inc. In one discussion, someone noted that Apple included the CLOSED APPLE symbol in the character sets of both the LaserWriter and ImageWriter. Someone with an IBM computer and an Apple printer could print out Apple's CLOSED APPLE logo on any document. Under such a circumstance, how can Apple believe that it can maintain rights to people from using that symbol without restrictions?

In Apple's defense, the company is right to believe it must protect proprietary products. It has a responsibility to its stockholders to maintain the company's assets. On the other hand, user groups are of considerable value to Apple as support organizations, marketing assets, and as public relations representatives. Apple recognizes that it does have a responsibility to its users and to the user groups that represent them. Just how far, and how inexpensively, Apple will allow user groups to use its name, logos and system software is unclear, but Apple does have a problem. Its means of enforcing the proposed licensing agreements are severely limited. Apple may be forced to sue to enforce the restrictions. Suing a legitimate user group for use of logo and/or system software would be as destructive for Apple's reputation as it would be for the user group community in general. In such a case there would be no winners.

What's in a name? In the case of Apple, many more things than just a computer. Computers would run just as well regardless what name plate was on the front. That is not so with the user groups. The Apple name enfolds them and is part of their basic identity to the outside world and potential members. They are tied to Apple in a manner far deeper than just the use of a name. Even we Apple /// owners, who often have a love/hate relationship with Apple, have an identity with Apple that we don't have with Commodore or IBM. We see ourselves as Apple owners. Justly we identify with Apple Computer in a very

personal manner. Our Apples have become extensions of ourselves, and to some extent, we have become extensions of Apple Computer. In some ways Apple understands this. Users are not strictly customers. It would be a shame to ruin this relationship over something as trivial, and yet something as important, as use of a name.

If you have comments or suggestions on this topic, please send them to us. Our address is: Richard and Lavona Rann, 1113 Wheaton Oaks Drive, Wheaton, IL 60187.



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Why settle for less, when you can subscribe to ON THREE for all of your information about your Apple ///!

A \$40 Bargain!
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ON THREE *presents*

Crossword-Scrambler

Crossword-Scrambler is a computer program that is educational and makes learning fun. Unlike many software products, Crossword-Scrambler is a challenge and really makes you think. While it is not a "shoot 'em up" type of arcade game, you will not be disappointed by this game's graphic displays and musical interludes.

If you need a diversion from your daily computer routine, Crossword-Scrambler provides one without making you feel as if you're wasting time. Hundreds of different crossword questions provide hours of educational entertainment for you and your entire family.

Purchase Crossword-Scrambler today and start having fun with your computer.

Only \$9.95 *plus \$2 s/h*

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

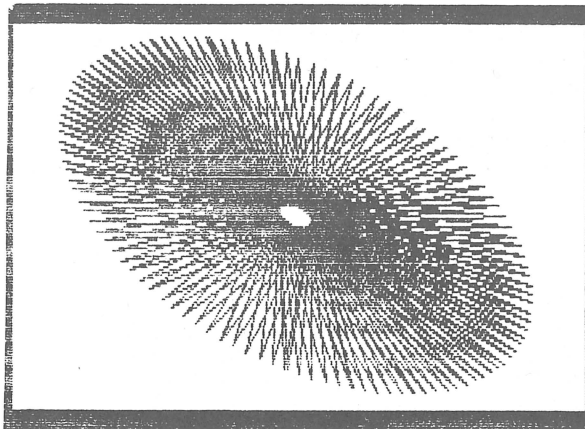
ON THREE is very proud to announce Draw On ///. Draw ON brings the power of LisaDraw and MacPaint to your Apple ///. Powerful cut and paste facilities let you create almost anything that you can visualize. Very fast, Draw ON lets you "pick up" objects on the screen and "Drag" them around in real-time. This is the most exciting package ever for the ///. With Draw ON you can become a one person graphic arts studio!

Since it works in any of the Apple ///'s color or B/W graphic modes and can quickly print out any picture you create, Draw ON is the first program to fully take advantage of the Apple ///'s tremendous graphic capabilities. Complex, pseudo three-dimensional figures are easy to create as you can place objects in front of or behind previously drawn objects. CAD is also possible with the powerful "rubber-banding" and grids available.

Ever been bored with some of the graphics that your business charting programs create? Would you like to add different titles? Change the "Look" of the graphs? Use different colors or even texture your graphs? It's all a snap with Draw ON /// !

Priced only at \$179.00, plus \$5.00 s/h, this is one of the few programs that you can't do without. All of the pictures in this ad were created with an Apple /// and Draw ON ///. It requires an Apple /// with 256K or an Apple /// plus.

Don't Miss Out



On This Offer!

Joystick ///

by Edward N. Gooding, Sr.

New games to play

Do you currently have an Apple /// compatible joystick such as the Cursor ///, or TG Joystick /// that you use with Draw On /// or the Graphics Manager?

Would you like to be able to occasionally play an Apple II game in Emulation mode, without the added expense of purchasing a Gameport /// card, the Titan cards, and an Apple II compatible joystick?

Would you like to be able to use your Apple /// joystick on some of these games?

If you don't want to spend the money for a MicroSci Gameport /// card, or the Titan ///+II or ///+Ile card(s), but you do have an Apple /// compatible joystick and would like to be able to use it to play certain Apple II games while in Emulation mode, then here's a relatively simple and inexpensive hardware project that will allow you to use your TG Joystick ///, or your Cursor /// joystick to play some Apple II games. There will still be a *lot* of games that will not respond, however, as there are at least two different ways for an Apple II program to handle joystick signals. It is up to the authors of the various II games to decide which method to use, and if they elect to use certain techniques, then this project will not work on those particular games. This project will also not do anything for you with regard to playing II games that require greater than 48K of memory. If you want that, you will have to buy one of the Titan cards, along with a true Apple II+ compatible joystick.

Types of joysticks

While on the subject of joysticks, let's talk about the various types available. It can be really confusing to someone who has not had a joystick before. The joysticks for the Apple II+, Ile, IIC, and /// fall into three basic types. There is the 9-pin, "D" type joystick for the /// only; 9-pin, "D" type joysticks for the Ile and IIC only; and 16-pin DIP plug type joystick for the Apple II+ family.

You won't find the Apple /// joysticks at your dealers anymore. You will usually only be able to pick them up from individuals who happen to find them at flea markets and liquidation sales. Most dealers and software vendors still carry joysticks for the II+ and the Ile and IIC computers. Do not buy the joystick for the Ile and IIC, even though it looks like it will fit into either Port-A or Port-B at the back of the ///. Actually, they will fit, but they will not work at all. They fit because, like the /// joysticks, the connectors for the Ile and IIC joysticks are 9-pin, "D" type connectors. They are called "D" type because, if you look directly at the front of the connector, it will be shaped like the letter "D", with five connecting pins at the top, and four connecting pins at the bottom. Even though the e and c joysticks look like they will work, they will not. You

will have to buy a truly /// compatible joystick like the Cursor ///, or the TG Joystick /// to use with Draw On /// and Graphics Manager with this project.

Joysticks for the Apple II+ look entirely different from the "D" type joysticks. Their connectors look like little plastic rectangles, with 16 sharp, thin pins protruding from one side. Due to the thin connecting pins, these connectors are much more fragile than their successors, and sooner or later, a pin will usually bend or break entirely off. This is why they were replaced with the more sturdy, "D" type connectors on the Ile, IIC, and /// computers. The other disadvantage of the II+ joysticks is that they can be plugged in incorrectly because of their rectangular shape. You can actually reverse the direction that the plug connects with the joystick port. This will, of course, prevent your joystick from responding to your manipulations.

The "D" type connector cannot be plugged in incorrectly, due to its shape. It will only fit into the joystick port in one way. If you have either of the Titan cards, or the Gameport /// card, then you **must** use a 16 pin II+ joystick, no other type of joystick will connect to these cards.

Constructing a "Y" splitter

Okay, on with our little project. What we will be constructing is actually a "Y" splitter to connect our Cursor /// or TG Joystick /// to BOTH ports A and B on the back of the ///. When you use a /// joystick in Apple /// mode with Draw On /// or The Graphics Manager, you usually only plug it into Port-B.

In order to use your /// joystick to play II games, you must find a way to allow the joystick to send signals to both Port-A and Port-B as II Emulation uses both Port-A and Port-B to receive the vertical and horizontal signals from the game control devices. At the time the /// was first introduced, most Apple II gamers used paddles to play games. Joysticks were pretty new and usually used by people with more money than the average Apple II hobbyist. I believe that this is why the Emulation disk was set up this way - to support paddle users, not joystick users. For more information, refer to pages 128-130 and 142-144 of the Apple /// Owner's Guide.

Buying parts

Drop by your local Radio Shack and buy the following parts:

Two (2) 9 pin plugs	part# 276-1537	\$1.99 each
One (1) 9 pin socket	part# 276-1538	\$2.49 each
Three (3) hoods for above	part# 276-1539	\$1.99 each
One (1) length of at least 7 conductor wire.		

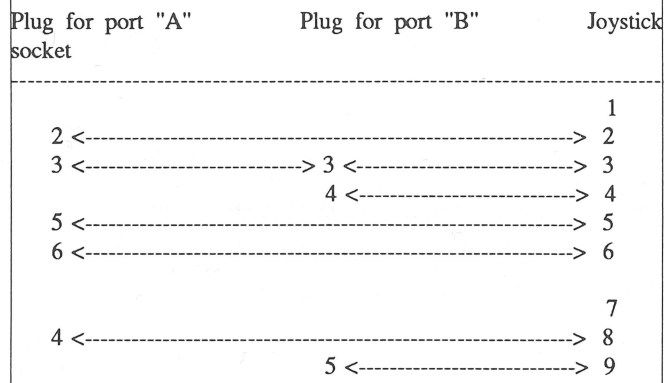
If you are not familiar with wiring terminology, 7 conductor means that there are seven individual wires, usually individually insulated, inside a single insulated cable or conduit. It should be at least 12" long or longer depending on how far you want to extend your joystick. You may use more than 7 conductor wire if you can't find anything else. You will just not utilize the extraconductors. If you can not find multi-conductor cable, then simply buy a spool of 22 gauge electrical hook-up wire, and cut seven equal lengths to use. After you hook everything up and test it, you can insulate the conductors by wrapping them in black, electrician's tape. It may not look like the most professional electronics project, but remember that it will be hiding at the back of your ///, and will be pretty much out of sight.

A 25 watt soldering pencil and some rosin core solder. Both can be purchased at Radio Shack for less than \$10. Do not use a soldering gun, or any solderingtool rated higher than 25 watts to do *any* electronics work on your ///.

Instructions

You will be connecting pins 2,4,3,5,6 of the plug for port "A" to pins 2,3,8,5,6, respectively of the socket, and pins 3,4,5 of the plug for port "B" to pins 3,4,9 respectively of the socket. See the crude schematic in Figure 1 for a graphic representation and refer to your /// owner's manual (pages 128-130) for a description of the port assignments. Make your solder connections, assemble the hoods over the plugs and socket, plug it in and enjoy some Apple II games for a change of pace after a hard day with /// E-Z Pieces.

Figure 1



Note: You may notice that the cursor may drift around on your screen when your joystick is in the neutral position. If you don't have one of the newer Cursor ///s, or a TG Joystick /// with X/Y axis adjusters, you will have to open the bottom of the joystick box, loosen the set screws that connect the stick to the potentiometers, and slightly adjust them so that the ports do not have power applied to them when the joystick is in the neutral position.

Joystick /// (continued on page 26)

Moving?

Please inform **ON THREE** of your move at least two months' in advance so your magazine will arrive at your new address. **ON THREE** can no longer give free replacement magazines to subscribers who have not notified **ON THREE's** office of the address change.

Here is a moving form to fill out and mail to **ON THREE**, P.O. Box 3825, Ventura, CA 93006.

Old Address	New Address
Name _____	Name _____
Address _____	Address _____
City _____ State _____	City _____ State _____
Zip _____	Zip _____
Phone _____	Phone _____
Date of move _____	

Please don't forget or you'll be out in the cold, missing a few issues of your favorite magazine!

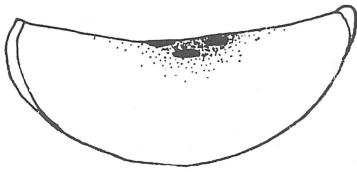
ON THREE presents...

The Uncopyprotect Driver

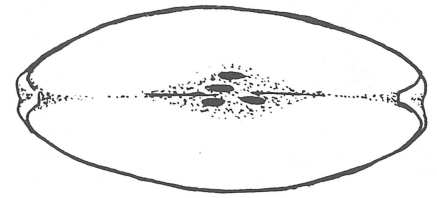
\$19.95 plus \$2 s/h

ON THREE has not changed its position regarding duplicating copyrighted programs for profit or to give away, but since many Apple /// software products are no longer supported, owners of AppleWriter ///, VisiCalc, and VisiCalc Advanced Version are facing the problem of what to do when a diskette "crashes." After much consideration we decided to proceed with a product to solve that problem. *The Uncopyprotect Driver* will allow you to make back up floppies of the above programs. For the first time, you can put your master disk in a safe place and boot on the duplicate.

Economically priced at only \$19.95 plus \$2.00 shipping and handling, the *Uncopyprotect Driver* comes with full documentation and will work with *Selector ///* so you will no longer require a "key" diskette. The *Uncopyprotect Driver* is sold for legitimate **Archival** purposes only. **ON THREE does not condone** and will not condone duplicating a disk for any other purpose.



Apple.Slices



Hats off to the Ranns

This month is the one year anniversary of the Rannings column appearing in *ON THREE* magazine. Richard and Lavona Rann of Wheaton, Ill. have been writing this column monthly for all /// users to enjoy. When you have a minute, it would be nice to write them a letter of appreciation and give them article suggestions for their fine column. Thank you, Richard and Lavona. Here is their address: Richard and Lavona Rann, 1113 Wheaton Oaks Drive, Wheaton, IL 60187.

Short cuts

If you have found any short cuts or have any tidbits you would like to share with *ON THREE* readers, don't hesitate to write us here at *ON THREE*, P.O. Box 3825, Ventura, CA 93006. This column is set up for *you*, so use it to your advantage!

II and /// unite

Yes, Apple II and /// owners will be uniting at a special conference in October! If you haven't heard the *good news* by now, you don't know what you have been missing. This is *your* time to *actually* meet and *talk with* some of the most prominent people in the II and /// world, so why not take advantage of the *once in a lifetime* opportunity. TAU will be hosting a three day Apple II and /// owners and users conference on Oct. 2-4 in Schaumburg, Ill.

According to Lavona Rann, president of the Phase III conference, there will be 45 topics discussed at the various seminars throughout the day, including The Desktop Manager seminar. Plus, booths will be set up by various software companies so you can look and buy various new packages at *sale prices*.

Don't miss your chance to meet Robert Lissner, /// E-Z Pieces developer. He will be the conference's keynote speaker. If you haven't signed up yet, see the ad in this issue for complete registration details.

Moving?

Don't forget to notify *ON THREE* magazine at least two months in advance if you are moving. We can no longer provide free replacement magazines to /// users who have not notified us in advance. In this issue, you will find a form to fill out and send to us for moving! We don't want you to miss out on anything, so be sure to give us your new address well enough in advance!

Apple invests in Touch

Apple Computer and Touch Communications have reached

an agreement in which Apple will invest in Touch. A spokesperson for Apple confirmed that the minority investment will be made by Apple's Strategic Investment Group.

Also at this time, the companies decided to cooperate on the development of Open Systems Interconnect (OSI) networking software products for the Macintosh. The first implementation of Touch's OSI products will be available by the end of the year for national and international markets.

"The relationship with Touch Communications is another major step forward in Apple's goal to integrate the Macintosh product family into multi-vendor computing environments and allow our customers to easily gain access to information," stated John Sculley, chairman and chief executive officer of Apple Computer. "Touch's products, which integrate industry standard OSI protocols with their friendly, transparent user interface will help to expand the market opportunity for Macintosh systems."

Apple's Strategic Investment Group was formed in May 1986 to extend the value of Apple's products by making minor investments in a few innovative and high-quality companies. The venture capital group focuses specifically on companies in the personal computer industry its products or services that have strategic value for Apple.

Touch Communications, based in Scotts Valley, Calif., was founded in March 1985.

Macros with Draw ON

Apple /// users who own Draw ON /// and The Macro Manager need to change their MacroMaps when using Draw ON ///. For instance, if you have some macros on your numeric keypad, which are used in word processing, they could cause problems when using Draw ON ///. To prevent problems, before using Draw ON /// again, call up The Macro Manager, start a new MacroMap by using OPEN APPLE A and label it "blank.macros." Obviously, the MacroMap should be blank to avoid any problems when using Draw ON ///. Always make sure that the blank MacroMap is the last MacroMap you see on your screen before leaving the Macro Manager and starting the Draw ON program. When exiting Draw ON and entering a word processing program, make sure to change your MacroMaps by using OPEN APPLE N for the next MacroMap(s).

Free updates

ON THREE is one company that likes to satisfy users by providing free updates. When writing for the latest update, please enclose \$1 for postage.



Apple /// User Groups

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

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

LA-So. Bay Apple ///
Users Group
 P.O. Box 432
 Redondo Beach, CA 90277
 (213) 316-7738

Apple /// Users of
Northern California
 220 Redwood Highway #184
 Mill Valley, CA 94941

International Apple Core
Apple /// S.I.G.
 908 George Street
 Santa Clara, CA 95054
 (408) 727-7652

Canada
Apple British Columbia
Computer Society Apple /// S.I.G.
 P.O. Box 80569, Burnaby, BC
 Canada V5H3X9

The Astronic Club
 1453 Highbush Trail
 Pickering, Ontario
 Canada L1V1N6
 (416) 839-7779

Colorado
Colorado Apple Three User Group
 P.O. Box 3155
 Englewood, CO 80112

Connecticut
Apple /// Society of South Conn.
 34 Burr School Rd.
 Westport, CT 06880
 (203) 226-4198

Florida
Sarasota Apple /// User Group
 c/o Computer Center
 909 S. Tamiami Trail
 Nokomis, FL 33555
 (813) 484-0421

Georgia
Atlanta /// Society
 385 Saddle Lake Road
 Roswell, GA 30076
 (404) 992-3130

Illinois
IAU, c/o Lavona Rann
 1113 Wheaton Oaks Drive
 Wheaton, IL 60187
 (312) 665-6319

Kansas
Kansas City Apple /// Users Group
 5533 Granada
 Roeland Park, KS 66205
 (913) 262-3355

Maine
So. Maine Apple Users Group
 Casco St.
 Freeport, ME 04033
 (207) 865-4761 ext. 2249

Maryland
Apple /// S.I.G. Chairman
 Washington Apple Pi
 8227 Woodmont Ave. #201
 Bethesda, MD 20814
 (301) 654-8060

Minnesota
Minnesota Apple Corps User Group
 P.O. Box 796
 Hopkins, MN 55343

New Jersey
North Jersey Apple /// Users Group
 c/o Roger T. Richardson
 P.O. Box 251
 Allamuchy, NJ 07820
 (201) 852-7710

North Carolina
North Carolina Apple /// User Group
 2609 North Duke St. #103
 Durham, NC 27704

Ohio
Cincinnati Apple /// User Group
 5242 Horizonvue Drive
 Cincinnati, OH 45239
 (513) 542-7146

Apple Dayton - Apple /// S.I.G.
 P.O. Box 1666
 Fairborn, OH 45324-7666
 (513) 879-5895

Oregon
Oregon Apple /// Users Group
 1001 S.W. 5th Ave. #2000
 Portland, OR 97204
 (503) 645-6789

Overseas
Apple /// Users
Belgium/Netherlands
 c/o H. Van der Straeten, Vestinglaan
 49
 2580 Sint-Katelijn-Waver
 Belgium
 (015) 205328

Apple User Group Europe e.V.
 Box 11 01 69 D-4200
 Operhausen 11
 West Germany
 0049-6195-73917

Apple /// User Group
Belgium/Netherlands
 c/o J. Woretshofer
 Ganzerikweerd 22
 NL-6229 TG Maastricht
 The Netherlands
 (043) 611704

British Apple Systems User Group
(BASUG) Apple /// S.I.G.
 P.O. Box 174
 Watford Herts, England WD2 6NF
 0727 7339/72728

Le Club Apple
 43 Avenue de la Grande-Armee
 75116 Paris, France

Apple /// User Group
 c/o Canberra Accounting Services
 P.O. Box 42
 Duffy A.C.T. 2611
 Australia

Texas
Apple Corps of Dallas
Apple /// S.I.G.
 P.O. Box 5537
 Richardson, TX 75080

River City Apple Corps /// S.I.G.
 Box 13349
 Austin, TX 78711
 (512) 454-9962

Houston Area Apple Users Group
(Apple /// Division)
 P.O. Box 610150
 Houston, TX 77063
 (713) 480-5690 or 974-5153

Virginia
Charlottesville Apple /// User Group
 216 Turkey Ridge Road
 Charlottesville, VA 22901
 (804) 642-5655

Greater Tidewater Apple /// User
Group
 Route 2, Box 216
 Hayes, VA 23072
 (804) 642-5655 or 898-3500, ex. 2671

Apple THREE Group International
 c/o H. Joseph Dobrowolski
 P.O. Box 913
 Langley AFB, VA 23665
 (804) 865-7520

If you wish to meet other Apple ///
 owners and exchange ideas, contact
 one of the user groups listed above.

It's time to grab some tools and *dig a little deeper* for fun with your Desktop Manager.

ON THREE introduces...

DTM Programmers Toolkit

Get ready to:

- ☐ Write modules for the Desktop Manager
- ☐ Design Folders
- ☐ Move Folders
- ☐ Use Time/Date Routine
- ☐ Use Line Input Routine

All of this for special introductory price - \$19.95 plus \$2 s/h.

Includes full Desktop Manager internal documentation. Examples of how to use DTM routines are also included on the disk.



MatchPoint

by Terry McNeese

The /// and IBM meet

Alas, here it is - the article that you and the editor were waiting for. Today, we're going to review a product that can help most /// users port some files over to (should I say it?) IBM. Well, we have to admit that there might definitely come a time when you're going to have to tangle with Big Blue. This should make some of the transition a lot smoother. The product is called MatchPoint and is from a company in DeKalb, Ill. called MicroSolutions. Actually this review came about sort of by accident although I guess that you could call it fate. Originally the package was addressed to Val Golding, our former editor, but he left and the project was handed to me. I never thought I would be writing reviews for *ON THREE* as a technician here! So let's get on with the review and decide whether the product is worth investing in.

Basically, the product for the IBM set, MatchPoint, has some definite advantages for the Apple crowd, assuming that you're either using an Apple II or an Apple ///. You might say, "I can't believe for a second that someone outside actually makes a product with the Apple /// in mind." However, MicroSolutions actually thought of the orphan when making the product. Throughout the manual there are references to a system called SOS (I think that some of us have heard of that before). Even in the prompt to begin the program, It asks if you want the disk to be read in a SOS format. Amazing!

MatchPoint consists of a printer circuit card and a software package that is tailored for the IBM. You must use a slot in your IBM PC, XT, or AT and it hooks directly between your disk drives and your drive controller card. It actually fools one of your floppy drives into thinking that it's an Apple drive.

Now, I'm going to keep the details light to make sure that I don't lose too many of you. First of all, it uses PC DOS (which is the main IBM operating system), or MSDOS (which is, by large, the clone operating system) conventions in all of its commands, just modifying them slightly. MatchPoint assumes that the user has a basic operating knowledge of the Apple DOS and PC DOS operating systems. Since Apple DOS is so much different than any other, the program's writers do explain it very well in the book. They also give a basic explanation of the IBM DOS commands (very basic). The manual is small but it really packs a lot of pertinent information and gives a good overview of the product. It is clearly marked so that you cannot confuse anything, and it explains all of the terms and definitions that the manual uses.

The system requirements for MatchPoint are as follows:

- *IBM PC, IBM PC-XT, IBM PC-AT, or 100% compatible computer (clone)
- *Two Floppy disk drives or one fixed disk drive (hard

disk) and one floppy disk drive

*128K memory

*PCDOS version 2 or higher

*Uniform-PC software package if Apple SoftCard CP/M or NorthStar advantage CP/M diskettes are to be used.

Yes, with the addition of a software package called Uniform PC, you can also use this to convert CP/M files from Apple to CP/M files from IBM. The other neat thing that I found was that you could put this on the hard disk and pop into it from the DOS screen at any time between programs.

The installation instructions are detailed and I even had a small amount of trouble with them, but after a short and surprisingly informative and courteous call to MicroSolutions, I was able to install it without a hitch. I do want to add that their technicians were extremely helpful and explained everything quite clearly. The authors of MatchPoint give you all the equipment to install the card and MatchPoint even goes through a check to ensure that the card works. There is one difficulty that you might encounter. If your machine is a clone, you might be using any one of a number of brands of floppy disk drives. The package comes with a list of compatible disk drives. I recommend calling MicroSolutions and asking about your disk drives prior to making the decision to purchase the package.

After I was through with the installation, everything went well. Running the program is really easy. For those who know how PC DOS is structured, just make sure that your prompt is made for the right drive, then type in the name "mpoint" and away you go. It will ask what drive you want as your Apple drive and then it will ask if you would like to use ProDos, SOS, or DOS (all Apple operating systems). You choose and then begin transferring files. They even have a small file called "PRINT.ME" containing all of the updates since the original product came out. It allows the use of wildcard characters, and will even format you disk in Apple formats so that you can store data from IBM programs. Yes, it will go the other way, too. Any of the ASCII files that your IBM produces can be put on a disk and used by your Apple.

Now for the real review. The product is really exciting, but it does have its limitations. All that I could get it to transfer was ASCII files. That was the extent of it. The book says that you can also transfer binary files, too. I did this and it worked marginally. As far as the ASCII text files were concerned, they worked well. I was able to take files that were produced in AppleWriter /// and in /// E-Z Pieces and turn them into MicroSoft Word files and vice versa. It seemed that any program that could read ASCII files could use the files well. I did try a spreadsheet and it went over but did not carry any of the formulas with it. The book even has a procedure for taking AppleSoft or Integer BASIC files and converting them to IBM files. The same

could be applied to Apple ///s Business BASIC. When I tried a database, (I tried /// E-Z Pieces interacting with PC File) I found that there was also very good compatibility. There was some minor cleanup that had to be done, but I'd say that the whole transfer was relatively clean.

I would have to say that all-in-all, the overall evaluation of the product would have to be *good*. It did everything that it said it would, and with a little manipulation, it did more. I would recommend it to anybody who was faced with the problem of interacting with the IBM world. It does beat transferring it by serial ports and it is accessible at all times. The price is a low \$195, and worth every penny of it. They have a small charge for updates and require a registration card with the program in order to give the up-

dates. The address and phone number for those interested is as follows:

MicroSolutions
Software Division
125 South Fourth St.
DeKalb, IL 60115
(815) 756-3411

So, if you have to go up against Big Blue, *talk* to it your way. Just think, since the board and software go into an IBM, you might be able to talk your friend who owns the computer into splitting it down the middle with you. Have fun with the conversion!



Joystick /// (continued from page 22)

The following is a list of games that I have personally played with my TG Joystick /// while in standard 48K Emulation mode:

Atarisoft Centipede
Atarisoft Defender
Atarisoft Robotron 1084
BC's Quest for Tires
Jawbreaker II
Lunar Lopper
Mario Brothers
Miner 2049'er II
Money Munchers
Roach Hotel
Sammy Lightfoot

Threshold
U-Boat Command

Obviously this is a minute percentage of the II games available, and if you are a hard core gamer you will probably not be satisfied over the long run with this limited variety of games. As I said in the beginning of this article, this project will only appeal to those part-time gamers who just want to expand their usage and enjoyment of their /// without spending the \$100 to \$350 one would have to spend to purchase an Apple II+ compatible joystick and the necessary Titan or Gameport /// interface cards required to use the II+ joystick. To that end, this project will work very well.



ON THREE Presents . . .

a new multi-level arcade game by Mel Astrahan

- Use with joystick, keyboard or mouse
- Can be run as a Desktop Manager background module

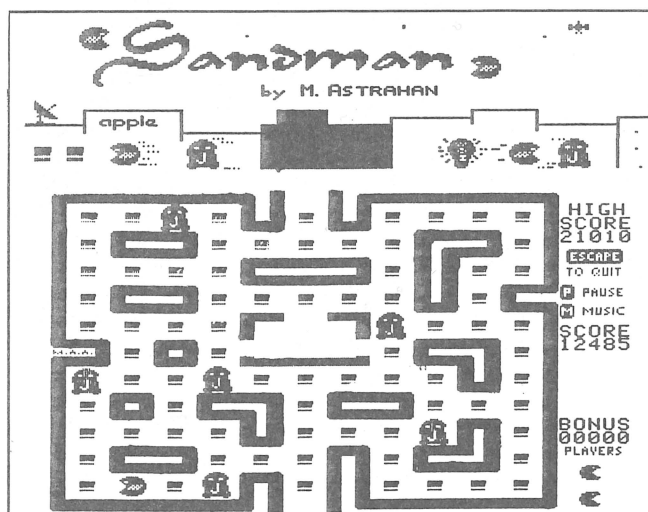
\$29.95

plus \$2 shipping and handling

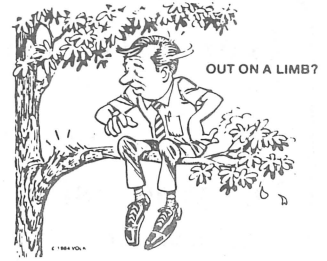
Sandman

The objective of SANDMAN is to score as many points as possible. Salvage all of the Apple /// parts discarded throughout the halls of Apple's labyrinthian research lab to receive points. WARNING! The lab is haunted by the ghosts of JOBS. . . if they catch you, you're done for! Your only weapon against the JOBS is to find the WOZ who wanders about the lab peeking in on various projects. For a short time following a meeting of SANDMAN and WOZ the JOBS turn blue and may be exorcised if you can catch them.

"—Brilliant, colorful and fast moving, Sandman will provide hours of fun."



One, Two, /// Forum



Confidently, more

First let me say how pleased we are with two 512K upgrades. These are working fine in our two Apple ///+ machines in a church and they permit an excellent 1700 membership data base (in /// E-Z Pieces) to exist as one file, and not split into two, alphabetically.

Secondly, a question. In using the Confidence program to test our ///s, after the chips check OK, there is a little voice coming from the speaker that says, "System OK" and a few other encouraging words. It is a very real voice sound. Is there some Apple /// software which exploits this voice capability further?

W. Henry Linton, Jr.
Wilmington, Del.

Surprisingly, there is a speech card which has voice capabilities. The LYN Speech Card will speak what you have typed. For instance, if I type: Hello Mr. Linton, how are you today? and hit the RETURN key, the voice will speak what I have just typed. Technician Terry McNeese discovered the program and had a lot of fun experimenting with it.

You can use it in II emulation mode and with AppleSoft BASIC programs. As of now, it will not work with the /// Business BASIC programs and we are not planning to further development its usage on the Apple ///.

You can order the speech card through ON THREE for \$39.95 plus \$3 shipping and handling.

I would also like to mention to the magazine's newcomers that besides the Confidence Disk, if you wish to test your ///, you may want to check out the Apple Dealer Diagnostic Disk which includes a video test, RAM test, audio test, disk test, keyboard test and ROM test.

If you have not already read the July issue of ON THREE you may want to do so as Richard and Lavona Rann discuss testing your /// in quite some detail. You can purchase a Dealer Diagnostic Disk from one of a number of Apple User Groups at a nominal cost. These tests work well and can detect problems which may save you money and trouble later on down the road.

Feedback from bro

I recently received a phone call from one ON THREE's authors, John Sollman, who had used the Brother HR-1 printer in the past, but doesn't use it now. The printer was mentioned in the June issue of the magazine. According to John, continuously underlining with this type of printer

can be easily done in Word Juggler. By using the OPEN APPLE u command to indicate where to begin underlining and by using the OPEN APPLE U command to indicate where to end underlining, the number of imbedded print commands are not quite as burdensome as they could be with one of the other two word processing programs. According to John's recollection, he set the filter to "linefeed without backspace."

A big thank you goes out to John for this help! Also, if anyone else can help our readers out, don't hesitate to write. That's what keeps us together as a family.

Uncopyprotect/VisiCalc

In April 1986, I purchased the Uncopyprotect Driver from you to make a copy of my AppleWriter /// Master. It worked fine.

Now I have Advanced VisiCalc and it will not make a copy that I can boot up. It gives the message, "INSERT SYSTEM DISK AND REBOOT." Can you tell me what to do?

Jeanie Dunham,
Vancouver, Wash.

There are a couple of things that can cause a problem like this. First, let's simplify the instructions for the Uncopyprotect Driver. First of all, copy the boot disk of the program that you want to copy. This copy will not boot, but it will be used to make the final copy. Then, with the Systems Configuration program, put the Uncopyprotect Driver on the SOS Driver file of that copy of the boot disk.

The problem lies in the fact that the Uncopyprotect Driver on the SOS Driver will not work with SOS 1.1. This fact is brought up in the paragraph called, Special notes on the second page of your manual. You must boot your program to find out which version of SOS you have. If you do have SOS 1.1, it is easy to copy the file SOS KERNEL from the Uncopyprotect disk onto the copy of the boot disk. You didn't have this problem with AppleWriter /// because it was already there. Also remember that you must set the write-protection on the file SOS.KERNEL of your boot disk so that you can write to it. Just use the File Handling Commands of your System Utilities to set the write-protection to off.

Access ASCII only

I just bought an Apple 1200 baud modem and Access ///. I was wondering how to download BASIC and other public domain programs? ASCII files seem to be of no problem but I have problems with other file types.

Get off and running with the ON THREE O'Clock!

**Let the ON THREE O'Clock
be your stop watch today!**

Believe it or not, a lot of folks have plain forgotten (or never knew) that the Apple /// was designed to operate with a built-in clock and that, with a clock chip installed, SOS will automatically time stamp and date all file saves.

When the Apple /// was first released, the supplier of Apple's clock chips could not supply a working clock. As a result, the /// was supplied without a clock of any kind. Now maybe you are wondering when you list a disk directory, how the time and date magically appears.

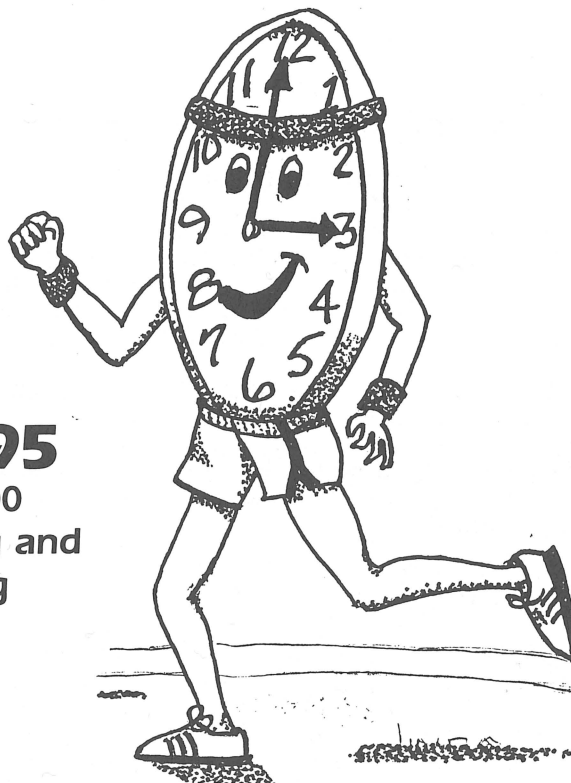
Not too long ago ON THREE developed a clock for the Apple /// which plugs in right where the never-released Apple clock was supposed to go, and for just \$49.95 plus \$3.00 shipping and handling, this easy to install, SOS-compatible clock can be yours. It comes with comprehensive instructions and ON THREE's limited six-month warranty and does not use any of your precious slots.

With an ON THREE O'Clock installed, whenever you save or modify any type of file, the current time and date will be added to the directory listing so you can always tell at a glance which file you last worked on, and when. But that's not all. Business Basic has two reserved variables, DATE\$ and TIME\$, which return, respectively, the current date and time to your BASIC program. These reserved variables can then be used whenever you want to print the date and/or time in a BASIC program.

Special Combination Offer

There's a great deal more you can do with ON THREE's ON THREE O'Clock if you also have our Desktop Manager. Whenever you want, you can display the current date and time on the screen with one keypress. Since this is a background function, you can be word processing with AppleWriter or entering data into VisiCalc, and with one keystroke you can obtain updated time information. In addition, you can use the Desktop Manager's Appointment Calendar to enter items you want to be reminded of and, like magic, when the time comes, no matter what you are doing, a message will appear on your screen to gently chide you via the Desktop Manager to make that phone call now, etc.

Now The Appointment Calendar is not the only feature of the Desktop Manager, you can read about the Calculator, the Notepad, and the others elsewhere, but since the Desktop Manager requires a clock, we want to offer you a money-saving deal. Purchased together, you can get the ON THREE O'Clock and the Desktop Manager for only \$173.95 plus \$8.00 shipping and handling. Now is the time to take advantage of this special offer.



\$49.95
plus \$3.00
shipping and
handling

Desktop Manager/ON THREE O'Clock Combo

\$165.95 plus \$8.00 shipping and handling

I also want you to know that I do plan to keep my /// and I hope *ON THREE* will be there with me in the future. Thanks for a fine publication.

Jim Reisinger,
Skokie, Ill.

I don't like breaking the news to you, but you can only download ASCII files when using Access ///. However, ON THREE's latest development, The Communications Manager, will allow you to download all types of files between your Apple /// and most any other computer. It is selling for \$49.95 plus \$3 shipping and handling.

Thank you for the compliments about ON THREE. You mentioned that you hope ON THREE will be there in the future. The best way to ensure this is to keep supporting us by buying ON THREE products. In these days of software stealing via "disk swapping," it is essential to remember to buy the original copy of the software to ensure future products for your favorite computer. I hope you and others will pass this word along so we can always be one, big, happy, /// family.

Stumped by PKASO

Some time ago I purchased your Draw ON /// graphics program. I am now ready to use it but cannot locate a PKASO /// interface card so I can print my graphics.

I have visited all Apple dealers in San Diego but none have any knowledge of the Apple ///+ and showed no desire to help me locate the PKASO /// or PKASO U interface card.

So would you please place me in contact with a supplier of PKASO /// or PKASO U.

A. Korab
Ramona, Calif.

You can purchase a PKASO interface from Interactive Structures, 146 Montgomery Avenue, P.O. Box 404, Bala Cynwd, PA 19004.

RAMming BASIC 1.1

I have a 512K Board in my Apple /// and I've encountered a curious problem when I attempt to use the .RAM driver under Business BASIC. Any *print using* statement bombs the program.

I use Business BASIC v. 1.1 because up to a point it doesn't have as many problems in rounding integers as later versions. If I were to switch versions, I'd have to rewrite several programs to use (shudder) long integers.

The manual for the 512K Board seems to imply that I might be able to do something with the Device Configuration Block, but I don't speak hexadecimal very well. If that's the way to fix the problem or if there's something else I can do, I'd appreciate specific instructions.

Roy A. Raney
Denver, Colo.

The problem is with BASIC 1.1. You may have a bad copy of BASIC 1.1. If that is not the problem, then I would suggest either giving up the RAM disk for the long integer rounding or using "print using" statements to round off in Business BASIC 1.2.

We haven't tried the Device Configuration Block with Business BASIC 1.1. For timesaving purposes, perhaps a reader who has tried to solve his problem with 1.1 via the Device Configuration Block can let us know whether or not it was successful.

ThinkTank

There were several inaccuracies in the review of ThinkTank for Apple /// (ON THREE, June 1987). First of all, although the program does exact quite a price in memory usage, I have never had the memory problems mentioned in the article, and all of our machines have 256K, running under either Catalyst or Selector ///, with either Desktop Manager or Powers Keys DM+ in background.

Also, ThinkTank does not use Apple II Pascal, it uses Apple /// Pascal running under SOS - the relatively sluggish program response and slow, inflexible I/O is typical of programs written in p-code Pascal. Apple /// Pascal can use either SOS-format disks or UCSD Pascal-format (read that as Apple II-Pascal-format) disks *that* is the source of the problem with the *browse* feature. Browse only works with Apple II Pascal formatted columns, not SOS-formatted volumes, which is why it won't work on Jeffrey Fritz's (the reviewer) hard disk. This fact is *not* discussed in the manual, and unfortunately, there is no cure. Additionally, he should note that ThinkTank data files are limited to a maximum size of 4MB versus the SOS maximum of 16MB (I do not believe, however, that this presents a *practical* constraint).

Perhaps the reason Mr. Fritz experienced problems with command-key reconfiguration is that he tried to re-assign CONTROL-Q to CONTROL-K, and CONTROL-K is already defined as the UP arrow. True, he could reconfigure UP arrow to be another sequence, and then use CONTROL-K exclusively as *Silence Speaker*, which I did to test the possibility, although personally I found reconfiguring command keys to be an avoidable nuisance. Also, he *can* assign various keystrokes to OPEN-APPLE functions with one limitation. Since the OPEN-APPLE key effectively adds 128 to the ASCII value of any other key, and since ThinkTank allows any ASCII value between 0 and 255 to be assigned to a key, simply add 128 to the value of any normal key (which lies in the range 0..127) when redefining that key. The problem is with upper ASCII value as 'D', Mr. Fritz must decide whether he wants to assign a key as OPEN-APPLE d or OPEN-APPLE D. At any rate, I didn't get any flashing error messages while trying key redefinition.

Overall I enjoyed his review. He is essentially quite correct in his evaluation; ThinkTank is obviously a port from Apple II Pascal, it has several annoying flaws, and its dual Achilles' heels are speed and I/O. Nonetheless, it remains useful.

Steven Brineaux

ON THREE sent these remarks to ThinkTank reviewer, Jeffrey Fritz for further comments. We welcome remarks about reviews and programs and ask all readers who want to comment to do so as Mr. Brineaux did. Thank you for your input which will help everyone who has purchased this product. Now, I will leave you with Mr. Fritz's comments on the subject.

I appreciated Steven Brineaux's comments on my review of ThinkTank in the June edition of *ON THREE* magazine. Mr. Brineaux is correct about the ability of ThinkTank to re-assign keys. I failed to realize that CONTROL-K is already used by the program as an up arrow key (a fact that the Keystroke Configuration Chart mentions as applying only to the II+). This is a redundant feature on the Apple /// and likely a carry over from the early Apple II which did not have arrow keys. However, a well designed program should not crash as was the case when I inadvertently tried to duplicate CONTROL-K's as-

What's happening, ///ers?

Here at *ON THREE* we could nearly conclude that all of your /// problems have been solved by the amount of mail we have been receiving. However, that is not the case. The technical support line is usually busy with calls for help. But, we can't share phone calls in the magazine so why not write so you can share your problems with other /// users in the magazine. Be a part of "One, Two, /// Forum" by writing: *ON THREE*, "One, Two, /// Forum," P.O. Box 3825, Ventura, CA 93006.

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signment. If the program's error messages were not flashing by at the speed of light, I might have realized exactly what my error was with CONTROL-K.

I believe that Mr. Brineaux is correct in stating that *browse* only works with Apple II Pascal volumes. However, an attempt should have been made by Living Video Text to allow SOS formatted volumes to be accessed with *browse*. With this limitation, it is impossible to bring in outlines unless you know their correct pathnames before booting ThinkTank.

I don't know what size of outlines Mr. Brineaux generally uses or how much he expands them on the screen. My outline for the article used up 41 blocks on the disk (approximately 126K). It takes six pages to print the 10 major headings, numerous subheadings and paragraphs incorporated. Perhaps this is a bit too much for normal ThinkTank files because ThinkTank cannot expand the entire outline. If expansion is attempted, the program issues a "Memory Full" message. Since a page of *normal* text is approximately 3-4K, I have to wonder how efficiently ThinkTank uses its memory and disk space with its own data.

There is no doubt that ThinkTank /// does get the job done in an effective manner. In general, I like the program and use it frequently. However, the flaws of ThinkTank are real and frustrating. I have been in touch with Mr. Robert C. Hung, director of technical services for Living Video Text, Inc. about some of these problems. Apple ///ers with questions on ThinkTank /// can contact Mr. Hung at: Living Video Text, Inc., 117 Easy Street, Mountain View, CA 94093.



/// E-Z Pieces

This program is the Apple /// version of the Apple II hit known as AppleWorks. It combines a word processor, data base and spread sheet in one integrated program. All sections use similar commands and easy-to-follow pop-up menus.

The spread sheet, while not as powerful as Advanced Visicalc, is much faster. For example, loading and saving files is 20 to 30 times faster. Even recalculation times are much quicker. And you can access your existing VisiCalc or DIF files, eliminating the need to re-type. Up to 999 rows and 127 columns are available.

The data base section is just like the popular QuickFile ///, but better. /// E-Z Pieces' Data Base can handle as many as 3,000 records per file and double the number of fields per record. Sophisticated record selection, sorting and printing combined with lightning fast sorts and searches make this portion of /// E-Z Pieces valuable.

The word processor rivals programs like Apple Writer and Word Juggler in speed and ease of use. Advanced options such as the ability to cut and paste information between your data base, spread sheet and word processor make the program a must for all /// owners.

\$135 plus \$3.50 s/h

Two Shorts - Fini!

by Rick Gauger

Audio and graphics programs

Sit back and enjoy these two short programs, designed to make your day! Author Rick Gauger has a little fun in store for you. Rick is a science fiction writer who enjoys using his Apple /// for programming and for writing novels. His latest novel, "Charon's Ark," which was written on his ///, is expected to be on the shelves this fall!

ON THREE is now accepting programs for the next, "Two (or three) Shorts." Please send submissions to *ON THREE*, P.O. Box 3825, Ventura, CA 93006.

```
0 REM *****
5 REM Audio.demo *
7 REM by Rick Gauger *
9 REM Copyright (c) 1987 *
10 REM by ON THREE *
11 REM AUDIO.DEMO, a program that demonstrates the tonal range *
12 REM of the Apple /// Audio driver. *
14 REM *****
16 REM This program inputs a series of strings to the audio driver. *
18 REM The driver recognizes each string as a command to generate *
20 REM a tone. Each string consists of character numbers that *
22 REM represent Mode, Volume, Time, and Count of the tone. Only *
24 REM Count varies, to generate a series of higher and higher tones. *
26 REM *****
30 OPEN#1 AS OUTPUT,".AUDIO":REM Open AUDIO driver, call it File #1.
40 FOR X=15568 TO 100 STEP-200:REM Change step to increase tones.
50 LET MODE%=128:REM Mode always = 128.
60 LET VOL%=63:REM Volume, or loudness of tone (63=maximum).
70 LET TIME%=5:REM Length in time, of tone.
80 LET CNT%=X:REM Determines sonic wave frequency of tone.
90 PRINT#1;CHR$(MODE%);CHR$(VOL%);
100 PRINT#1;CHR$(CNT%-256*INT(CNT%/256));CHR$(INT(CNT%/256));
110 PRINT#1;CHR$(TIME%-256*INT(TIME%/256));CHR$(INT(TIME%/256));
120 NEXT X
130 END

7 REM *****
8 REM PATCHES *
9 REM by Rick Gauger *
10 REM Copyright (c) 1987 *
11 REM by ON THREE *
12 REM A program that draws random-size colored squares *
14 REM on the Apple /// screen. It also works in mono- *
16 REM chrome. Once program is running, press any key *
18 REM to make it stop. *
20 REM *****
30 OPEN#1,".GRAFIX":REM Open grafix driver, assign it to File #1.
40 ON ERR GOTO 1000:REM Invoke grafix module if not yet done.
50 PERFORM GRAFIXMODE(%1,%1):REM Set 280x192 color screen, primary buffer.
60 PERFORM GRAFIXON:REM Turn on the grafix screen so user can see it.
70 PERFORM FILLCOLOR(%0):REM Make background color black.
80 PERFORM FILLPORT:REM Clear the screen, ie., make it black.
90 ON KBD GOTO 220:REM If any key is pushed, goto Line 220.
100 FOR C=15 TO 1 STEP-1:REM For each of the 15 colors,
110 FOR X=50 TO 1 STEP-10:REM Make 5 squares, sized thusly:
120 L=INT(RND(1)*280):REM Generate random number for left edge.
130 R=L+X:REM Compute right edge.
140 B=INT(RND(1)*192):REM Generate random number for bottom edge.
150 T=B+X:REM Compute top edge.
160 PERFORM VIEWPORT(%L,%R,%B,%T):REM Use edges to make a viewport.
170 PERFORM FILLCOLOR(%C):REM Convert background color to color C.
180 PERFORM FILLPORT:REM Fill the viewport with background color.
190 NEXT X
200 NEXT C
210 GOTO 100:REM Do it again.
220 TEXT:END:REM Restore text screen so user can see it; quit.
1000 OFF ERR
1005 REM Turn off ON ERR so that if the following line doesn't
1008 REM work, we won't hang the system.
1010 INVOKE".D1/BGRAF.INV":REM Invoke the grafix module.
1020 GOTO 50:REM Continue with the program.
```


Call Three: Support Hotline

The Call Three Hotline is a service whereby Apple /// owners and users with questions can call an area number for answers. The individuals answering your calls are fellow Apple /// users who volunteered to help those in need over some rough spots. They are not compensated for this service, so we owe them a resounding "three cheers" for their kindness and generosity.

If you are willing and able to aid others by answering questions, please write to ON THREE and provide the necessary information. If you have questions, feel free to call our consultants listed below. Please observe the calling hours shown, and, before placing a call, double check the time zone so you don't inadvertently wake someone. No other restrictions apply to this service.

For your reference, the accompanying table lists subjects and abbreviations used in the "Subjects" column of the consultant listing.

Name	Area	Telephone	Days	Hours	Zone	Subjects
Colville Woodburn	NH	(603) 863-5590	M,Tu,Th,F	7-8 p.m.	Eastern	BB,CT,GE,MI,QU,WP
Ken Johnson	MA	(413) 536-7502	Su-Sa	6-9 p.m.	Eastern	BB,PA,MD,WP,MI
Don Loosli	MI	(313) 626-3848	M-F	9-5 p.m.	Eastern	GE,WP,SS,DB
Harry T. Hanson	NJ	(201) 467-0712	M-F	6-9 p.m.	Eastern	GE,PA,BB,CT
Edward Gooding, Sr.	VA	(804) 747-8751	Su-Sa	6-9 p.m.	Eastern	CO,SS,PR,MD,CT
Jeff Fritz	WV	(606) 353-9493	M-Sa	8-11 p.m.	Eastern	BB,DB,GE,MI,SS,TC,EP
Al Johnston	FL	(904) 739-1600	M-F	9-6 p.m.	Eastern	GE
Paul Sanchez	FL	(305) 266-5965	Su-Sa	10-4 p.m.	Eastern	SS<PR,CT
R.B. Thompson	NC	(919) 787-1703	Su-Sa	10-10 p.m.	Eastern	BB,DB,GE,SS,WP
J. Donald Glenn	NE	(402) 291-9177	Su-Th	7-10 p.m.	Central	GE
Scott Weddel	NE	(402) 572-7543	Su-Sa	4-10 p.m.	Central	GE, TC
Jim Ferencak	IL	(312) 599-7505	M-F	10-5 p.m.	Central	GE,EP,DB
Paul Thomas	MS	(601) 494-8736	Su-Sa	6-10 p.m.	Central	GE,AC,BB,CP,DB,FI,MI,PA,PR,SO,SS,TC,EP,WP
Earl T. Brelje	MN	(612) 455-6405	M-F	4-9 p.m.	Central	CT,DB,WP,GE, QK,O3
Ron Maupin	TX	(512) 280-0144	Su-Sa	8 a.m.-10pm	Central	AL,CO,CT,EP,MD,PA,QU,SS,TC,WP
Rodney Hendricks	TX	(214) 581-0524	Su-Sa	6-9 p.m.	Central	DB,EP,GE,MD,QU,SO,SS,TC,WP
Terri Wiles	CO	(303) 850-7472	Su-Sa	10-6 p.m.	Mtn	PA
William Prince	OR	(503) 254-6465	M-F	9-4 p.m.	Pacific	GR,TC,Corvus
John Sollman	OR	(503) 873-5496	M-F	9-5 p.m.	Pacific	WP,CT
Karl La Rue	WA	(509) 582-6459	F-Su	6-10 p.m.	Pacific	MD,GE,EP,WP,TC,SS,CP
Pat Holwagner	CA	(415) 433-2323	M-F	10-6 p.m.	Pacific	GE,SS,WP,CT,DBSU,AE,EP
Vincent F. Latona	CA	(818) 703-0330	M-F	9-5 p.m.	Pacific	GE,WP,BB,SS,AE
Dennis R. Cohen	CA	(818) 956-8559	Su	10-10 p.m.	Pacific	GE,PA,MU,WP,DB,SO
			M-F	7-9 p.m.		
			Sat	noon-6		
Kelly C. McGrew	WA	(206) 943-8533	Su-M,Th-Sa	7-9 p.m.	Pacific	DB,GR,SS,PR,MD,CT
Larry E. Kalland	AK	(907) 272-4968	Su-Sa	12n-11pm	Alaska	AC,CT,GE,SS,EP,WP
H. Van der Straeten	Belgium	(015) 205328	Su-Sa	7-10 p.m.	Europe	BB,CT,DB,GE,PA,PR,SS
Arnaud Trache	France	21 03 04 21	Sa-Su	10-7 p.m.	Europe	AC,BB,DB,AE,FI,GR,MD,PR,SS,TC,EP,OT
J. Woretshofer	Netherlands	043-611704	Su-SA	9-12 a.m.	Europe	CT,FO,GE,PA,QU,SO,WP,AE,EP
Salvador Garcia	Spain	(91) 234-5068	Su-Sa	7-10 p.m.	Europe	BB,GE,PA,MD,CT

Abbreviation 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-Sol	MI	Modems	MD
Modula-2	MU	Pascal	PA	ProFile	PR	Quark	QU
SOS	SO	Spreadsheets	SS	Telcom	TC	/// E-Z Pieces	EP
Word Proc.	WP	On Three Prod.	OT	QuickFile	OK	Omnis3	O3

ON THREE'S HELPLINE:

If you live in an area without a user group or free consultant, you may want to call *ON THREE* from 8 a.m. to 5 p.m. Pacific time. *ON THREE* will give free help as long as the products were purchased from *ON THREE*. Help with any other products *not purchased* through *ON THREE*, will cost \$5 for the first three minutes, and \$1 per minute, thereafter. Please call (805) 644-3514.

ON THREE asks you to answer the following questions.

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<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

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And if you combine it with **Selector ///**, the disk switching utility, you have an incredibly fast, hassle-free system. So, if you want the speed, accuracy and dependability of a good hard disk at a great price, come to **ON THREE** for your Sider and Sider][hard disks!

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Conference Dates: Friday, October 2 through Sunday, October 4, 1987. **Conference fee - \$325; Companion fee (banquet, reception and exhibition only) - \$75**

To register, send your name, address, phone number, and business name and your position to: **PHASE III, INC., c/o Randall Jackson, 1511 N. Bell, Chicago, IL 60622**. Also use this address to request registration forms for hotel and exhibition information.



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The Desktop Manager™ - The Expandable Productivity Tool

You may have heard something about The Desktop Manager™ lately. It's been getting rave reviews from all who've seen it. But what is it? What can it do for you? What kind of computer system does it require? These are the most common questions about TDM. Here are the answers:

The Desktop Manager is a utility (or tool) that allows you to use **desk accessories** like those on the Macintosh™ and other personal computers. These desk accessories are utility programs that you can use from within your other programs.

You can be using /// E-Z Pieces, AppleWriter, Word Juggler, VisiCalc - or any other Apple /// program and a simple keystroke will temporarily freeze your program and display the menu of TDM. The menu lists all of the available accessories that you can use.

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TDM has a built-in **Note Pad**. You can use it to quickly jot down notes that you don't want to write down on paper. They will be automatically saved so you don't have to remember any file names or which disk it's on. Sophisticated word-wrap, printing capabilities and more make the Note Pad a full feature word processor - available in an instant - from within all of your other programs!

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The Disk Manager™

The **Disk Manager** is a very powerful accessory that shows the power and potential of The Desktop Manager. Using it you can replace the System Utilities program! It 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 from within each of your applications!

If you've ever typed in a day's work and then found you didn't have a new 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!

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The third built-in accessory is the **Calculator**. It's a powerful electronic workhorse. Full 16-digit accuracy and advanced functions such as SIN, COS, TAN, LOG's, x to a power, square roots, pi, base conversions, and memory in addition to the basic add, subtract, multiply and divide are all included. A simulated scrolling paper tape with printing capabilities will soon make you wonder how you got along without it!

Another built-in feature is **Pickup & Paste**. With it you can quickly and easily transfer textual information from program to program. Using TDM, all of your existing programs and utilities can now talk to each other and exchange information!

Included with each TDM accessory are built-in help screens. As a standard feature, they make using TDM so very easy!

But that's far from all The Desktop Manager offers. Since we designed it to be expandable, you can add new accessories to it at any time. Painlessly and easily you can have more advanced features such as keyboard macros, disk utilities, games, even a full feature communications program available within your current programs.

By now you can probably imagine some neat use for TDM - we keep finding new and exciting uses each day. Before you call in your order (or mail a check) and get your copy of TDM, there are a couple of things you should be aware of:

TDM requires a 256K or 512K Apple /// and uses about 32K of memory. It also requires an external disk drive of any capacity. A hard disk or large capacity floppy disk is **highly recommended** as a 140K floppy disk won't hold many notes or appointments and you'll have to swap disks often. TDM is not copy protected and works with Selector, Catalyst, and ALL Apple /// programs.

The bottom line: It's regularly priced at \$129. For a limited time you can order the most powerful desk accessory package for your Apple /// for only \$89. Please add \$6 for shipping and handling. Save over \$40!

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Monitor Enable, Reload/Exit and more!

The Macro Manager™

One of the most popular add on accessories for TDM is my personal favorite - **The Macro Manager!** It will improve the way you use your Apple ///. It's a **keyboard macro** program. The Macro Manager 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 as a macro and played back at a moments notice - via a single keypress!

Our innovative Macro Recording lets you type in the information as you usually do and will automatically assign it to 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.

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