

# mini' app'les

Apple Computer user group newsletter

Volume X No. 10 October 1986

Calendar of Meetings and Events

WHO	WHEN	WHERE	WHAT
Graphics S.I.G. (Mac)	Dates and location of meetings being determined		Note 15
Board Meeting	Wed. Oct. 1 7:00 pm	1st MN Bank 8320 42nd Ave. N., New Hope	Members welcome Note 1
Mac S.I.G. Nontechnical	Mon. Oct. 6 6:30/7 pm.	Edina Community Center Room 216 Hwy 100 & Benton Ave., Edina	Demo of 19" Megascreen Note 3
Dakota County Branch	Tues. Oct. 7 7:00 pm.	1301 Wilderness Run Dr. Eagan	Open Topic, Note 5
The Smalltalk Group	Wed. Oct. 8 7:00 pm	New Location Call for details	Programming in Smalltalk Note 4
Languages/ Technical S.I.G.	Wed. Oct. 8 7:30 pm	1st MN Bank 31 9th Ave. S., Hopkins	Note 14
Regular Apple II	Wed. Oct. 15 7:30 pm.	Olson Junior High School 4551 W. 102nd St., Bloomington	Demo of new Apple IIGS! Note 2
U. of Minn. Mac Users' Group (UMMUG)	Thur. Oct. 16 7:30 pm	UM Physics Building, Rm 210 116 Church St. S.E., Minneapolis	<i>Charles Lukaszewski</i> 338-8581
Main Mac S.I.G.	Mon. Oct. 20 6:30/7:00 pm.	Edina Community Cntr, Board Rm. Hwy. 100 & Benton Av., Edina	Microsoft™ Representative Note 10
AppleWorks S.I.G.	Thur. Oct. 23 7:00 pm	Derham Hall High School 540 S. Warwick, St. Paul	Designing a database application - Note 8
Northwest Branch	Tues. Oct. 28 7:00 pm.	Rockford Road Library 6401 42nd Av. N., Crystal	Note 9
Mac S.I.G. Nontechnical	Mon. Nov. 3	Edina Community Center	Note 3
Board Meeting	Wed. Nov. 5	1st MN Bank, New Hope	Members welcome, Note 1
Dakota County Branch	Tues. Nov. 11	1301 Wilderness Run Dr., Eagan	Open Topic, Note 5
Languages/Technical S.I.G.	Wed. Nov. 12	1st MN Bank, Hopkins	Note 14
The Smalltalk Group	Wed. Nov. 12	New location; call for details	Note 4
Main Mac S.I.G.	Mon. Nov. 17	Edina Community Center, Room 211	Comdex Report, Note 10
Regular Apple II	Wed. Nov. 19 7:30 pm.	Derham Hall High School 540 S. Warwick, St. Paul	D. Marchiafava on Sensible Software, Note 2
UMMUG	Thur. Nov. 20	UM Physics Building, Rm 210	<i>C. Lukaszewski</i> , 338-8581
AppleWorks S.I.G.	Thur. Nov. 20	Derham Hall High School, St. Paul	Printers/AppleWorks, Note 8
Northwest Branch	Tues. Nov. 25	Rockford Road Library	Note 9

Notes: (See page 4 for telephone numbers)

1. Ann Bell	544-4505	5. Bob Pfaff	9. Jere Kauffman	13. Mike Frazee
2. Ed Spitzer	432-0103	7. John Gammell	10. Mike Carlson	14. Chase Allen
3. David Stovall	474-8015	8. Dick Marchiafava	11. Dick Peterson	15. Joy Kopp
4. Martin McClure	227-9348		12. Tom Alexander	890-3230

Coordinators - Please Call John Hansen (890-3769) by the 10th in order to have your meeting listed correctly!

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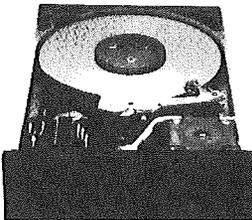
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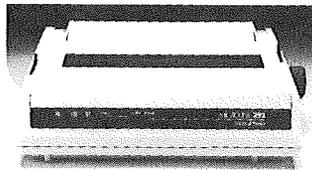
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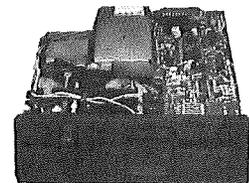
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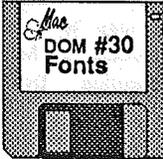
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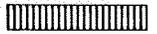
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Map & Cover by Dan Buchler

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Liaison (†) - Medical	Stewart Haight	644-1838

† To provide contact with non-Mini'app'les SIGS

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**Questions**

Please direct questions to appropriate board member or officer. Technical questions should be directed to the Technical Director.

**Membership**

Applications for membership should be directed to Membership Co-ordinator:  
Janelle Tryggestad 925-2436  
3151 Dean Court, #703  
Minneapolis, Minnesota, 55416

\$12 buys membership for one year. New members and persons renewing after letting membership expire, pay a \$5 administration fee. Members receive a subscription to newsletter and all club benefits.

**DOMs**

DOMs (Disk of the Month) are available at meetings for \$5/disk (\$8/MacDOM) or any DOM may be ordered by mail for \$6.00/disk (\$9.00/ MacDOM). Send orders to Mini'app'les at PO Box 796, Hopkins, MN, 55343, attention DOM Sales or MacDOM Sales.

Members may have 5 1/4" DOMs copied to their own media. See classified Ads for details.

**Dealers**

Mini'app'les does not endorse any specific dealers but promotes distribution of information which may help club members to identify the best buys and service. Consequently, the club does participate in bulk purchases of media, software, hardware and publications on behalf of its members.

**Newsletter Contributions**

Please send contributions on Mac 3 1/2" disks or via telecommunications directly to the Newsletter Editor. Contributions on 5 1/4" disks should be sent to the club PO Box, and marked: "Newsletter Submission".

Deadline for publication is the 1st Wednesday of the month preceding the month in which the item might be included. An article will be printed when space permits if, in the opinion of the Newsletter Editor, it constitutes suitable material for publication.

**Meeting Dates**

Please telephone calendar announcements to John Hansen -  
890-3769.

**Advertising**

Direct Advertising inquiries to our co-ordinator Eric Holterman at:  
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## Announcements

### Apple II Meetings by Ed Spittler, VP

**A**pple has now made some announcements regarding the Apple IIGS, new //c, etc. That will be the topic for our October Regular Meeting. (See also elsewhere in this newsletter) *Eric Johnson* of our local Apple office will be our guest speaker to give us more information about these developments. We will be starting at 7:30 p.m.

*Mike Carlson* of Hagen Office Equipment, an authorized Apple dealer, was originally scheduled but graciously agreed to meet with us at a later date so that he can tell us how those products actually work, after having had some experience with them.

If you are interested in what's happening with Apple Computer and want to know what may be in store for the future, you won't want to miss the October 15 meeting.

In November, our regular meeting is scheduled to be at Derham Hall High School in St. Paul with *Dick Marchiafava* as our guest speaker. His presentation will be on Sensible Software's Spelling Checker and Sensible Grammar. If you use a computer to write letters or reports, you should take a look at what they have to offer. Who better to demonstrate those programs than Dick, who has had considerable experience with them.

You may want to check out his previous review of Sensible Grammar the July issue of our newsletter. He should be some updated information on their practical use.

Derham Hall High School will be the meeting site of our December 6th. SWAP MEET. More information will be in later newsletters but then is the opportunity for many of you to make room for those new IIGS, that you will be buying by selling your old equipment to those of us who might not be able to update as soon. This Meet promises to have some super deals! To miss it, is to lose out on some good opportunities. The Meet will start in the late morning and run through at least part of the afternoon. Put these dates on your calendar now.

By the way, for those of you who missed our August meeting featuring Styleware's Multiscribe program, *Dick*

*Marchiafava* may still have some discounted software from them. If so, give him a call.

Thanks Tom, for your excellent review (in last Newsletter) of that meeting.

See you on October 16!

### Special User Group Pricing From Checkmate Technology by Eric Holterman

Checkmate Technology is making special user group pricing available to Mini'app'les members. The savings apply to all of their MultiRam products, the //e-80RAM Card and the Z-80A Card. The exact discount depends on the amount of memory installed on the card and the number of items ordered. Most discounts are in the 35% to 40% range and the price includes shipping to the coordinator for this bulk purchase. He will handle local distribution. The minimum number of items ordered by club members is five and the most favorable pricing occurs when ten or more are ordered. Below are some of the products and prices based on an order of only five items:

Product	List Price	Mini'app'les Price
MultiRam RGB - 64K	\$199.95	\$145.95
MultiRam RGB - 1MG	\$439.95	\$265.95
MultiRam //e - 64K	\$159.95	\$110.95
MultiRam //e - 768K	\$329.95	\$200.95
MultiRam CX - 256K	\$199.95	\$145.95
MultiRam CX - 512K	\$259.95	\$175.95
Ile-80Ram Card	\$99.95	\$49.95
Z-80A Card	\$89.95	\$60.95

*Dick Marchiafava* has offered to be the bulk purchase coordinator and has been designated as a participating dealer by Checkmate. He has experience with their products and can answer questions about them and provide pricing for all products available through this program in any memory configuration. He can be reached at (612) 572-9305. While Checkmate does not have a specific deadline date, you should contact Dick soon if you are interested. Prices are subject to change without notice.



# The AppleWorks Advisor

A Column For Users Of  
AppleWorks  
by *Dick Marchiafava*

### AutoWorks A Hit

*This column was supposed to have appeared last month, but was temporarily misfiled by your Editor!*

**I** mentioned a new Mail Merge and Macro program to work in AppleWorks in the August AWA column. This program, called AutoWorks by Alan Bird, from The Software Touch, has been in my hands for a few weeks, and I have had time to work with it.

Since one of the major features of AutoWorks is to add macro commands to AppleWorks, some comparisons with Beagle Bros MacroWorks is inevitable. As well as I like MacroWorks, I find the macro part of AutoWorks to be better. It allows for creation and updating of macros on-line, that is from within AppleWorks. This is a definite plus. With MacroWorks one can create temporary macros for immediate or temporary use, and test out a permanent macro that is being developed. However, it is not always possible to get a temporary macro to work the way a permanent macro will, and visa-versa. Then too, one must write the macro in the word processor file that will store the commands, exit AppleWorks, boot MacroWorks, re-compile the macros, install them in AppleWorks and boot AppleWorks to find out if a new permanent macro works the way one expects. The MacroWorks compiler stops when it finds an error, and will not proceed. This means a full circle trip through the AppleWorks/MacroWorks circuit to fix the error, only to have the compiler halt when it finds another error.

Well, you get the idea. I spent 3 hours one night running the circuit repeatedly after writing many new macros. The MacroWorks compiler found

GOTO 7

## AWA (Sept.), Concluded

every error I made, one at a time, and several "errors" which were not documented. It even objected to my use of numerals in the comment lines used to describe what the macros do. When I finished, I felt like one of those white mice (live ones, not computer mice) that had finished running an Olympic class maze.

With AutoWorks installed, one can turn on the "Record" mode from the AutoWorks window menu and AutoWorks will record the keystrokes necessary to make a new macro. When it works correctly the macro can be installed with the "Update Macros" command from the same window. Or one can type in the new macro command in the word processor file which stores the commands and then run the "Update Macros" command.

I tried to install the same macro functions in AppleWorks using both AutoWorks and MacroWorks. (No, not on the same disk). As a result of this effort, I came to the conclusion that AutoWorks is easier to work with as well as being more powerful. There are macros which I want that I could not implement with MacroWorks. I know that they work because I did them in AutoWorks first.

With either system, one must update a reference card or sheet when new macros are added. MacroWorks does allow changing the built-in help screens, but this is limited by the size and number of items on the original screen. The screen will not hold an extensive list of added commands.

AutoWorks has a longer, more powerful list of "Macro Keywords," what MacroWorks calls "Macro Tokens." In creating new macro commands, the Keywords are used to enter keys or functions which do not print a character when typing commands into the wordprocessor file. I especially found AutoWorks <KEYTO> to be more useful than MacroWorks <key>, because <KEYTO> will permit the entry of a variable number of keystrokes during the execution of a macro, while <key> permits only 1 keystroke to be enter per occurrence. These would be used during a pause in execution of a macro to permit keyboard entry.

AutoWorks allows you to turn off the macros if you want, MacroWorks does not.

The second major function of AutoWorks is the On-Line Mail Merge. Yes, Henry, it is now possible to do a real mail merge operation in AppleWorks. One does not need to leave AppleWorks. Since the operation of mail merge is on-line, it is convenient to use that feature for just a few letters. I have already used it and it is slick!

The "merge" function can also be setup to fill-in forms, such as invoices etc., speeding data entry and allowing for calculations. In making entries in the database, each press of the RETURN key takes you to the next field to be filled in. This is easier and faster than "steering" the cursor around in an AppleWorks word processor document.

In common with MacroWorks, AutoWorks has a modified ProDOS which incorporates a ProDOS File Selector (Bird's Better Bye). When you leave an application which has this version of ProDOS installed the screen displays a menu of the programs which can be run on that disk. Select a program to run, or press ESC to change disks and run the next program you want.

I spoke with Alan Bird when my first attempts to get AutoWorks installed resulted in the program freezing up or crashing into the Monitor. The problem turned out to be my use of Checkmate Expander version 4.4 (see next item). This AppleWorks Expander version had not been released when AutoWorks became available. I had to back up and use version 4.3. Alan will be sending me an upgrade to AutoWorks that will be compatible with version 4.4, so I can update AutoWorks for myself and my clients.

### Checkmate Releases Version 4.4 of AppleWorks Memory Expander Utilities.

For those who are using the Checkmate memory expansion boards, version 4.4 of the Expander software is available. Contact your dealer for an upgrade. This new release adds some significant enhancements. Wordprocessor capacity is now 5000 lines. The database capacity is increased to about 23,000 records with a means available to select (or change) the maximum number of records to be used.

A Status Indicator has been added too. This is a one character window in the lower right of the screen which flashes a character indicating which bank

of memory is being accessed. You will not care which bank is being accessed, but the flashing characters give a visual indication that something is going on. Very handy for those occasions when everything seems to stop, such as during searching, sorting or recalculations.

I note with interest that this column is being reprinted by user group newsletters in other states, including Hawaii! Great! Will groups that want to reprint this column send me a letter informing me of their interest in reprinting this column? Maybe I can arrange to send them the column files on disk which would make reprinting easier.

Send your AppleWorks questions and tips from anywhere to me at 7099 Hickory Drive N.E., Fridley, MN 55432. Dick

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# The AppleWorks Advisor

A Column For Users Of  
AppleWorks  
by Dick Marchiava

October 1986

September Column Lost,  
Found?

The file for this column which was to be published in the September issue of the newsletter was lost, not to be discovered in time for printing in that issue. It has been found and is printed in this issue on the preceding pages.

Perhaps a small spool of mono-filament line attached to the editor's mouse would help track the wily and elusive rodent as it drags these files into various mouse holes! (*Ha. Ha. - Ed.*)

## AppleWorks And RAM Drives

As more AppleWorks users add memory boards to their computer systems to enhance the operation of AppleWorks and work with larger files, an additional tool is received by them. I refer to the utilities to create RAM drives. A RAM drive is memory which is configured by software to allow its use as if it were a storage device, in effect, a disk drive in memory. In many instances, there is significantly more memory available than is needed for AppleWorks and the Desktop. This can be put to work with AppleWorks and other applications.

A RAM drive is a place where applications and data can be held, while waiting use, and can be accessed very rapidly. For example, when AppleWorks (expanded version) is fully loaded into RAM, it can be started in as little as 10 seconds. If the RAM drive area is large enough, more than one application can be held there and switched in seconds. Although one is loading an application into active memory, the switch is so fast that it is more like multi-tasking (having more than one application residing concurrently in memory). Although not as fast as multi-tasking when changing applications, RAM drive is fast. It is very much faster than floppy drives, and is accessed faster than a hard drive.

So, the advantage of RAM drive is speed. The disadvantages are that it is temporary in nature, and there is a time

overhead which is a consideration when first starting up the RAM drive. Any data stored in RAM must be copied to a disk for long term storage. The time necessary to start a RAM drive will be paid back if one is going to make a lot of use of it during a session. It is hardly worth it to load AppleWorks into RAM if you just want to write a thank you note to your Aunt Martha.

Until recently, using RAM drives seemed to be beyond the ability of many of us to use easily. I found that there have been some new files added to the Checkmate Utility disk that I had not noticed before (I use a Checkmate RGB 1 Meg memory board). These files allow for the creation of RAM drive application disks which are easy to create and use. An advantage of the particular procedure I will describe below is that this kind of application is more flexible than using an "auto-boot" RAM drive application.

I am using an 800K UniDisk for my RAM applications. It is possible to do the same things I will describe using 5.25" disks also.

Using the Checkmate utilities, I make up RAM drive application disks. One can create auto-boot applications which will configure RAM, copy all files and start an application. However, I am taking a different approach because it is easier to use (requiring no programming skills) and is more flexible.

The elements necessary to do this are; Squirt (a modified ProDOS from Synesis Systems, available from Mini'app'les) which is an automatic program selector, the Checkmate utilities version 4.4+, Copy II+ version 6+ (or suitable disk management utility) and the desired applications. The described application will fit on 1 3.5" disk. It can be operated from 5.25" disks by doing steps 1 - 3, 5 - 7. Applications can be copied from their normal working disks in steps as required. All applications to be moved to RAM disk must be copyable. Checkmate's utility names the ProDOS RAM drive MRAM.

The steps I follow are:

1. Format disk
2. Copy Squirt (ProDOS) to disk
3. Copy MRAM.SYSTEM and LOAD.MRAM from Checkmate utilities
4. Set sub-directories for AppleWorks, Sensible Speller, Sensible Grammar and UTIL.SYSTEM from Copy II+. Copy each application to the

appropriate sub-directory.

5. Run Copy II+, catalog the disk, determine space these files take up.
6. Run the Checkmate utilities and customize the MRAM configure file to the size necessary to hold the applications to be moved.
7. Copy the newly customized MRAM.SYSTEM file onto the application disk. It is necessary to do this in this order, so the proper files are queued in correct order.

When placing application files on a disk of this kind, there may be files which need not be copied a second time, especially if they are in the same sub-directory, i.e. ProDOS, BASIC.SYSTEM etc. There may be other files which are not necessary for the way you use the application. Sensible Speller and Grammar have files for Catalyst and Quark plus demo files which I did not install on this disk. Not installing non-essential files can save time in loading and spare some of the memory also.

When booted, this disk will load ProDOS, configure MRAM and exit to LOAD.MRAM. I can now copy files to RAM, even from a different disk. LOAD.MRAM.SYSTEM will copy all files in a drive which are in a series pathname configuration. It will only copy the primary path and any sub-directory names if there are sub-directories are in a parallel arrangement.

Next, I exit to basic which puts me in the Squirt program selector. I can start any application from any drive or device at that time.

I can copy applications selectively from branching pathnames to MRAM with Copy II+ instead, if I want and then go to the program selector. I may be able to dispense with LOAD.MRAM and use only Copy II+. I will decide on that later.

With this RAM application I can have AppleWorks, Speller, Grammar, disk management utilities and a program selector available. The flexibility of being able to choose which application I want to load into MRAM, being able to switch applications in MRAM, start other applications from a drive or move them to MRAM and be able to jump from one to another are more useful to me than an auto-boot application.

Last week, I needed to switch from AppleWorks to Sensible Speller 3 times in about 5 minutes while struggling to

GOTO 8

## AWA (Oct.), Concluded

get the speller to recognize the name of the document I wanted to check. With the RAM drive, it was a breeze! And what a treat to have the Speller access its dictionaries from RAM!

I am also working on getting programs other than AppleWorks to run from RAM. The next RAM drive application will be BPI General Accounting, but that is not a subject for this column.

When copying files to a 3.5" disk it is very useful to copy the files to RAM drive first and then back to the new 3.5" disk if one has only 1 3.5" UniDisk

drive. If you thought that the disk swapping necessary for a 1 drive copy with 5.25" disks would make you crazy, try the same think with a fairly full 3.5" disk. After 20, 30, 50 swaps you will know what boredom and aggravation are!

### Most Frequent AppleWorks Problem

The most often asked questions about using AppleWorks are still in the area of using printers. Many of these problems are associated with the printer interface card. In most cases, the solution is to update AppleWorks to version 1.2 or 1.3. These versions allow the user to input the proper Interface Card Setup String and there are other minor printer fixes. I am amazed at the number of AppleWorks users who are still using version 1.1, and even version 1.0!

If you have not updated your AppleWorks program disks, you should. You can always keep your working copies of an earlier version of the program if you have any reservations about updating.

### More About AutoWorks

I have found AutoWorks to be the most exciting piece of software to use with AppleWorks that I have seen! Many persons have bought AutoWorks on my recommendation, and they are delighted with the easy to use macro and mail merge functions.

Send your AppleWorks questions and tips from anywhere to me at 7099 Hickory Drive N.E., Fridley, MN 55432. Or call 612-572-9305. No collect calls.

Dick 

# Apple Tech Notes

*Edited by Steve George*

## Applesoft: OUT OF MEMORY errors

**T**here are only two ways to run out of memory in Applesoft. The most common reason for this error is either that your program is too large or it's using too many variables. The solution: trim down your program, keep the data on a disk, or chain your program in from the disk in segments.

The less common cause of this error is stack overflow. This problem is easily spotted, since after you receive the OUT OF MEMORY error, PRINT FRE(0) will tell you that there is still free memory. The 6502 stack, though, which Applesoft uses to save its recursive subroutine calls, is a limited resource; it's this stack that your program is overloading. Your program is overloading this stack in one or more of the following ways:

1. Too many FOR-NEXT loops
2. Too many GOSUBs
3. Excessively complex mathematical or string functions
4. GOSUBs with no RETURN
5. Improper recovery in ONERR GOTO routines
6. CALLs or interrupts that don't restore the stack properly

The effects of these functions are cumulative, so a combination of them could be causing your error.

Items one through four commonly occur in very complex programs. If one or more of these items is the cause of your problem, you can implement a program-controlled restart by executing the Applesoft routine CALL 54915; this routine clears the stack without clearing the variables by eliminating all pending

FOR-NEXT loops, GOSUBs and formulas. Items one through four, though, have to do with your program structure, so when your program is cleanly structured you shouldn't have problems overloading the 6502 stack.

If a stack overflow is caused by running a cleanly-structured program, then that implies that the overflow is being caused by items five and/or six.

If you're using ONERR GOTO, carefully read pages 81, 82 and 136 of the (green and white) Applesoft BASIC Programming Reference Manual. There are two correct ways to leave the ONERR GOTO routine: (1) use a RESUME so Applesoft can take care of the stack and re-execute the statement that caused the error, or (2) use the stack recovery routine on page 82 or 136 before any GOTO statement. (The example on page 136 is easier to implement.) If you're using Applesoft in ROM, replace the routine on page 136 with CALL -3288 and no POKES.

When Applesoft executes a CALL, it does a 6502 JSR to the specified address. Other routines, such as those that handle interrupts from a peripheral card, also involve the 6502 stack. It's up to you to leave the stack the way you found it--so if you use any of these routines, make sure that you remove any bytes the pushed onto the stack so that the 6502's internal registers are maintained.

### Applesoft: PEEKs, POKEs, and CALLs

The PEEK, POKE, and CALL statements in Applesoft refer to 0C 0D 0E.

If the link field for a line is 00 00, then Applesoft considers it the last line in the program while running or listing.

The SAVE command uses a different pointer, \$AF,B0, for the end of the program. \$AF,B0 normally points to the high byte of the line number of the line beyond the last line.

See the chart below. 

Chart for PEEK, POKE, CALL Note

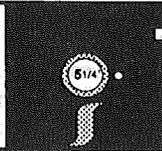
00	0D+	08	0A+	00	97	3A	BA	22	48	49	22	00	00+	00
E	LINK		LINE#		H	:	P	"	H	I	"	E	LINK	
O					O		R					O		
L					M		I					L		
					E		N							
							T							

# Software Library Additions

by Steve George, Software Director

## DOM #43

c/o Denver Apple Pi  
Public domain  
DOS format



**S**ix major programs make up this month's 5.25 Mini'app'les DOM, bought to us by the Denver Apple Pi User Group.

3 Games: Arctic Passage  
Roadtrip  
Text Invaders

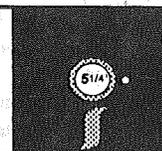
3 Educational: Crystal Symmetry  
Dungeon of Algebra  
Text Tricks Tutorial

Arctic Passage is another excellent shoot-'em-up created with Borderbund's Arcade Machine. In Road Trip, you try to drive as quickly (and safely) as possible. You must take time out to eat and rest, or you'll fall asleep and crash. Decisions about fuel and direction of travel must also be made. Text Invaders, plays similarly (in concept, not action or graphics) to the arcade game. Uses text screen symbols for all movements. Limited action, but still quite fun for youngsters or all-thumbs adults.

Crystal Symmetry illustrates crystal structure. You can rotate each type shown on all 3 axes. Dungeon of Algebra is for pre-algebra students. You are placed in a maze and when you encounter a monster, he'll let you pass if you can solve the equation shown on screen. If there is gold nearby and you solve a problem, your wealth increases. Lastly, in Text Tricks Tutorial, Dr. B. Zarro creates some interesting text screen displays. Various 'tricky' ways to place and remove screen text are shown. The program is well-sprinkled with REMs so you can see just how it was done. Use 'em in your own programs.

## IAC #61

ALFA-EZ BBS  
shareware  
ProDOS format



**T**o quote IAC's cover letter accompanying this disk:

"ALFA-EZ is the latest public domain bulletin board software for Apple // computers, and was written by Bob Garth of ProTree Software, Westminster, Co.

ALFA-EZ comes with a utility disk, and system running modules. The system is run under ProDOS so it is best

used on a hard disk, even though it will work with two disk drives. The system is very easy to run and operate and can be set up and running in one day.

The program is, let's say, a working demo. Most demos have some sort of limitations. This program does not. This program can run and operate a BBS and do a great job. But, (you knew that was coming) the author has an even better program with many more bells & whistles, and a 200+ page printed manual called ALFA-///. ALFA-///, which usually sells for \$80, will be sold to IAC members for only \$30, a \$50 savings. Both ALFA-EZ and ALFA-/// are supported on GENIE (General Electric Information System)."

This double-sided disk is called 'shareware', but there is no additional fee. The reason for the designation is that you can (or at least could) get full docs for it through the author. That offer was when we received the program c/o another user group and it was called ProTree.BBS. My best guess is that you can get THIS disk (ALFA-EZ) and use it to your heart's content and not feel obligated so send any fee to the author.

### Notice:

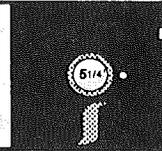
Last month's IAC #60 is IDENTICAL to July's IAC #58. Because the Print Shop Graphics which these disks contain were not in the same order, their sameness escaped our attention. We will try to point out this oversight to purchasers. If you happen to purchase both, let us know and we'll remedy the situation.

This is just the latest of several blunders by the IAC. It started about a year ago with disk #50; files were missing and it was the wrong format! Another Apple User Group had the same problem, too. They called IAC, finally finding someone who admitted to the problem. He said that a replacement would follow shortly... a year ago. Recent calls have been greeted with denial that there ever was a problem, and we still don't have a working version of #50. (This explains some of the 'holes' in the IAC disk numbers that we have issued!) And now there will be another hole: either 58 or 60 will be dropped.

Anyway, be assured that WE will set things straight with YOU and not force YOU to swallow hard, the way the IAC has made US 'eat it'.

## Squirt 1.1

Personal Domain  
ProDOS format



**H**a HAH! I love this one! Squirt replaces Apple's ProDOS QUIT command with something that really makes using ProDOS a joy. You know the situation, you quit AppleWorks or AppleWriter or some other application through the prescribed method and are 'greeted' with some garbage about (ENTER PRODOS PATHNAME OR RETURN) followed by (ENTER SYSTEM FILE OF NEXT APPLICATION)... huh? Forget a name and you can't even do a catalog! Great. Like many of you, I quickly grew tired of having to know Volume names and the name of the SYStem file on the disk. We all just hit Control-C-Reset, right? That WAS the easiest solution. Although that caused many a RAMdisk to get lost and required slogging through another round of whatever the boot disk's setup program forced upon you.

Get back in control with Squirt! When you quit any application which formerly used the QUIT command, Squirt pops up and takes command. The first thing it does is check all your drives for the names of all volumes online and presents a single-keystroke menu for disk selection. Next, it finds all the SYStem files and all sub-directories of the chosen disk. Hit a key associated with your SYStem file and you're off and running. Or, select a subdirectory for another directory. At any time, ESC backs you out one level. Wrong disk in a drive? Just replace it and hit ESC. No more re-boots! No more losing RAMdisks! FANTASTIC!

If your application quits to the AppleSoft standard prompt "J" and uses BASIC.SYSTEM 1.1, you're still in luck. Type "BYE" and up squirts Squirt!

Anyone who gets this program and doesn't send the requested fee of \$7.50 to the author will get Crushed!

Squirt 1.1 © 1985  
by Steve Stephenson  
Requested fee: \$7.50



# WordPerfect 1.1

for the Apple //c, //e and IIGS  
A review

by Richard H. Peterson

**T**he WordPerfect word processor includes a spell checker, mail merge and macros - to name a few features.

It requires Apple //c or Apple //e (extended 80-column card), 128K (min.) memory (additional memory can be used as RAM drive), one disk drive (I would recommend two drives - one can be a large RAM drive, above 128K), and (if you want to print) a printer.

The program runs under ProDOS and comes on 3 diskettes, (six sides) that are not copy protected. The manual includes a Quick Reference card (this card has over 100 commands; some are not shown in the manual), a 128 page "Learning" section, 122 page "Reference" section, 13 pages on using "Speller", 31 pages on "Merge", 47 pages on other features, and a good index.

The disks have drivers for over a hundred printers and over fifty printer interface cards. There is also a utility that permits you to modify or write your own driver.

The word processor is of the WYSIWYG {What You See (on screen) Is What You Get (printed)} type. Your document can be up to 250 columns wide. It use 28 function keys (displayed on a template that fits above keyboard) using the  and  Apple keys with the top row of the keyboard. The tutorial section is very good and will get you up an running, you have to read the rest of the sections in the manual to learn every thing that you can with is word processor.

Some of the block feature are copying, printing, deleting, moving, underlining, bold type, case conversion, saving, and appending to file. One can searc for any formatting command, carriage returns, as well as text (it also permits using a wildcard character in text). Block hi-lighting for a sentence, paragraph, or a page can be done by a single key stroke as well as by cursor moves. Some of the formatting features

are automatic foot- notes, align on any character, automatic page numbers (page number can shift between left and right side for even and odd numbered pages), flush right, headers and footers, super and subscripts, dates (manual set or clock), centering of text (horizontal or vertical), margin release, hanging paragraphs, hanging indent, overstrike (this to backspaces the printer and overstrikes a character). There are a number of features I have not yet tried and therefore have not listed. The printer drivers support three character sizes with eight styles per size, you may have three drivers in the program at a time. All formatting

commands (tabs, margins, type size, type style, etc.) can be changed at any time for the balance of the document or until changed again. A document can have a command in it to down load a font to your printer (not tested as my printer does not support). The printer and formatting commands are not shown on screen or in column position unless you ask to see them.

The spell checker has a 50,000 word dictionary. You can check the spelling of a word, a page, or document. When a error is found, an alternate list of words will be displayed. You can select any of these words or skip the word, add to supplementary dictionary, edit without leaving the spell checker, or look up a word using a pattern of letters including using a wildcard character. The speller also checks for double occurrences in a row of the same word and gives a word count. The dictionary has two lists of words; a common word list (which is checked first) and a main dictionary list. The Speller Utility will permit you to: create a new dictionary, add and delete words using a ASCII file, display common word list, check location of a word, and look up words matching a pattern including use of wildcard characters. The spell checker is a little slow but you do not have to leave the word processor to use it and you can edit at any time while checking.

The "Merge" function will permit you to merge from one or more secondary files and from the keyboard. You can merge into a form letter with fields entered from a list file. Not all fields in the list file must be used in the form letter, and fields may be repeated in the letter. You can merge paragraphs (each in separate files) into a document at preselected places. The merge function can also be used to fill in forms (preprinted or of your design in a file) from a file or keyboard. A merge can be done to a file or printer. The macros feature is used to capture keystrokes (including function keys) to be used at a later time. These macros are saved to disk and are called from disk as used. The program uses a startup macro to setup printer drivers (the manual take you through the steps to make this macro allowing you to add any thing you want to do every time the program is run).

ProDOS commands are permitted from within the word processor including disk formatting and viewing a file

GOTO 10



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**WordPerfect, Concluded**

without loading it. Document size is controlled by disk space; up to a maximum of 16 megabytes. The utility disk has a program (install.system) on it that permits you to automatically run your ram drive setup program, copy files to RAM drive, run word processor, and after exiting word processor copying files from RAM drive to disk and run next program. Included is a program to convert Appleworks, Applewriter 2.0, and ASCII file to WordPerfect format. WordPerfect has on screen help. You must have a work disk in the machine at all times (this can be a RAM drive) in that the program will handle documents larger than free memory and it is used for copying and moving. The screen below the cursor is not always updated while editing but will be as soon as cursor is moved down (if you are touch typing you should not be looking at screen anyway). You have to give up speed in some of the function in order to have all the next functions, I found that by using a RAM drive. I cut the delay in half.

I used an Apple ][e with a 512K RamWorks and a non-standard printer to test this program. The big question is will I continue to use this program and the answer is YES. I cannot wait to see how this program will run on an Apple IIGS with a high speed chip and large built-in RAM drive.

This program has been offered to Mini'app'les at a special price of \$75.00 (suggested retail price \$179.00). This offer is good through Yukon Computer Products (see advertisement on back cover--lets support our advertisers) at 593-9305 and must be ordered by Oct. 25, 1986. I have no financial interest in WordPerfect or Yukon Computer Products.



**Oct 15!**

**See the Apple IIGS**

**and learn what it can do!**

**Regular Apple II**

**Meeting of Mini'app'les**

**Olson Junior High School**

**Map on page 26**

**Apple II Computer Family of Products,**

# Simulated Price Sheet

September 15, 1986

**COMPUTERS**

Apple IIGS Personal Computer (256K RAM, mouse, detachable keybd)	\$ 999.00
Apple IIe Personal Computer (128K RAM and built-in keyboard)	829.00
Apple IIc Personal Computer (128K RAM, built-in keybd, 5.25" drive)	940.00

**DRIVES**

Apple 5.25" Drive	299.00
Apple 3.5" Drive	399.00
Hard Disk 20SC	1299.00

**MONITORS**

Apple Monochrome Monitor	129.00
AppleColor Composite Monitor	379.00
AppleColor RGB Monitor	499.00

**KITS**

Apple IIGS Upgrade	499.00
Apple IIc Memory Expansion Kit* (Memory exp. card, new IIc logic board)	269.00
256K Memory Chips	69.00
Apple 5.25" Drive Controller Kit	69.00

**CARDS**

Apple II SCSI Card	129.00
Apple IIc Memory Exp. Card*	269.00

**SOFTWARE**

AppleWorks 2.0	250.00
----------------	--------

\*For the first 256K of memory; additional increments of 256K memory at \$69 each.

# The New Computers

## Apple IIGS: Newest Apple II Computer Features Enhanced Graphics

Apple Computer, Inc. announced on September 15, 1986 a new high-end member of its Apple II family of personal computers. Featuring high-resolution color graphics, high-performance sound capabilities, fast processing speeds and large memory, the computer offers unprecedented versatility for both educational and productivity applications. Called the Apple IIGS, the new computer combines the software compatibility and expandability of the Apple IIe with a graphic user interface like the Apple Macintosh. The Apple IIGS will be available in late September.

The ability of the Apple IIGS to run the Apple II family's thousands of existing educational software packages make it well-suited for families with school-age children. Its expanded memory and new software, that employs a more intuitive user interface, also make the machine practical for more sophisticated productivity applications.

The Apple IIGS will not make any existing Apple computers obsolete or replace them in major market segments. The IIGS is intended to provide new capabilities for users in many market segments, especially those in which advanced graphics or sound is important.

The Apple IIc is Apple's most attractively priced entry-level machine, especially for home education use. The open-architecture workhorse Apple IIe remains a popular choice of schools and home users who want expandability. The Macintosh line, with its powerful Motorola 68000 microprocessor and large library of business software, is aimed at business markets and universities.

"We took ideas that represent the best of Apple to create a computer ideally suited for the education and home markets," said Delbert W. Yocam, executive vice president and chief operating officer of Apple. "We believe it is a tremendous technical achievement to provide a machine with such advanced features, while still maintaining compatibility with all but a few of the software programs in the huge Apple II library."

For current Apple IIe owners, Apple is introducing in the first quarter of 1987 the Apple IIGS Upgrade, a kit that gives

a IIe all the performance capabilities of the IIGS. The upgrade path protects IIe owners' existing investments in hardware, software and peripheral devices.

The IIGS features a new Apple product color scheme, called "platinum," which is the color of the new Apple peripherals and will be the new standard color of future Apple computers.

### Inside the Apple IIGS

Five design criteria were used in the development of the IIGS: enhanced graphics and sound, faster processing, and more memory while retaining software and peripherals compatibility with the Apple II family. The Apple IIGS runs approximately 90 percent of the software and nearly all of the peripherals developed for earlier Apple II computers.

Besides existing software and hardware, Apple expects more than 40 new products that take advantage of the IIGS computer's new speed, color, sound and memory features to be available during the 1986 Christmas season.

To bring more power to those who use their personal computers heavily, Apple gave the IIGS faster processing speed and 256 kilobytes of random-access memory standard. These features allow applications to run up to three times faster and make possible a graphic user interface. The IIGS' eight expansion slots allow further functionality, including the expansion of internal memory to one megabyte. The IIGS also supports the AppleTalk network.

The "GS" stands for graphics and sound—two of the strengths of the new machine. Besides the five graphic modes available on the IIe and IIc, the IIGS offers two new high-resolution graphics modes that make possible software with a graphic interface and animation capabilities. Sound capabilities have been enhanced through a 32-oscillator chip that can play up to 15 voices simultaneously for synthesizing both music and human speech.

The Apple IIGS will be available in limited quantities at authorized Apple dealers in the U. S. beginning Sept. 27. The upgrade kit that gives IIGS

capabilities to an Apple IIe will be available from authorized Apple dealers. In addition, Apple is introducing 11 international versions of the IIGS simultaneously to address the more than 80 markets in which Apple sells around the world. These systems feature local-language software, manuals and keyboards specifically designed for the French, German, Italian, Spanish, Dutch and Flemish languages.

A limited edition of the Apple IIGS signed by Apple II designer and Apple Computer, Inc. co-founder Steve Wozniak will be offered to early purchasers of the

GOTO 14

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## New Computers (contd.)

product at the regular introductory price.

The Apple IIGS personal computer is the most powerful member of the Apple II family.

- 256K of built-in RAM and extensive memory capability. The RAM is expandable up to 8 megabytes. With addition of the Apple IIGS Memory Expansion card, applications that previously required frequent disk access can now reside entirely in the computer.
- A 16-bit 65C816 processor lets the Apple IIGS run more sophisticated applications, including those with Macintosh-style interface, as well as most existing Apple IIe and IIc software. With a clock speed of 2.8 instead of 1 megahertz, these programs will run up to 2.8 times faster on the IIGS.
- 128K of ROM memory expandable via the memory expansion slot up to one megabyte.
- Control Panel, which enables users to set screen colors and speaker volume, and also includes QuickDraw II graphics routines, AppleSoft BASIC, and a built-in clock for automatic time-stamping of files and documents.
- Detachable keyboard with 14-key numeric pad. It contains two Apple Desktop Bus ports on opposite ends; one is for connecting the keyboard to the computer, and the second is for adding other ADB-compatible input devices.
- Eight international character sets can be displayed.
- Two built-in serial ports allow for easy connection of Apple Talk, a modem, printer, or other serial devices.
- Seven general purpose expansion slots are available for peripherals, in addition to a dedicated RAM/ROM slot.
- Up to 15 separate audio voices can be generated simultaneously for realistic music, speech, and sound effects.
- Analog RGB port allows for quick connection to the AppleColor RGB Monitor; no adaptors or additional interface are required.
- The disk-drive port lets users take advantage of the 800K Apple 3.5 Drive and 143K 5.25 Drive. They can be used individually, in any combination, or with UniDisk 3.5 drives. Up to four drives can be daisy-

**GOTO 15**

## Specs on the New Apple Computers

### Apple IIGS Technical Specifications

**PROCESSOR...**65C816 microprocessor, 2.8 MHz clock speed 8 bit data bus, 24 bit address bus allows for addressable memory of 16 megabytes

**MEMORY.....**256K RAM standard, expandable to 8 megabytes  
128K ROM standard, expandable to 1 megabyte

**OPERATING SYSTEMS.....** Supports ProDos 16, ProDos 8, Pascal, CP/M (with Z-80 card) and Dos 3.3

**EXPANSION SLOTS.....** 8; 1 dedicated multi-purpose RAM/ROM memory expansion slot; 7 additional input/output slots

**GRAPHIC DISPLAYS.....** 7 video display modes:  
40 column text mode (by 24 lines),  
80 column text mode (by 24 lines)  
Low-resolution: 40 H by 4 V dots, 16 colors  
High-resolution: 260 H by 192 V dots, 6 colors  
Double high-resolution: 560 H by 192 V dots, 16 colors  
Super high-resolution: 320 H by 200 V dots, 16 colors per scan line out of a palette of 4,096 colors; 640 H by 200 V dots, 4 colors per scan line out of a palette of 4,096 colors

**KEYBOARD....** Detached 80 key typewriter-style keyboard including 10-key numeric keypad

**MOUSE.....** Apple DeskTop Bus Mouse standard

**INTERFACES..** NTSC-compatible composite color video output Analog RGB Video output Headphone jack with programmable volume control Apple DeskTop Bus input port for keyboards, mice and other input devices SmartPort disk interface for connecting both 5.25 and 3.5 disk drives two serial ports utilizing the SCC communication chip. Game/joystick port. Input/output sound connector on logic board

**SOUND CAPABILITY..** Ensoniq 32 oscillator synthesizer chip with dedicated 64K RAM

**INPUT.....** Line Voltage: 107V to 132V AC; Freq.: 50-60 Hz; Power: 60 Watts

**CLOCK/ CALENDAR....** Built-in clock for automatic date stamping of files

### Apple IIc Technical Specifications

**PROCESSOR...** 65C02 Microprocessor; 1.02 MHz clock speed

**MEMORY.....** 128K RAM, opt. expand to 1.12 MG; 32K ROM

**KEYBOARD....** 63 key full-size keyboard Full 128-character ASCII

**DISK DRIVE...** Disk size: 5.25 inches; Capacity: 143 Kilobytes

**SOUND.....** Built-in speaker with volume control knob and headphone jack

**INTERFACES..** Mouse, joystick, hand controller interface  
2 serial input interfaces; External disk drive interface  
Video expansion interface; RCA-type jack for a video monitor

## New Computers (contd.)

chained from the drive port. With the addition of the Apple II SCSI Card and cable, the Apple IIGS can work with the 20MB Apple Hard Disk 20SC.

- With the AppleColor RGB Monitor, the Apple IIGS produces crisp 80-column color text; a palette of 4096 colors, with as many as 256 on screen at once, is available.
- The Apple Desktop Bus standard allows for easy connection of multiple input devices such as a graphics tablet and mouse. Users can connect another ADB peripheral to the keyboard, then daisy-chain more accessories from it. Up to 16 distinct devices can be on-line at one time.
- Access to AppleTalk Personal Network is possible without an interface card.
- New applications that use windows, pull-down menus, and other Macintosh-like features can be used.
- A choice of QWERTY (Sholes), Dvorak, and international keyboard layouts.

## Apple IIc

The Apple IIc is a full-featured personal computer that includes the disk drive and keyboard in one unit. This unit has been revised to accept an internal memory expansion module and is now available in the new "platinum" color.

- 128K memory, expandable to over 1 megabyte.
- 32K ROM containing 80-column display firmware, AppleSoft interpreter, and system monitor.
- A built-in 5.25-inch disk drive. For higher performance, add the 800K UniDisk 3.5 drive. Users can add a second external drive to the IIc by daisy-chaining it to the first one.
- A full size keyboard with full ASCII character set.
- A built-in speaker and headphone jack, plus a volume control.
- Five different display modes: three for graphics, and two for text.

## An Editor Comments

by Tom Edwards

Ah, it's Fall. And the ripened fruit is ready for harvesting. So also are the new computers from Apple... well, at least most of the Apple II line.

Most of this "news" for the October newsletter has been brought to you from the electronic office of Apple's marketing department, as a spinoff to the Club's participation in AppleLink. I've tried to organize the material into articles that address the many Apple II things released by Apple on the 15th of September. To be honest with you, the time was short and volume long. There really wasn't time to collect "third party" input to balance this corporate outpouring, but you can look forward to that with the next issue.

Apple has had the IIGS (Graphics and Sound, Great Speed, or Gassee and Skulley; take your pick!) in the hands of developers for several months. It will be

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## Developers Launch New Products for Apple IIGS

During its first holiday selling season, Apple Computer's new Apple IIGS personal computer will have the advantage of a substantial selection of software packages and hardware add-ons from independent developers.

The system is designed to run the thousands of productivity, educational and entertainment programs developed for earlier Apple II models, as well as the majority of peripherals and expansion cards designed for those machines. In addition, Apple has worked with over 250 companies during the past six months to foster development on the IIGS. More than 40 new products will be available before Christmas, and Apple anticipates that this intense development pace will continue for several years.

"The release of a new computer at Apple means an enormous effort to involve the third-party development community," said Guy Kawasaki, manager of software products. "We strive for the best balance of backward compatibility and radical new capabilities. The IIGS achieves this better than any system Apple has ever developed. The developers who worked with us greatly influenced the final graphic, sound and processing capabilities of the IIGS. Apple has delivered the Apple II that developers dream about," Kawasaki said.

### Apple Evangelism Pays Off

Apple's evangelism department, which supplies technical information and support on Apple products to developers, began providing specifications and prototypes of the IIGS to developers in February. During ensuing months, the number of companies working with prototypes grew to over 250.

"The broad capabilities of the IIGS motivated us to contact a wider spectrum of developers than we ever have before," said Neal Amsden, Consumer and Education Market Evangelist. "In addition to historic Apple II developers, companies that had written Macintosh software found that they could develop IIGS versions of those programs with less effort than for other machines.

"Likewise, companies who have never written for any Apple system are attracted by the size of the combined installed bases of Macintosh and the Apple IIGS. Since both systems can utilize similar development tools,

companies can achieve significant economies even while creating different versions of products for the Apple II and Macintosh markets," Amsden said.

A growing number of developers are releasing their new programs in the 3.5-inch format. These 800K disks provide space for larger, more sophisticated programs, and help eliminate cumbersome disk-swapping. In most cases, 5.25-inch disks also are provided.

### "Human Interface" for Macintosh-Like Software

Most new software programs feature a graphics user interface with pull-down menus, windows, icons and multiple fonts. The IIGS contains in read-only-memory the "Quick Draw" routines that are similar to the Macintosh. This capability, combined with the IIGS' huge color palette and super high resolution mode, have inspired an array of products that utilize graphics in innovative ways.

- Free-form painting programs, such as "Paintworks Plus" (Activision), allow the user to create his or her own artwork using the mouse and palettes of colors, shapes and fill-patterns.
- New structured graphics programs, including "TopDraw" (Styleware) and an updated version of "The Printshop" (Broderbund), manipulate boxes, circles, shapes and provide libraries of color clip-art for creating charts, fliers, maps and greeting cards.
- Entry-level desktop publishing programs, such as "Newsmaker," (Broderbund Software, Inc.) and "PageWorks" (Megahaus Corp.), let the Apple II user lay out professional looking fliers and newsletters and print them on Apple's LaserWriter and Imagewriter II printer.
- Animation--with graphics and sound that approach professional quality-- is possible on the IIGS using software such as the updated version of "Fantavision" (Broderbund).
- Educational and entertainment programs also are more appealing and effective because of IIGS graphics. New and revised programs include "Puppy Love" (Tom Snyder Productions), "Explore-a-Story" (D.C. Heath and Co.), and "Silent Service" (MicroProse).

### Productivity Tools More Powerful

To augment the large number of existing Apple II productivity packages, developers are introducing new products that leverage the IIGS' 16-bit microprocessor and large internal memory for additional speed and power. Many also incorporate a Macintosh-like interface. New and revised products include "MultiScribe" (Styleware), "Writer's Choice Elite" (Activision), "MouseWrite" (Roger Wagner Publishing), "WordPerfect" (WordPerfect Corp.), "VIP Professional" (VIP Technology) and others.

Several packages for specialized home and school productivity tasks also will be available immediately for the IIGS including an updated version of "Managing Your Money" (MECA), and a program for classroom administration from Chancery Software Ltd.

### IIGS Products Sound-Off

A variety of software packages and add-on devices highlight the sound-generation capabilities of the IIGS, and Apple anticipates the release of many more products that generate or compliment sophisticated music and voice sounds. To aid in development, Apple recently released to developers sound tools that allows software to play instrument tones on a note-by-note basis.

Sound products featured in the third-party press kit include: "The ECHO IIb" (Street Electronics) plug-in board for adding speech to software programs; "Talking Text Writer" (Scholastic Software), a program for teaching reading and writing; "Kid's Time II" (Great Wave Software), which consists of two educational programs for teaching music and keyboard skills; four talking educational software packages from First Byte, Inc.; and "RoomMates" speakers (Bose Corporation).

### Hardware Developers also Supporting Apple IIGS

A number of well-known developers, including AST Research, Inc., A-Squared, MDIdeas, Inc., Peak Systems, Orange Micro Inc., Applied Engineering, General Computer and ProAPP Inc., are taking advantage of the ports and memory

expansion capability of the IIGS and introducing new or revised memory cards, storage systems and back-up products.

Two new video digitizers include:

A video frame grabber from A-Squared that provides black-and-white and colorization processing, and operates at 20 frames per second; and AST Research, Inc.'s graphics video digitizer which provides real-time color and black-and-white image processing, in addition to special effects features.

Other new hardware products include:

a parallel printer interface from Orange Micro Inc. that provides innovative options for printing graphics directly from the IIGS screen; an internal 1200 bps modem from Hayes Microcomputer Products, Inc.; an IBM PC-like keyboard from DataDesk International; a graphics tablet from Kurta Corporation; and a stereo card from MDIdeas, Inc.

### Apple IIGS Passes Compatibility Test

In addition to this selection of new third-party products, IIGS purchasers also will be able to choose from the thousands of

existing Apple II software packages and peripherals. This will particularly benefit those who upgrade to the IIGS from older Apple IIs, such as schools which have huge investments in software and peripherals. Consumers, too, will benefit from the design of the IIGS, which contains a microprocessor compatible with the IIe and IIc and nearly the same expansion slots as the IIe.

Apple tested a large number of the best-selling Apple II software packages and found that more than 90 percent of them operate normally on the IIGS. Many run faster due to the system's increased clock speed. Some programs have only minor display or documentation differences. Programs that do not operate correctly fall primarily into two categories:

- Communications software which requires an Apple II Super Serial Card will not operate normally with a modem plugged into the built-in serial port. The IIGS contains a different communications chip (the same chip that is in the Macintosh) than is found on the card in order to provide

AppleTalk protocols, a wider selection of baud rates and other enhancements. Developers of most major communications software packages are revising their products to work with the new chip. A revision of Apple's own Access II program will be available in October. Users who already own a Super Serial Card may use it in the IIGS with existing software packages. Modems are not affected.

- Programs that were developed outside of Apple's programming guidelines may not work correctly on the IIGS due to changes in certain slot characteristics. These program owners should check with manufacturers for information on compatibility and upgrades.

Cards that must be plugged into the auxiliary slot on the IIe, such as many multi-function cards, will not work with the Apple IIGS. However, the IIGS has built-in many of the functions provided by these cards, such as extra RAM, RGB support, 80 column text, accelerated operating speed and a clock. The IIGS is

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## New Peripherals for the Apple II Family

Apple Computer, Inc. introduced on September 15 a variety of memory, storage and display products that take advantage of the capabilities of the new Apple IIGS computer and offer expanded functionality to the owners of current Apple II systems. The new products include:

- An enhanced Apple IIc which accepts a memory expansion card that adds user memory up to eight times the system's current 128 kilobyte (K) capacity;
- The Hard Disk 20SC, a high-speed, 20-megabyte storage system based on the Small Computer Systems Interface (SCSI) for the Macintosh Plus and Apple IIGS, IIe and II Plus computers;
- Three monitors in Apple's new "platinum" color scheme, including one that provides a super high-resolution color display for the Apple IIGS;
- Platinum-colored floppy disk drives in both 3.5-inch and 5.25-inch formats.

### Apple IIGS Memory Expansion Card

The Apple IIGS Memory Expansion Card adds as much as one megabyte of additional user memory to the Apple IIGS in 256K increments.

- 256K of RAM are installed on the card. This can be increased to 512K, 512K, or 1MB with the Apple 256K Memory Expansion Kit. Apple doesn't recommend configuring the Memory Expansion Card with 768K. The Memory Manager won't address this configuration properly.
- Non-copy protected programs can be loaded directly into the Memory Expansion Card, eliminating the time it takes for disk drives to read information from floppy disks.
- Compatibility with most Apple II software that works with the Apple IIe Memory Expansion Card; most Apple IIGS software applications require this card.

The card plugs right into the memory-expansion slot of the Apple IIGS. Installation can be done either by the owner or by an Authorized Apple dealer.

### Apple IIGS System Fan

The Apple IIGS System Fan maintains the proper internal case temperature for Apple IIGS computers that have three or

more expansion cards installed.

- Compatibility with the vents on the top and bottom of the Apple IIGS case to circulate fresh air through it. This keeps components cooler, prolonging their life and minimizing the possibility of failures.
- Aerodynamic design for quiet operation.
- Easy installation inside the Apple IIGS. It attaches to the power supply case, and plugs into a connector on the main circuit board of the computer.
- Gets its power directly from the computer's power; no modifications are required. Installs in seconds, and runs automatically whenever the computer is turned on.

### Apple IIGS System Disk

Combined with the IIGS Upgrade and Apple Desktop Mouse, the IIGS System disk provides a desktop environment and system utilities identical to the Apple IIGS. It allows users to easily delete and copy files while providing a user-friendly interface with the Apple IIGS. The Apple IIGS System Disk is included with every Apple IIGS and will also be sold separately. The Apple IIGS System Disk is scheduled for availability in early 1987.

### Apple IIc Memory is Now Expandable

The Apple IIc Memory Expansion Card adds as much as one megabyte of additional user memory to the Apple IIc in 256K increments.

- 256K of RAM. This configuration can be increased to 512K, 768K, or one megabyte with the Apple 256K Memory Expansion Kit.
- Non-copy protected programs can be loaded directly into the Memory Expansion Card, eliminating the time it takes for disk drives to read information from floppy disks.
- Compatibility with most Apple II software that takes advantage of the Apple IIe Memory Expansion Card; with many Apple II programs, no software modification is necessary.

A supplemental System Utilities Disk included with the Expansion Card provides a formatting utility that allows

many software programs to recognize and fully utilize the additional memory. Some programs, such as the new version of AppleWorks (2.0), automatically use the Expansion Card. Apple is working with third-party developers to increase the number of products in this category. A few mouse-based programs will require modification to operate correctly on new or upgraded IIc's.

To use the Apple IIc Memory Expansion Card, you need an Apple IIc personal computer with model number A2S4100. Older IIc systems can be upgraded with the Apple IIc Upgrade Kit to accept the card. The card must be configured and installed by an Authorized Apple Dealer.

Owners of current Apple IIc systems also can take advantage of this enhancement through the Apple IIc Memory Expansion Kit. The kit contains a new logic board and the Apple IIc Memory Expansion Card, and is priced so that current IIc owners pay the same price for additional memory as buyers of the enhanced IIc.

### SCSI Hard Disk Supports Apple II and Macintosh Plus

A new high-speed storage system for the Apple II Plus, IIe, Apple IIGS or Macintosh Plus also was introduced by Apple. The Apple Hard Disk 20SC incorporates the Small Computer Systems Interface (SCSI) standard, which transfers information between peripherals and the computer faster than traditional disk interfaces. It provides 20 megabytes of formatted capacity on two Winchester hard disks--about 25 times the capacity of Apple's highest capacity floppy disk drive.

On the Macintosh Plus, the Hard Disk 20SC plugs directly into the SCSI port. The drive also has a "daisy-chain" port, allowing the user to connect up to seven additional SCSI devices such as other drives or a backup device.

### Apple II SCSI Interface Card

The Apple II SCSI Interface Card is required to give the Apple II Plus, IIe, and IIGS personal computers compatibility with high-performance peripherals that use the Small Computer System Interface (SCSI) standard.

- High-performance parallel data

transfer, six times faster than serial disk-drive port.

- Access to all peripherals that use the industry-standard SCSI interface, such as the Apple Hard Disk 20SC.
- Ability to daisy-chain up to four SCSI peripherals (ProDOS 1.2 controlled) with one SCSI Interface Card.
- Software built into the card conforms with the ANSI SCSI protocols, insuring compatibility with a growing number of SCSI devices on the market.

### Apple Monochrome Monitor

The Apple Monochrome Monitor is a high-resolution black-and-white display for the Apple IIGS and Apple IIc. Designed for text-oriented applications, it displays up to 25 lines of 80-column text, as well as sharp monochrome graphics.

- A 12-inch (diagonal) anti-glare screen that lets users display data either white on black, or black on white. When used with Apple IIGS applications that generate color, it displays up to 16 shades of gray.
- Direct connection to the computer by plugging in the supplied video cable.
- Platinum finish that matches the Apple IIGS and Apple IIc; the monitor also fits on the Apple Monitor Stand.

### AppleColor Composite Monitor

The AppleColor Composite Monitor is a high resolution color display for the Apple IIGS and Apple IIc.

- A 13-inch composite color screen.
- 80-Column monochrome capability. The monitor automatically switches between color and monochrome display depending on the software. A switch on the front panel allows manual shifting between the two modes.
- Direct connection to the video jack.
- Platinum finish matches the Apple IIc and Apple IIGS.

Customer benefits include:

- The AppleColor Composite Monitor provides a solution for users who need both a color display and 80-column text capabilities.
- The AppleColor Composite Monitor furnishes cost effective color display and 80-column text capabilities.

### AppleColor RGB Monitor

The AppleColor RGB Monitor simultaneously displays high-resolution text and color graphics for the Apple IIGS.

- A 12-inch screen.
- High-resolution analog RGB color.
- Direct connection to the RGB port of the Apple IIGS; the connector cable is supplied and no adaptors or interface cards are necessary.
- Display of all 4,096 colors generated by the Apple IIGS; 256 colors can be displayed at one time.
- Crisp 80-column text as well as graphics, eliminating the need for separate monitors for your applications.
- Platinum finish that matches the Apple IIGS.

### Apple 3.5 Drive

The Apple 3.5 Drive adds 800K of data storage to the Apple IIGS personal computer. The Apple 3.5 Drive uses 3.5-inch, 800K, double sided disks.

- Over 5 times the storage capacity of the 5.25-inch drives.
- Compatibility with UniDisk 3.5 (for Apple IIe and IIc computers), and the Macintosh 800K External Drive.
- Daisy-chaining capability. An additional port on the back of the unit allows you to connect another Apple 3.5 Drive or Apple 5.25 Drive directly. Up to three extra drives can be daisy-chained for a total of 3.2 megabytes of external storage.
- In-use light that indicates when the drive is running. A disk eject button is also included.
- Direct connection to the Apple IIGS without an interface card.
- Platinum finish that matches the Apple IIGS.
- All Apple II software can be run on 3.5-inch media.
- Users can load programs and retrieve data faster.

### Apple 5.25 Drive

The Apple 5.25 Drive is a disk drive for the Apple IIGS, or Apple IIc personal computer. It uses standard 5.25-inch disks and provides up to 143K of on-line data storage.

- Daisy-chaining capability. An additional port on the back of the unit allows you to connect another Apple 5.25 Drive directly to the first one. You can also add a 3.5-inch Drive if you have an Apple IIGS, or a UniDisk 3.5 for an Apple IIc. Disk storage capacity can be maximized with up to four drives on an Apple IIGS, or three drives (including the built-in one) on an Apple IIc.
- An in-use light indicates when the drive is running.
- Direct connection to the drive port of the Apple IIc or IIGS.
- A security lock to help prevent theft.
- Platinum finish that matches the Apple IIc or IIGS.
- Compatibility with thousands of Apple II software applications that are available on 5.25-inch media.

### Apple Desktop Bus Mouse

The Apple Desktop Bus Mouse is designed for use with Apple IIe personal computers that have been modified with the Apple IIGS Upgrade. It also works with the Apple IIGS, and is included in the Apple IIGS box.

- Direct interaction with the on-screen cursor, offering fast and easy control of the computer.
- The mouse plugs into any ADB connector: either the one on the computer itself, or the spare connector on other ADB peripherals. The ADB Mouse does not have a second connector to attach another ADB accessory, so it must be at the end of the line.
- Works with all mouse-driven Apple II programs.
- Can be daisy-chained directly from any other ADB device, or from the ADB port on the computer.

The Apple Desktop Bus Mouse is scheduled for availability in January, 1987.

### Apple IIGS Upgrade

The Apple IIGS Upgrade gives the Apple IIe personal computer the advanced capabilities of the Apple IIGS.

- 256K of built-in RAM and extensive memory capability. The RAM is expandable up to 8 megabytes. By installing an Apple IIGS Memory Expansion card, the upgraded system

## New Peripherals (contd.)

- instantly adds as much as a megabyte of RAM. The basic card comes with 256K and can be increased in 256K increments.
- A 16-bit 65C816 processor that lets the Apple IIGS run more sophisticated applications, including those with Macintosh-style interface, as well as most existing Apple IIe and IIc software. With a clock speed of 2.8 instead of 1 megahertz, these programs will run up to 2.8 times faster on the IIGS.
  - RGB color-video capability is added to the IIe with the AppleColor RGB Monitor. All standard Apple IIe graphics modes are retained, in addition to two high-resolution graphics modes that offer a palette of 4,096 different colors.
  - A Memory Manager in ROM enables users to efficiently handle application memory usage. Also included are a built-in clock for time-stamping files, and QuickDraw II graphics routines.
  - The new disk-drive port gives users data-storage expandability. Up to our Apple 3.5, Apple 5.25, and UniDisk 3.5 drives can be daisy-chained from the connector.
  - AppleTalk Personal Network capability is added to the Apple IIe for easy access to the LaserWriter, ImageWriter II, and other AppleTalk Accessories.
  - Users have access to Apple Desktop Bus peripherals; protocol allows as many as 16 separate input device to be daisy-chained.
  - Up to 15 separate audio voices can be generated simultaneously for realistic music, speech, and sound effects. An external speaker or headphones can be connected.
  - Analog RGB port allows for quick connection to the AppleColor RGB Monitor; no adaptors or additional interface are required.

The Apple IIGS Upgrade is a dealer-installed option that involves replacing the logic board and metal base pan of the Apple IIe. The logic board contains the 65C816 microprocessor, RAM, ROM, Ensoniq sound chip, expansion slots, and connectors; the base pan holds the logic board securely in place inside the Apple IIe case. The Apple IIGS Upgrade will be available in early 1987. Users may wish to purchase the following accessories, which are also

scheduled for availability in early 1987.

## AppleWorks Version 2.0

AppleWorks Version 2.0 software combines word processing, data base management, and spreadsheet analysis applications in one productivity tool for the Apple IIe, IIc, and IIGS.

- A built-in mail-merge capability that allows users to produce customized form letters by combining a word-processing document with selected information from a data base. Users can create individualized heading and salutations and incorporate personalized information from the data base into the body of letters and reports.
- Ability to transfer information between documents of the same application, or from any application to the word processor. Information can also be transferred between spreadsheets and data bases using DIF files.
- 12 files of any type can be kept on the desktop simultaneously and accessed instantly.
- The AppleWorks Tutorial Disk, menu-driven desktop, consistent command structure, and help screen make the package easy to learn and use.

### Features of the word processing program include:

- On-screen display of page breaks, centering, and indented text as they occur in the printed document.
- Headers and footers.
- Simple cursor movement.
- It easily inserts, deletes, copies, searches and replaces, and moves text.
- It handles proportional spacing and produces special print features.

### Features of the data-base management program include:

- It tracks up to 30 categories of information per file and sort through them quickly.
- It brings in files from Quick File II.
- Group totals, subtotals, calculated categories, and compound record-selection rules.
- A built-in report format allowing users to produce printed tables or mailing labels from data-base files or specified subjects.

### Features of the Electronic Spreadsheet include:

- A spreadsheet of 999 rows by 127 columns.
- It reads VisiCalc(TM) files and to

transfer most existing models onto it.

- It sets variable column widths.
- Enhanced cell formatting, cell protection, and sorting by rows.
- An advanced numerics package for accuracy up to 15 digits.

AppleWorks 2.0 can be used on a 128K computer with one 5.25-inch disk drive, or it can be customized for those who want faster operations, larger file sizes, and RAM disk capabilities by adding high-capacity 3.5-inch drives, an Apple II Memory Expansion Card, and program selection software. Startup and program disks for both types of disk drives are included in the AppleWorks package. An upgrade program will be offered until April 30, 1987 for present AppleWorks owners. Upgrade mailers are available from Apple dealers, sales representatives and Apple Customer Relations. 

## Developers (contd.)

compatible with nearly all printers, plotters, modems and disk drives that worked with earlier Apple II computers, as well the majority of peripheral cards. Apple is providing all its authorized dealers a list of tested products and results so they may assist customers in choosing appropriate software and peripherals for the IIGS. 

## Editor Comments (contd.)

interesting to add their commentary and observations into the bowl with those of Apple. I hate to rely on "single source" information... it needs to be tempered with life in the real world.

As usual, its always easier to get out the printed word faster than the hardware. Apple says availability will be "after September 27th" at your friendly dealers, and of course you can go sign up on the waiting list right now. Do it early enough and you may own a "Woz Signature Model", which runs the same as other IIGS's, except I hear that the initial power-on check includes a synthesized Woz voice saying "Apple II forever!" instead of the more mundane "I'm OK!" (If you believe that, let me tell you about this great Florida property...)

Enjoy, all of you Apple II affectionados! This took a major shakeup of a big corporation to get you this far. Us Mac folks can't be far behind. See them go there? I must hurry and catch up with them, for I am their leader! 

# New Mac Stuff

New Prices/SCSI Disk/Pascal 2.1  
compiled by Dan Buchler from AppleLink

*The following are news releases from Apple (slightly edited)!*

## Apple Expands Macintosh Market With Lower Prices

**C**upertino, California. September 15, 1986. Apple Computer, Inc. today told its dealers it will expand the markets for its popular Macintosh personal computer family and LaserWriter printer by reducing the suggested retail prices on the product lines.

Effective today, the Macintosh Plus will carry a suggested retail price of \$2,199, the Macintosh 512K Enhanced will be priced at \$1,699 and the LaserWriter printer will be priced at \$4,999.

"Now is the time to broaden the markets for the Macintosh product line," said Delbert W. Yocam, Apple's chief operating officer. "New software from major developers and an increase in the usage of Macintoshes in business have made our products more attractive to more users. And higher sales volumes mean additional production efficiencies, allowing us to lower prices."

"Reducing prices now will allow Apple to increase its lead in desktop publishing sales -- both to established segments and to new, more price-sensitive segments. Lower prices also allows Apple to reach deeper into other market segments, especially business productivity applications," he said.

Lowering prices of the Macintosh family just before the holiday season also enables additional purchasers to consider Macintosh as a computer for business applications in the home, said Yocam. These potential buyers include a large number of people who already have Macintoshes in their workplaces.

The Macintosh Plus had previously been priced at \$2,599, the Macintosh 512K Enhanced at \$1,999 and the LaserWriter printer at \$5,999.

## Apple Hard Disk 20SC

The Apple Hard Disk 20SC provides 20 megabytes of storage for the Macintosh

Plus. The same drive works on the Apple IIGS, Apple II Plus, and Apple IIe in conjunction with the Apple II SCSI Card and cable.

The Apple Hard Disk 20SC features include:

- 20 megabytes
- A high performance SCSI parallel port. Up to six SCSI devices can be daisy-chained on a Macintosh; three SCSI devices can be daisy-chained on an Apple II Plus, IIe, and Apple IIGS using ProDOS 1.2.
- Both platinum and beige finish.
- The SCSI standard allows for the connection of multiple peripheral devices to one port, using the spare SCSI connector on each device.

Model nos are:

Apple Hard Disk 20SC (M2610)

Beige Case

Apple Hard Disk 20SC (M2620)

Platinum Case

Apple SCSI System Cable (M2556)

Apple II SCSI Card (A2B2087)

## Enhanced Version of Macintosh Pascal Released

Cupertino, California. August 21, 1986. Apple Computer, Inc. today announced an enhanced version of its interpreted programming language, Macintosh Pascal 2.1. A popular language for college students, Macintosh Pascal has been adopted by computer science departments on college campuses throughout the United States.

Macintosh Pascal version 2.1 features the same ease-of-use, instant feedback, interactive debugging tools and multiple windows as the previous Macintosh Pascal, as well as several new features that increase its power and performance. These include the ability to write programs as large as 2,000 lines, a run time shell for developing stand-alone applications, and the removal of copy protection, which allows users to make backup copies and install Macintosh Pascal on their hard disks.

Additional enhancements to Macintosh Pascal allow users to:

- observe and make changes to variables, expressions and graphics as the program runs, through the use of up to six windows. A user creating graphics, for example, can see the graphics actually develop as the program runs;
- automatically indent program statements and highlight key words for easier readability through a feature called pretty printing;
- dramatically reduce debugging and learning time by using the built-in error checker, which alerts users to programming mistakes and omissions as they occur;
- send output from Macintosh Pascal 2.1 to either text or printer files for use in another program or for hard-copy printouts.

As a complete software development and operating system, Macintosh Pascal 2.1 is popular among programmers. Because users have access to QuickDraw and Macintosh Toolbox, the graphics routines and development environment built into the Macintosh, they can employ Macintosh Pascal 2.1 to prototype and debug portions of larger programs. Macintosh Pascal 2.1 is language-compatible with Instant Pascal, Apple Computer's programming language for the Apple II family of computers, allowing most programs written in Macintosh Pascal to be entered and executed on the Apple II Plus, IIe or IIc while using Instant Pascal. Macintosh Pascal 2.1 runs on the Macintosh 128K, Macintosh 512K, Macintosh 512K Enhanced and the Macintosh Plus.

## Designed for Use in Education

Because it is interpreted, a feature that enables programs to run as soon as they are entered and edited, Macintosh Pascal has become a popular teaching and learning tool for schools. Students and teachers alike are able to examine, and make adjustments to their work on the spot. As a structured language, Macintosh Pascal teaches students to program modularly by avoiding complex

GOTO 22

**New Mac Stuff (Continued)**

code and instilling good programming habits.

"Pascal is the language that the College Entrance Examination Board (CEEB) chose for its advanced placement test in computer science," said Bud Colligan,

Apple's higher education marketing manager. "Hundreds of colleges and universities have standardized on Pascal in their beginning computer science courses; and Macintosh Pascal is the choice of many college faculty not only for beginning computer science courses, but also for teaching data structures, algorithms and computer graphics."

Since Macintosh Pascal 2.1 conforms to the American National Standards Institute Pascal standard, it can be used by high school students to prepare for both the CEEB test and for college programming classes.

**Upgrade Program**

Users can upgrade to Macintosh Pascal version 2.1 at no cost by taking their original 1.0 software and one blank disk to any authorized Apple dealer, who will copy the software onto the disk.

**Price and Availability**

Macintosh Pascal 2.1 is available now from authorized Apple dealers, and has a U.S. suggested retail price of \$125.



by Mark Richards

**M**acDOM #29 is a game disk. There's a couple of serious games, Adventure Writer and Core Wars. Adventure Writer allows you to diagram and plot your own text adventure in the manner of ZORK. All the ingredients are there including a sample adventure to show you how it is done. Try to come up with your own haunted castle or set up a teaching exercise for your kids. If any good adventures come from this send me a copy and it might wind up a future MacDOM.

For the past couple of years *Scientific American* Computer Recreations column has been reporting on a little computer game called Core War that takes place within your

computer's RAM memory. Two warriors start at opposite ends and when they meet the one that forces the other into an illegal instruction wins. Simple, no. It has caught on in some circles and there was a International tourney this August at the Computer Museum in Boston. Documentation and examples of warriors are included. For more information check out the May 1984 and July 1986 issues of *Scientific American*.

For those people who are linking up thier machines with AppleTalk we have Mazewars. Wander down corridors as a giant floating eyeball and zap the other guy. And if group activities are not your thing there's always Solitaire.

Rounding out the disk are some new DA's. Stars 1.3 is a very nice screen filler for when you are away from your desk. In some application and you need to check that letter you just wrote in MacWrite. Use the ReadMacWrite.DA to refer back. Still away from your desk and you don't want the kids to play with what you were working on? Use the LockOUT v1.0 to freeze things. Or just to time how long you have been working on that job there's Timer.

And to wrap it up TalkAlarm with documentation for all the MacinTalk folks. Also works without MacinTalk just doesn't say anything. DeskScene takes a MacPaint picture and puts it into the desktop. Instead of bricks have a picture of a Indy car going across the brickyard.



by Mark Richards

**N**ew fonts for old. 16 new fonts for you to play with. Also the new version of Font Librarian to help you keep track of them. The new fonts are:

Andover	Bolzano	
Brennero	Calendar	
Canterbury	Century	Cologne
Coventry	Creamy	
Humanistic	Koln	Metropolis
Park Avenue	Pittsburgh	
Scriptura	Beneventan	
Vivaldi		

The Calendar font is contained within the MacWrite document entitled Calendar Font. Instructions on how to retrieve it are given. Also a nice program is Font Changer. Say you have a paper that is set up in Geneva & Symbol fonts and you wish to change the Geneva to Helvetica for the LaserWriter. Open up Font Changer and instead of going through Macwrite and changing each section Font Changer will do the entire document for you.

**MacSIGs:**  
 Mini'app'les MacSIGs meet (usually) on the 2nd and 4th Monday of each month. See Calendar on front cover. Oct & Nov will be in the Edina Community Ctr. In Dec, we return to Southdale Library!

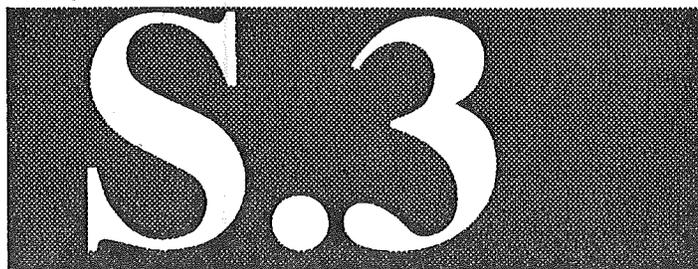
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# Switcher 5.0 Released!

Edited by Dan Buchler

**S**witcher 5.0 is now released! The following is a compilation of two technical bulletins from Apple Technical Communications.

The version of Switcher 5.0 contains System 3.2 and Finder 5.3, new Applesystem software that increase the performance and reliability of the Macintosh. However, these additions require more memory than previous versions of Switcher giving you less room to work with some applications. Specifically:

- 1) Many applications that once worked in a 128K slot in the previous Switcher may now require more memory to work dependably. This is especially true if you are using a LaserWriter or a LaserWriter Plus printer as described in more detail, item 4, below.
- 2) Most applications will require more memory if you're working with large documents or if you're using the Attach Document command to load large documents.
- 3) If you have problems with applications installed in a 128K slot in Switcher try using the "Configure Then Install" command to assign more memory to the application. The Switcher manual explains how to do this.
- 4) Switcher: Memory configurations for LaserWriter printing. Serious problems can occur when printing to the LaserWriter from a Macintosh under Switcher when insufficient memory is allocated for the program. The problem occurs because Switcher often allocates too little memory for printing to the LaserWriter, no matter how big or small the application or the document to be printed.

If there is reason to suspect that there is not enough memory allocated for the application to support printing to the LaserWriter, then the workaround is to save your documents before printing and then print them without the Switcher program.

The resource SIZE -1 contains the value of the preferred amount of memory that Switcher automatically allocates when it installs an application. SIZE -1 also includes the minimum amount of memory and whether or not to save the screen.

Switcher looks for the SIZE -1 resource to get these parameters. If there is no SIZE -1 resource, then Switcher automatically allocates a preferred and minimum memory of 128K. However, 128K is not enough for printing to the Laserwriter. For this reason, we would caution against using the LaserWriter under Switcher unless you check the preferred and minimum memory allocations against the table below by performing the following steps:

1. Choose the "Configure then Install" item from the menu under Switcher
2. Click on the name of the application and Click on Open.
3. Compare the displayed values against the values in the table. The values in the table are for installing the application in Switcher. You may have to use more memory for printing with the LaserWriter from a particular application in Switcher.
4. To create or modify these values in SIZE -1, change the values appropriately and then Click on the Permanent button.

Application	Preferred Memory Size	Takes advantage of more memory?
Finder 4.1 <i>(Use 128K on Macintosh XL.)</i>	106K	Yes
Helix	512K	Yes
Jazz	512K	Yes
MacDraft	256K	Yes
MacDraw	128K and up	Yes
<i>(Do not use more than 80% of total memory.)</i>		
MacPaint	179K	No
MacWrite	144K and up	No
MacProject	128K	Unknown
AppleLink	200K	Unknown
Microsoft		
Chart	192K	No
Excel	304K	Yes
File	288K	Yes
Multiplan	160K	No
Word	160K	No
OverVUE	128K	Yes
PageMaker	256K	Yes
Paint Cutter	244K	Yes

In general, if you have problems with an application in Switcher, experiment by giving more memory to the application.

Even with these specifications we would also advise caution about pushing a program's defaults, such as its limitations in working on a large document.



**Board Approved Budget for Aug 1, 1986 thru July 31, 1987**

Income	Budget
New Members Dues	6700
Renewal Dues	8500
Advertising	5400
DOM Sales	3850
open	0
Mac DOM's	6700
Interest	840
	-----
	31990

President	Budget
Postage...ETC.	90
Liability Ins.	800
Membership IAC	100
P.O.Box Rental	53
Board Dinner	0
Stationery...ETC.	100
open	0
	-----
	1143

Vice President	Budget
Postage...ETC.	240
Meetings Sites	1700
Intereppter	360
Shows & Conventions	300
open	0
	-----
	2600

Treasurer	Budget
Postage...ETC.	100
Bank Charges	50
Auditing, Tax Prepar	500
Federal Taxes	0
Tax Interest	0
Tax Penalty	0
Sales Tax	600
open	0
	-----
	1250

Secretary	Budget
Postage...ETC.	50
open	0
	-----
	50

Communications, Membership	Budget
Newsletter Product./Dist.	15000
Newsletter Editor...misc.	720
Membership Processing	1000
Printer Maintenance	240
Advertising Expense	100
Transfer to Capital	1500
AppLink	480
open	0
	-----
	19040

Software Director	Budget
DOM Production	1620
Acquisition of DOM	600
Director Expenses	250
Mac DOM Production	2400
MSD Production	0
open	0
	-----
	4870

Technical Director	Budget
Director Expenses	0
Cables misc Hardware	0
Maintenance Contract	0
Equipment Insurance	100
Bulletin Board	300
New Equipment	50
open	0
	-----
	450

Technical SIG	Budget
Mac Rental...misc.	1300
Apple III	0
Director Expenses	50
open	0
	-----
	1350

Applications SIG	Budget
Appleworks SIG	50
Investment SIG	0
Director Expenses	50
Education SIG	60
open	0
	-----
	160

Branch Director	Budget
Director Expenses	50
New DOMs	300
Misc for Branches	150
open	0
	-----
	500

	Budget
Total Income	31990
Total Expenses	31413
	-----
Profit/-Loss	577

**Income Statement**
**Minnesota Apple Computer  
Users Group, Inc.**
**For The Fiscal Year Ended July 31,  
1986**
*by Tom Alexander, retiring Treasurer*

<b>Income:</b>	
New Member Dues	\$7,308
Renewal Dues	9,045
Advertising	6,677
MSD Sales	4,465
DOM Sales	30
MacDOM Sales	7,512
Interest Income	916
	-----
<b>Total Income \$</b>	<b>35,953</b>

<b>Expenses:</b>	
General and Administrative	\$1,602
General Meetings and Shows	2,959
Financial	1,504
Communications and Membership	22,308
Software Production and Sales	5,889
Hardware Support and Resources	1,282
Technical SIGs	278
Applications SIGs	51
Branches	337
	-----
<b>Total Expenses</b>	<b>\$ 36,210</b>

<b>Net Loss</b>	<b>\$ (257)</b>
-----------------	-----------------

**July 31, 1986**

<b>Assets:</b>	
Cash in Bank	\$ 17,377
	-----
<b>Total Assets</b>	<b>\$ 17,377</b>

<b>Liabilities - Note 1</b>	<b>-0-</b>
-----------------------------	------------

<b>Net Worth:</b>	
Retained Earnings	\$ 14,934
Laser Printer Fund	2,700
Net Loss	-257
	-----

<b>Total Equity</b>	<b>\$ 17,377</b>
---------------------	------------------

<b>Total Liabilities And Net Worth</b>	<b>\$ 17,377</b>
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Note 1 - At this date Mini'app'les has applied to the Internal Revenue Service for a tax exempt status retroactive to January 6, 1982. A reply should be coming in the near future. Because a liability for Federal and State taxes together with interest and penalties and tax preparation fees may exist, it is felt that a figure not to exceed \$8,000 should be recognized as a contingent liability for these eventualities.

# Classified Advertisements

## Get DOMs on your own disks!

Mini'app'les Members can order the DOMS listed below (not Mini'app'les Software or MacDOMS) using their own disks. To assure delivery you must follow this procedure:

- 1) Select the disk(s) you want from the list below and label your blank disks (some prefer to use both sides).
- 2) Insert disks in a returnable mailer. The same protective device will be used to return your disks.
- 3) Enclose return postage, stamps only, obviously the same as the sending postage.
- 4) Enclose a self addressed return address label.
- 5) Enclose a \$1.00 copying fee for each DOM requested.
- 6) Send to:  
C. Thiesfeld  
8416 Xerxes Avenue S.  
Bloomington, MN 55431
- 7) Allow 60 days for delivery in USA. Incomplete packages will not be returned.

**Currently available DOMs:**  
(address general questions about DOMs to the Software Director, Steve George).  
Mini'app'les DOMs #1 thru #34  
Mini'app'les DOMs #35 thru #40  
IAC DOMs #28,#35,#38

- IAC DOMs #40 thru #44
- IAC DOMs #46,#48a,#48b
- IAC DOMs #51 thru #57
- Personal Domain Disks
- LOGO Documentation
- LOGO Toolkit
- LOGO Sample Programs
- One-key DOS
- Disk Manager
- "Nifty Works"
- ELF ABC
- SPARKEE(fire organ album)
- Class Records
- Hi-Res Doodle
- Others**
- Math Invaders
- The Font Machine
- Master Chart
- EVE(terminal Program)
- Squire
- Print Shop Utility
- EAMON
- E3 Eamon Submaster
- E4 Cave of the Mind
- E5 Zyphur Riverventure
- E6 Castle of Doom
- UCSD PASCAL
- P1: PASEX1:
- P2: DARYL1:
- P3: PROSE:
- P4: COMPUTE:
- P5: ATTACH:
- P6: PUG1:
- P7: PMU:
- P8: PROSTXT:
- "F83X" Forth
- "U" Utility
- "K" Kernel

Apple "ProtoTyping Board" with GI Music Synthesizer chip. Play with Music, or strip easily for reuse.  
Make Offer!  
Dan 890-5051

Approximately 100 used 5 1/4" disks with whatever software is on them. Most lack centering ring, but they all worked last time they were in an Apple. Make offer!  
Dan 890-5051

RGB, 80 col., 64K card (slot 0), \$150.  
Also Apple 80 col. card, \$40  
Dave 645-1085(eves)

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Eric 822-8528

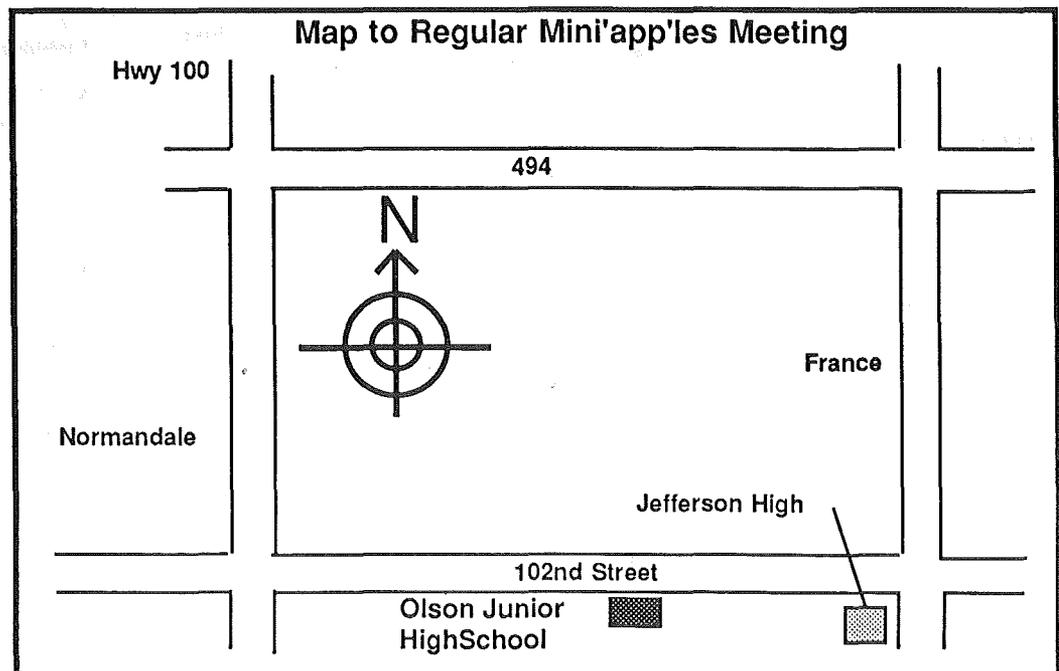
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These ads are provided free to members for non-commercial use, and are limited to 10 lines. Commercial ads will be charged at 20 cents/word for members or 40 cents/word for non-members. Contact the Advertising coordinator. **DEADLINE** for ads is the second Friday of the month preceding the month of publication. Ads will be repeated on request only. Also, please notify editor if item is sold. Unless otherwise noted, all items are For Sale

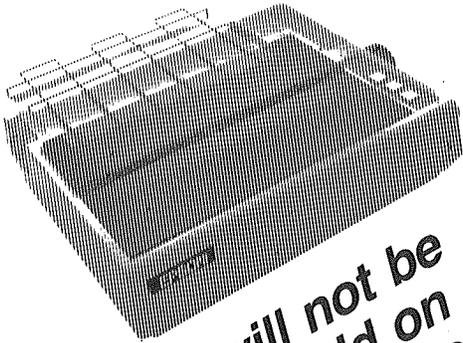
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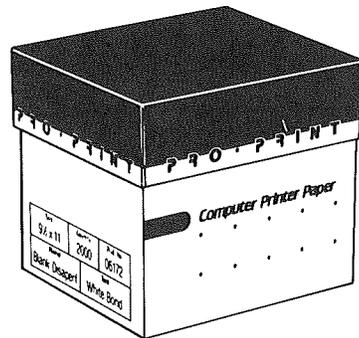
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