ON THREE®

The Magazine For Apple /// Owners and Users

Volume 7, No. 1/2 **January/February 1990**

Boggy Marsh Game

More Apple /// Helpful Hints

Finding Parts For The Apple ///

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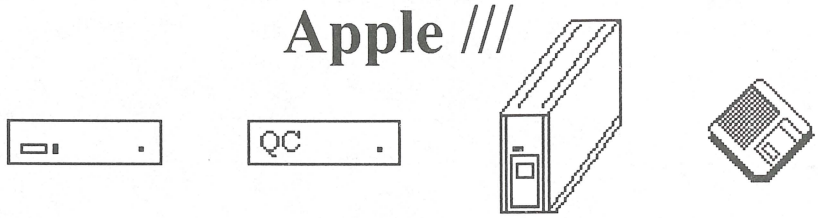
Selector /// - The Best Program Switcher For The Apple ///



Do you use a ProFile, Quark, Sider, UniDisk ///.5 or CPS disk drive?

Are you sick of the time it takes loading each of your different programs? Tired of searching though stacks and stacks of floppy disks for a particular program? Do you have a hard disk or a large capacity floppy disk drive? If so you can cure all of these headaches and more with the purchase of Selector ///!

Selector allows you to place all of the programs listed below (and many more) on your hard disk or large capacity floppy disk drive. Instead of waiting and waiting for a particular program to boot up, you simply boot your Apple /// with the Selector disk. When you want to run a program, just select it from the easy to use Selector menu by highlighting it and pressing RETURN. In a flash the program is loaded from the hard disk and you can be using it in seconds, not the minutes it usually takes.

Selector /// works perfectly with the Apple 5 and 10 megabyte ProFile, the Quark QC 10 and 20 drives, the Sider 10, Sider 20, Sider 40, the Trustor drives, the UniDisk ///.5 and the new CPS 800K drive. It even has an automatic installation program that places Selector on your hard disk or other floppy drive.

Selector can speed up using your Apple /// and make your use of the Apple /// more productive and beneficial. It even works with programs that *you* write in Basic, Pascal or assembly language! Selector can hold hundreds of programs with it's hierarchical menus while other selectors only allow you 12 or 24 programs.

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Access ///	BPI Accounting	Fruit Machine	PFS: File*
Access 3270	Business Basic	Go Back	PFS: Report*
Advanced VisiCalc	Business Graphics	Graphics Manager	Quick File ///
Apple II Emulation	Cobol	Graph'n'Calc	Script ///
Apple File ///	Crossword Scrambler	Haba Merge	Senior Analyst ///
Apple Speller ///	Draw ON ///	Keystroke Data Base*	Side Print ///
Apple /// Pascal	Comm. Manager	Keystroke Report Generator*	StemSpeller
Apple Writer ///	Desktop Manager	Lazarus ///	StemWriter
Backup ///	EasyTerm	Mr. Sandman	VisiCalc ///
BattleFleet	Fortran ///	Multiplan	/// E-Z Pieces

The programs listed above with an asterisk after them are copy protected and require the 'key disk' to be inserted into the built-in drive when you select it from the Selector menu. After the program comes up you can remove that disk. Uncopyproteced versions of PFS: File and PFS: Report are available that work under Selector without the need for a key disk. Likewise an unproteced version of Word Juggler is available for only $15 plus $2 for shipping and handling.

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- Table of Contents -

Volume 7, No. 1/2 **January/February 1990**

FEATURES / ARTICLES

Apple Sauce 1
by Bob Consorti
Boggy Marsh Game 3
by Lloyd Cason, Jr.
Helpful Hints 5
by our readers
Letters To The Editor 7
by Bob Consorti
Finding Parts For The Apple /// 9
by David Ottalini
DeClassifieds - Buy & Sell Your Surplus Equipment 13
Next Time In ON THREE: 13

Apple Sauce

by Bob Consorti **Apple /// To The Apple IIGS**

Last issue I commented on Apple's lack of focus in the Apple II market. I recently received Apple's 1st quarter 1990 report. It seems that they are spending almost a billion dollars per year on marketing and about $420 million per year on research and development. As I've said on some of the information services, where is it all going?

Surely not into Apple II advertising or development. Apple has succeeded in shrinking the market of the Apple II such that from fiscal 1988 to fiscal 1989 it went from over a billion dollar a year asset for Apple to only $650 million. It's really no wonder, this past weekend I was watching Face The Nation and during a break I though I was watching an Apple II commercial.

I thought so because the scene portrayed a room full of second graders. Now traditionally, the K-12 market was always said to be the Apple II's market while college and business was for the Mac. Unfortunately, they weren't selling enough Mac's into the business and college markets so the marketing geniuses at Apple decided to do something novel - sell Mac's to second graders.

The ad seemed to be pushing a $15,000+ Mac IIcx, two page portrait display, LaserWriter II NT or NTX and Apple Scanner - as *the* machine for second graders. Now since there is virtually no educational software available for the Mac, let alone the Mac II series, and second graders don't usually go around with $15,000 in their pockets, wouldn't their ad monies be better spent pushing an under $1000 Apple II that has over ten thousand programs available? You be the judge. In any case the schools of the US, and the rest of the world for that matter, are judging those ads with their wallets and purchase orders. People are no longer buying the Apple II because Apple isn't supporting the machine any longer.

The reason I'm bringing it up is for those of you die hard Apple /// fans who have been around from the beginning. Apple hasn't changed a bit since they did the same thing to the Apple /// that they're now doing to the Apple II. It's Mac everything. Sooner or later people are going to stop buying Apple computers. Not because they don't have good equipment, Apple has been the most innovative and has fantastic machines, but because of their brain-dead management will keep on making the same mistakes that has cost them billions of dollars in revenue. I believe it will shortly catch up with them.

In This Issue...

Lloyd Cason returns with his Boggy Marsh game, another interactive graphics treat. The Helpful Hints column show a few different perspectives on transferring data from one spreadsheet to another and the Letters To The Editor column returns with some helpful information about low cost high density disk drives for the Apple ///. David Ottalini wraps this issue up with a short article on where to get spare parts for the Apple ///.

Apple /// Memory Expansion

Are you tired not being able to run certain programs because you don't have enough memory? Would you like to use Draw ON, Lazarus or even The Desktop Manager but only have a 128K or 256K machine? If so, look below to our listing of memory expansion products.

You can upgrade your 128K machine to 256K, your 256K Apple /// to 512K or go all the way from 128K to a 512K Apple ///. Installation of all of our memory upgrades is fairly easy and usually requires no more than a screw-driver and an hour or less to complete.

Remember, upgrading the memory in your machine does not require the use of one of the four slots in your machine. Those are reserved for interface cards. The memory upgrades are installed inside the machine.

Order your memory upgrade today. Remember, the memory chip market is particularly volatile so we may not be able to hold the prices down this low for much longer. Order yours today!

512K Memory Upgrade

Expand your spreadsheets and data bases, use larger word processing documents and the new desk accessories! Enjoy a full 414K desktop in /// E-Z Pieces, 442K in Advanced VisaCalc and 456K in Business Basic!

Includes: 512K board, installation guide, Utilities 1.2 which permits larger drivers, 512K Confidence Program that tests all memory, ultra fast RAMDISK driver with demonstration programs and 512K utility that updates your programs. We even offer a $25/$35 cash/product rebate upon return of your old 256K board. Includes a full 90 day warranty. Order your 512K today for only **$399+$10**

Call for info. on our spare 128K memory boards and memory board insurance.

256K Memory Upgrade

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

512K Memory Upgrade Kits

We now supply the 512K memory boards with either no memory (0K) or with 256K of memory installed. If you have an Apple /// with 256K you can order the 512K with 256K of memory. Then, remove the memory from your board with the supplied extractor tool and plug it into the 512K to get a full 512K of memory. Likewise, you can buy the extra memory elsewhere and order the the 512K with 0K of memory. **512K/0K $159.95. 512K/256K $299.95. + $10 s/h.**

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Boggy Marsh Game

by Lloyd Cason, Jr.

Boggy Marsh - Don't Get Stuck In The Mud

For those of you who don't want to type in the long program listing at the end of this article, the Boggy Marsh game is available on disk for only $9.95 plus $2 for shipping and handling.

In this simple adventure, you will be trying to locate the monsters of Boggy Marsh within a 10 by 10 grid of hiding locations. To locate a monster, simply key in the row and column of the square you believe him to be in. After each guess, I will tell you in which direction you need to go to find each monster. Be sure to keep track of the direction to all three monsters with each guess to improve your overall success. Depending on the difficulty level you select, you will be given 5, 10, 15 or 20 guesses to locate the three monsters.

Type in the BASIC program from the listing and save to disk before running. REQUEST.INV file from the BASIC system disk must be on the PREFIX$ directory and .AUDIO must be in the driver file, SOS.DRIVER, on the disk that was used to boot for the program to execute. The program listing included with the article has been edited for presentation, and a listing to the screen will not look the same.

Program Operation

The program operates entirely in text mode and begins with an initialization section in lines 100 to 410. Six characters are redefined to create the game images, and notes for two songs are read from DATA statements. These notes are stored in string variable arrays, lost$ and won$, so that reads are not required each time the songs are played. Reads would delay each note being sent to the sound generator and mess up the musical timing. Also, the second song would require reading all of the first song as well and require a considerable time before sounds would begin. Arrays are used because the songs are 288 and 354 characters, respectively, and the maximum length of a string variable is 255 characters. Each physical note sent to the .AUDIO driver consists of six characters for mode, volume, count, and time as defined in the Standard Device Drivers Manual.

The program then asks if instructions are needed and runs a randomize routine until a key is pressed. Instructions are printed if requested, and a difficulty level for this play is input. The maximum number of guesses is calculated from the difficulty level, three monsters are hidden on the playing board, and the board is printed. A WINDOW statement is used to simplify this printing. The active viewport is sized so that printing the row number and ten hiding areas will cause the cursor to wrap and the PRINT statement at the end of the first loop will cause double spacing.

The main program loops between lines 420 to 620 up to the maximum number of guesses. Input is requested for a row and column of this guess. Checks are then made for each monster to determine if previously killed, if killed with this guess, or direction from this location and that information is printed to the left of the marsh. The ten row and column locations use normal computer counting that begins at zero instead of one. This allows the ten numbers to each be a single digit and the use of a GET statement instead of an INPUT statement.

The difference is that a RETURN does not have to be pressed after each entry and the ESCAPE key can be accepted as input. With an INPUT statement, pressing the ESCAPE key would place you in BASIC edit mode instead of being accepted as the actual input. Another key point of the GET statements used in the program is that a string character is requested and then converted to its numeric value. This increases the amount of code required, but prevents run time errors. If a numeric variable were used, pressing a letter key would cause a Type Mismatch error and program halt. This simple little technique is a step toward idiot proofing your programs.

The main loop is terminated once all monsters are located, a successful conclusion, or all guesses are exhausted, you lost. The corresponding message is printed and song played in lines 630 to 740. Lines 800 to 850 are

reached when the ESCAPE key is pressed during input.

Hopefully this game will provide you with some enjoyment time on your machine and you will have learned some more programming techniques.

PROGRAM LISTING

```
100   TEXT:HOME:INVOKE"REQUEST.INV":OPEN#1,".AUDIO"
110   VPOS=10:HPOS=29:PRINT"I N I T I A L I Z I N G":PRINT:HPOS=35:
      PRINT"Please Wait"
119   REM *** Redefine characters
120   READ b%:a$=CHR$(b%)
130   FOR a%=1 TO 9*b%:READ ch%:a$=a$+CHR$(ch%):NEXT
140   PERFORM CONTROL(%17,@a$)".CONSOLE"
150   DIM r%(3),c%(3),won$(2),lost$(2)
159   REM *** Read song data
160   FOR a%=1 TO 144:READ ch%:lost$(1)=lost$(1)+CHR$(ch%):NEXT
170   FOR a%=1 TO 144:READ ch%:lost$(2)=lost$(2)+CHR$(ch%):NEXT
180   FOR a%=1 TO 174:READ ch%:won$(1)=won$(1)+CHR$(ch%):NEXT
190   FOR a%=1 TO 180:READ ch%:won$(2)=won$(2)+CHR$(ch%):NEXT
200   boggy$=CHR$(18)+CHR$(128)+CHR$(129)+CHR$(130)+CHR$(17)
210   box$=" "+CHR$(133)+CHR$(133)+CHR$(133)+" ":right$= CHR$(132):
      down$=CHR$(131)
220   found%=0:hit%=0
230   WINDOW 1,1 TO 80,20:INVERSE:HOME:NORMAL:WINDOW 2,2 TO 79,19:HOME:
      VPOS=2:HPOS=30:PRINT CHR$(6);"B O G G Y   M A R S H":VPOS=7:
      HPOS=22:PRINT "Would You Like Instructions? (Y/N)"
240   ON KBD GOTO 260
249   REM *** Randomize
250   a%=RND(1):GOTO 250
260   OFF KBD
270   IF KBD=78 OR KBD=110 THEN 330:ELSE IF KBD<>89 AND KBD<>121 THEN GET
      a$:GOTO 270
280   VPOS=4:HPOS=1:PRINT CHR$(29); TAB(5);" Welcome to Boggy Marsh. In";
      " this simple adventure, you will be trying":PRINT TAB(5);
      "to locate the monsters of Boggy Marsh.   To locate a monster,";
      "  simply"
290   PRINT TAB(5);"key in the  row  and  column of the  square you";
      " believe him to be in.":PRINT TAB(5);"After each guess, I will";
      " tell you in which direction you need to go to"
300   PRINT TAB(5);"find each monster.  Depending on the difficulty";
      " level you select, you":PRINT TAB(5);"will be given 5, 10, 15 or";
      " 20 guesses to locate the three monsters."
310   VPOS=12:HPOS=28:PRINT CHR$(18);"Press RETURN To Continue";CHR$(17);
320   GET a$:IF KBD<>13 THEN 320
329   REM *** Input difficulty level
330   VPOS=4:HPOS=1:PRINT CHR$(29); TAB(5);"Select Degree of Difficulty":
      PRINT
340   PRINT TAB(8);"1 - Perfect":PRINT TAB(8);"2 - Expert":PRINT TAB(8);
      "3 - Professional":PRINT TAB(8);"4 - Beginner"
350   GET a$:IF a$<"1" OR a$>"4" THEN 350
360   max%=5+5*(ASC(a$)-49)
369   REM *** Hide three monsters
370   FOR a%=1 TO 3:r%(a%)=INT(RND(1)*10):c%(a%)=INT(RND(1)*10):NEXT
380   IF(r%(1)=r%(2) AND c%(1)=c%(2)) OR(r%(2)=r%(3) AND c%(2)=c%(3)) OR
      (r%(3)=r%(1) AND c%(3)=c%(1)) THEN 370
389   REM *** Print playing board
390   TEXT:HOME:HPOS=28:PRINT"Col";right$;"  0    1    2    3    4";:
      PRINT"    5    6    7    8    9":HPOS=24:PRINT"Row":HPOS=25:
      PRINT down$;
400   WINDOW 28,3 TO 80,23:HOME:FOR a%=0 TO 9:PRINT a%;"   ";:FOR b%=0 TO
      9:PRINT box$;:NEXT b%:PRINT:NEXT a%
405   TEXT:VPOS=1:HPOS=1:PRINT"You Have ";max%;" Guesses"
410   VPOS=6:HPOS=2:PRINT"Your Guess Please":PRINT"----------------":
      PRINT" Row      Col":GOSUB 850
419   REM *** Main loop
420   FOR guess%=1 TO max%
425    VPOS=3:HPOS=2:PRINT"Guesses Used  - ";guess%-1:VPOS=8:HPOS=15:
       PRINT" ";:HPOS=6:PRINT" ";CHR$(8);CHR$(5);:cursor%=1
430    GET a$:IF KBD=27 THEN GOSUB 800
435    IF a$<"0" OR a$>"9" THEN 430:ELSE row%=ASC(a$)-48:PRINT a$;
440    HPOS=15:GET a$:IF KBD=27 THEN GOSUB 800
445    IF a$<"0" OR a$>"9" THEN 440:ELSE col%=ASC(a$)-48:PRINT a$;
       CHR$(6);
450    cursor%=0:WINDOW 1,11 TO 25,14:HOME:TEXT
460    FOR a%=1 TO 3:VPOS=10+a%:HPOS=1
470     IF r%(a%)=99 THEN PRINT"You've Killed Number ";a%:GOTO 590
480     IF row%=r%(a%) AND col%=c%(a%) THEN PRINT"You Just Killed";
        " Number ";a%;:VPOS=row%*2+3:HPOS=col%*5+33:PRINT boggy$;:
        found%=found%+1:r%(a%)=99:hit%=1:GOTO 590
490     PRINT"Go ";
500     IF row%=r%(a%) AND col%<c%(a%) THEN PRINT"East ";:GOTO 580
510     IF row%=r%(a%) AND col%>c%(a%) THEN PRINT"West ";:GOTO 580
520     IF col%=c%(a%) AND row%<r%(a%) THEN PRINT"South ";:GOTO 580
530     IF col%=c%(a%) AND row%>r%(a%) THEN PRINT"North ";:GOTO 580
540     IF row%<r%(a%) AND col%<c%(a%) THEN PRINT"Southeast ";:GOTO 580
550     IF row%<r%(a%) AND col%>c%(a%) THEN PRINT"Southwest ";:GOTO 580
560     IF row%>r%(a%) AND col%<c%(a%) THEN PRINT"Northeast ";:GOTO 580
570     IF row%>r%(a%) AND col%>c%(a%) THEN PRINT"Northwest ";
580     PRINT"For Number ";a%;
590     NEXT a%
600    IF NOT hit% THEN VPOS=row%*2+3:HPOS=col%*5+33:PRINT"   ";:ELSE
       hit%=0
610    IF found%=3 THEN 670
620    NEXT guess%
639   REM *** Your out of guesses. Game's over
630   FOR a%=1 TO 1500:NEXT
640   TEXT:HOME:VPOS=5:HPOS=33:PRINT"Sorry, You Lost"
650   PRINT#1;lost$(1);lost$(2);
660   GOTO 700
670   FOR a%=1 TO 1500:NEXT
680   TEXT:HOME:VPOS=5:HPOS=28:PRINT"Congratulations!  You Win.": PRINT:
      HPOS=35:PRINT"In ";guess%-1;" Guesses"
690   PRINT#1;won$(1);won$(2);
700   VPOS=9:HPOS=24:PRINT"Would You Like To Play Again? (Y/N)";
720   GET a$:IF KBD=89 OR KBD=121 THEN 220
730   IF KBD<>78 AND KBD<>110 THEN 720
740   TEXT:HOME:RUN"HELLO"
799   REM *** ESCAPE pressed
800   savev%= VPOS:saveh%= HPOS:PRINT CHR$(6);
805   VPOS=24:HPOS=22:PRINT"Do You Wish To Leave This Game? (Y/N)";
810   GET a$:IF KBD=89 OR KBD=121 THEN POP:GOTO 740
820   IF KBD<>78 AND KBD<>110 THEN 810
830   GOSUB 850:IF cursor% THEN PRINT CHR$(5);
840   VPOS=savev%:HPOS=saveh%:RETURN
850   VPOS=24:HPOS=1:PRINT CHR$(30);:HPOS=23:PRINT CHR$(18);
      "Press ESCAPE Key To Leave This Game";CHR$(17);:RETURN
899   REM *** Character redefinition data
900   DATA 6
910   DATA 128,128,152,176,255,176,152,128,128
920   DATA 129,190,255,235,255,227,247,255,190
930   DATA 130,128,140,134,255,134,140,128,128
940   DATA 131,8,8,8,8,62,28,8,0
950   DATA 132,0,24,48,127,48,24,0,0
960   DATA 133,127,127,127,127,127,127,127,127
999   REM *** Music notes for loss (48)
1000  DATA 128,63,51,15,17,0,128,0,51,15,2,0,128,63,51,15,5,0
1010  DATA 128,0,51,15,1,0,128,63,99,11,68,0,128,0,99,11,9,0
1020  DATA 128,63,51,15,17,0,128,0,51,15,2,0,128,63,99,11,5,0
1030  DATA 128,0,99,11,1,0,128,63,10,9,68,0,128,0,10,9,9,0
1040  DATA 128,63,51,15,17,0,128,0,51,15,2,0,128,63,99,11,5,0
1050  DATA 128,0,99,11,1,0,128,63,10,9,23,0,128,0,10,9,3,0
1060  DATA 128,63,55,15,17,0,128,0,55,15,2,0,128,63,99,11,5,0
1070  DATA 128,0,99,11,1,0,128,63,10,9,23,0,128,0,10,9,3,0
1080  DATA 128,63,51,15,17,0,128,0,51,15,2,0,128,63,99,11,5,0
1090  DATA 128,0,99,11,1,0,128,63,10,9,68,0,128,0,10,9,9,0
1100  DATA 128,63,99,11,17,0,128,0,99,11,2,0,128,63,10,9,5,0
1110  DATA 128,0,10,9,1,0,128,63,154,7,51,0,128,63,10,9,23,0
1120  DATA 128,0,10,9,3,0,128,63,99,11,23,0,128,0,99,11,3,0
1130  DATA 128,63,51,15,68,0,128,0,51,15,9,0,128,63,51,15,17,0
1140  DATA 128,0,51,15,2,0,128,63,51,15,5,0,128,0,51,15,1,0
1150  DATA 128,63,99,11,103,0,128,0,99,11,1,0,128,63,99,11,23,0,
1159  REM *** Music notes for win (57)
1160  DATA 128,63,8,6,36,0,128,63,8,6,16,0,128,0,8,6,2,0
1170  DATA 128,63,8,6,16,0,128,0,8,6,2,0,128,63,177,5,16,0
1180  DATA 128,0,177,5,2,0,128,63,177,5,16,0,128,0,177,5,2,0
1190  DATA 128,0,100,0,18,0,128,63,8,6,16,0,128,0,8,6,2,0
1200  DATA 128,63,177,5,24,0,128,0,177,5,3,0,128,63,8,6,8,0
1210  DATA 128,0,8,6,1,0,128,63,197,6,16,0,128,0,197,6,2,0
1220  DATA 128,63,154,7,16,0,128,0,154,7,2,0,128,63,13,8,32,0
1230  DATA 128,0,13,8,4,0,128,63,37,10,32,0,128,0,37,10,4,0
1240  DATA 128,63,18,5,32,0,128,0,18,5,4,0,128,63,177,5,16,0
1250  DATA 128,0,177,5,2,0,128,63,197,6,16,0,128,0,197,6,2,0
1260  DATA 128,63,8,6,8,0,128,0,8,6,1,0,128,63,197,6,8,0
1270  DATA 128,0,197,6,1,0,128,63,8,6,8,0,128,0,8,6,1,0
1280  DATA 128,63,177,5,8,0,128,0,177,5,1,0,128,63,8,6,16,0
1290  DATA 128,0,8,6,2,0,128,63,154,7,16,0,128,0,154,7,2,0
1300  DATA 128,63,177,5,16,0,128,0,177,5,2,0,128,63,177,5,4,0
1310  DATA 128,0,177,5,1,0,128,63,8,6,4,0,128,0,8,6,1,0
1320  DATA 128,63,197,6,4,0,128,0,197,6,1,0,128,63,154,7,4,0
1330  DATA 128,0,154,7,1,0,128,63,13,8,24,0,128,0,13,8,3,0
1340  DATA 128,63,154,7,8,0,128,0,154,7,1,0,128,63,154,7,32,0
1350  DATA 128,0,154,7,4,0,128,63,13,8,24,0
```

Continued On Page 8

Helpful Hints

A Practical Guide To Keeping Your Apple /// Running Smoothly

If you have a helpful hint, please share it with other Apple /// owners by sending it to our editorial office listed below:

ON THREE, Inc.
Attn: Helpful Hints
123 Groveland Avenue
Riverside, IL 60546

Gary Ricker's SpreadSheet Problems Are Solved

In the July-August '89 issue, Gary Ricker commented in this column about inability to copy values from one spreadsheet into another. A number of readers responded with basically the same response - create a DIF file. A selected few are below:

by Jack Swift

The solution is embarrassingly simple: Print the spreadsheet to a DIF file (by columns), and create a new Spreadsheet file from the DIF file. The new spreadsheet will not contain any formulas - only values. This new spreadsheet data can then be copied, through the clipboard, to his monthly report spreadsheet.

Editor's Note: That's the short answer. For those wanting a little more detail, read on.

by John Lomartire

There is at least one way to do this, if not more. Let's assume for purposes of this explanation that each primary spreadsheet has column totals on row 15 and that there are 5 spreadsheets: SS1 through SS5. We want the column totals from each of these spreadsheets entered on a monthly spreadsheet MSS, then totaled.

1) Load SS1. Set the cursor at row 15. PRINT this row to a DIF file on a disk using column format. Call this file .Dx/SS1.DIF, for example.
2) Repeat for each spreadsheet so that you end up with four other files, .Dx/SS2.DIF through .Dx/SS5.DIF.
3) Clear the desktop and "Add files to Desktop"; "5. Spreadsheet"; name this file MSS.
4) Select "2. From DIF file" and enter .Dx/SS1.DIF.
5) MOVE (Open-Apple M) this row of data to the clipboard.
6) Repeat steps 3 and 4 for the next DIF file.
6a) Position cursor down one word and MOVE data FROM the clipboard.
6b) Now, MOVE the top row of data down to its proper position (bottom row?)
6c) MOVE ALL THE ROWS to the clipboard.
7) Repeat steps 6-6c until all DIF files have been moved to MSS. Now you can set up the column totals on the MSS spreadsheet. The formulas will not be present.

Attempts to MOVE or COPY rows of columns containing formulas will retain the formulas but PRINTING A DIF FILE loses the formula but retains the value in the cell.

by Eric A. Sheard

I pondered this problem for about a year before coming up with the answer. It is particularly pertinent when doing cumulative spreadsheets - a month by month sales analysis for instance, where you need the data for this month plus the year-to-date, but do not need to show every intervening month as you go along. Besides, the sheet becomes much too large and takes too long to recalculate. The answer is to use DIF.

On my sheets I have a special "parking" column off to the right of the regular spreadsheet. It is not printed as part of the sheet.

In a simplified version I put the current month's data in column C and the Year-To-Date data in column D. Then there is other stuff, but way off to the right in column H (off the sheet) is a place to park information. As I begin to use the sheet each month I life the entire column D data (Year-To-Date through the previous month) to disk using /S#S. This lifts only the numbers in the column - NOT the formulas behind the numbers.

Then I bring these back to the spreadsheet using /S#L and place them in the parking column H. Previous data in the column will automatically be replaced.

Now, you have numbers representing Y-T-D sales in column H stripped of their underlying formulas. Then blank out the current month column with zeros (it is still showing the previous month data) and put in the new data. Column D (Y-T-D) will have the formula (+Cxx+Hxx) where xx is the appropriate row number. When you recalculate (!), column D will give the correct Y-T-D value and will not change that number on successive recalculations.

You may need to recalculate twice because this is what is called a *circular reference*. To solve that you could put the "parking column" on the left side of the sheet, say in column A.

The same trick can be used month after month. Just remember to lift the data in the Y-T-D column using DIF and move to the "parking column" prior to adding any new information. It works great. All of this can be combined into a macro that really saves time.

I pondered this for some time (several years ago) and asked lots of people if Advanced Visicalc had a "non-recalculate" feature, but no one seemed to know how to do it. Finally figured it out for myself. I have not seen this trick written up elsewhere, but presume other people have come independently to the same result.

by Martin De Muro

This one was a tough one to solve. I use a method in my "Bowling Records Program" to transfer the previous scores.

1) Group all the scores that must be carried over to one section of the spreadsheet. Do not change your layout, just transfer all values to an unused section of the spreadsheet.

Example: I keep the total pin count for each bowler. The total pin count for one bowler is in (S17), the equation for (S17) = A17 + P17. A17 is the previous or carry over score and P17 is the bowlers new score. I now transfer this value to (Y17) where (Y17) = +S17. The value now in Y17 (total pins) must be transferred to the next bowling sheet, value only - not the formula. All values that must be transferred are in this section of the spreadsheet.

2) Go into the print command, and block out all the values to be transferred. Next the program asks where do you want to print this report, select a DIF file on disk. I store my data by columns. Select a name for the file and store it.

3) To update your next sheet, go to the main menu and start a new file for the spreadsheet using 'From a DIF file'. This is the file you saved in step 2.

4) The previous data or scores are now in a spreadsheet without their formulas.

5) These values must now be transferred into your spreadsheet. Transfer the values to an unused section, below any of the calculations on your spreadsheet. I use A60 to first transfer the previous scores into my Bowling Program. You must use the clipboard for the transfer.

6) Now the values must be moved into the active part of your spreadsheet. I use the A17 block for the start of my previous data. Use the copy feature and move each column up to is appropriate section.

7) Okay, we are done and the previous data is in block A17, the new game totals are in P17 and the grand total is in S17.

Because the clipboard transfers complete rows, you must have this double move. If anyone has an easier method I would like to know about it.

Clock/Screen Problem?!?

by Martin De Muro

I recently had problems with my Apple ///, where the monitor screen would roll occasionally on start up. After several openings of my Apple /// and reseating the chips, it worked for a while. What was really wrong was that the battery for the clock was getting low and somehow had an effect on my monitor screen, though not affecting the clock. After replacing the batteries, I no longer have problems with the monitor screen rolling.

Remember, if you have a hint, share it with us and we'll share it with all Apple /// owners.

Letters To The Editor

by Bob Consorti **Questions And Answers From Your Apple /// Experts**

CPS to the rescue

Dear Sirs:

Thank you very much for the copy of ON THREE Magazine. I was pleased to see that a magazine of such quality is available for the Apple ///. Would you please send me the current subscription rate so that I may subscribe.

Also, an item in your catalog caught my attention. I have the following questions about the CPS Interface Card and Driver...

1) I have two old Macintosh 400K disk drives. Will these work with the CPS unit?

2) If I am able to use these drives, how do I initialize the 400K disks? Can a program like 3 E-Z Pieces get to them using pathnames? Would I be able to copy to and from the 400K drives with System Utilities?

3) If I get a lot of data saved on these 400K disks, what do I do if this card or my Apple /// should happen to conk out? Can I use something like a regular 800K disk drive on an //e or IIGS to get the data off?

I'm very interested in this product. Any information you can give me will be greatly appreciated. Regarding the 128K memory board that you have advertised in your catalog, does this price include memory? I'm interested because my Apple /// is a 128K machine and should it have serious memory problems, I'd like to get them taken care of as inexpensively as possible.

As I was reading in your magazine, another reader asked whether or not Apple II memory cards could be used in an Apple ///. You said no, so I'm guessing that you probably know of some other Apple II cards that will or won't work in an Apple ///. Do you have a list?

Lastly, enclosed is the self-addressed, stamped envelope you asked for so I may get a copy of your author guidelines. It made my day when your magazine showed up in the mail. Keep up the good work!

Sincerely,

Steve Kubis
Bismark, North Dakota

Dear Steve,

Thanks for your comments. The current subscription rate is $20 per year (6 issues).

The CPS Interface Card and driver will work perfectly with the Mac 400K drives. The only problem is the ejection of the disks which requires a paper clip! You can use the normal system utilities format a disk command to format the 400K disks.

You must not use the format a disk option in /// E-Z Pieces as that function only works on regular 140K disks.

The /// E-Z Pieces and all other Apple /// programs can read/save information on the 400K disks. The CPS interface card allows you to connect up to 2 disk drives to it. The driver names these two new devices .U1 and .U2 but you can change them to whatever name suits your needs. In /// E-Z Pieces or other programs just tell it to look for the files on .U1 or whatever.

A normal 800K drive on an Apple //e or a GS can read/write to the 400K disks so your data is safe even if your Apple /// (or drives) goes out. The current price for the CPS Interface Card and Driver is $149 plus shipping.

If you would like to get an 800K drive, we are having a special sale on the 800K drive CPS interface card combination. For only $299 you can get a fully functional 800K drive and interface card for your Apple ///.

The 128K memory board listed in our catalog does include memory. It's a fully functional 12 volt 128K memory board. Many Apple /// owners have similarly found this to be a very good deal.

A number of Apple II interface cards will work in the Apple ///, the primary problem being one of length. However, most of those cards will only work in emulation mode as no Apple /// driver is written to allow the SOS programs to interface with these peripherals.

As far as I know, no Apple II memory board works in the Apple ///, even if it did, the extra memory would not appear in the Apple /// memory map and as such could not be used by Apple /// programs as anything but a ramdisk and that would only be if somebody wrote a device driver to 'talk' to the interface card.

Even this type of limited support would be a pain in the neck to do and might not be possible.

Continued From Page 4

Variable Description and Cross Reference Table

```
A$ - String for Redefining Characters and Input Character
      120   130   140   270   320   350   360   430   435   440
      445   720   810
A% - Integer Counter
      130   160   170   180   190   250   370   400   460   470
      480   500   510   520   530   540   550   560   570   580
      590   630   670
B% - Integer Counter
      120   130   400
BOGGY$ - String Variable Containing Monster Characters
      200   480
BOX$ - String Variable for Print Hiding Locations
      210   400
C%( ) - Integer Array for Columns of Hiding Locations
      150   370   380   480   500   510   520   530   540   550
      560   570
CH% - Integer for Reading Data
      130   160   170   180   190
COL% - Input Column
      445   480   500   510   520   530   540   550   560   570
      600
CURSOR% - Boolean Flag; 0/Cursor Off, 1/Cursor On
      425   450   830
DOWN$ - Redefined Character of Down Arrow
      210   390
FOUND% - Number of Monsters Located
      220   480   610
GUESS% - Number of Guesses
      420   425   620   680
HIT% - Boolean Flag Indicating a Monster was Found this Input
      220   480   600
LOST$( ) - String Array for Notes of Lost Song
      150   160   170   650
MAX% - Maximum Guesses for Difficulty Selected
      360   405   420
R%( ) - Integer Array for Rows of Hiding Locations
      150   370   380   470   480   500   510   520   530   540
      550   560   570
RIGHT$ - Redefined Character of Right Arrow
      210   390
ROW% - Input Row
      435   480   500   510   520   530   540   550   560   570
      600
SAVEH% - Horizontal Location
      800   840
SAVEV% - Vertical Location
```


Apple ///'s For Sale

I you've been looking for a spare or backup Apple ///, now's the time to get one. The powerful Apple /// computers with monitor & a 90 day warranty is now available from ON THREE.

Save hundreds of dollars on one of the worlds finest microcomputers. Please add $35 for shipping, handling and insurance.

The **512K** Apple /// with monitor is now **only $799** and a **256K** Apple /// with monitor is **only $399**.

Don't be caught with a dead Apple ///, get an extra one today!

Side Print ///™

For years people have been asking if there was a way to print very wide spreadsheets sideways on the Apple ///. Until now there wasn't. But with our new Side Print /// you can print your /// E-Z Pieces, VisiCalc and Advanced VisiCalc spreadsheets sideways on your Apple DMP, ImageWriter, Epson or OkiData brand printers.

Side Print /// is available today for only $29.95 plus $3 for shipping and handling.

ON THREE O'Clock

Did you know that the Apple /// has provisions for a built-in clock and calendar? The ON THREE O'Clock is easy to install and does not require a slot. Compatible with all Apple /// programs, simply save your files and the time and date will be saved along with it. You can then use the System Utilities or other file listing utility to see the date that files were created or modified.

Includes battery holder, cable, micro chip and easy to follow instructions for installation and use. Batteries not included. Now only **$39.95+$3!!!**

AUTHORS WANTED!

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

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

For a copy of our author guidelines, please send a self-addressed, stamped envelope to **ON THREE Magazine, 123 Groveland Avenue, Riverside, IL 60546**, or give us a call at (708) 447-3924.

Finding Parts For The Apple ///

by David Ottalini

Where To Find Those Hard To Get Parts

Finding parts is becoming more and more important for the Apple /// community. The reason, of course is that Apple has not made our computers for some time. In fact, some reports say they are actually destroying machines! But don't fear...there are still a number of third party vendors who have everything from whole Apple /// motherboards to memory cards, chips, etc. The list below, with some additional notes, should give you a good idea of where to start looking.

COMPANY/NAME: Computer Service Experts
ADDRESS: Box 70698
CITY/STATE/ZIP: Sunnyvale, CA. 94088
PHONE: 408-338-4339
CONTACT: David Rowe

Computer Service Experts says it has Apple /// ROM chips. Check the Apple /// Service Manual for more information about this chip (in the WAP library). Call for more information and availability. The last information I had indicated they were going for $5.00 each with quantity discounts.

COMPANY/NAME: Electrovalue Industrial
ADDRESS: P.O. Box 376-CPC
CITY/STATE/ZIP: Morris Plains, NJ. 07950
PHONE: 602-428-4073

These folks say they have "Genuine Apple Parts" so they may also carry parts that will work in your ///.

COMPANY/NAME: Jameco Electronics
ADDRESS: 1355 Shoreway Road
CITY/STATE/ZIP: Belmont, CA. 94002
PHONE: 415-592-8097

Jameco is an excellent source of chips for your ///, like the 6502B microprocessor, clock chip, etc. I've ordered a number of things from them and have received excellent service. Prices are good also.

COMPANY/NAME: Morris Horn and Associates
ADDRESS: Box 330876
CITY/STATE/ZIP: Ft. Worth, TX. 76163
PHONE: 817-292-3432
CONTACT: Morris Horn

Last time I talked to them, Morris Horn had lots of Apple /// parts, including motherboards, chips, cases, etc. They had so much stuff, in fact the guy asked if I knew anyone who wanted to take it off his hands!

COMPANY/NAME: N.D.R.C.
ADDRESS: 8511 Manderville
CITY/STATE/ZIP: Dallas, TX. 75231
PHONE: 214-750-9889

N.D.R.C. advertises in Computer Shopper and offers a number of /// parts products. That includes motherboards, memory cards, power supplies, etc. Decent prices, in line with what Shreve and others are asking. Call for latest information.

COMPANY/NAME: ON THREE, Inc.
ADDRESS: 123 Groveland Avenue
CITY/STATE/ZIP: Riverside, IL. 60546
PHONE: 708-447-3924
CONTACT: Bob Consorti

ON THREE has been a long-time vendor for the /// community. By way of parts, they offer 65C802 microprocessor chip upgrades (cheaper from Jameco), interlace kits, clock kits and some other items. Check their magazine for the latest offerings and prices.

COMPANY/NAME: Pre-Owned Electronics
ADDRESS: P.O. Box 644
CITY/STATE/ZIP: Lincoln, MA. 01773
PHONE: 617-891-6851

Another Computer Shopper advertiser, Pre-Owned Electronics also offers a wide range of /// parts ranging from /// motherboards, 12 and 5 volt memory boards, even analog disk drive boards. Call or write for more information.

COMPANY/NAME: Shreve Systems
ADDRESS: 845 Lark Ave.
CITY/STATE/ZIP: Shreveport, LA. 71105
PHONE: 1-800-227-3971

I discovered Shreve in the back pages of Computer Shopper as well. Contact them for a complete list of offerings. Has some software too.

COMPANY/NAME: Sun Remarketing
ADDRESS: Box 4059
CITY/STATE/ZIP: Logan, UT. 84321
PHONE: 800-821-3221 CONTACT: Bob Cook

Sun is another long-time Apple /// vendor that offers parts, including hard-to-find Apple /// chips. They tend to have chips others don't have. Call for latest information. They have a free quarterly publication.

Disk Drives For All Of Your Apple /// Storage Needs

Are you tired of swapping floppies? Tired of the few minutes it takes to boot your system each morning? Sick of not being able to save your files on those tiny 140K disks? Well, have we got a deal for you! No matter what your need we have a disk drive that fits the bill.

You can get a 20 or 40 Megabyte hard disk drive or a 3.5 inch 800K drive from ON THREE. A 20 megabyte hard disk is the equivalent of over 140 floppy disks, all in one convienient and easy to use place.

With the Sider brand of hard disks or even the 800K micro-floppy disks, you can eliminate the floppy disk shuffle forever. Store all of your files on the Sider or 800K drives and get to them so much faster. The Siders are over 10 times faster than a regular floppy disk and far more reliable. Never again will you need worry about losing or damaging a diskette.

ProFile Upgrade Program

How long have you had your 5 megabyte Apple ProFile hard disk? Two years, three, four? Have you ever wondered what it would be like to use the latest technology Sider hard disks & enjoy the much greater speed & reliability? Do you ever get worried about you old ProFile breaking down?

If you have any of these questions, we have the answer - **Upgrade Today!** Our new ProFile upgrade program is designed for every Apple /// user that has a ProFile hard disk. Simply order our Sider 20 or Sider 40 hard disk drives and we will give you a $150 rebate on your old ProFile! If you have two ProFile's we'll give you up to **$300 off** the price of a Sider. Now you can get the best hard disks for as little as $599!

* After ordering a Sider, return your old ProFile with interface card, cabling and power cord within 60 days to obtain the $150 rebate for each ProFile (limit 2 rebates per Sider order). Your ProFile must be in good working order as we will not accept non or barely-working drives.

Sider 40 T Hard Disk

The latest in a line of inexpensive yet very fast hard disk drives for the ///, the Sider 40 T (Turbo) 42 megabytes* of storage for your Apple ///.

The Sider's are by far the fastest hard disk drives available for the Apple /// and are the most reliable. With an average access time of 3 times faster than a ProFile, the Sider 20 is very fast, but the Sider 40T is an incredible 7 times faster!

Attractively styled to fit next to your Apple ///, the Sider 40T is now priced at **ONLY $1299** + $35 s/h.

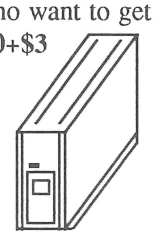
* Because the Apple /// can only handle disks of up to 16 megabytes in size, the Sider 40 T is partitioned into 3 volumes. Two are 16 megabytes in size and the third holds the remaining 10 megabytes. The Sider 40 T will not work in Titan ///+//e emulation mode, you should use the Sider 20 for that.

UniDisk ///.5 800K Drive

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

We also offer just the Apple /// driver and documentation for those who want to get the UniDisk elsewhere. **$50+$3**

The Sider 20 Hard Disk Drive

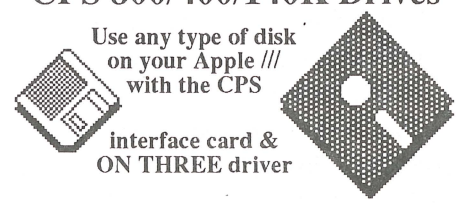


If you have a Titan ///+IIe board your choices have been very limited if you want a hard disk that worked in ///+IIe emulation mode. The Sider 20 expands your options by working in the native Apple /// mode, the Apple II & Titan ///+IIe emulation modes.

You can store your files on the hard disk in the regular Apple /// mode, then switch to the emulation mode and access those same files with all of your Apple II programs.

The Sider 20 comes complete with interface card, Apple /// driver disk, documentation and cabling. The Sider 20 even supports Apple II DOS, Pascal and Apple II CP/M partitions through it's powerful installation utility. The Sider 20 is a truly great hard disk. **Now only $799+$35**

CPS 800/400/140K Drives



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

With our new Universal CPS Driver, you've got it! The CPS interface card allows you to attach an Apple 3.5 drive and a 5 1/4 inch drive, or a Apple 3.5 and a CPS 800K drive, or a CPS 800K drive and a Mac 400K drive or any Apple II 51/4 inch drive.

Any combination will automatically be recognized by our new Universal CPS Driver. No need to re-configure your driver files, it's all automatic! Includes the driver disk and instructions for installing the CPS interface card and all disk drives. We even carry the CPS interface card, 800K, 400K and 140K floppy disk drives with some of the lowest prices around!

Universal CPS Driver: $50+$3
Universal CPS Driver & Universal CPS Interface Card: $149+$5

CPS 800K Drive: Now only $249
CPS 400K Drive: $149
CPS 5 1/4 inch 140K Drive: $139
Add $6 s/h per drive ordered

NEW Product:

The Sider D7T

The Sider D7T (Turbo) is the latest in the line of low cost, high performance Apple /// disk drives from ON THREE. The largest drive ever offered for Apple /// users, the D7T can holds about 62 megabytes of programs and data. Best yet it has an average access of only 28 milliseconds, making it the fastest hard disk available for the Apple ///. And to top it off, the Sider D7T is a SCSI hard disk which means you can also use it on your Macintosh or any other computer with a SCSI port.

Because of limitations within the Apple ///'s operating system, the Sider D7T is partitioned into four volumes. The first three volumes hold 16 megabytes each and the last volume holds 14 megabytes of data for a total of 126,874 blocks. The Sider D7T costs only $1599 plus $35 for shipping & handling and is available for immediate delivery.

Incredible new prices on our entire line of Sider hard disk drives

For a limited time, due to lowered costs on our Sider brand of hard disk drives, we're able to pass these savings on to you.

The Sider 20 hard disk is now **only $799**. The Sider 40T is now **only $1299**, that's down $200 from the regular list price. With our newest Sider, the D7T which is prices at **only $1599**, we now offer a complete line of hard disks for all of your needs.

From the budget conscious to the power user who demands performance and a great price, we have your hard disk needs covered.

Remember, all Sider's carry a full one year warranty on parts and labor and are the performance leaders.

Draw ON /// - The Apple /// Graphics Tool

Have you ever wanted to simply draw, sketch out floorplans or put together some artwork on your Apple ///? If so you need **Draw ON /// - The Best Graphics Program For The Apple ///**. You can draw circles, boxes, lines - enter text in a variety of sizes and styles, pickup, move and copy objects from libraries of screen images, shrink, expand, rotate, invert and texture images on the screen - **In Black/White AND Color!** You can zoom in on a particular portion of the screen to do very finely detailed work. And with our *Brush* capability, you can use any object on the screen as a drawing tool.

Features such as rubber-banding of lines, user adjustable grids and easy to follow menus make Draw ON the only graphics package for the Apple /// that is both powerful and easy to use. Draw ON gives an individual tremendous power. You can use it in creating charts, preparation of slides and tables for presentations, and letterhead design. You can make changes to the dull graphcs that your other programs create by adding borders, textures and different typefaces. Even CAD applications, drafting and flowcharting are now possible on your Apple /// with Draw ON ///. Combined with an excellent instruction manual, you can be doing useful work inless than an hour.

So you know the product. It's the most popular graphics program on the market for the Apple ///. Draw ON /// is the standard for drawing, painting and creating images on the Apple ///. Draw ON /// works with the joystick, mouse, graphics tablet ($20 extra) and the new TrackBall /// to provide page after page of great looking charts, graphs or other drawings. Why don't you have it? Don't you want a graphics program, or is pencil and pen good enough? If you've been waiting for the price to drop, wait no longer. For a limited time, order Draw ON /// for **$100 OFF** its regular price of $179. For **ONLY $79** plus $5 for shipping and handling order the best graphics program for the Apple ///.

When ordering please specify the printer & interface card you are using. We support almost every printer connected to the PKASO and PKASO/U interface cards and the Apple DMP, ImageWriter and Epson (MX, FX and RX) line of printers via any interface card or connected to the RS-232 port on the back of the Apple ///. Draw ON /// requires a 256K or 512K Apple ///. Works perfectly with Selector /// & Catalyst and may be installed on your hard disk for quick access.

Desk Accessories (Available From All Programs)

The Desktop Manager

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

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

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

The Desktop Manager requires an external disk drive of any capacity and a 256K or 512K Apple ///. TDM uses about 32K of memory. A hard disk or large capacity floppy disk drive is highly recommended. Works with Selector, Catalyst and **ALL** other Apple /// programs. Only **$69+$6.**

ASCII Chart

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

The Communications Manager

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

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

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

TCM Continued...

Included with this package is a version of TCM that runs as a stand- alone program and a version that can be run as an accessory under The Desktop Manager. If you have The Desktop Manager you have the best of both worlds! You can be inside /// E-Z Pieces or VisiCalc and send a spreadsheet or data base file directly. Only **$29.95+$3.**

Disk Manager

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

Are you sick of not being able to remember the names of certain files? Worry no more - It's Disk Manager to the rescue! You can even copy files to the printer! Instead of the few minutes that it takes to boot the System Utilities, Disk Manager is ready in a few seconds and it takes no additional memory away from your programs! **$24.95+$3**

The Graphics Manager

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

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

Included with this package is a version of TGM that runs as a stand- alone program and a version that can be run as an accessory under The Desktop Manager. Learn what people in the Apple // world are all talking about! Get the original! Get The Graphics Manager /// today! **$29.95+$3**

Macro Manager

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

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

Macro Manager Continued...

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

The Macro Manager eliminates repetitive typing and improves your personal productivity by making the /// faster and easier to use than ever before. Like all the other TDM aaccessories Macro Manager uses no additional memory. Only **$24.95+$3.**

Super Accessories Disk #1

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

Best of all, each accessory has built-in self help screens and the standard ON THREE power and ease of use. Only **$29.95+$3.**

Super Accessories Disk #2

Contains the following TDM accessories: File View lets you view another file within a file: Change Font: Show Time (no need to go back to Systems Utilities to change the date or time) plus there's an elapsed timer in this module: Change File Type; File Print, Print Screen better than screen dump, you can opt to Print Screen, Form Feed Printer or Line Feed Printer: Reload and Exit: PKASO U commands and The Warning Module. Only **$19.95+$3.**

Super Accessories Disk #3

Contains the following TDM accessories: Accessory Manager lets you customize your TDM menus, rename accessories & more. Character rulers displays rulers on the screen to help you align text. Hex View/Hex Print lets you view or print any file in hexadecimal form. Info Help lets you enter any type of info into a TDM window for instant recall. SOS Errors is an Info Help accessory that lists all SOS errors. Block View/Edit is a powerful disk block editor. Included are both a stand-alone and TDM version. A great value at only **$24.95+$3.**

Extra-Special Sale

For a limited time, in addition to the fantastic sale prices of The Desktop Manager and its add-on accessories (already 25-50% off), you can get the main accessories along with ANY two add-on accessories for **ONLY $99** + $9 s/h. At these low prices we may have trouble keeping them on the shelf so hurry and order your copy today!

MOVING?

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

DeClassifieds

FOR SALE: Apple ///, 256K, Sanyo monochrome monitor, 5 MB ProFile, cover, software, $298 or offer. (209) 538-5522 (days), (209) 521-1093 (nights, weekends).

FOR SALE: We have five CPS 800K drives for the Apple ///, complete with interface card, driver software and documentation left on the shelf and want to move them out so we're having a sale!

Normally priced at over $400, you can get yours today for only $299 plus $10 for shipping and handling. This sale is limited to product on hand so call and order yours today! Call ON THREE at (206) 334-8001 to place your order!

If you have something to sell, or are looking for a hard to find item, try our DeClassified section - it's worked for hundreds of people just like you!

DeClassifieds Work!

Been searching for hard to find hardware or software? Need to sell some excess equipment? Try an inexpensive DeClassified ad! Our readers tell us that they really get results! Place your ad by phone or mail. All copy must reach us 30 days prior to publication date, e.g. April 1 for theMay/June issue.

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Or Phone (206) 334-8001

Uncopyprotect Driver

The Uncopyprotect Driver allows you to make backup copies of AppleWriter ///, VisiCalc /// and Advanced Visicalc. It also allows you to install those programs on hard disks and eliminate the need for key disks.

Protect your original copies of these valuable copy-protected programs and order your Uncopyprotect Driver today. Priced at only $29.95 plus $3 shipping and handling - **This is the one of the few programs you must have!**

How Would You Like A Fast, Reliable And Easy To Use Hard Disk Backup?

After years of complaints about Backup /// being too slow and in many cases losing people's important information we've decided to do something about it. We know that many people *never* backup their hard disk because Backup /// is soooo slow or because they've had a problem with it losing information.

A while back we started work on a product we call Go Back. If you're sick and tired of the time it takes to backup your hard disk with Backup /// or the System Utilities, Go Back is what you need.

Go Back is written entirely in assembly language for speed, is four to five times faster than Backup /// and much more reliable. We guarantee it!

We were about half-way finished with the project when we stepped back, took a look at the potential market and asked ourselves, "Will there be enough sales to warrant finishing Go Back?"

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

If you want a reliable, very quick and inexpensive (around $50) program for backing up your hard disk, drop us a note or give us a call at (206) 334-8001. Just leave your name and address so we can notify you if and when the project is finished.

Lazarus ///

Lazarus /// allows you to restore or undelete almost any file which you've accidentally deleted. Completely menu driven, it's incredibly easy to ressurect your deleted files. One wrong keypress can send a months worth of work into limbo. The right keypress with Lazarus /// will recover it in a few short seconds. Lazarus /// is normall priced at only $49.95. For a limited time you can get a copy for only $39.95 + $2 s/h.

Next Time In ON THREE:

Othello ///
Helpful Hints
And More!

Fantastic Products For Your Apple ///

/// E-Z Pieces

/// E-Z Pieces is a fully integrated spreadsheet, word processor and data base manager rolled into one program. /// E-Z Pieces combines the power of the three most commonly used programs with the ability to quickly and easily transfer data among them. This program was written by the author of the Apple II program AppleWorks - the best selling software package on any computer!

AppleWorks & /// E-Z Pieces look and function exactly the same, even the data files can be swapped between II and the Apple ///. It utilizes the full memory available in your Apple ///, 180K on a 256K Apple ///, 414K+ on a 512K machine! This best seller was originally $245. You can get your copy for only **$135+$3.50 s/h.**

Modems For The Apple ///

If you want to enter the wonderful world of communications, an ON THREE modem is all you need. For a limited time, both our 1200 baud and the faster 2400 baud modems come with the Communications Manager. With it you can talk with other Apple /// users on CompuServe™, the Source™, Dow Jones™ and other information services. Even connect directly with another PC!

Fully Hayes compatible our modems are an exceptional value as they include both communications software and all necessary cabling. 1200 BAUD modem is **ONLY $129.95** and our **2400 BAUD** modem is **ONLY $249.95**. $10 for s/h on either modem.

StemSpeller - /// E-Z Pieces Spelling Checker

Compatible with standard ASCII files, Pascal Text, StemWriter and /// **E-Z Pieces word processing files**, StemSpeller /// is fast and very easy to use. It has a 50,000+ word main dictionary and the ability to create auxiliary dictionaries of words you commonly use. Written in 100% assembly language for speed and comes as a standard interpreter that can be run by itself or loaded and run under Selector or Catalyst. In stock and available today. Originally priced at **$69.95**, StemSpeller /// is available for a limited time at **only $49.95 + $5 s/h.**

StemWriter ///

This new word processor from Australia lets you view two files simultaneously and combines all of the features you wanted most into a powerful document processing system! Now you can design your own templates, make headlines, adjust column width, utilize on-screen over strike & underlining, date stamp documents, count words, label and personalize form letters. StemWriter has four levels of subscripts and superscripts, utilizes a desktop like /// E-Z Pieces and the four arrow keys to "see and point". It also uses the full memory available in your Apple ///. Has redefined numerical keypad, and file managing on built-in utilities program. Many more state of the art features! Originally $99, for a limited time you can get StemWriter for **only $79.95!**

Do You Use Draw ON Or The Graphics Manager?

If so you should have an Apple Mouse or the new Trackball ///. With the mouse or trackball, using Draw ON will be that much easier. ON THREE has a good supply of both the Apple //e mouse which works in either the Apple //e or /// and the TrackBall ///.

You can order an Apple Mouse or Trackball from ON THREE today and start using Draw ON as it was intended. The Apple Mouse is **only $160** + $5 s/h and the TrackBall /// is **only $89.95** + $6 s/h. Order yours today!

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