MEMBERSHIP REPORT DECEMBER 1989

NEW MEMBERS	4
RENEWALS	14
NOT RENEWING	12
TOTAL FINANCIAL	289
Comprising:	
Mac's	160
][‘s	135
No system	3

R.Hibberd
Membership Secretary

THUNDERSCAN FOR APPLE IIs

The Hardware Loans member (Logan Brill) now holds a ThunderScan for use by the Apple II owners.

What is Thunderscan? It turns your ImageWriter printer into a high-resolution scanner. It works with anything that you can roll through the printer: drawings, illustrations, logos, maps, photographs, handwriting, etc.

The scan can be saved to disk and edited with a painting program such as Dazzle Draw, Mouse Paint, Paintworks Plus, or Deluxe-Paint II or put into an AppleWorks document.

The hardware required, in addition to the ThunderScan package, is an:-

Apple //e (with a super serial card), or
Apple IIc, or
Apple IIc Plus, or
Apple IIGS, or
Laser 128 or 128EX, and
ImageWriter I, II or
Wide-carriage ImageWriter printer.

- Les Humphrey

CD ROM DRIVE

You will be interested to know that your Committee has decided to purchase a CD-ROM drive for the Macintosh public domain/shareware library. We expect delivery of the drive from Apple within the next couple of weeks. We have also ordered the BMUG CD-ROM disk which should also be delivered within the next couple of weeks. We will then have the best collection of public domain/shareware software (including Hypercard) in the world instantly available. This will overcome the problems that that some members know we have recently experienced with regard to delivery of floppy disks ordered from BMUG. Through no fault of BMUG, these disks have been delivered by surface instead of air mail, although the correct air mail postage had been paid and the containers were explicitly stamped "Air Mail".

Brian Murphy

HYPERCARD SPECIAL INTEREST GROUP

Peter Thomas, a Systems Engineer with Apple Computer at Deakin, is keen to re-convene the monthly Tuesday night. meetings of the Hypercard Special Interest Group. Last year, Peter very generously gave up a good deal of his spare and valuable time to support this Group and we are very appreciative of his offer to continue. The first meeting for 1990 will be held at Apple Computer, 31 Thesiger Court, Deakin, commencing at 1930 hours on Tuesday 13 February.

Brian Murphy

The BMUG Disk Catalog

We have recently ordered "The BMUG Disk Catalog". Four years in the making, this catalog is "your complete guide to the most completely tested, virus free, certified Macintosh compatible, publicly distributable library in the world. Listing the contents of over 250 double-sided disks." This catalog will complement the BMUG CD-ROM disk recently ordered and will replace the abridged catalog we have been distributing on floppy disk. Apparently this catalog gives details of all software listed, including what the software does, disk space required, which versions of the Macintosh andSystem/ Finder it is not compatible with etc., etc..

Brian Murphy

MONSTER SYSTEMS

Stephen M. Wall

I have read with much interest the recent correspondence about slow and/or unsuccessful Hard Drive startups because a colleague has had the same experience. For background info his system is a MAC II with internal HD40 and 2 Mb of RAM, and running System 6.0.2. The problem he described began with slow startups, sometimes failing to bootup ever, finally progressing to the point that the system never started up at all. During the long startups his monitor displayed the "Flashing Question Mark inside a Disk" icon, indicating that the computer wanted a System disk to start from. Today I finally got curious and so I booted his system from a floppy disk and went poking around his HD40. Lo and behold, I found that his copy of the file SYSTEM had grown to 8.5Mb. I then scanned his HD40 with my copy of Disinfectant 1.2, but it didn't find any viruses. Writing over this System with the original floppy disk version corrected his problem. Knowing his usage of the MAC (mostly for short word-processing jobs, presentation preparation, and to jot down small notes to himself using a "Rolodex" application), it's inconceivable to me that he could have built up the System file to this extreme by innocent, naive usage. I then did some more checking around, and found another MAC II with a System file 1.8Mb in size. Again, the usage, amount of Fonts, DAs, CDEVs, etc, don't account for the size of the file (this user lives, eats, and breathes spreadsheets). I have installed Gatekeeper on my MAC, and am thereby familiar with the fact that some programs do some very strange manipulation of the Resource forks of other files, but have never heard of any nonviral application that is capable of building up System to this extent.
Can anyone suggest a possible cause?

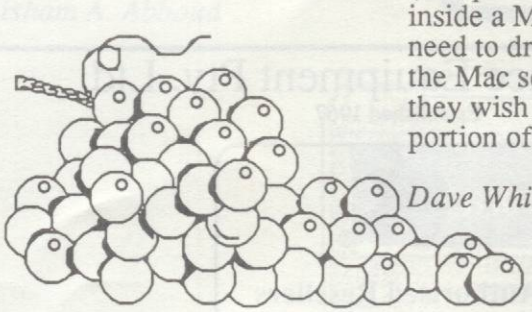
nVIR AN INFECTION QUESTION

Craig Garnett

We've had an attack of the nVIR A virus here. Apparently the Apple dealer who installed the software on the Macs we sold our students infected the master hard disk, and all of these machines had the virus in a single application.

The question is: Will running around to all these machines with something like Disinfectant and eradicating the virus with it cure the problem? So far, I've cleaned nearly 80 machines, and not a one has shown an infection in any files except this one we know about. But, everything I've read about these viruses says that they infect the system file, as well.

Anyone know anything about this? I'd be most appreciative of advice.



DROP THE APPLE II LINE ?

I think that apple should kill the whole apple II line. Instead they should implement II in a mac or some such standard on every machine. That way they could still support the environment without wasting alot of development. Some say they still have a place in the high school - but the truth is they are loosing popularity. The way to continue them is to slowly integrate the macs into the schools as apple II clones and a whole lot more. Just a thought

D. Murry

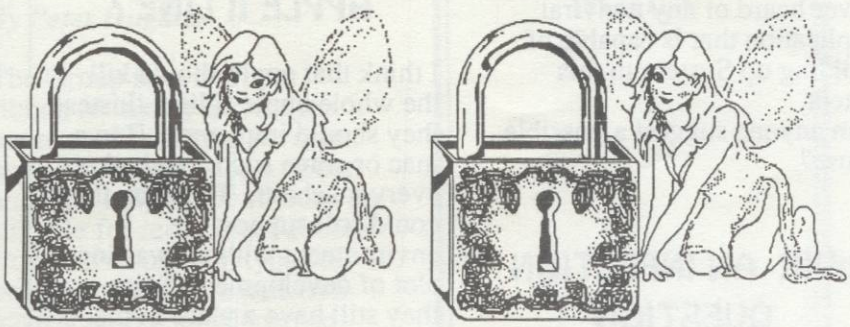
I disagree. For starters, putting the // in the mac would require some pretty fancy acrobatics as the // has all sorts of quirks that the original design had.

Secondly, the // is not losing popularity. The //GS just underwent a motherboard revision, and the OS has been upgraded to version 3.0. These two items are making the //GS more useful than was originally thought. When first delivered, the OS was too sluggish. A friend of mine said, "oh, it's just like a Mac, only slower."

What we have now is a computer that can do what most schools need for a very affordable price. If Apple is going to kill the // (and perhaps let it survive inside a Mac), it's going to need to drop the price of the Mac something fierce, lest they wish to lose a giant portion of their market.

Dave Whitney

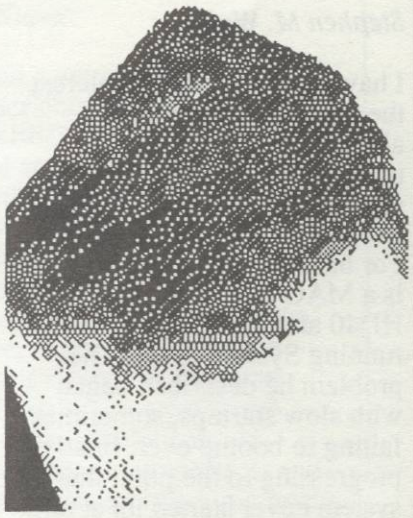
SPOT THE DIFFERENCES



See how many differences you can find in the two pictures above. There should be 8 in all !

Answers to December issue:

1. Overhead Projector head higher
2. Slide dot coloured in
3. Roll of film smaller
4. Air vent missing
5. Wheel missing on film projector
6. Logo on Over-head projector upside down
7. Switch switched
8. Top missing on slide projector



IDENTIFY THIS

The picture above is something you all use every day! See if you can guess what it is!

Answer to last time:
A Pair of sneakers!

RESTORE FROM BACKUP

This is an occasional column which looks into newsletters of the past. This time we look at the Special discounts available to the club in February 82, 8 years ago, when the club was only 10 months old and had 30 members !

At that time 5¼ inch disks were selling at an $30 a box of ten. (See if you'd waited till now, you could get them at a third the price!) Also, epson MX-80 printers were on special for only $1080 with graphics capability !
Also , available for purchase was "Phil's cheap Editor" a word processor for only $95 which could handle documents up to 5200 words in length! It supported upper and lower case text, insertion mode editing, movement and deletion functions, and it even supported a printer !

Supercalc was selling for $295 and was available on 8" single density or 5¼ Apple CP/M format. It had been designed for maximum power. Error messages actually showed you where the error occurred, not just that it had occurred. Reports could be produced from the same program, and the program had full editing capabilities.

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A SERIOUS ADDICTION

Reprinted from Apple-Bug
September 1989

The house is all ripped up. Doors are removed from kitchen cabinets, exposing all the dishes, cereal boxes, spices and roaches. Repainting is in progress.
Meanwhile, a major assault upon three plumbing leaks fixed two of them and revealed a fourth. The downstairs bathroom has a hole in the ceiling to let the water from the upstairs bathroom drip into a pan on the floor. Under the kitchen sink is a large bucket to keep that area from becoming the Dismal Swamp. The water heater lives on with the help of another bucket and the sprinkler system erupted from the ground in a final spasm before it died.
In the driveway is a five-year-old blue lemon that runs poorly and costs a minimum of $400 a month in repairs. The new car costs half of that in repayments. The oldest car of all, now embarked on its second decade, doesn't cost anything to maintain because it was built before electronics took over everything.
This domestic chaos is but a nuisance compared to the resources and time spent in the care and feeding of my Apple IIGS computer. It needs regular feedings of new software and every time it is moved something inevitably will need repairs. The purchase of a computer usually involves a frantic search for a use for the thing before Wife finds out how much it cost. After Wife finds out, the search for useful things to do with it gets even more frantic. Unfortunately, there is a profusion of useful things to do with a computer, which will result in at least one or two things requiring all your time. Before you had the computer, life went on with a primitive serenity allowing leisure to spend time with the family, read books or sleep. Perhaps a brief summary of the last two years of my life will compel the computing neophyte to take up something productive like surfing or truffle farming. This will be written in the third person to protect the identity of the survivors who are now under a federal witness protection program. The new buyer of a computer is an innocent soon trapped by a need for peripherals. A $50 joystick and a half dozen $75 games are needed to keep children quiet for a couple of days. A $900 RGB monitor is a big improvement of the $400 composite colour monitor originally purchased.
When a $9 ribbon fades out, it requires the purchase of $185 worth of ribbon re-inking equipment. In order to recoup the investment, offers a ribbon re-inking service bring in hordes of customers with four-colour ribbons that look like they spent last year in a cement mixer. To earn the $4 fee for re-inking involves two to three hours of intense cursing. The operator ends up with ink up to his armpits and all over the walls, floor, ceiling, table and chairs of the dining room. The next morning Wife moves out. You can tell which direction she went because the soles of her shoes were inked.
Floppy disks to store all the data start creeping and seeping out of the work area like science fictions Green Blob. Pretty soon the disks are like cockroaches; they are found in bathrooms, in the radish patch and inside the washing machine. More memory is necessary to run some of the larger software packages so a one megabyte board with battery backup is purchased for $1200. A hard disk becomes a necessity, but since you found a good sale the price is only $1400.
A nine-pin ImageWriter II makes nice printouts, but to be really professional and worthy of your efforts an ImageWriter LQ is purchased for $1400. But since there is no printer driver for the new printer, a LaserWriter NTX is needed. These usually can be purchased for little more than $6000. More Postscript fonts will be needed, but that's only an extra $500 or so.
Ever more powerful software will be needed and software manufacturers are working all their little programming geeks on overtime to satisfy ever-unsatisfied customers. The rush to get new software out the door results in software more buggy than the roach colony living in your garden tree. A few thousand dollars of shopping by the Golden Gose for the Holy Grail of software fails to locate the Seven Cities of Gold for anybody except a few dozen software manufacturers. Big software applications bog down a computer, so an accelerator card or chip will be needed for a mere $200. The power supply has long since grown inadequate to your ravenous demands and turned into a charred clinker. A new one is purchased for $180. A $40 fire extinguisher is installed next to the computer to prevent the next software/hardware crash from taking the house and two cars in the garage along with it. Membership in a number of electronic bulletin boards will make your telephone bills look like the tab to clean up the Stringfellow Acid Pits.
When the final divorced papers come through, more time and financial resources can be devoted to the computer, especially if you stop eating to eliminate the food bill. The electronic octopus creeps around the corner and takes over the unused kitchen. The

kids went with the ex-spouse and changed their last names. They all have unlisted telephone numbers. Letters mailed to them are returned with a "refused" notation. Before long the letters will come back "Moved, left no forwarding address". Now that all those cluttersome people have been cleared out of the house you can connect all the lights and burglar alarms to the computer. You can control your VCR, which operated the TV set, from your space-age flight deck. The computer-controlled radar dish for your ack-ack gun helps you snipe trans-Pacific jetliners from the sky without wasting ammunition. Street gangs stop shooting at your house because the computer controlled tank mines buried under the street have become too dangerous. Tank mines have a way of screwing up a low rider. The machine gun nest out front seems to be especially spooky to the neighbors, but they stopped complaining after the gatling gun sprayed their house when the joystick button got stuck.
The friendly neighborhood drug dealer stops his daily deliveries of addictive psychedelics. You don't need them anymore. You have found an addiction even more powerful; A $22,000 Apple IIGS.

IS APPLE RIPPING YOU OFF ?

by William Chang

Article found in Newsdisk by IIGS Users' Association

reprinted from AUSOM October 1989

I have had my IIGS for almost a year now - a very satisfying year - during which I have had no cause for complaint. But with the closing of this first year came the arrival of Apple's "AppleCare" folder with a covering letter advising that my computer would soon be out of warranty and that I would be advised to join AppleCare's "Comprehensive Low cost Insurance Program".

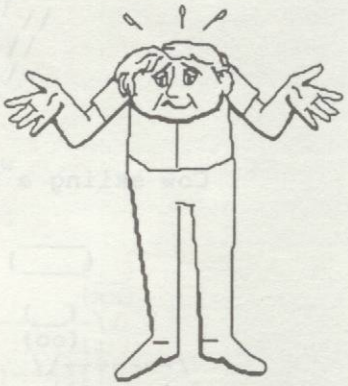
Further reading yielded the fact that this "low cost" insurance was going to cost me $402 for 12 months coverage. My first reaction was "it cost me less to insure my car!"

This led me to do a little investigating. The purchase price of my IIGS complete with two disk drives, monitor and an ImageWriter II printer was approximately $4600. The market value of my car when I last paid my insurance was approximately $6000. It cost me $192 to insure my car. Less than half of the cost of AppleCare insurance.

Now according to the same letter mentioned above - "Apple hardware is extremely reliable. Breakdowns are few and far between", and it seems very unlikely that within twelve months these pieces of hardware are going to suffer failure to the tune of more than $402. I know another IIGS owner who has had his Apple since 1987 and it has never needed maintenance (except for the ROM upgrade) and my trusty Apple //e (circa 1986) is still going strong.

My car is out on the road every day. The risk of damage would have to be far greater. If involved in an accident the cost of repairs would certainly be high. And what about the damage I could do with a car to others' property? Yet I can insure it at half the cost of insurance for repairs to my computer.

All I can say is that AppleCare is a pretty expensive way of protecting your computer from failure. It'll be more likely that someone will break in and steal it rather than it breaking down and my Home Contents insurance premium is still less than $400! I don't know about those of you who are safety-conscious, but I'm going to take the risk and go without AppleCare .



APPLEWORKS 3.0 QUESTIONS AND ANSWERS

Many users call Claris Technical support with questions about the new version of AppleWorks, the most significant upgrade to the program since its introduction seven years ago. This article answers some of the most common questions about AppleWorks 3.0.

Has the new version of AppleWorks caught you off-guard? Perhaps your printer no longer works like it used to, or a feature that you used often has changed.

Q. I use a mouse with my old copy of AppleWorks to choose commands from menus and navigate in the spreadsheet. Why did Claris remove this feature from AppleWorks 3.0?

A. AppleWorks has never supported a mouse. Many programs which customizedAppleWorks features were available for earlier versions of the program. If a friend or your dealer configured AppleWorks for you, your copy may have been "enhanced" with extra features like time and date display, screen savers, customized error bells, cosmetic changes to the AppleWorks screen, and macros.

Since you could use a mouse with the older version of AppleWorks, you most likely had a "macro" enhancement installed. Your copy of AppleWorks has been modified if you have a file called "ULTRA.SYSTEM" or "SUPER.SYSTEM" on your disk. If you wish to use the mouse (or other enhancements) with AppleWorks 3.0, you will need to install new versions of the add-on software. UltraMacros 3.0 is compatible with the new AppleWorks, and adds mouse capability. A 50% discount coupon for Ultra Macros is included with the 3.0 upgrade. The special offer for TimeOut UltraMacros expires at the end of the year.

Q. Is AppleWorks 3.0 compatible with my accelerator card? My cursor flashes much more slowly in AppleWorks 3.0 than it did in 2.1.

A. Your accelerator card is still functioning and speeding up AppleWorks operations. In older versions of AppleWorks, using an accelerator card (or using AppleWorks on an Apple IIgs) caused the cursor to blink very quickly. In fact, some of the newer chips made the cursor flash so fast it was hard to find on the screen. In AppleWorks 3.0, the cursor is programmed to flash at the same rate whether you have an accelerator card or not. Other parts of AppleWorks have also been changed to accommodate accelerator boards. For example, when AppleWorks performs a sort, it no longer lists the time it will take to complete the task. Instead, a "progress bar" shows you the rate at which the task is being completed.

Q. I have a No-Slot clock, which worked fine with version 2.1, but no longer seems to work with AppleWorks 3.0. Does version 3.0 support clocks?

A. AppleWorks supports ProDOS-compatible clocks. For example, if you use AppleWorks 3.0 with an Apple IIgs, you do not need to enter the date or time when you start AppleWorks. Also, your files will be "stamped" with the time of their modification.

The No-Slot clock is not normally ProDOS compatible. You make it compatible by modifying ProDOS with a special "patch." The ProDOS shipped with AppleWorks 3.0 does not include this modification. If you have an older (patched) version of ProDOS, you can copy it from your AppleWorks 2.1 disk to the ProDOS disk supplied with AppleWorks 3.0. Your clock should then work properly.

Q. I have a large data base created in AppleWorks 2.1 on two 5.25-inch disks. When I try to open this file in AppleWorks 3.0, I get an error message and I can't open the file.

A. If you have extra memory in your computer, you can create files that are too large to fit on standard 5.25-inch disks. You need to save the file to a larger disk: either a 3.5-inch disk, which holds 800K; or a hard disk, which will hold at least 5 MB (about 5,120K), depending on the hard drive. For earlier versions of AppleWorks, memory board manufacturers offered a utility that allowed users to take advantage of all the memory in their computer, without purchasing additional disk drives. These utilities modified AppleWorks to "segment" files to two or more disks when saving large files. If you have segmented files that you wish to use with AppleWorks 3.0, you have the following options:

* Wait for the memory card manufacturer to release a compatible version of the utility. Applied Engineering and Checkmate have promised new versions of their utilities that will be compatible with AppleWorks 3.0.

* Purchase a 3.5-inch disk drive or hard disk. To open large files in AppleWorks 3.0, open the files from a disk copy using AppleWorks 2.1. Copy the files

to a 3.5-inch disk drive or hard disk. You will then be able to open the files from the 3.5-inch disk drive or hard disk with AppleWorks 3.0.

* Segment the file into chunks that can fit on a single disk, then combine the files in memory. Use AppleWorks 2.1 to open the large file and then manually segment it across two or more disks. Open the file with AppleWorks 3.0 and then combine the files in memory.

A final note because of its additional features, AppleWorks 3.0 uses 16K more memory than older versions. If you had files that were near the limit of the Desktop, you may not be able to open them in AppleWorks 3.0. If you have files you are unable to open, you will have to make the files smaller or purchase additional memory, if you want to take full advantage of the new version.

Q. I installed my Epson printer using the AppleWorks Printer Information setup menu. When I try to print, garbled text and extra characters appear on the printout. The AppleWorks codes are different than the codes in my printer manual, so I changed the codes to match the printer manual. The printer still doesn't work properly, even when I add it as a custom printer. What am I doing wrong?

A. You installed your printer correctly. Unfortunately, there is a problem associated with removing printers from the printer list that was discovered after Claris shipped AppleWorks 3.0. The problem is not limited to Epson or ImageWriter printers. For the most reliable printer setup, do not remove the ImageWriter from the printer list. Recopy the AppleWorks program disk and add the Epson printer to the printer list. Your printer should work properly.

Q. I added a header to an AppleWorks word processor document using different tab settings than those used in the body text. When I print out the document, the first page prints properly, but subsequent pages use the header tab settings for the body text. What's happening?

A. The header resets the current tab settings whenever it prints. For example, you might set up a header with only one tab stop, a center tab, for the page number. The body of your text might use a more complex tab settings for columns and indented paragraphs. The tab settings for the body text will be in effect until the header prints on the second page. When the header prints on the second page, the tab settings reset to the header tab settings. The header tab settings remain in effect for the rest of the printout. If you want to have two separate rulers for your body and header, insert the ruler for body text before the Page Header End command.

Q. I like the ability to have multiple-line headers and footers, so I added a 15-line footer to my document. When I print the document, it prints past the perforation on my paper! How can I correct this?

A. Printing can become erratic if there are more than nine lines in a header or a footer. Unfortunately, there is no solution to this problem other than using fewer lines in your headers and footers.

Q. I have a Brother printer that I use with AppleWorks 3.0. Although, I set the "Needs line feed after each return" option in the "Add a Printer" menu to "No," and the interface card setting is correct I still get double-spaced output. How can I correct this problem so it will print single-space output?

A. Some Brother printers interpret the return character at the end of the printer code as a printer command, others do not. If you get double- or triple-spacing from your printer, re-enter the code for 10 characters per inch without the return character. You should now be able to print single-space output. If that workaround fails, remove the codes for 10 characters per inch and 6 lines per inch altogether.

Q. My Panasonic printer puts a zero at the beginning of every line. How can I eliminate the zeros from my output?

A. The AppleWorks print driver uses codes for characters per inch that do not work well with some models of Panasonic printers. The solution is to use the following codes, taken from the "PRINTER CODES" database on the sample files disk:

10 cpi Escape P Control-A

12 cpi Escape P Control-@

Refer to pages A-9 through A-12 of the AppleWorks Reference manual for instructions on entering the codes.

Q. I defined a "Color IW" and used the new special codes area to set up commands for color output on my ImageWriter II. Then I added a "Foreign IW" which had special codes for foreign language output. When I went back to use the driver for color output, I discovered that my special codes for color had been replaced with special codes for those for foreign language. Am I limited to only one set of special codes?

A. In AppleWorks 3.0, you can define up to six special printer control codes per printer. You would expect that each of the three possible printers would have unique sets of special codes, and they can except that the labels for those codes remain the same for all printers. The codes themselves are unaffected. For example, special code #1 for the Color IW is different than Special Code #1 for the Foreign IW, even though both codes might be labeled "Print Spanish." This is an inherent limitation in the program.

Q. I used the 10 cpi code for my Star printer listed in the "PRINTER CODES" database supplied with AppleWorks 3.0. When I print, "ES" appears at the beginning of every line of my document. Are the codes listed in the database incorrect?

A. You're probably entering the code as it appears in the Multiple Record Layout. In that view, the columns are too narrow to display the entire code. If you entered part of the code, it probably won't work properly. To view the entire code, press Open Apple-Z for Single-Record Layout. You'll discover that the complete code for 10 cpi on a Star printer is as follows:

Escape B Control-A Escape W Control-@

You entered "Escape B Control-A ES," which would cause the "ES" to appear at the beginning of every line.

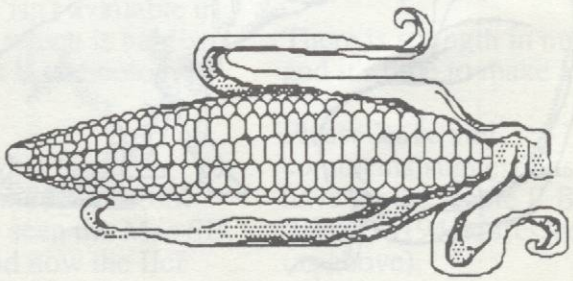
Q. I prepared a report in the Data Base module and specified that I needed three copies. The first copy printed out fine, but other two copies printed out with only the header and the first record of the report. How can I resolve this problem?

A. There are a couple of alternatives. You can print the report to the Clipboard and then move the file from the Clipboard into the Word Processor module. You can then print the report from the Word Processor.

You can also press Open Apple-C to copy the database records you want to print. Open a new spreadsheet document and press Apple-C again to copy the database records from the Clipboard to the Spreadsheet. The Word Processor and Spreadsheet modules will print multiple copies properly.

Q. I tried to use the FastCopy program included with AppleWorks 3.0 to copy AppleWorks. However, when I insert my original disk, the computer beeps and I get the message "This disk must be write-protected!" As far as I can tell, the disk is write-protected. What should I do now?

A. FastCopy requires you to write-protect your source disks (the disk you're copying information from.) If you have problems copying your disk, try the following techniques:



* Use nonreflective opaque tape to cover the notch. Some disk drives (including later model Apple drives) use optical sensors to see if a write-protect notch is covered or not, and it will not recognize disks with transparent or shiny tape as being write-protected.

* Use thicker, sturdier tape. Some drives use a mechanical button that is not fully activated when thin tape is used.

* Make sure the tape wraps around both sides of the disk. If you only lay the tape sideways, across the surface of the disk, the detector mechanism may not work properly.

* Try a different copy utility, such as Copy II+, or the programs included on the ProDOS Users Disk that came with your computer.

Q. I like to use the option "Omit line when all entries on line are blank" in the Data Base to make my mailing labels more attractive. But when I print three-across labels, sometimes AppleWorks omits the line, and sometimes it doesn't. It works fine with one-across labels. How do I correct this problem?

A. AppleWorks will only omit the line if all entries on the line are blank. If other labels in the same row have information on that line, the lines will not be omitted. To minimize the problem, sort your database by the categories which most often have blank entries. Those records will move to the top, and there will be a greater possibility of having a blank line in all three labels of a row. AppleWorks always omits empty lines when you print one-across labels.

Q. The manual says that I can now use parenthesis in

calculated fields. However, when I try the example in the manual, all I get is a series of pound signs ("########") in my report. Is there something wrong with my disk?

A. Your disk is fine. The manual incorrectly states that AppleWorks 3.0 follows algebraic rules for evaluating calculated database fields, and allows parenthesis in those fields. Actually, calculated fields behave exactly as they did in AppleWorks 2.1. You should arrange the formula so that it does not use parenthesis.

Q. In my original copy of AppleWorks, Open Apple-Tab moved the cursor to the previous tab stop. Open Apple-Tab in AppleWorks 3.0 moves the cursor forward to the next tab stop. The quick reference card says Open Apple-Tab moves the cursor to the previous tab stop. Which is correct?

A. The quick-reference card is in error. In AppleWorks 3.0, when you press the Tab key (without holding down an Apple key), a formatting caret is inserted into your document, and the cursor as well as any text after the cursor moves to the next tab stop.Some users of earlier versions of AppleWorks may not want to use tabs this way, so Open Apple-

Tab was changed to behave as regular Tab did in earlier versions of AppleWorks. Although you can no longer use Open Apple-Tab to move to the previous tab stop, Open Apple-Left Arrow provides a similar function: it moves the cursor to the previous word.

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APPLEWORKS 3.0 PATCHES

The previous article contains a list of the most common faults found (so far) with version 3.0 of AppleWorks and how to manually overcome them. To save you some of the hassle we have now available from your friendly Apple][Public Domain Librarian (Alan Poulter) a 5.25" disk called AW 3.0 Patcher. This has eight (8) patches of which four are problems in the article.

- Les Humphrey

HYPERSTUDIO UPDATE

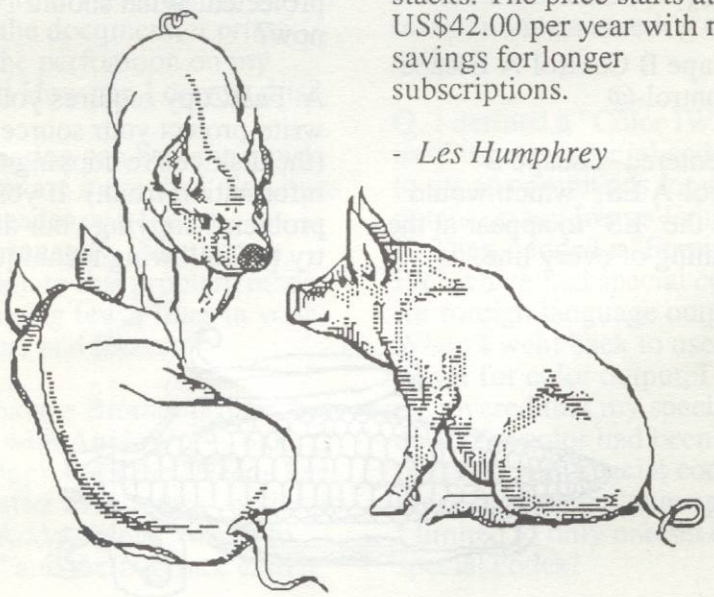
Since the review on HyperStudio, published August 1989, there have been further developments.

The problem of being unable to record sounds with the microphone and digitizing board was a production problem with some of the boards packaged at that time. The manufacturer, Roger Wagner, is happily replacing any which are found.

Version 2.0 is now on offer and it is complete with all features working. Anyone who purchased earlier versions should have received by now, if they sent in the registration card, the updated software. The new version in the U.S.A. does not include the speaker, an optional extra, and the price has been increased by US$20.00.

A stack-based publication for the Apple II has been launched and is called Stack-Central. It will be issued on 3.5" disks six times a year. The contents include the developments on hypermedia, authoring tips, clip art and sounds, and samples of public domain and shareware stacks. The price starts at US$42.00 per year with minor savings for longer subscriptions.

- Les Humphrey



APPLE II USERS PROTEST TO APPLE

Stephen Davidson

Courtesy AUSOM November 1989

The following is applicable to ALL Apple II Users, although it will have an Apple IIGS emphasis since I'm biased.

For the last 4 years our Apple II's have been working steadily at work, home and play, going about our business with little or no recognition nor backup from Apple Computer. The Third Party Companies have been consistently producing excellent and innovative hardware and software to help increase our productivity using our favourite machines. Excellent products like Publish It!, Zip Chip, the Timeout series, Ramfactor memory cards, Transwarp //e and Transwarp GS, Chinook 20/40c hard drives, modems etc., continue to further enhance our favourite machine.

The Apple IIGS brought with it a promise of better graphics, sound, faster, more memory and untold improvements over the older II's.

But what have Apple Computer done to improve the Apple II's in 4 years? Very little! A ROM and a minor (claytons) motherboard upgrade for the IIGS (which Apple doesn't have an upgrade policy for), an operating system update for the IIGS which was three years late and the 4MHz Apple //c+ release which isn't available in Australia and which is hardly improving the II technology anyway.

Meanwhile, what has been happening in the Macintosh world? We've seen the Mac SE, II, IIx, IIcx and now the IIci and portable. In other words, Apple has been redirecting the $1 billion a year Apple II income into developing the Mac while barely doing a thing for the Apple II line!!

Apple II owners have been quietly complaining amongst themselves about Apple's continued lack of support and downright snubbing of the Apple II line for long enough.

Its time to stand up and make ourselves heard!!!!

It's time we let Apple know how thoroughly dissatisfied we are at being ignored, unsupported and the lack of commitment to the Apple II's. I am sick to death of hearing that Apple are going to discontinue the Apple II's, or software companies saying they are not going to develop software since Apple does not support them either. Even though our Apple's are capable of much, much more, Apple is not promoting them.

At the next AUSOM meeting I hope to have a protest letter available for all Apple II Users to sign to express their disappointment of the lack of support of Apple II's by Apple Computer. I then will be sending these protest signatures to Frank Revell of Apple Computer Australia suggesting that these be available to John Scully at the Apple shareholders meeting in January 1989. Please support this as it may well get Apple to stop giving "Lip service" and might actually do something to demonstrate support.

There is strength in numbers and it's time to make a stand.

Please leave any comments/suggestions you have on the Apple II BBS (03)5874194 addressed to me (as above).

PS. A short note to Mac owners. This should concern you also. What will happen to the Mac when (not if) Apple brings out a new type of computer. Macs going the way of Apple II's??

The Apple II series has been about for over 10 years, it can't live forever! You don't expect to see any Apple II's about in 100 years time! They must retire some time, and maybe that time is approaching! If you are not happy with the current capabilities of your machine, sell it to someone who will be! If you had a car for ten years, would you still expect manufacturers to be producing that same car today? No, you would sell it, and buy an up to date model! Well computers are the same! If you were happy with the computer when you bought it (and you should have been, or else you shouldn't have bought it!) then why are you not happy with it now? Have your needs increased? Well then it's time to move on!

I owned a Apple //e for 4 years, and was very happy with it. I then sold it, and bought a Mac. I then sold the Mac and bought a better Mac. OK so it's cost me maybe $8000 over 8 years, but that is only $1000 a year. I pay more than that just to run my car! And considering the use I have had out of it, I feel more than satisfied. I fully realised when I first bought my computer that technology was advancing rapidly. I realised that support for the computer would one day end. Look at the IBM world, things are exactly the same! I think Apple has done a grand job of supporting the Apple II series as long as it has. I'm also sure the Apple II will still be around for quite some time, make the most of it, and don't grumble!

Happy Apple user

renewals. What do we do? "Sack the committee" I hear. No that will only solve part of the problem. The answer is a little participation from the membership.

You have an eager committee, but there is only so much that can be done without direction, after which navel gazing becomes the order of the day. Give the committee some information in the form of your interests and preferably a newsletter article from time to time. You will feel better, the committee will be over the moon and the group will benefit enormously.

APPLE UPGRADES

Brian Mattick

A recent issue of Incider magazine listed ten chips and boards that Apple in the USA will replace free. I'm not sure what Apple's policy is in Australia but if a problem arises with your computer then you may get the opportunity to find out.

Apple 3.5 Drive - phantom access. A problem with diasychained 3.5 and 5.25 inch drives. Symptom is a drive that, without warning, turns on and keeps spinning until you press Control-Reset. The problem is the diasychain interface board in the 3.5 Drive and you need a Revision B board. Drives with serial numbers preceding Y7A0058; all drives with a 6 as the second digit; all drives with a 7 as the second digit and 1 through 9 as the third digit; all have a Revision A board.

Apple Profile - To use your Profile hard disk under GS/OS may require a new ROM on the interface card. The part number is 341-0299, Revision B.

Apple Duodisk Drive - A faulty component inside the drive can wreck some copy protected software. Analog boards with part number 676-X101 or 676-X102 require two capacitors to be clipped off.

Apple II SCSI Card - To use the AppleCD SC CD-ROM drive or any SCSI hard disk under GS/OS you require the Revision C EPROM. The 28 pin chip label, on the SCSI card, should read 341-0437A.

Apple //e Logic Board - The upgrade to a Revision B board is free but to add MouseText and a 65C02 chip costs.

Apple IIc Terminal Mode - Some software that enables terminal mode may cause garbage on the screen. A new ROM labelled Revision B is required.

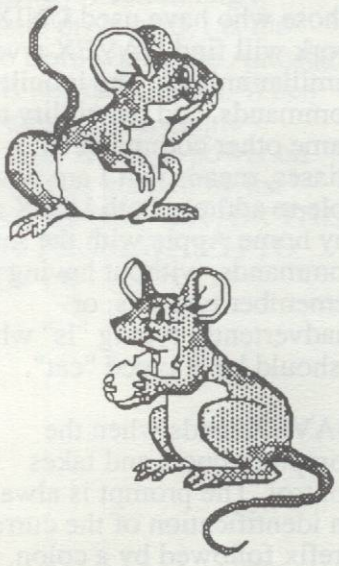
Apple IIc Serial Port - A timing problem with the serial port may cause communication problems. Non Apple modems frequently demonstrate this problem. A new logic board is required. If you have a black 74LS161 integrated circuit at location UC7 on the logic board you need an upgrade. A silver chip at this location indicates you have the upgrade.

Apple IIGS Memory Expansion Card - Some boards manufactured at the end of 1987 and the beginning of 1988 had DRAM's with the wrong refresh cycle. One symptom is that memory intensive applications crash into the system monitor then display an error message. The chips must be 'CAS before RAS' and some chips at locations UA1 through UA8 may not do this. The faulty chips are identified by one of two codes stamped on the chip. 'UK' beneath the 'NEC' name or 'Japan beneath the 'NEC' name with the letter 'P' as the first letter of the date code.

Apple II 256K Memory Expansion Kits - Some of these also had the same problem in that they aren't 'CAS before RAS'. The faulty chip has a letter 'A' on its lower left corner. If you have third party chips check that they are 'CAS before RAS'.

GS Video Graphics Controller - Early GS's have VGC's that gave annoying fringing effects. If the first three numeric characters of the serial number are 703 or lower you need a new VGC.

Apple IIGS ROM - There are two ways to tell if you need a new ROM. If the words 'ROM Version 01' don't appear on your screen at boot or the first three numeric characters of the serial number are lower than 724 you should upgrade.



DAVEX ON THE //e

by Richard Jordan

Courtesy AUSOM October 1989

A Review of the Shareware program DAVEX v1.23

DAVEX is a command shell for ProDOS, which takes over, simplifies and greatly expands the standard Basic.system commands. Though DAVEX has been available for some time in the GS Disk Library, I did not discover it until I obtained a Unidisk drive for my //e. In fact, all of the parts of the program which can be used on the //e can easily fit on one side of a 5.25 disk and thus could be used by any Apple II owner (including those with a II+ or //c).

DAVEX is beyond a doubt the most sophisticated Shareware program I have found in the AUSOM libraries. (The shareware fee is $US 25). It is a very complete operating shell, and for those of us who prefer manipulating words rather than mice it turns the Apple II into an even friendlier machine than it already is.

Those who have used UNIX at work will find DAVEX a very familiar animal. The inbuilt commands, and the ability to name other command by aliases, means that I am now able to address both UNIX and my home Apple with the same commands, without having to remember two sets, or inadvertently typing "ls" when I should have typed "cat".

DAVEX loads when the computer boots and takes control. The prompt is always an identification of the current prefix followed by a colon, e.g. "/disk.1 :", so there is no possible question about what drive or disk is in use at any time. DAVEX responds to simple verbal commands, which can be multiplied with aliases, thus "catalog", "cat", "ls", and "dir" can all get the same results. Syntax is generally much simpler than in basic. Prefixes can be changed and identified by simply typing a full stop and the drive and slot number; thus typing ".62" in DAVEX produces the same thing as typing "PREFIX,S6,D2: PREF" in basic. In addition, this number can be substituted for the first part of the ProDOS pathname in any other command.

In addition to supplying simpler versions of most of the basic commands, DAVEX adds a large number of new commands, both "built in" (part of the operating system) and "external" (sending commands to other programs).

Existing basic commands, as well as DAVEX's own commands, are enhanced in DAVEX by means of flags and wildcards. Flags are arguments consisting of a dash plus a letter, which can follow a command. Thus the command "cat -t" catalogs not only the active directory but also the full "tree" of subdirectories below it. Wildcards allow you to substitute a single character (either = or ?) for part of a file name. Use of the "?" wildcard causes the program to ask you whether you want to go ahead with the command for each of the files that match the pattern.

Internal commands

The internal or built-in commands allow you to do many things that in the past have required the use of separate programs. With simple one word commands DAVEX will:

1. Change the type or auxiliary type of any file
2. Show what is online
3. Copy files or whole trees of files
4. Type files to the screen or to another file or a printer
5. Display text or AppleWorks WP files to the screen, one screen at a time
6. Give detailed information about directories and files
7. Spool files for later printing
8. Eject a 3.5 disk
9. Print the date and time
10. Convert numbers between hex and decimal
11. Save the contents of /RAM to a disk and then restore it.

and much more.

External commands

The external commands are equally sophisticated. One can quickly:

1. Find out how much space is being used on all disks
2. Search disks for files
3. Search files for particular strings
4. Set printer options
5. Create a brief alias for any SYS file
6. Tell Basic.system what file to run on bootup
7. Dump any file in hex or ascii or both
8. Dump the screen to the printer (except on a II+)

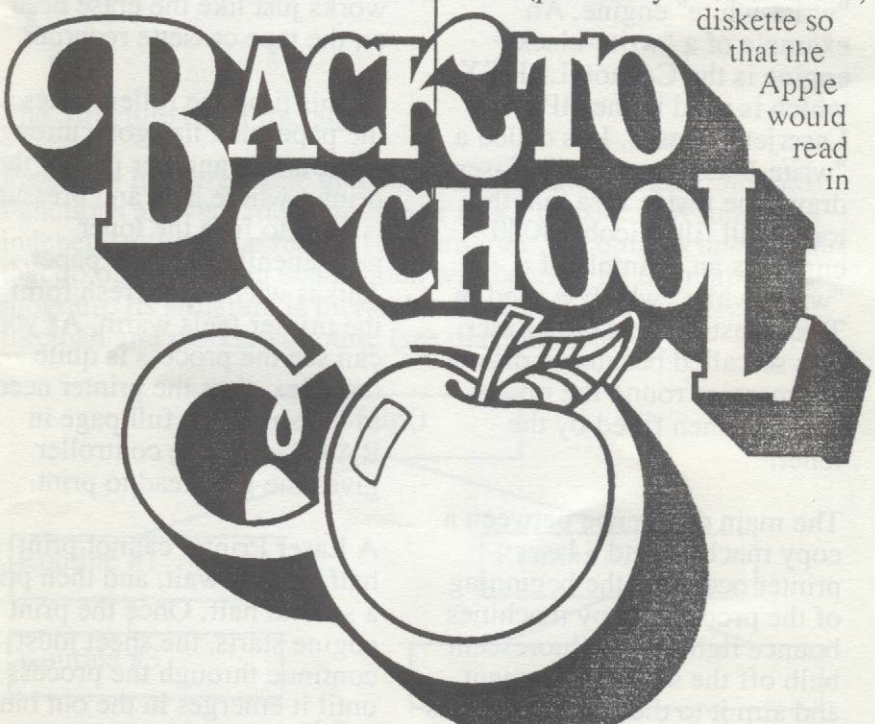
and yet more.

The permutations and combinations are endless, and the internal and external aliases mean that you will not have to remember long pathnames for your everyday applications anymore. Want Appleworks? Create a SYS alias called "aw", and you will not need to remember more than those two letters to run Aplworks.system or Ultra.system. When you exit from an external program such as Appleworks, DAVEX will reboot itself, ready to go again.

I have found few bugs. One

cannot program directly in DAVEX, but DAVEX will list an existing basic program into a text file for editing and will "exec" text files containing DAVEX commands. While DAVEX will brun machine-language programs, many of these require basic.system to be present and will crash or have bugs if run directly. For frequently used programs, however, it is easy enough to create a SYS alias that will run basic.system first, then the binary program. The "fp" command runs an early version or the public domain program "freeprinter"; but even after discovering how to customize it for A4 paper, I didn't think it was of much use. Like many programs, DAVEX can be slow to load unless it is in /RAM, but it can be configured to automatically load itself there.

The above is, however, only a brief sketch of what DAVEX will do and it is rather amazing that a complete operating shell such as this should be offered so inexpensively as shareware. The program comes with extensive documentation and a detailed on-line help system.



BOOT SLOT CHOOSER

by Peter Maloney

Courtesy KAOS November 1989

Apple //e and IIGS owners are familiar with the dilemma of which size diskette drive gets to be first at power up. If you specify the 3.5 you'll find yourself waiting for the machine to time out on that drive when you want to boot from the 5.25 drive. If you set it up for the 5.25 it takes even longer to realise there is no diskette there and swap over to the 3.5.

Some months ago I submitted an article describing a way of choosing the slot from which the system was to be booted at power up. Quite useful if you had a diskette drive in slot seven but wanted for various reasons to boot from slot six, or if you had a hard disk in a lower numbered slot. Daisy-chaining on the IIGS gives even further scope.

The trick involved altering Sector 0 on Track 0 of a spare (preferably otherwise dud) diskette so that the Apple would read in the boot sector and then boot from another, preset slot. It was somewhat inflexible, however, as you would need a diskette for each slot from which you might want to boot.

Just to backstep slightly, the code at track 0 sector 0 is part of the bootstrap sequence that enables DOS to be loaded into the Apple. A small program in the ROM on the diskette card is used by the Apple to read in this code (56 bytes) and it is put at location $800. The dollar sign ($) indicates that the location's address is expressed in hexadecimal rather than decimal.

The last thing the program in the ROM does is hand over control of the Apple to the code it just loaded. The words code and program can be used interchangeably in most cases. Code is the fabric; program is the garment.

This month's modification allows you to select the boot slot. It still fits in the 256 bytes in Track 0 Sector 0 and will run automatically at power on. Just place the modified diskette in Drive 1 of the highest numbered slot (usually 6 but not always) containing a diskette drive card, i.e. the drive from which the Autostart ROM normally boots. When you either Open Apple - Control - Reset or power on you will be greeted by the inverse banner: "ENTER THE SLOT FROM WHICH TO BOOT"

The more complex the image the more RAM is used. This is why a 128K laser printer will not be able to print a complex graphics image. For those interested in Desktop Publishing, they will need in excess of 1.5MB of RAM to do their work comfortably.

AN INTRODUCTION TO C ON YOUR APPLE //c

by Robert Pascale

Courtesy of AUSOM November and December 1989

What You'll Need:

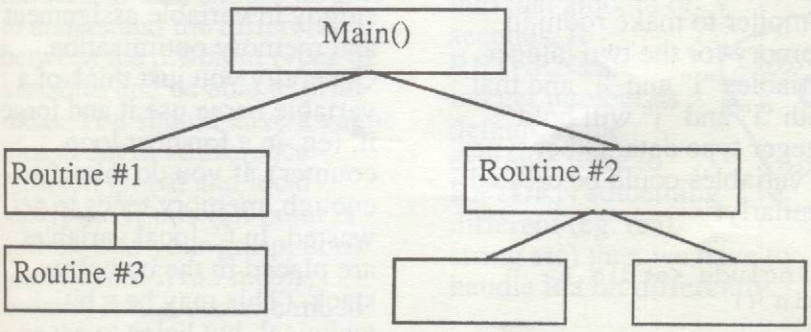
Your Apple //
A "C" compiler or interpreter
possibly a printer for reference listings

My personal choice for the compiler is Apprentice C, mainly because it is very cheap and will work on all Apple //'s. This text is not based entirely on Apprentice C, and so can be used on any other computer or any compiler. There may be some system dependant features, but you should have no major problems in conversion.

Getting to grips with a new language, and especially only from experience in Applesoft BASIC, is going to be difficult. The way of thinking in a C program, compared with BASIC's top-down approach, is much more structured. Learning C is a great experience and will give you much more than years of BASIC ever could.

The Structure of a Program

Programs in C are made up of several modules called functions. Functions are very much as area or block of code that functions independently of the rest of your program. It contains instructions that do only a certain task, which will be used by the main program. Its structure is hierarchical, much like a manager, foreman and worker structure (see diagram below).



It's equivalent in BASIC is similar to a GOSUB command. The difference being that functions in C act as complete new programs that in themselves have their own separate variables.

An example of a function

```
function_dummy()
{
/* this is where the
instructions go */
}
```

In C, every function has a name. This is how they are referenced. It is followed by parenthesis to signify that it is a function. In more advanced examples, these parenthesis will contain variables which are linked back to other functions. Code in functions are grouped so that they are executed in the order you specify. The first curly brace "{" indicates the start, and the second curly brace "}" indicates the end of the function. Braces can be nested (as you will see in future examples). The /* and */ are the begin and end of comment markers. The compiler will ignore anything between these and they cannot be nested.

Getting Started

In C, you must have at least one function. This special function is called main(). There is nothing like it in BASIC. Its purpose is to signal where your program is to start running. So even if the main() function is the last one in your program it will be executed first, and therefore implies that code that you don't jump to (like other functions) will not be executed unless specified. It will become apparent in more advanced programs where this becomes useful. The very simplest C program then is:

```
main()
```

```
{
}
```

In Apprentice C, from the shell type VED EXAMPLE.C where a"EXAMPLE" is a program name of your choice. There already exists a file called example.c so you should use something else. Refer to your manual for editing commands. The above example is a legal set of code and will compile and run, although it does absolutely nothing. The next simplest program (which is very original) is:

```
#include <stdio.h>
main()
{
printf("Hello World.\n");
}
```

The #include statement loads in a library of routines that tells the C compiler how to do things like print and get input from the user. The printf() function is the equivalent to a normal Applesoft print statement. The \n is a newline character which actually places a return at the end of your print. The following shows the BASIC equivalents:

BASIC
```
print "Hello"
print "Hello";
```

C:
```
printf ("Hello\n");
printf ("Hello");
```

Without the \n the newline (return linefeed) is suppressed.

The printf() statement is very powerful but can be confusing for Applesoft BASIC users. printf() stands for print-formatted; an example is:

```
#include <stdio.h>
main ()
{
printf("1+1 = %d\n",1+1);
}
```

The %d indicates you want to put a decimal number there that is in the parameter list at the end of the printf() statement. To give an insight into the differences look at the following BASIC and C code:

BASIC
```
PRINT
"1+1 = ";1+1;" and 2+2 =
";2+2
```

C:
```
printf
"1+1 = %d and 2+2 = %d/n",
1+1, 2+2);
```

Variables

Variables come in different shapes and sizes. In BASIC you are limited to Integer, Real (of floating) and String. The convention in BASIC is usually % for integer, $ for string and nothing for real numbers. In C, you don't use these type of conventions. You MUST declare each variable you use and what type it is. Its disadvantage is that you must sit down and look for all the variables that you have used and declare them before you compile otherwise you will get compiler errors. The following example shows how a simple addition may work with variables and its BASIC equivalent.

```
#include <stdio.h>
main ()

{
int i,j;
i = 1; 10 I% = 1
j = 2; 20 J% = 2
printf ("%d\n", i+j); 30
PRINT I%+J%
}
```

The int i,j statement tells the compiler to make room in memory for the two integer variables "i" and "j" and that both "i" and "j" will hold integer type data. Other types of variables could be created similarly:

```
# include <stdio.h>
main ()
{
int i;
char c;
float d;
i=1;
c='z';
d=1.23679;
printf("%d %c
%f\n",i,c,d);
}
```

Variable names vary in length from system to system, but you should feel safe in being significant to 6 character names at least. Strings in C are much more difficult to use by nature so I'll leave that until later.

There are several things that you should note about the previous example. The variables are declared within the curly braces and are therefore local to that function. The second things is that they are assigned values with the "=" operator. The type of the variable is important. If you try to assign a variable of type char to a variable of type float, then you will get a complaint from the compiler. There are several exceptions which we will use to our advantage in later stages of this series of articles.

Something we have not touched on but is extremely important, is that variables come in 2 different forms. Besides being different types (eg. int, float, char) they are also considered local and global. This is very difficult to come to grips with if you only use Applesoft BASIC, because in Applesoft all variables are global (and also created automatically). Both of these attributes of Applesoft make the BASIC programmer very sloppy in variable assignment and memory optimization. Generally you just think of a variable name use it and forget it. (eg. in a for-next loop counter). If you do this often enough, memory tends to get wasted. In C, local variables are placed in the computer stack. (This may be a bit technical, but helps to get an

idea of what I am talking about). As the function is executed and variables are put on the stack, memory is not sacrificed to as much of an extent because when the function is finished all the variables that were created by that function are pushed off the stack, thus leaving memory free. Local variables are only available to the function and not to the rest of the program.

Global variables A,B
Variables accessible

main() A,B

subroutine #1 A,B,1,2,3
variables 1,2,3

subroutine #2 A,B,1,2,3,4,5
variables 4,5

subroutine #3 A,B,1,2,3,4,5,6,7
variables 6,7

So far you've seen what a general format C program looks like, how to use the print statement, what variables are declared as and the types of variables there are. In the following section we deal with function calls and parameter passing (that's what the parenthesis were for), arithmetic operations, loops, decision making and some more indepth input/output processing.

You should now be able to understand the basics of creating a simple program, and be capable of printing stuff to the screen. You should be able to understand the difference between the different types of variables and be able to print them. You should have a vague idea about the difference between global and local variables. If this last point is still beyond your grasp, don't worry about it too much because it will become much clearer with functional; examples.

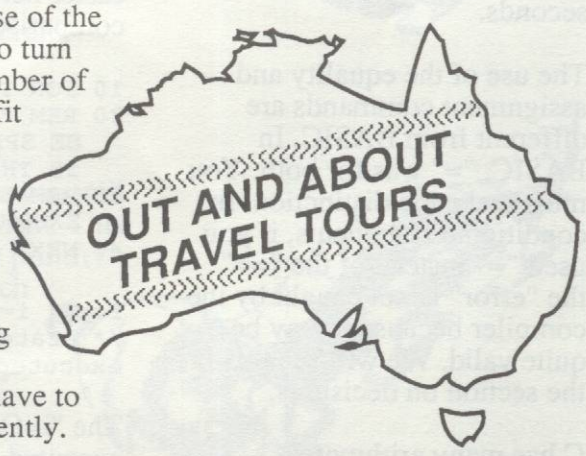
Calling Functions

Most programs that aren't trivial will need more than one function. An example of how we use functions will both provide you with an idea of variable usage (local vs global) also why functions are so much better than a top-down approach that BASIC provides. This function will introduce parameter passing and some simple arithmetic operators.

```
/* How many whole minutes
in "x" seconds
By Robert Pascale
(C)opyright 1989
*/
#include<stdio.h>
main()
{
int seconds,minutes;
seconds = 122;
minutes = tomin(seconds)
printf("%d seconds has %d
whole minutes in it.\n",
seconds,minutes);
}
tomin(sec)
int sec;
{
int min;
min = sec/60;
return (min);
}
```

The first few lines are just to illustrate the different ways the comment operators can be used. SECONDS is assigned normally, then the variable MINUTES is assigned what is RETURNed by the function tomin(). The purpose of the tomin() function is to turn seconds into the number of whole minutes will fit into that amount of seconds. It RETURNs an integer number as default. If the example were to RETURN something different (eg. real, string etc) then we have to handle it a bit differently.

The important thing to note is that when SECONDS is assigned 122, the compiler knows how to assign an integer number to an integer variable. But in the case of MINUTES, it doesn't know how to assign the expression, so it says to itself "Do I know how to tomin()?". It looks through the code and sees tomin() and then executes it, and with the result from that, it then assigns it to MINUTES. Specifically what happens to the tomin() function is that all the variables passed in the parameter list (the contents of the parenthesis) are copied to "dummy" variables. This is so the function can work on and generally abuse the variable without affecting the original variables (in this case the SECONDS variable doesn't actually get modified, but if it were, it wouldn't be affected in the main() function). The new variable (into which the value is copied) does not need the same name as the original variable. Now the variables sec and min are created which are local variables (is it starting to make sense now?). The statement return() tells the function to return the value in the brackets to the place which called it. After this is executed, main() regains control and completes the MINUTES assignment and then the printing. NOTE: You can "return" only one (1) value. If you want to return more than



that, it will be necessary to go into a much lower level discussion of coding.

Arithmetic Operators

The following is a table of some of the arithmetic operators which you will be able to map to your knowledge of BASIC.

C	BASIC	
+,-	+,-	add,subtract
*,/	*,/	multiply,divide
=	=	assignment
==	==	equality decisions
/,%	DIV,MOD	

DIV and MOD are not supported in Applesoft, but so as you understand the example, this is what they mean.

x DIV y = the number of times y will go into x as an integer.

eg. 100 DIV 11
11 x 9 = 99
so 100 DIV 11 = 9

x MOD y = the remainder part of the DIV command.

eg. 100 DIV 11
11 x 9 = 99
100-99 = 1
so 100 MOD 11 = 1

So in the example program, 122 DIV 60 = 2 so there are two whole minutes in 122 seconds.

The use of the equality and assignment commands are different from BASIC. In BASIC, "=" was for both. You must make the distinction. In conditional statements, if you used "=" instead of the "==" the "error" is not caught by the compiler because it may be quite valid. We will see this is the section on decisions.

C has many arithmetic operators, far too many to list for this introductory article, but one of the ones that is used do most often is the "++" operator. It is used like this: "i++;", which really means "i=i+1;". It sort of seems pretty useless but you will find it used a lot. Of course this type of command works with "--" too. (ie. i=i-1;).

Iteration (Loops)

In Applesoft BASIC there is only 1 type of structured loop: the FOR-NEXT loop. Essentially all loops are a sequence of commands which are repeated a certain number of times, and controlled by a condition which decides when the loop will or wont execute. In C there are 3 types of loop; the FOR, the WHILE and the DO..WHILE. The FOR loop is much like the Applesoft FOR loop. The structure is different though.

```
for (statement1 ;
condition ; statement2)

/* commands go here */
```

The statement1 and statement2 commands can in fact be anything at all but in general, statement1 is an initialization statement, and statement2 is an incrementation operation.

The FOR loop is essentially a subset of a generalized while statement. To make things easier here is a BASIC-C comparison.

```
10 FOR I = 1 TO 10 STEP 1
20 REM "STEP 1" NEED NOT
   BE SPECIFIED BECAUSE IT
   IS THE DEFAULT
30 REM STATEMENTS TO BE
   EXECUTED HERE
40 NEXT I

for ( i=0; I<=10; i++ )
/* statements to be
executed here */
```

The "i=0" will only be executed once. In the loop, if any test of "i<=10" fails then execution will stop.

The WHILE loop is the simplest loop in C: Its structure is:

```
while(condition)
{
/* statements */
}
```

Only if the condition is true will the loop be executed otherwise it continues on the next line of code following the last "}". The following example shows how a WHILE loop can act as a FOR loop.

```
while(I< 10)
{
/* statements */
I=I+1;}
```

This will perform the exact same function as the FOR example before, except the "1=0" initialization will not happen here. It would also be good to note at this stage that you should never assume that when you declare a variable that it will automatically be initialized to zero like in BASIC. Because the declaration of a variable points to a location in memory, there may be random garbage there. So a good idea is to initialize variables before you use them.

Back to loops. The last type of loop is the DO..WHILE loop. Its format is:

```
do
{
/* statements */
}
while(condition);
```

It is exactly the same as the normal WHILE loop except for one major thing. Because the condition is tested LAST, the statements are executed ONCE no matter what. In a normal WHITE loop, if the condition fails, the code is skipped completely. This attribute makes the DO..WHILE a very

interesting and useful command.

Decisions

Applesoft BASIC has only one decision making structure; the IF..THEN. In most BASIC's though, it is more structured and is IF..THEN..ELSE. In C, the structure is very much similar. Because C is a free form language (ie. is not dependant on line numbers and therefore doesn't need to signify the end of a statement with <RETURN>. That is what the ";" is for!). So in general:

```
if (condition)
{
/* then statements */
}
else
{
/* else statements */
}
```

If "condition" is true then the first set of statements are executed, otherwise the second set are. It is not necessary to have the ELSE part of the statement so:

```
if (condition)
{
/whatever you like /*
}
```

is perfectly legal and is used quite often.

The other C decision tool is the SWITCH statement. In structured BASIC's this is equivalent to the CASE statement. It is a time saving conditional tool where you are testing for several possibilities. The form is:

```
switch(variable)
{
case var type:
/* statements */
break;
case var_type:
/* statements */
break;
default:
/* statements */
}
```

Practical example is if you had 4 choices from a menu, labelled 1 through 4. Each option calls a different function that we have defined elsewhere.

```
scanf ("%d",&choice);
switch (choice)
{
case 1: function_1 ();
break;
case 2: function_2();
break;
case 3: function_3();
break;
case 4: function_4();
break;
default: printf("Error in
input\n");:
}
```

It may look trivial, but to do the same with IF statements (in BASIC or C) then this is what it would look like (in C):

```
scanf ("%d",&choice);
if (choice == 1)
function_1();
else
if (choice == 2)
function_2();
else
if (choice == 3)
function_3();
else
if (choice == 4 )
function_4();
else
printf("Error in
input\n");
```

So you can see where this statement is so great. The format is easier to read in a SWITCH statement, and is less complicated when you have to add options or make modifications in general.

Input processing

In the example above you will see the scanf() statement. This is the opposite of the printf() statement, and is much the same as the INPUT statement in BASIC. Its format is:

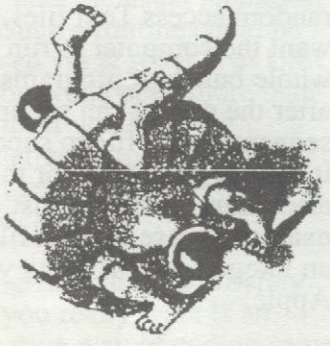
```
scanf
("arglist",&variables);
```

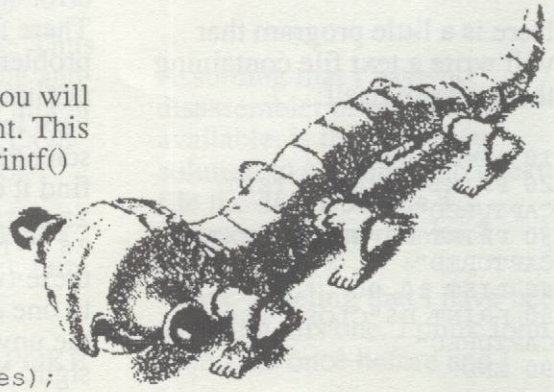
What scanf() is doing is converting what you type to the variable type you want. The contents of the quotation marks is what you are attempting to match. For example, if you want to read in an integer number followed by a floating point number into some appropriate variables this would be the following command:

```
scanf ("%d %f", &dec_num,
&float_num);
```

The reason the ampersand (&) is before these variables is because scanf() places its result in a memory location, so for us to tell scanf() where to put its result, we must point to the address of the variable. There is one exception to this (in the case of strings), but we'll discuss this at a later stage.

In the next instalment, well look at the printf() and scanf() functions a little more indepth, and talk about strings.





Q AND A

by Ken Ozanne

(This article was on a disk I inherited from Hans- I hope the information is still relevant) Ed.

What are text files?

Text files are files stored in ASCII character code, rather than the various other forms available on the Apple (Integer, Applesoft or Binary). This is really simpler, though it may not at first seem to be. There are two kinds, Random access and Sequential text files (see the DOS, Manual chapters 6 to 8 for more information). Sequential text files are the easier ones to use for beginners, so I will discuss them only from now

What are they used for?

Text files are used for all kinds of things - for example, most word processors store text as sequential Text files. It would be usual to store information for a data base system on random access Text files. If I want the computer to run a whole bunch of programs one after the other I can set up a sequential text file to supervise it all and go fishing for the afternoon. These are just examples - use of Text files is an integral part of using your Apple.

How are they created?

Here is a little program that will write a text file containing the program itself:

```
10 D$=CHR$(4)
20 PRINT D$"0PEN TEXT
CAPTURED"
30 PRINT D$"WRITE TEXT
CAPTURED"
40 LIST 10,90
50 PRINT D$"CLOSE TEXT
CAPTURED"
90 END
```

The D$, OPEN, WRITE and CLOSE keywords are the vital bits. D$ is used to indicate that a DOS command is coming up within a program. OPEN opens a file. WRITE prepares it for writing. CLOSE ends off and returns output to the screen. (Output goes to the file between WRITE and CLOSE.)

How are they accessed?

You OPEN the file as above and READ it instead of WRITEing to it. Don't forget to CLOSE it afterwards or the computer won't respond to the keyboard! There is a good text file reader on A.U.G. DISK 14 (it reads lower case sensibly even if you lack lower case chip). This is a good program to study for advanced Apple programming techniques, but don't expect to understand it all the first time through!

What is happening?

I ran the following program:

```
10 T=O
20 T=T+0.2
30 PRINT T
40 IF T<12 THEN 20
50 END
```

all went well until 6.2 but then it printed 6.39999999 and produced strange results up to 9.99999998.

This is a standard problem with all binary computers. The numbers are stored internally in binary form and .2 cannot be expressed exactly in binary form. Eventually the small error shows up in your printout. There are ways around such problems, though they are not negligible and may become very important in large scientific problems. You may find it enough to write:

```
25 T=INT(1O*T+0.5)
26 T=T/10
```

these two lines will round off T to one decimal place and keep the unwanted .9999999s out of sight. You can replace the 10 with 100 or 1000 for two or three decimals and so on up to about eight decimals (perhaps fewer) when you start running out of accuracy. (That too can be fixed but not so simply.) For more advanced users - the 6502 chip in the Apple has a BCD mode (it doesn't have to be binary) and exact decimal arithmetic is possible. But you must be able to program in machine/assembler code to take advantage of this.

FROM VARIOUS OVERSEAS MAGAZINES

Why is it that in some programs PR#1 is used to call the printer, yet in others CTRL-D, or CHR$(4) is needed.

PR#1 is a BASIC as well as DOS command. In a non-disk environment the command PR#1 would work perfectly well. However if you are using a disk the DOS command is needed. This is done by the statement;

```
PRINT CHR$(4);PR#1,
where CHR$(4) is CTRL-D.
```

All standard Apple input and output passes through two 'hooks' in the Monitor ROM firmware. These are two memory addresses in read/write memory (one for input, one for output) that tell the Apple where to go to output or input a character. Without DOS these addresses point to a keyboard reading routine and video screen printing routine in the Monitor ROM. When DOS is present it modifies the 'hooks' to point to routines inside DOS. Thus when you are printing stuff from a program, DOS looks at all the output and if it sees a carriage return followed by a CTRL-D, it tries to

interpret the following characters as a DOS command.

Executing a PR#1 from within a program directs all the output directly to slot #1 and by-passes DOS so that any DOS commands that follow will be ignored. However CHR$(4),"PR#1" signals DOS to pass the output character along to slot #1 instead of the video output after it is finished with it.

Fortunately DOS is fairly tenacious, and if disconnected by PR#1 will reconnect itself the next time it gains control when any input is requested by the program. However, if you disconnect both the input and output, DOS is 'lost' and to reconnect it you must execute a CALL 976 from Basic or 3D0G from the Monitor.

If a BASIC program contains machine code with it (via pokes, embedded code, LAM routine or what have you), I frequently wish to save the machine language separately. How do I do it?

First, let me apologize for whatever degree of garbling there is in the question - it was sent to Hans and transmitted by phone. There are a large number of ways of attaching machine code to an Applesoft program - I recall an article on this in a recent CALL A.P.P.L.E. which listed a dozen or so techniques. So my answer will have to be general.

You will have to do some detective work. In a LAM routine, you will have something like:
110 T$ = "A884: 4C 54 58"
Here the A884 is the address where the hex is to be loaded by the monitor and you could BSAVE NAME,A$A884,L$3
Actually, the more you know the more problems you can see and this particular titbit resides right inside DOS. In fact it represents a deliberate alteration to DOS and the article documents what is going on quite well. But it is still advisable to be suspicious and to keep a memory map. I chose that example to be short the same article has longer LAM routines to which the same points apply.

Other embedded machine language works similarly (I don't propose to multiply examples here). The only extra problem is if the machine code is POKEd either directly or via DATA statements. In that case you will need to translate the first address POKEd to into hex and also the length of the section POKEd. (Yes, I know you can do it in decimal, but I don't know anyone who can effectively think of the Apple memory space in decimal. And you do want to know what you have done when you finish.) Once you have the address and length you can BSAVE those locations to a file as before.

I would like to write an Applesoft line of the form:
100 GO TO A
where A has a value determined by some previous calculation.

To start with, something like this is easy in Integer BASIC and possibly you can simply go to Integer and do what you want there. If not, the problem arises because Applesoft stores the ASCII "name" of the number and not its value. Thus the GO TO "sees" a name and not a number. (I go into this in some more detail in my DOS notes, but I don't know of another source for this information.) I can think of a couple of ways around it, but not an easy one.

Simplest in theory is to POKE the value of A into the appropriate position in memory so that the GO TO will "see" what you want it to. It will have to be in ASCII digits. This can work (token lister programs usually work thus), but is liable to be almost impossible if you lack a detailed knowledge of Applesoft internals.

If you want to try, start with a very simple program just a few lines) and remember that Applesoft programs start at $800. You can use the monitor to try to work out your target and just keep poking the value of A to a new location until you get it right. (You will need to read in the program from disk again after each failure.) Once you have it, you can recognize the proper look of the target from the monitor and try again for a serious program. Don't expect this to work quickly. In fact, I checked this out and came up with a working program.

The other possibility is to write a machine language routine that will store this particular variable in the form you want rather than the usual Applesoft way. Such a routine could be accessed via &, CALL or USR. But you won't need more than this hint if you have the knowledge of machine language required for this approach.

Having said all that, possibly what you really want is an alternative way of coding some particular problem.

Assuming that I have no disassembler program available, is there an easy solution to outputting to a text file the data from the 'L' command in the monitor?

I have a feeling that I have been avoiding this one. I think John asked me once before and I

couldn't find anyone to palm it off onto and so conveniently forgot.

Before answering the question, let me point out to anyone to whom it is not obvious, that you should normally use a disassembler to do this. John is perfectly aware of that.

The short answer is that I don't know of an easy way. But it should be possible. Let's see now.....
To begin with, the monitor 'L' command simply disassembles 20 lines and displays the result on the first text page ($400-7FF).
We had better move them from there before the space is used again for something else. From the monitor, you could type:

2000<400.7FFM

I just tried that and it worked. To check it, I first typed F800L to display 20 lines disassembled (actually the first few lines of the monitor). Then I filled the screen with other garbage and typed:

400<2000.23FFM as expected, this brought back the original page of display. All I had done so far was to move a page of text up to a free area and confirm that I could get it back on the screen. (See the reference manual pages 44 to 46 and 56 for details of the monitor M(ove) command if it is not familiar.)

From that point, I could BSAVE DISASSEMBLED.STUFF,A$2000 ,L$400 and have a copy on disk. It is fairly easy to change a binary file to a text file in this case, since this binary file is virtually a sequential text file anyway. There is a program called "CONVERT APPLEWRITER TO TEXT" that will do this fairly well, though you will probably have to do a bit of editing to get it just so. (Sandy's word processor is good for the editing.) There will be some extra bytes to edit out also, as will become apparent.

A second method would be to use BIG MAC to read in the binary file and read it out again as a text file. But I suppose that is cheating, since if you have BIG MAC then you have a disassembler anyway.

A more direct route is to look at the program on disk with a DISK ZAP style program and change the file type character from 04 (or 84) to 00. See the DOS Manual pages 129 to 134- for further information if this is not clear. (Or see my DOS notes, or Beneath Apple DOS if you have either.) There are programs of this type available on Club disks, though there are better ones available commercially.

All DOS commands work from within the monitor, so you could also just produce a text file directly. This is not as easy as it sounds, which is why I didn't mention it first.In fact I will probably write an article on this subject one of these days. By whatever means, this gives you a text file containing the information. If you wanted more than one page, you could move successive text pages to successive memory areas ($2400-27FF, $2800-2CFF and so on) and BSAVE all of this in a single file. You would certainly find that you wanted to edit this a little.

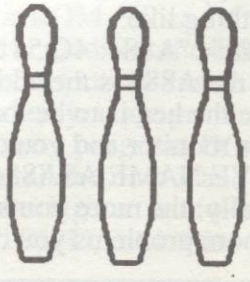
At this point, in a sense I have answered the question completely. But I have hidden one of the biggest problems. The text screen is not displayed in order. See page 16 of the reference manual for how it is displayed. The first line starts at $400 as you would expect, but the second starts at $480. There is a line starting at $428. However, it is not the second but the ninth line. Of course, provided you only want to map things back to the text page, this is all perfectly acceptable. But it is not acceptable if, for example, you want to print out the text file.

As usual, once you understand the problem, you are a fair way towards answering it. If we were to move individual lines rather than the whole page, all would be well (provided we did it in the appropriate order). In fact, provided you don't mind a bit of tedium, you can do the move by typing in:

```
2000<400.427M
2028<400.427M
2050<400.427M
2078<400.427M
```
etc.

where you are taking advantage of the fact that the display scrolls up one line each time. Notice that this gets a little out of step with the numbers on page 16 from 2078 on. That is because there are actually 64 bytes (sixteen bytes on each page) not displayed in text. These are used by peripherals in corresponding slots if you number each group of eight bytes 1 to 8. I have also not taken into account that there are only twenty lines that you really want.

Sorry, that doesn't actually quite work. I tried it later and found I had forgotten that you get two lines scrolled rather than one. Try something like:
2000<400.427MN2028<480.4



A7M if you really want to pursue this one. The N (for normal) acts as a separator between monitor commands.

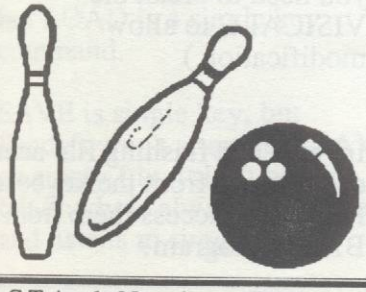
I mentioned that as a possibility, but it is far better to make the move as we first discussed it and then write a little machine language program (or even a BASIC program) to move it one text line at a time to a new area, possibly starting at $3000, from which we will eventually BSAVE it. That would have the advantage that you could reuse the area $2000 23FF for further disassembled lines.

Incidentally, it is far more natural in all of this to use binary files rather than sequential text files. John never did say why he wanted text files, but I would use binary unless there were a good reason why not.

A variant on the above would be to simply BSAVE the text page as some file name or other and then (if necessary) convert that to a text file as before. I did that, using the disassembly of the first few lines of the monitor as my example. It looked terrible when I loaded it into Sandy's, but, when I eliminated the first few bytes (length information of the binary file) and the 64 non-printing bytes discussed above, I got:

```
*F800L
F800- 4LSR
F801- 08PHP
F802- 20 47 F8JSR  $F847
F805- 28PLP
F806- A9 OFLDA  #$0F
F808- 90 02BCC  $F80C
F80A- 69 E0ADC  #$E0
F80C- 85 2ESTA  $2E
F80E- B1 26LDA  ($26),Y
F810- 45 30EOR  $30
F812- 25 2EAND  $2E
F814- 51 26EOR  ($26),Y
F816- 91 26STA  ($26),Y
F818- 60RTS
F819- 20 00 F8JSR  $F800
F81C- C4 2CCPY  $2C
F81E- B0 11BCS  $F831
F820- C8INY
F821- 20 OE F8JSR  $F80E
F824- 90 F6 BCC  $F81C

*BSAVE
TEXTSTUFF1,A$400,L$400
```



This isn't quite as expected, but the page did not have the first disassembled line right on top. Clearly, it would be possible to arrange these lines in order using Sandy's (or other word processor or text editor). Repeating the exercise would produce further text files which could be joined to make as long a disassembly as needed. Nothing has been lost, though we have managed to pick up a couple of unwanted lines (those starting with the asterisks).

It won't be possible to show in the magazine, but these lines were quite disturbing to look at in the word processor. There are no carriage returns anywhere, and everything ripples as you look at it. For serious use as a text file, this would have to be changed, but that would make it the harder to put back to screen if you wanted to. To really make all this tidy, you really should write a machine language program to do it all, including calls to the monitor and to DOS. Having done that, you would, of course, have written a substantial part of a disassembler.

So you could look at this whole column as a thinly disguised tutorial on how to write an Apple disassembler.

If DOS crashes how can I reboot DOS, keeping both program and variables intact?

There are a few things to try here. First of all, get to the monitor by CALL -151 and then type 3D0G. That reconnects the DOS hooks (does a DOS warm start) if they have merely been disconnected. 3D0G should give you back an Applesoft prompt, which is therefore a hopeful sign.

If that doesn't work, then more damage has been done than merely losing the hooks. A cold start by 3D3G (from the monitor) is likely to destroy the program, so we have to go to the actual DOS routines. Actually, you can use 3D3G provided you can restore the first two bytes of the Applesoft program at $801 and $802, but that still loses the variables. (Restoring these two byte s means to make them point to the start of the second line in the Applesoft program - recognizable because it points to the third.)

If 3D0G doesn't work, it is possible that the jump instruction there has been clobbered. In that case, you can type 9DBFG and achieve the same result. If that works, you should SAVE what you have and reboot, because this does not restore the page 3 locations. You can also type 9D84G and achieve the same result as a 3D3G (and the same problems).

If nothing works up to here, you have troubles! It is possible that part of DOS is still alive which would enable you to possibly load the rest as a machine language program provided you had thoughtfully stored it as such in advance. This is not a straightforward option and I don't recommend it to anyone who needs to ask this kind of question. The last option, and one which will always work provided you have

prepared in advance, is to load in a copy of (slave) DOS from cassette tape. Of course, this means you must have saved DOS on tape in advance to prepare for just such an emergency. Alternatively, you can store it on tape from another Apple (see page 46 of the Apple II reference manual for how to do that - the memory locations are $9600 to $BFFF).

Can I replace the DOS CHAIN command (which applies to INTEGER BASIC only) with the Applesoft version so I don't have to BRUN CHAIN?

In short, no. The CHAIN program is $1Al bytes long and you don't have anything like that much free space within DOS counting all there was initially and all you could free up by deleting the CHAIN command. However, if you are prepared to permanently increase the length of DOS by roughly two pages, then you can achieve the functional equivalent. You still give up the INTEGER CHAIN, which starts at $A4FO, but you have to relocate CHAIN (the program) at a location where it can be permanently in memory. The obvious place is between DOS and the buffers.

If you seriously want to do this, you should start by relocating a copy of CHAIN to run at $9BOO and saving it on track two. You will need to look at Appendix C of the DOS manual or preferably at my DOS notes to see how to get it there. Relocation is easiest done using the programmer's aid, though it can be done by hand. (It isn't necessary to save to track two, but it seems the aesthetic thing and it has the advantage of making CHAIN easy to move with DOS.)

Now you can either alter DOS to load the extra two sectors and start the buffers two pages down, or have your HELLO program load CHAIN and alter the pointer to the buffers at $9DOO. The latter is easier, the former makes a better job.

Having described all that, the actual coding should be fairly easy for someone with a good knowledge of DOS. (It should be a good exercise for any graduate of my DOS classes.) Is there anyone else in the club that would like this on a library disk?

Is there a bug in the INT function in Applesoft? For instance, I typed, in immediate mode:

```
] PRINT INT (8.95 * 100)
894
]
```

What is going on? This is a nasty one for people unused to binary computers. The Applesoft manual (page 102) says: INT (aexpr) Returns the largest integer less than or equal to /aexpr/. In fact that is just what happened and there is no bug here. We are misled by the fact that we have ten fingers. (Or at least because we use decimal arithmetic.) The problem is that 8.95 is not a terminating BINARY fraction - it starts out as 1000.11110011 etc. Applesoft uses 32 binary digits of precision in storing real numbers and binary rounding will obviously produce a number either a little larger or a little smaller than the exact decimal. If a little smaller, as in this case, then we get the "anomalous" result reported. It is not hard to produce equally "anomalous" results resulting from small round-off errors the other way. The main thing is to recognize that the computer has not done anything odd at all. We chose (or Microsoft did) this definition of the INT function and it has worked as advertised, even if we are surprised at the result. To get an INT function that rounds off instead of truncating, we can change the line to: A=(8.95*100):PRINT INT((1OO*A+0.5)/100)

That will make sure that we print a rounded INT function rather than a truncated one. But the computer is not at fault because INT was defined differently. Actually, there is a possibility of using BCD mode (which actually uses decimal arithmetic) on the 6502. However this option is only open to machine language programmers. (I have vacancies for the machine language course later in the year and this is a hint!) This problem is much more important for what is left unsaid. We all know that we are using binary computers, but it is necessary to think about what you are doing every time you use numbers. We are almost as stupid as the computers, after all.

How can I get BIG MAC to work in 80 column mode?

I have had this question for both II+ and //e versions. At present, I don't know. Can anyone help with this?

How can I get an 80 column display with Apple //e, 80 column text card, Vision 80 128K card and VISICALC?

Again, I don't know. Has anyone used this combination? (I imagine that you either need some kind of a preboot or else you need to break the VISICALC to allow modification.)

Inverse and flashing file-names can be used from the keyboard. How can I access them from a BASIC program?

I don't see this as a serious problem. What's wrong with forming a string with the appropriate characters? (You find them on page 15 of the Apple II reference manual.) Such a string is used in the HELLO program that appears on most of my disks. (Ask me for a copy if you really can't find one floating around!) I might add that I dislike inverse and flashing filenames almost as much as I do filenames with "hidden" control

Being clumsy, I have developed a habit of starting a session with my word processor by typing "DELETE FILE instead of LOAD FILE". Help!

This is an easy one. I have sent you a copy of a utility called UNDELETE. Provided you use it before compounding the problem, all should be well. Leave your word-processor (you would leave Sandy's by typing CONTROL-D twice), LOAD UNDELETE from the utility disk, swap the disks back again and type RUN. From there, just follow the instructions.

This utility is on my DOS COURSE disk if anyone needs it. It is in the public domain, so anyone with the disk should feel free to pass it on. (Same with any public domain programs from my disks.) I might point out that you obviously don't use Sandy's word processor. Sandy makes it almost impossible for errors like this to happen because you have to spell out the DELETE but LOAD is a single key command.

SAVE is single key, but Sandy's won't attempt to SAVE an empty file. It isn't perfect, but Sandy is always upgrading and listens to suggestions.

I have read about "R" and "S" files, but I don't understand them. what are they and what do they do?

Neither of these file types is regularly used. Apple have made one use of "R" type files in the Applesoft toolkit (they are relocatable machine language files), but nowhere else to my knowledge. I have seen "S" type files in one commercial program but I don't immediately remember which one and I have never got round to checking the usage. The short answer that you are unlikely to see either unless you use the toolkit extensively. On the other hand, it is easy to play around with file types yourself and, for instance, display all "A" type files as "S" type or even "X" type. To do that, just POKE 45993,216 (X has ASCII code D8 = 216, 45993 = $B3A9). POKE the same location with 193 when you get tired of looking at X files.

These POKES will not do anything permanent unless you INIT a disk while they are in force. Otherwise, merely rebooting will get things back to normal. I should mention that NIBBLE magazine had a long series entitled FUN WITH THE TOOLKIT which provided a lot of information a bout this valuable utility.

I would appreciate information on how to use the "&" command to transfer information between BASIC and machine language.

There is no very short answer to this one, though I will provide an example below. I deal with this subject in my assembler language course and will deal with it at more length in my MASTERING MACHINE CODE ON YOUR APPLE II, which should be available around March next year. But, in the meantime, the best sources of further information are the first CALL A.P.P.L.E. IN DEPTH volume, "All About Applesoft" and the various "Peeking at CALL A.P.P.L.E." volumes.

Briefly, the & command in Applesoft acts as if you had typed CALL 1013 (3F5 hex). At $3F5 you can store a jump command, say: 4C 00 80 JMP $8000 this transfers control to location $8000 where you will have previously stored a machine language program to do whatever you wanted. For instance:

```
8000- 20 3A FFJSR FF3A
;ring bell
8003- 20 3A FFJSR FF3A
;ring bell
8006- 20 3A FFJSR FF3A
;ring bell
8009- 20 3A FFJSR FF3A
;ring bell
800C- 20 3A FFJSR FF3A
;ring bell
800F- 20 3A FFJSR FF3A
;ring bell
8012- 4C 58 FFJMP FF58;
```

Go back to the BASIC program You can type all this in by:

CALL -151 (to get into the monitor)
3F5:4C 00 80 (return)
8000:20 3A FF 20 3A FF 20 3A FF 20 3A FF 20 3A FF 4C 58 FF (return)
CONTROL-C (return) (getting back to Applesoft)
Now type FP (to get rid of any old Applesoft program hanging around)

I'm working on an inventory program written in Applesoft and am using text files to store data to the disk, but I always get an END OF DATA error when I try to read the data back in. What am I doing wrong?

I have reproduced the relevant parts of the program below.

```
10 D$=CHR$(4) For writing:
300 PRINT D$;"0PEN
DATAFILE"
310 PRINT D$;'WRITE
DATAFILE"
320 PRINT A,B,C
330 PRINT D$;"CLOSE
DATAFILE" For reading:
400 PRINT D$;"0PEN
DATAFILE"
410 PRINT D$;"READ
DATAFILE"
420 INPUT A,B,C
430 PRINT D$;"CLOSE
DATAFILE"
```

The problem is that when you input numbers (or strings) from the disk you need some delimiter to indicate where one number ends and the next begins. If you do a PRINT A,B,C to the screen the numbers are separated by spaces, but the Applesoft INPUT command does not recognise the space as a delimiter. Even if spaces were valid delimiters this situation wouldn't work because DOS strips away all the spaces leaving the numbers bunched together when written to the disk.

The solution is to explicitly provide a delimiter between the numbers. One way to do this is to "print" a carriage return after each number.
320 PRINT A:PRINT B:
PRINT C
Each PRINT command results in a number and a carriage return being written to the disk. Another equally valid way of doing this is to print a comma between the numbers. 320 PRINT A ;","; B ;","; C Or, since semi-colons are not needed between variable names and literal strings, this also works.

```
320 PRINT A "," B "," C
```

The easiest way to track down these kinds of problems is to use the DOS command MON I,C,O, so that all data read from, or written to the disk, will be printed on the screen.

When trying to print out some labels, I found that I couldn't TAB past 40 without starting on a new line.

PRINT TAB(O-40) works well on the text screen and some printer interface cards but on others it goes to the next line. To solve this problem it is better to write directly to $0024 (CH) which stores the horizontal cursor position. 1000 POKE 36,I: PRINT "I = TAB POSN" Interestingly, it is also possible to use this location to read from.
1001 POKE 36,(PEEK(36)-1)
This will cause the cursor to backspace The mate of this address is $0025 (CV).
This can be used in an interesting technique for checking whether text has reached the bottom of the text screen, you can then stop the display and ask for a reader's response.

```
2000 IF PEEK (37) <21 THEN
GOTO 4000
4000 PRINT "'RETURN' FOR
MORE, 'ESC' TO MENU"
4010 GET A$: IF A$= CHR$
(27) THEN 1000: REM CHR$
(27) = 'ESC'
```

How do I run a program other than BASIC at PR#6.

It is of course possible to write a small program to do a CATALOG or BRUN a program. However it is also possible to modify DOS to do so. Location $9E42 in the DOS will contain one of four values. Depending on the contents, the DOS seeks a different file type for the greetings program. The values and file types are as follows:
$06 Run a BASIC program on boot-up
$14 EXEC a text file
$34 BRUN a Binary file
$20 do a CATALOG
To change from booting to a BASIC program, a change must be made to the DOS on the disk to be booted. This can be done in one of two ways: change the DOS in memory and then INIT a disk (resulting in a modified DOS on the disk), simply POKE-25022. Or use a disk editor program, like Disk Zap, to change the DOS on an existing disk. The byte of interest is found on track 1, sector 0 for a 3.2.1 disk, and on track 0, sector D for a 3.3 disk, for those willing to Zap a disk instead.

```
100 HOME:PRINT"START OF
PROGRAM"
120 PRINT:PRINT"THIS WILL
RING BELLS"
140 & 160 PRINT"END OF
PROGRAM"
200 END
```

Now RUN this program and you should have demonstrated a use of the & command.

I have an automatic ICE card in my Apple and now I can't get CP/M to work. Help!

This has been my most frequently asked question over the last two or three months. The answer is to get hold of a copy of CP/M version 2.23, 60K CP/M. This works perfectly with the ICE card.

That solution is not available if you don't have a 16K (or larger) RAM card. Such things are now sufficiently cheap that everyone should have them. As a matter of fact, since I am changing over to 128K cards, I have a couple for sale at present for quite reasonable prices. If you are seriously running CP/M, you need a total of 64K RAM in your Apple to allow for running major applications programs like DBASE II. Having more RAM is convenient for machine language programmers or those wanting to use phantom disks, but is not essential for CP/M work.

The ICE card appears to be the best Apple parallel printer

interface card available at the moment, having. quite a bit of graphics dump capability built in for most popular printers. You should always see interface card and printer working together before purchase, of course. If you really can't manage the CP/M 2.23 and 16K card, you can simply remove the ICE card temporarily to run CP/M but you will need some other card to interface to the printer.

LIGHT BULB JOKES

Q: How many Psychiatrists does it take to change a light bulb?
A: Only one, but the bulb has got to really WANT to change.
A2: None; the bulb will change itself when it is ready.

Q: How many software people does it take to screw in a light bulb?
A: None. Thats a hardware problem.
A2: One, but if he changes it, the whole building will probably fall down.
A3: Two. One always leaves in the middle of the project.

Q: How many hardware folks does it take to change a light bulb?
A: None. That's a software problem.
A2: None. They just have marketing portray the dead bulb as a feature.

Q: How many Unix hacks does it take to change a light bulb?
A: As many as you want; they're all virtual, anyway.

Q: How many `Real Men' does it take to change a light bulb?
A: None: `Real Men' aren't afraid of the dark.

Q: How many `Real Women' does it take to change a light bulb?
A: None: A 'Real Woman' would have plenty of real men around to do it.

Q: How many mice does it take to screw in a light bulb?
A: Only two, but the hard part is getting them into the light bulb.

Q: How many Marxists does it take to screw in a light bulb?
A: None: The light bulb contains the seeds of its own revolution.

Q: How many survivors of a nuclear war does it take to screw in a light bulb?
A: None, because people who glow in the dark don't need light bulbs.

Q: How many nuclear engineers does it take to change a light bulb?
A: Seven. One to install the new bulb and six to figure out what to do with the old one for the next 10,000 years.

Q: How many data base people does it take to change a light bulb?
A: Three:
One to write the light bulb removal program, one to write the light bulb insertion program, and one to act as a light bulb administrator to make sure nobody else tries to change the light bulb at the same time.

Q: How many folk singers does it take to screw in a light bulb?
A: Two. One to change the bulb, and one to write a song about how good the old light bulb was.

Q: How many gorillas does it take to screw in a light bulb?
A: Only one, but it sure takes a truckload of light bulbs!

Q: How many doctors does it take to screw in a light bulb?
A: Three. One to find a bulb specialist, one to find a bulb installation specialist, and one to bill it all to Medicare.

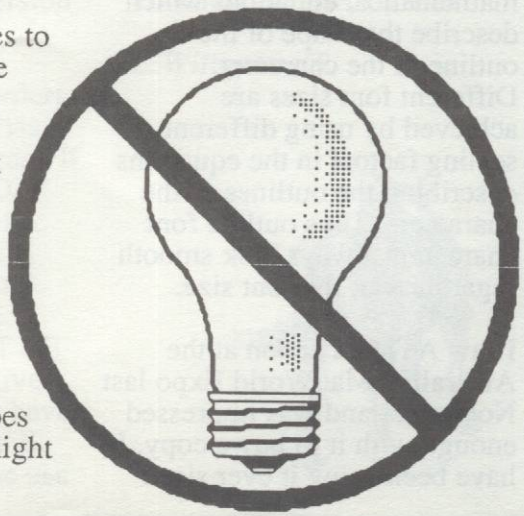
Q: How many druggies does it take to screw in a light bulb?
A: Oh wow, is it like dark, man?

Q: How many consultants does it take to change a light bulb?
A: I'll have an estimate for you a week from Monday.

Q: How many [IBM] Technical Writers does it take to change a light bulb?
A: 100. Ten to do it, and 90 to write document number GC7500439-0001, Multitasking Incandescent Source System Facility, of which 10% of the pages state only "This page intentionally left blank", and 20% of the definitions are of the form "A:..... consists of sequences of non-blank characters separated by blanks".

Q: How many Macintosh users does it take to change a light bulb?
A: None. You have to replace the whole motherboard.

More next month.....



GS MEMORY PROBLEM?

Les Humphrey

As I was preparing some items for inclusion in this issue, at the last minute of course, the inevitable happened - the computer (Fred) did not want to cooperate.

I don't mean Fred kept misspelling, he keeps doing this all the time, he just refused to complete the boot process. My GS has been a trusty soul for the last three years without a murmur of complaint and one expects them to last forever. I suspected that the internal hard drive, complete with the power source was the problem, so I replaced the power supply with the original Apple supply and tried to boot again.

Same problem! I then phoned, late Friday morning, my local Apple service centre and requested an urgent fix. Because of other commitments they were unable to get back to me until late in the afternoon.

The problem - my AE GSRAM Plus memory board was faulty and as they were not AE agents they could not fix it.

The closest AE agent that I am aware of to Canberra is in Sydney. It was now 5.20 pm but I was desparate to get the articles finished. So, I rang 02 6069343 which is the number of Julie and Jeff Schuurman who run Australian II Series Software. At last my luck was turning - Julie answered the phone. She did not have the answer to my problems of repair or replacement, but promised that Jeff would phone later that night when he returned. He did!

After describing the problem to him he suggested that I try something that any old II+ owner would have suggested - check that all of the memory chips were seated properly and had not worked loose due to heat expansion and contraction. I did, and Fred worked immediately. (I must hang my head in shame as I am an old II+ owner and this heat problem was common on the machines.)

All of this brings home a couple of lessons. First, check that all of the chips are seated properly in the computer, Secondly, ask very specific questions of your technician on any advice which is given. When I asked the specific question it was to confirm it was the memory board and not the RAMKeeper which the board was sitting in. I assumed that he had checked the memory chips on the board as part of the check.

I will let the service centre know what the problem was and will also consider changing to another authorised agent in town.

FOR SALE

ThunderScanner
for Imagewriter I

$200 ono

Call Thomas on:
286 3180 (H)
270 5649 (W)

ACTApple in Action - December meeting.

Gordon White's TEACHER DISK

Gordon White

As an Apple][user for the last 8 years and as a high school teacher, I've seen a lot of "education" software. Some of it has been excellent but commercial programs seem to come and go with only a few exceptions. The good thing about Public Domain software is that you can (& often can't) give it away. If it's good, you use it, and if its not then you don't feel like you wasted your money. The bad thing is that most P.D. software is terrible, and you wouldn't want to use it. But there are a few good P.D. programs around including;
Aussie FrEd - the Australian version of FrEdwriter, which is a very good (simple) word processor,
FrEd Base - an excellent data-base from the same author,
Games - there are heaps of quite good P.D. games around, and of course 'TEACHER disk' which I put together myself.

'*TEACHER* disk' contains 16 programs compiled with the teacher in mind, but with something for everyone, as they say. It represents many hours of typing, testing and programming. See if any of these interest you!

Side One:

STARTUP - Change my name to yours and give a new title for a stylish beginning to your own ProDOS disks.

MENUPRO - There are lots of menu programs in DOS 3.3, but this is the best one I've found for ProDOS. It has simple utilities included, too.

DATE.SET - If you don't have a clock in your Apple][use this utility.

GRADE.BOOK - Nibble magazine's gradebook is powerful, providing analysis, statistics, standard deviations, etc. Students are recorded by number however, and I find this a little clumsy, so I use Compute's GRADEBOOK, but other teachers prefer this one.

TEST.WRITER - This one is terrific for multiple choice, true/false, fill-in-the-blanks, essay, and matching-answer type tests. It automatically formats the questions on the page (you end up pulling your hair out trying to do it with just a word processor), automatically randomises questions and provides an answer "key".

MATH.DECATHALON - This is a game where you compete in 10 novel maths events to find out who is the best "mathlete". It's good fun and can be played at different levels. You can organise family, class or year playoffs.

APPLE.CAL - You won't forget anyone's birthday if you use this program because it stores important dates and prints them out on an A4 monthly planner type page to stick on the 'fridge.

SPRINT - Sprint stands for 'Speed Reading Improvement Technique'. I don't know anyone who can reach the highest level on this program, but I know some kids that have improved both their reading (& typing) skills using SPRINT.

Side Two

GRADEBOOK - Compute magazine's spreadsheet style gradebook is easier to use than Nibble's, but is less powerful. It provides simple analysis, statistics, and graphs and is easily adapted for keeping sporting scores or any other similar record keeping.

PLOTTER - Plotter doesn't just produce very accurate hard copy graphs, it is a complete graphing utility with options including; legends, multiple plots, curve fitting, linear regression, user defined functions and so on.

SUMIT - Sumit tests addition skills in a visually & aurally simulating way.

CUSTOM.BINGO - This program produces bingo cards with words &/or numbers on them so that you can have exciting review & skill practice exercises, or just use it for fun! You only have to provide the questions and answers and the program does all the work, including the master sheet.

MUSIC.LESSON - This is a fun way to help improve your ability to read music in either or both clefs.

CONVERSION - Yep, it converts most imperial <--> metric quickly.

CALENDAR - Days between dates? Day of week? Any month? ..... EASY!

ADJUST.SCORES - A.S moderates standard deviation, mean, average, etc.

I have produced a 19 page manual that gives you just the info' you need to operate the programs effectively & the whole lot fits on a single (double-sided) 5.25" disk. If you would like a copy, come and see me at the next user-group meeting, (I'm the Apple][Hardware Loans Officer), and I'll organise to get you one.

A.C.T. APPLE USERS GROUP INCORPORATED
ORDER FORM
PUBLIC DOMAIN AND SHAREWARE SOFTWARE
APPLE II - MACINTOSH - APPLE IIGS
(Apple II SS $2.00, DS $3.00, BO$5.00; Mac&IIGS $8.00)

NAME: _____

ADDRESS: _____

_____ POSTCODE: _____

PHONE NUMBER: _____

I wish to order the following public domain/shareware disks:

Disk category and number		Disk category and number	
	$		$
	$		$
	$		$
	$		$
	$		$

TOTAL.....$ _____

OR NOT TO SOFTDISK GS

Andrew Welsh

The December 1990 newsletter contained an article by Gordon White in which he extolled the features of Softdisk, the monthly electronic magazine for the Apple //. He mentions that a separate version is available for the Apple IIGS - Softdisk GS.

I have been receiving Softdisk GS for the last 8 months. The presentation is of very high quality. Each issue usually contains some 640 mode clip art, an AppleWorks GS page layout template, some PrintShop GS graphics, a GS font, a comment column about news and rumours in the Apple world, letters and help sections plus some games and other programs including an occasional utility such as a desk accessory. Unfortunately the games usually require that you already have "Mean 18" (a golf game) or "Arkanoid II".

Most of the self-contained programs are games. So, if you don't like games or if you don't have Mean 18, Arkanoid II, AppleWorks GS and PrintShop GS, large parts of every issue of Softdisk GS will be of no use to you. I have even had trouble loading some of the games which are self-contained. Softdisk promptly replaced one disk but I was still unable to load the game. The Print Shop GS graphics on the latest disk were 26 versions of the flag of the USA. Most of the news and help is available in A2-Central, also available in disk format (3.5" disk) and highly recommended for all Apple // and IIGS owners. Softdisk GS costs US$119.95, at present exchange rates just over A$150, per year. I won't be renewing my subscription.

Newsletter Info.

This is the magazine of the A.C.T. Apple Users Group Incorporated. It is produced monthly and distributed to all financial members and Apple User Groups at no cost.

The views expressed in this magazine are the views of the authors and not necessarily that of the members.

The Apple Logo, and the words "Apple", "Macintosh" and "Mac" are trademarks of Apple Computer, Inc.

All contributions should be sent to The Editor, A.C.T.Apple Users Group incorporated, GPO Box 1231, Canberra, ACT, 2601, preferably on a Mac disk, or uploaded to the BBS. The deadline for articles is the Committee meeting.

Articles in this Newsletter may be reprinted by non-profit organisations provided that credit is given to the source.

Advertising: Financial members may supply small advertisements for publishing at no cost at the discretion of the editor. Commercial organisations will be billed for advertising. Corporate members will receive a 20% discount. Advertising will be accepted with the same deadlines. Cost quarter page: $40, half page: $60, full page: $100.

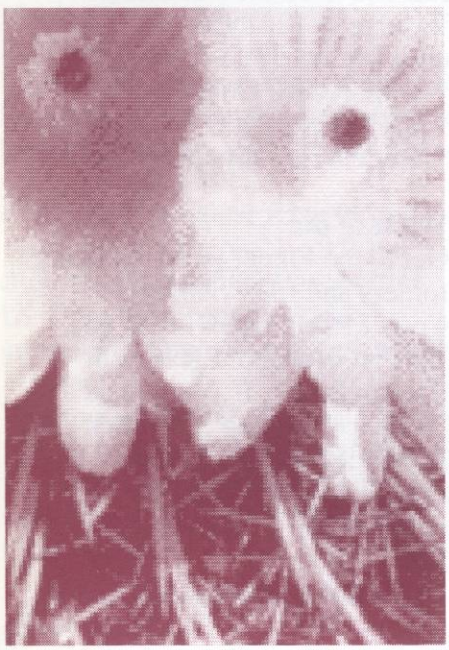
General meetings of the club are on the second Thursday of the month at the O'Connell Education Centre, Stuart St, Griffith, 7.15 to 9:45pm. The executive meets on the 3rd Thursday of the month. A SIG meeting is held on the Tuesday after this.

MemberShip: Joining fee: Full member = $10. Junior member = $5. Organisation = $20. Annual fee: Full member = $25. Junior member = $15. Organisation = $50.

Phone numbers are published for the use of members between the hours of 6pm and 9.00pm only. The recorded answering service number is available 24 hours per day.

Warnings The Club does not condone copying of software at meetings except for the distribution of Apple upgrades and Club software disks. All members are expected to display a high standard of behavior to guarantee our continued use of the venue.

Layout and Design of the Newsletter is done using Design Studio, and printed on a Laserwriter.



IDENTIFY THIS

Due to no Identify this section last issue, this will be the concluding issue for the competition. Identify the above two pictures, and let me know what they are by the end of the month.

Answer for November:
a) sunflower
b) lemon with rear vision mirror

The SEVEN HILLS Partner Program.

What It Means To ACT Apple Members.

Michael Hickey

Seven Hills Software, (of Graphicwriter fame) has been supporting and manufacturing Apple II and IIgs software since 1982. These days the company is one of the few still promoting and producing software for the Apple IIgs. Recent interest in Apple IIgs software has prompted the company to start a scheme, similar to Beagle Bros. Beagle Buddy program called the Seven Hills Partner Program.

ACT Apple Users Group was approached through Australian II Series Software to join the program for a small one-off fee. This fee covers the postage of a copy of all of Seven Hills current Apple IIgs software including, Graphicwriter III, Font Factory, Super Convert, Disk Access and Independence. The advantage of being members of the Partner Program are that :

1. Members of ACT Apple UG can get fast support for Seven Hills products right here in Canberra, including FREE upgrades to the latest version of Seven Hills' products;
2. All Seven Hills products can be reviewed and demonstrated before members purchase the product;
3. ACT Apple UG members can receive "substantial discounts" for purchasing newly introduced products, and;
4. Accurate up-to-date information is available straight from Seven Hills through the Partner.

ACT Apple committee has agreed to join the program and has nominated me, the Apple II and IIgs PD Librarian to act as the contact officer for the Partner Program. Currently, Seven Hills, through Australian Apple II Series Software and your Seven Hills Partner is offering a FREE upgrade of:

- Graphic Writer III v1.0 owners to version 1.1;
- Font Factory GS to version 2.0, and
- Super Convert version 3.0 to version 3.01 (a very, very minor update to SuperConvert).

All you have to do is:
(1) Bring your ORIGINAL disk (with the Seven Hills Software logo) as proof of ownership, and;
(2) Bring a blank disk onto which I can copy the update.
NOTE: You must be a member of the user group, with dues current, to take advantage of the free upgrade offer.

Bring your ORIGINAL disk(s) to a meeting and I will update it for you on-the-spot, or call me to arrange an appointment. In the next few issues of the magazine I will attempt to review all the Seven Hills software we have received as part of the Partner Program.

All Seven Hills Software is available in Australia from:
Australian II Series Software
PO Box 1,
West Hoxton
NSW 2171
Ph. (02) 606 9343

FOR SALE

Apple II plus with 192K RAM, 80 column card option, two disk drives, monitor (BMC) and printer (BMC) plus software and games. $700 ono.
Contact Kevin Mann
283 2475 (W)

PRESIDENT'S DESKTOP

Interesting things are happening in the Apple world. There have been a recent spate of Macintosh hardware announcements, together with a price reduction. (I haven't yet worked out if this fully cancels the previous price hike.) There have been further improvements in power and speed - the sort of things that bring smiles to power users' lips.

A major thrust that is appreciated by those of us who work in multi-vendor environments is that Apple is paying further attention to compatibility with those other personal computers. "So what?" the died-in-the-wool Apple user might say. I suggest that compatibility is a step forward and will bring more users to Apple equipment. More users of other equipment brands will be interested in Apple gear - on the basis that it is better - provided that compatibility with other brands is on offer.

I haven't heard of hardware releases for the Apple][range recently but I will be keeping my ears and eyes open. However, the good news is that a new version of Appleworks is out soon for machines other than the GS. I gather that it will be well worth exploring as soon as it is available.

Talking of software, those of you who missed the Claris presentation last month missed a great show. Claris invited A.C.T.Apple members to a display of its software at the Lakeside. We met and listened to Bill Campbell, the Chief Executive Officer of Claris (U.S.A.) and Peter Beard, the local Sales & Marketing Manager. We heard the history of Claris and its plans for the future (which sound exciting) and were treated to a demonstration of the latest Claris software. Claris is gradually upgrading all the software it took over from Apple as well as breaking new ground. We saw MacWrite II and agreed that it will give Word a run for its money. It seems to have all the features of Word that most people actually use plus a few different conveniences.

We also were almost blown away by Claris' SmartForms, a program that starts off being a forms design tool and then moves on to be an programmable input screen tool that can serve as an almost intelligent database frontend. The sort of facility not available on all mainframe systems.

What topped the night off for us was Bill Campbell's offer to A.C.T.Apple of one of each of Claris' programs. I accepted his offer as quickly as dignity allowed. He suggested that we could do whatever we wished with the software; sell it, raffle it etc. Your committee will be exercising its collective mind on the matter and any ideas will be welcome.

On the home front, we had a good start to the year with the Hypercard presentation to a large rollup. I, for one, gained a better appreciation of the power of Hypercard and its possibilities. It seemed to go down well. Again, any ideas for future presentations would be most welcome.

More news text time.
Roger Bernau
PRESIDENT

SWAP

Epson 200
dual disk drive and card
for
5¼" Unidisk.

Ph Trevor
880109

LUCKY DOOR PRIZE

This month there was a number of lucky door prizes, again donated by ACT Office Equipment. They donated, would you believe, 75 Macintosh's and rather than conduct a draw we decided to give them out on a "first in, best dressed" basis. They were tasty but not delicious.

For the critics out there, I must admit that my spelling **may** not be correct.

DID YOU KNOW

Holding down the Reset, Control and the 2 Apple keys causes an interesting Pattern to appear on the Apple //c. Complete with clicking! It activates "Teris Memory and Soft Switch exercise program". (//c reference manual). It is used in manufacturing and has no use after this.

However, on the Apple IIGS and //e, holding down these keys causes the computer to perform a 20 second self checking routine and the message "System Good" or "System OK" will appear. If any other message appears, the computer needs fixing.

Michelle Jenkins
Goulburn

MEMBERSHIP REPORT FEBRUARY 1989

NEW MEMBERS	10
RENEWALS	6
NOT RENEWING	21
TOTAL FINANCIAL	269
Comprising:	
Mac's	120
][']s	127
Clones (][']s)	14
No system	10

R.Hibberd
Membership Secretary

COURSES

Committee

For the newer members of ACTAPPLE initially and then any other members that are interested we will be running a number of courses over the next few months. These will start with an introductory or basic course for the Apple II's and the Mac's and progress on through the various tools and utilities to specific packages.

We will be seeking feedback from the members as to the packages in which they have an interest and the timings for the courses.

The courses will be held at the O'Connel Education Centre on the Tuesday evening following the normal monthly meeting. The course will be informal with as much practical work (hands-on) as possible, so bring your machines.

On Tuesday 14 March, for II and GS owners, there will be an introductory session. For Mac owners,there will be a HyperCard workshop following on from the one held in February.

An introductory session for Mac owners will be held on Tuesday 18 April.

These introductory sessions will cover the basic operation of the machine and are designed to get the inexperienced user up and running quickly.

DISK SALES

Blank disks can be obtained, at the usual prices, between meetings from:

Northside
Les Humphrey (in Cook), phone 531349 (AH) from 6pm - 9pm

Southside
Logan Brill (in Garran), phone 821948 (AH) from 6pm - 9pm

SpreadTools: A Time-Out Must For The Spreadsheet User

by Les Humphrey

Beagle Bros have added another module to their already formidable range of enhancements to AppleWorks. This time they have come to the aid of the number-crunchers in the family with Spreadtools which was released during late September 88.

SpreadTools consists of the following seven modules (plus Utilities of course):-

Analyzer: This module alone is worth the cost of the package. It is a spreadsheet auditor that assists in locating errors in the cells such as "References a range with no values', or "References a cell without a value". A printout is available of all cell cross references.

Bird's Eye View allows a simplistic overview of the spreadsheet using a single character to represent each cell. With unique characters for different types of information it is very easy to locate all of the formulas in the spreadsheet.

Column widths may be automatically adjusted so that every formula is entirely visible. This gem also contains Track References which allows observation of the location of each reference for a particular cell.

The last of this module is Show Cell Values which, as the name implies, allows a hard copy list of all the non-blank cells showing the cell type and the current cell value.

Block Copy: This overcomes one of the frustrating flaws of the unenhanced AppleWorks - the inability to copy blocks of cells. The copying may be within the spreadsheet, and, to or from the clipboard.

CelLink: Cell values may be imported from other spreadsheets on the Desktop or on the AppleWorks data disk. This allows multiple spreadsheets to be linked together for a greater increase in power and ease-of-use.

Data Converter: Allows quick and easy transfer of data;
(i) from a spreadsheet file to a data base file,
(ii) from a data base file to a spreadsheet file, and,
(iii) from a word processor file to a spreadsheet file.

Formula to Value: This will convert a block of formulas to all values. Would be useful when a fixed value is needed from a formula or when it is necessary to conserve memory when formulae are not vital.

Quick Columns: Changes column widths either individually, or up to 127 columns at one time. It may also set up a pattern of widths such as the odd columns are set to ten characters and the even columns to seven characters.

Rows <---> Cols: Allows the copying of any row into a column or any column into a row within a spreadsheet. Handy for quickly rearranging the order of a spreadsheet.

TimeOut SpreadTools is available locally at ACT Office Equipment for $84.95 (even less if you show your ACTAPPLE membership card).

WANTED

Having sold my trusty Apple II, in favour of a bigger beast (is this progress I ask myself), I find that I no longer have a work-horse to assist me with Apple II hardware testing and fault finding. Do you have or know the whereabouts of a cheap Apple (or clone) that would serve this purpose? The machine does not have to be working or complete. A recognisable motherboard will suffice. If you think you can help please give me a call on 821948 (ah). Any assistance would be greatly appreciated.

Logan Brill
Hardware Loans

MOVING APPLEWORKS DATABASE FILES TO DBASE III PLUS

by Ian Wright
courtesy of AUSOM NEWS
November 1988

I have waxed lyrical about the virtues of AppleWorks in previous items for Ausom News. My focus in this article is the database, which is as good an example of really useful programming as you're likely to find anywhere. By "really useful" I mean it's a program which gives the user a very wide range of features and flexibility while retaining tremendous ease of use. For most ordinary "single file" database needs. AppleWorks matches or beats any package for any computer.

In the IBM world the undisputed standard for databases (in terms of common usage, if nothing else) is DBase III Plus. Not many people seem to actually like DBase but use it nevertheless because it has tremendous power and is by far the most common database in the MS-DOS world.

Given the dominance of these two programs in their respective domains, it is quite possible that at some time you may be confronted with the need to transfer data from one to another.

This article demonstrates how to move AppleWorks database files from your Apple II to an IBM compatible and then into a DBase III Plus database. This method will take you a little time to set up but it offers considerable flexibility and a very efficient way to move large amounts of data from one computer system to another. If you have more than about fifty records to move, this method will be worth its weight in gold. I'm presently negotiating the transfer of 15,000 customer records from AppleWorks into DBase III Plus - a job which I expect will take no more than ten to twelve hours. Compare that to retyping the data!

There are three distinct steps in this procedure. The first sets up a physical link between computers, the second sends the data to the IBM in a format usable by DBase III Plus and the last "appends" the data into a DBase III Plus database.

STEP 1. ESTABLISH THE HARDWARE LINK

The first thing you need is a link between the Apple II computer and the IBM or compatible. The simplest system is a special cable connecting the serial ports of these two machines and communications software for the IBM compatible computer. (See the other article by Ian Wright in this months magazine for a detailed description of how to establish this link.) The procedure described in my previous article is slightly different in that you don't need to use communications software at the Apple as you will be printing data from AppleWorks. To give your Apple a serial port you will need a Super Serial Card or other serial card such as the Digicard in your Apple][+ or //e and a null modem cable. If you have a IIc or IIgs you'll just need the cable, as your computer has a built-in serial port.

You will need a reasonable knowledge of your communications software (I used Crosstalk XVI and Smart on the IBM compatible) and DBase III Plus.

Set the link up and begin experimenting with straight ASCII file transfers. Once you are confident that you can transfer files and save them at the IBM end, proceed to the next stage.

What you are going to do next is print your AppleWorks data to your Apple serial port (from within AppleWorks) from whence it will hurtle down the cable to be saved at the IBM end by your communications software.

STEP 2. PREPARE A REPORT FORMAT IN APPLEWORKS AND DEFINE A NEW PRINTER

Using this method, the data format you will end up with at the IBM end of things is "SDF". This is an ASCII file which has a standard width (which you determine) for each field of your database file. Any fields which don't have enough data to fill the available field length are padded out with blanks. This maintains identical field lengths for any given field from record to record. DBase III Plus can read data in this form directly into a database. The way we generate this is by setting up an AppleWorks "Tables" Report Format which has the fields in the order we want, with the field lengths we want in the final format.

With AppleWorks running, from your AppleWorks database select Apple-P to print a report. Choose "2. Create a new 'tables' format" and give it a name such as TRANSFER.

You now need to set up the field order and widths for the report format. This is where you set up the actual format of the SDF file you will be loading into your DBase III Plus file later. You may be planning to enter the data into a new database file in which case you can make it match the AppleWorks database. Conversely, by changing the order and widths of the fields in your report, you can make the AppleWorks database match an existing DBase III Plus database structure. Make sure that the field widths are wide enough to include all the data in your AppleWorks database up to a maximum width of 78 characters per field. At this point write down the widths of each field and the order in which they are in.

Press Apple-O to get to Printer Options and set all margins to zero. Characters per inch to 20 and Page Header off.

When you've finished, save the report format to disk with Apple-S.

Now you need to set up a special printer (which isn't really a printer but your serial port). Escape back through AppleWorks to the Main Menu and chose Option 5 - "Other activities". Choose Option 7 - "Specify information about your printers". Choose "Add a printer". If you've already de-

fined three printers you'll need to remove one. Choose "Apple Silentype", call it "Serial Port" when prompted, then Slot 2 (or wherever your serial card is). Make the platen width 15 inches and all other options "no".

Escape back to the Main Menu (this will save the printer changes), quit AppleWorks and turn off your computer.

Connect the cable between your Apple and IBM computers. Start the IBM up and load its communications software. Startup AppleWorks on the Apple and load your database. Choose Apple-P to print a report and choose the report format that you created earlier. Press Apple-P again to see the list of print destinations and select the dummy one you called "Serial Port" earlier. Set FILE CAPTURE 'on' at the IBM. When you give the file name under which the incoming data will be saved, I suggest you use the extension SDF after the name for clarity later on. Press return twice on the Apple - don't enter a report date when prompted - to begin printing. Watch in amazement as your records scroll onto the IBM screen. When the records stop scrolling, set FILE CAPTURE 'off' at the IBM and you should now have an ASCII file in SDF format on your IBM disk.

STEP 3. APPEND YOUR SDF FILE INTO DBASE III PLUS

The rest of this procedure is performed on the IBM so you can turn off your Apple. Load the DBase III Plus database into which you want to add the records or if you are making a new database to match the Apple data, go ahead and define the field names, type and length and save the new database file. (This must match the field order and lengths you set in your AppleWorks report format.) Make sure that the field lengths are EXACTLY the same length as the Apple data or your fields will get completely out of sequence when you load them. When you are happy with the new database use the following command to load the data from disk.

Assuming the data is on disk drive B: and is in a file called TEST.SDF from the DBase dot prompt type:

APPEND FROM B:TEST.SDF SDF

APPEND FROM is a DBase command. B: is the drive on which the data file is stored. It could also be A:, C:, D:, a pathname or nothing at all if the file is in the active drive or directory. TEST.SDF is the name of your file - could be any name you want to call it. SDF is a message to DBase telling it that the data is in SDF format.

If you have done everything right, you will get a message telling you that "x" records have been added. Use the DBase BROWSE command to inspect your records and check that the data is in the right places.

That's all there is to it. Using this technique you can copy large amounts of data from your AppleWorks into DBase III Plus quite quickly.

TROUBLESHOOTING:

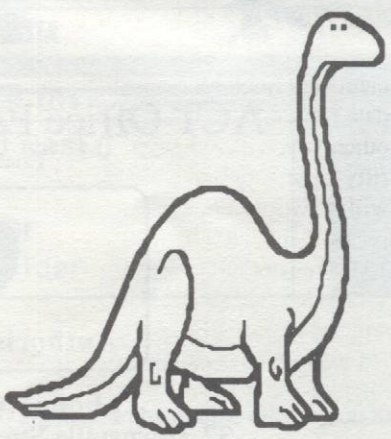
There are a few traps for the unwary which might cause a bit of consternation.

FIELD LENGTHS: When calculating the field widths in the AppleWorks Table format, make sure you count the single gap between the broken lines across the top of the Report Format layout screen. In other words, when looking at the Table Layout Screen, count the number of dashes under each heading and add one more, otherwise your fields will be one more character longer than you expect in the IBM file.

SENSITIVE APPLEWORKS: I've found AppleWorks to be very sensitive to happenings on the IBM compatible when they are connected by a null modem cable. AppleWorks will crash into the monitor very readily when you start pressing keys on the other computer. This does no physical harm but can be very inconvenient if you have something important happening in AppleWorks. You can recover with the Macroworks patch or by rebooting, but it is a nuisance. Leave the IBM keyboard alone if you are working in AppleWorks. (Other software such as ASCII Express and CopyIIPlus doesn't mind what you do.)

EXTRA RECORDS: The only funny thing I've found with this method is that it prints a number of blank records at the end of the MS-DOS file when all the data has been transferred. I think this is AppleWorks printing carriage returns to advance the imaginary paper to the start of the new page. It is simple to delete these from DBase III Plus or alternatively, you could load the file into a word processor on the IBM and delete the extra carriage returns. If you do this IT IS ESSENTIAL THAT YOU SAVE IT BACK TO DISK AS A TEXT FILE as disaster will follow otherwise.

MORE INFORMATION: See Graham McCollough's article in the July 88 Ausom News (reprinted in the September '88 edition of ACTAPPLE - Ed.) for IIc cable connections and the wiring of a full Null Modem Cable, which I recommend. Melody Parker's article in the August 88 Ausom News (reprinted in the December '88 edition of ACTAPPLE - Ed.) also has some very useful information.



INTERESTED?

Logan Brill
Hardware Loans

If you are interested in any of the following items please speak to me at the next meeting.

MAESTRO 2400ZXR MODEM
2400, 1200, 1200/75 and 300 bps
CCITT and BELL
Auto-answer, auto-dial, auto-disconnect, auto-ranging
Pulse/tone dial
Full Hayes AT compatibility
RS232 interface
Programmable (Zilog Super8 20MHz CPU with Forth O/S
32K ROM with optional battery backup)
Metal case
Telecom approved

$379

IN LINE 32K PRINTER BUFFER
by Automatic Ice Co
To suit parallel printer
Inbuilt data compression (effective data buffer up to 60Kb)
No power supply necessary
Transparent to software

$89

EPSON to IMAGEWRITER
Serial to parallel adaptor
Will drive the EPSON (or compatible) as if it were an ImageWriter
Supports colour graphics
Available for Apple II range and Macs

$89

AUTO ICE PARALLEL PRINTER CARD
Imagewriter emulation
Inbuilt graphics dump routines (incl colour super Hi-Res)
ROM based menu driven utilities
Conforms to Apple Firmware 1.1 specifications
Comes with printer drivers

$82

If you already have an Auto Ice printer card (PR4 or PR5), upgrade kits are available for $39

80 COLUMN/EXTENDED MEMORY CARD
Provides an extra 64K
Functionally equivalent to the Apple IIe 80col extended memory card.

$89

PostScript and Microsoft Word

by Peter Dugard

PostScript is the language used by the LaserWriter (and some other laser printers) to describe the layout and contents of printed pages. Essentially, it is a programming language. The LaserWriter executes a program sent to it by the Macintosh in order to produce a printed page. This is why the LaserWriter enoughe memory and processor power to put a number of microcomputers to shame.

Microsoft Word has a facility for incorporating PostScript commands in documents to produce special effects – the PostScript paragraph style. Also included with Word is a PostScript Gloossary with several useful routines in it.

Below are some useful routines which you can add to Word's Postscript Glossary.

To enter these routines, type them in as you would for normal text, ending each PostScript line with a new line (SHIFT-RETURN) so that the routine is one paragraph. Select Show Hidden Text from the Preferences dialog box , if it is not already selected. Now select the paragraph of Postscript and apply the Postscript style. To access the Postscript style, hold down the SHIFT key while selecting Styles from the Format menu. Scroll down the Style list and select PostScript.

The following routine will print the word DRAFT diagonally across each page of a document when placed in the header of the document.

```
.page.
/Times-Bold findfont 100 scalefont
setfont
wp$x 2.8 div wp$y 3.5 div translate
0 setlinewidth
52.3 rotate 0 0 moveto (D R A F T)
true charpath
gsave .95 setgray fill grestore
stroke
```

By changing the text (D R A F T) you can print different words across the page. The brackets around the text are not printed, but must enclose the text to be printed.

This routine will draw a hairline border round the paragraph which follows it.

```
.para.
wp$box
.5 setlinewidth
stroke
```

By varying the setlinewidth value (.5) the line thickness can be changed.

Here is a routine to place a grey fill background behind the following paragraph.

```
.para.
wp$box
.8 setgray
fill
```

To vary the density of the grey fill, alter the setgray value (.8). The .8 value is equivalent to 20% grey fill, 0 is black and 1 is white.

By combining thetwo previous routines, you can create a grey filled box with a hairline border behind the following paragraph.

```
.para.
wp$box
gsave
.8 setgray
fill
grestore
.5 setlinewidth
stroke
```

If you replace the .para. command in the previous three examples with .page. you will get a border round the entire page. Similarly, .pic. will apply the effects to the next picture in the document.

By the way, don't forget to de-select Show Hidden Text before repaginating your document.

ACTAPPLE HARDWARE FOR LOAN TO CLUB MEMBERS

Logan Brill
Equipment Loans

The following is an updated article that is printed from time to time to inform new members and remind other members of the hardware that is available for loan through the club.

* JOYSTICK - two joysticks, one with and one without self-centring spring loaded mechanism. Connectors for][+ and the //e, //c, IIgs.

* 80 COLUMN CARD (Videx) - used normally for more serious pursuits such as word processing, data management etc. Since a standard APPLE II? has a text screen format of only 40 column positions this, or a similar piece of hardware, is required if you want to see the whole width of an A4 sheet of paper reproduced on the screen. APPLE //e owners would probably be better served with one of the cards marketed specifically for the IIe. IIc users need not apply.

* Z80 CARD (Microsoft) - normally used to run application programs available under the CP/M operating system e.g. Wordstar, dBASE II etc. It can also be used to develop understanding of Z80 assembly language programming or simply knowledge of the CP/M operating system. This card will run in both the II and the //e and you will need to have access to a disk with CP/M.

* 16k RAM CARD - used normally by APPLE II+ owners to extend the amount of RAM available from 48k to 64k thus enabling other languages to be used e.g. Pascal (hence APPLE's reference to a LANGUAGE CARD). There are a variety of other uses all largely dependent on requiring the extra memory. APPLE IIe and IIc owners have no need for this card.

* GRAPPLER + PRINTER INTERFACE - used to control a printer and includes graphics dump controls to facilitate the printing of pictures directly from the screen. The APPLE or EPSON cards usually require some programming to achieve the same effect with graphics but there are a number of cards with features similar to the GRAPPLER e.g. Automatic Ice and Digitek Printmaster. Text handling is similar in all these cards, differing only in their ability to do fancy things like underlines etc. with ease.

* 128K RAM CARD - While the directly addressable memory, RAM, available in an Apple II is limited to the 64K on the mother board (due to the nature of the beast - the 8 bit processor). Using bank switching, it is possible to use extra RAM. Several software packages can access the extra memory provided by a RAM card. The RAM card can also be used for other functions, such as a pseudo disk drive. In this case, a modified DOS thinks that there is a controller card with disk drive in the slot occupied by the RAM card. While this is still volatile memory, that is it is lost when the computer is turned off, for programs doing frequent disk accesses the time saving is appreciable. The card conforms to the Saturn RAM card configuration (the most common RAM card in use) and software utilities for DOS 3.3, CP/M and Pascal are provided.

* SERIAL INTERFACE CARD - there are two serial cards, an Apple Communications Card and a California Computer Systems Card (CCS 7710D). Their main purpose is to provide a serial interface, in the form of an RS-232C port, in the II and //e to connect to serial devices such as printers, modems, etc.

* DISK DRIVE ANALYZER - is a disk with several utilities to test a disk drive. These utilities include a speed check, clamping test, alignment check, etc. The tests are valuable only in that you may be able to pinpoint deficient performance to a particular function of a disk drive. Some deficiencies you will be able to correct yourself but others (especially alignment) you will need to have corrected by a technician who has access to the proper equipment.

* MOUSE - //e mouse and mouse controller card.

* MODEMS - The club has two 300 bps manual dial modems (Sendata V21) and an AVTEK Multimodem and an AutoIce modem for the higher speeds and the 1200/75 split baud rate for access to Viatel. While the appropriate hardware (cables, telephone plugs, etc) will be provided, the user will need to provide the necessary software (eg Visiterm, ASCII Express, Kermit, Zterm, MacTerminal, etc).

* DETATCHED KEYBOARD - is a free standing programmable keyboard that can be attached to a II. It facilitates upper/lower case entry, provides a numeric keypad, better cursor control, programmable function keys, single keystroke operation for the main DOS and BASIC commands and extra keys such as Break, Halt and Tab. The Multitech MAK II keyboard functionally replaces the existing Apple keyboard and in order to get full operation, one or two ROMs (depending on the version of the Apple) on the motherboard have to be replaced.

* EPROM BURNER - used to create permanent memory chips to either change or extend facilities not offered by the PROMS (Programmable Read Only Memory as opposed to Erasable Programmable Read Only Memory) contained within a normal APPLE. Essentially memory programmed into such chips will remain regardless of whether the APPLE is on or off and in fact can only be erased by ultraviolet light such as that provided by an EPROM Eraser. Typical applications seem to have been dominated by the development of keyboard EPROMS to allow upper/lower case, but other ideas are equally valid and are limited only by talent to support the imagination. Successful use requires some knowledge of assembly or machine language programming. Can be used by APPLE][or //e, IIc owners need not apply.

* FAIRY TTL TESTER - tests the functions of the common TTL logic chips and reports on whether they are functioning correctly or not.

* PRINTER RIBBON RE-INKER - The MacInker, currently held by the MacSIG, will re-ink EPSON cartridges and the C-ITOH Alpha cartridge as used in the C-ITOH 8510, Prowriter, Apple DMP and Imagewriter printers. Re-inked ribbons are available on exchange or ribbons can be left for re-inking and picked up at the next meeting (Cost: $3.00 per ribbon).

* POWER SUPPLIES - two "Apple II" type power supplies are available for those members who are having power problems and need a short term replacement while their own is being tested or repaired.

* MAINS FILTER - provides basic filtering of the 240V power. If you suspect that problems you are experiencing with you computer are due to interference in the mains power supply, especially spikes, try this device.

* DISK NOTCHERS - small punches for notching 5 1/4" floppy disks so that they may be written on the reverse side.

* ENGRAVING TOOL - put identity marks on your equipment to reduce the chance of theft or in the case of its loss, increase the possibility of its recovery.

* THUNDERSCAN - a graphics digitiser that operates on the Mac and modifies the Imagewriter (8" carriage) so that it behaves as a graphics "reader" instead of a printer. Pictures can be loaded into the Mac, modified and reprinted as required. The Thunderscan is held by the MacSIG.

* BOOKS
Hardware Fault Diagnosis
Beneath Apple DOS

HOW CAN I BORROW HARDWARE?
Terms of loan are fairly flexible. Items are loaned on a no cost "first come, first served" basis. Articles are borrowed at the meeting, or on arrangement between meetings, and returned at the next meeting.

DRIVE TIME

Apple //c owners may have read with some relief that there is now a hard disk available for the //c. It is the Chinook CT-20c (20 Mb). It has its own power supply and plugs into the Smartport on the //c (3.5 ROMs required). Existing floppy drives can be daisy chained off the Chinook. Recommended retail price $US850.

Apple II+, //e and IIgs owners cop this. Megaboard Hard Drive Controller. An ST506 hard disk interface controller card for the Apple II. It will work with low-cost PC hard drives up to 64 Mb.

It supports ProDOS, DOS 3.3, CP/M and UCSD Pascal, with freely adjustable partitions for each operating system. Can be booted from any of the above systems and has the ability to move between operating systems at a keystroke.

The interface card fits in any slot 1 to 7 inclusive and comes with software, manual and cable. It is currently being advertised by Perlin Electronics, 7394 Calle Real, Goleta CA 93117, USA at $US195.

This is attractive because PC hard drives are cheap. In fact I know of two instances where PC owners upgraded their hard drives and gave the old drives (20 and 32 Mb) away.

If you want a SCSI drive, they are readily available in the US. While Apple drives are very expensive, starting at $US1200, there are other options. Interface cards are made by Apple, CMS, Cirtech and Chinook. The cheaper retail around $US100. With a 64 Mb hard drive the price starts around $US670. This setup would typically be an Apple SCSI card, Seagate ST-277N hard drive and a cabinet and power supply.

If you already have a MFM or RLL "IBM type" hard drive, you can buy an adaptor board that will convert it to a SCSI drive, these adaptor boards are around $US140 (or $US270 including a SCSI card).

TimeOut Update

by Les Humphrey

As at the December 88 here are the current versions of the Beagle Bros TimeOut series programs:

DeskTools 2.0
DeskTools II 1.1
FileMaster 2.0
Graph 2.0
MacroTools 2.0
MacroTools II 1.0
Paint 1.0
PowerPack 1.2
QuickSpell 2.0
SideSpread 2.0
SpreadTools 1.0
SuperFonts 2.0
Thesaurus 1.0
TimeOut 2.1
UltraMacros 2.2

The latest gossip that I have about TimeOut Accountant is that it was due for release in USA late February 89.

FOR SALE

This was going to be the best buy of the year. Alas, most of the equipment was sold while the add was in draft form. Fortunately there are a couple of items left for the bargain hunters.

Microbuffer (parallel printer card with 32K buffer)	$45
Graphics printer card (suit C-ITOH 8510/Prowriter, NEC etc)	$20
CCS 7710D Serial card	$35
Microsoft Z80 card	$25
Apple Scribe printer (colour and black spare ribbons)	$125
Sendata 300 bps modem	$75
Apple Language Card	$25
RGB IIA card	$30
Videx Enhancer board	$20
Assorted cables	CHEAP

All goods are in prime condition.
Logan Brill
Ph 821948 (AH)

APPLE IIGS - FASTER THAN A MAC?

by Len Sorbello

It's true. The IIGS operating under System 5.02 with at least 1.75meg Ram and A Vulcan 40 meg Internal Hard Disk is much faster at many functions than a Mac Plus or a Mac SE (other than the SE30). What's more the IIGS does it on a bigger screen and in colour!

I have a IIGS at home and use a range of Macs at work and can testify to the performance of the GS as compared to the Mac.

I find myself in total agreement with the article in last month's Newsletter written by Stephen Davidson of AUSOM. While Apple have supported the IIGS by developing new System software, it has been left to user enthusiasts to sing its praises and third parties (commendably I include Claris in this) to show what the GS is capable of.

The fact is Apple (Australia) has not advertised the Apple II or the IIGS in recent times - the only way people realise the GS even exists is through the efforts of sympathetic dealers and User Groups. Really its quite astonishing. With very little effort, the GS could readily become a big hit in the home, schools and small business markets - I will demonstrate this in the coming months in a series of articles on the IIGS.

The retort to Stephen Davidson's article by "Happy Apple user" in the last newsletter is based on a complete lack of knowledge of the capabilities of the IIGS. For those of you who missed it, "Happy Apple User" suggested that the Apple II has seen its time as a computer and people should move on and upgrade to the Mac and not grumble. Oh, that it were so simple or that the premise he/she suggests were true.

The facts are that the IIGS is merely three years old, it's a 16 bit machine, it has programs which are not available on any other computer (IBMs. Amigas etc. included) and its capabilities are only now being realised. These are hardly the characteristics of a computer which is ready for a trade in. Make no mistake, I like the MAC particularly the MACII which is a superb productivity and business machine. But, in my view, the GS is a far better proposition as regards the markets mentioned above than the heavily discounted Mac Pluses which Apple were marketing over Xmas '89. Hopefully Apple will soon wake up from their reported financial slump (in the US) and begin making some money again marketing the Apple II instead of ignoring it. Apple would be far better off abandoning its new slogan "Take home a Mac" and instead encouraging people to take home a IIGS.

To cut a long story short, the purpose of these articles is to let prospective purchases of the GS know what to expect and to help existing owners gain more from their machines. As far as possible I will try to keep the technical jargon down to a minimum.

These are the topics I hope to cover:

- Hardware options
- System requirements
- Desk Accessories and Utilities
- Software:
  - Business [including Word Processing, Data Bases, Desktop Publishing etc]
  - Educational
  - Graphics
  - Musical
  - Entertainment

The emphasis will be on IIGS specific programs and I will let you know where to purchase them from.

If there is anything you would like covered or there are any questions you would like answered please let me know. The articles will be frank - it's not all roses with the IIGS: there have been many problems and these will be detailed although thankfully most have been, or are, being addressed. So stay tuned till next month!

Special Meeting of HyperCard Special Interest Group

The next meeting of the HyperCard Special Interest Group will be held at Apple Computer, 31 Thesiger Court, Deakin at 1930 hours on Tuesday 20 March. Please note that this meeting is being held one week later than it would normally have been held. This is because Robert Crago will be giving HyperCard seminars in Canberra during this week and has very generously agreed to address our group on the latest developments in HyperCard. Anyone who has any interest in HyperCard is welcome to attend.

A.C.T.Apple Newsletter March 90

CRASH-FREE SYSTEM 7!

This is hearsay, but so important I'm passing it on as I heard it. I have no reason to doubt it, though.

My friend John has been running system 7 since November last year. He hasn't had a single system error since he began. In view of the article from Peter Breis in the February newsletter, and other articles I've seen bemoaning problems with system 7, this is amazing!

His is no simple setup either:

- John runs two hard disks (a quantum 40meg and a swift 200 meg).
- he runs many applications, from the biggest and newest e.g. Photoshop, to ancient applications that have been around for years.
- he has many startup documents.

How does he account for his trouble-free run? - On the advice of act office equipment, he reformatted each hard disk with the formatter that comes with system 7. Then he installed system 7.

He says that simply defragmenting the disks with a disk optimiser is not enough.

Incidentally he says that he's had no trouble with any of his applications, despite the doom and gloom prophesied for most of them by that sniffer disk put out by Apple, provided you disable virtual memory - some of them can't cope with it.

I haven't tested all this myself, so you might want to phone ACT Office equipment to confirm it.

Best of luck -
Stephen Hodgkin.

Why Wasn't I Told?

Gordon White

I've owned 3 computers. The first one was a second-hand "enthusiast's" Apple][+. It came to me with lots of added bells and whistles, some of which I still don't understand! I used it heaps and learned to compute with it. Second was an enhanced //e as a replacement for the][+, and I use it regularly and enthusiastically. Third came a Macintosh.

But I want to talk about Apple's marketing.

When the Apple II GS was released it came with a desktop that could run on an 8 bit computer, called MOUSE.DESK. It looks and operates pretty much like any of Apple's GUI Desktops. I've just seen it. Yes, I said I've JUST seen it. How long ago was the GS released? MOUSE.DESK is beaut for all //e,//c owners with a mouse and two drives, or a 3.5" drive, or extra memory, or hard disk - anything extra from the most basic model. It's free, too.

For a long time I used DOS 3.3 on my //e for ordinary use, and only used ProDOS with programs that came on/with it. I hadn't seen any good Public Domain menu porgrams for ProDOS *(and wasn't going to buy one, 'cos I thought that I shouldn't have to). How many users of Apple //'s out there have been kept in the dark like this. Why didn't Apple give me MOUSE.DESK when they sold me my mouse, or offer to sell it to me. The //e and GS have been neglected and Apple would like to ignore them both, they've made that clear, but it makes me wonder what else I've missed out on, or not been told about.

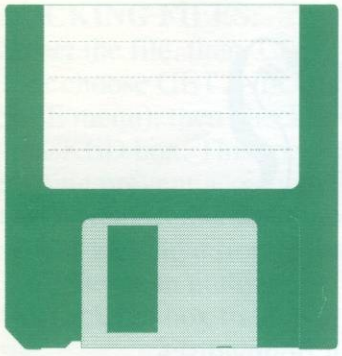
Don't think that I'm simply another disgruntled Apple // owner that is paranoid about Apple trying to "get at" me, and tell me that I should just shut-up and buy myself a Macintosh. Remember that I DO own a Macintosh (and maintain another 22 in two networks). I enjoy using my //e, and will continue to use both my computers.

Apple seems to want to inform us from time to time about what is best for us. They direct the consumer choices by offering us what they think we need. They offer us cheap Mac's when they think we are ready for them, (milking us before this certain time).

I am not a heretic, I am a devoted Apple user. I teach and use several other types of computers on a daily basis - but only because I have to, and I have nothing but praise for Apple computers. I just feel that Apple needs to listen occasionally. If Apple wants to drop the //'s, so be it. But for goodness sake, sell them off to somebody else who can add some extra memory, 3.5" disk drive and have a go at reviving interest and market niche for them. Apple wants to have it both ways. They want to drop the // series (and support for them) AND keep the people who use them. What they are actually doing is frustrating many of their "family". (Yes, I know about Lasers, but I'm not talking about clones.)

Apple // computers are a perfectly serviceable and charming computer for a large number of people. If Apple are so desperate to get rid of them and keep the users, then offer them trade-ins when they buy their Mac's. I feel somewhat insulted by the way Apple is treating me and many other users. Apple has been surprised by the loyalty to the //. What will they do about it?

* "MENUPro" is available as the startup on any of my P.D. disks available from our library.



DISK ACCESS

Seven Hills Software Presents...
Disk Access

Drat! You just ran out of disk space and need another formatted disk. If you have to quit your program to initialize a disk you lose your work. Or, you may simply want to rename a file without having to quit to the Finder. Well you can now perform these and many other "housekeeping" tasks without having to quit the program you are using. The answer is Disk Access, the handy new desk accessory for the Apple IIgs that will save you countless hours of time and frustration!

Disk Access is a full blown application in a desk accessory! Everything you can do with the Finder can be done with Disk Access and more! In addition to the Finder's ability to initialize disks, create new folders, and copy, rename, delete, and verify files, folders and disks, Disk Access finds files by name with a variety of options, shows the contents of a file, and lets you change file information (including filetypes/auxtypes). Like the Finder, Disk Access properly handles both the data and resource "forks" found in the "extended" files introduced with System 5.0.

Disk Access is faster than the Finder and takes less disk space. When used in combination with the free program launcher included with most Seven Hills Software (including Disk Access), you can eliminate the Finder completely to gain valuable disk space. With the program launcher, "Out To Launch", you can create a list of frequently used programs so you are just "click" away from your favourite applications. Of course it gives you access to all your Desk Accessories so you'll still be able to use Disk Access.

Disk Access works with programs that operate with any version of GS/OS. The only requirement is that the program supports new desk accessories and that your computer has enough memory. To check if you are likely to have enough memory for Disk Access, while you are using your software, check the amount of memory available by checking the RAM option in the Control Panel Desk Accessory. If there is al least 128k of memory available, you can use Disk Access. If you don't have enough memory, Disk Initializer, sold separately, requires just 4.5k of memory. This Desk Accessory lets you initialize 3.5" and 5.25" disks from within the GS/OS program you are using.

This product was demonstrated at out February meeting but if you missed out on a demonstration of Disk Access and would like to see it in action, see Michael Hickey and his IIgs before any general meeting.

Disk Access is a Seven Hills Software product distributed by:
II Series Software,
PO BOX 1,
West Hoxton
NSW 2171
02 606 9343

The suggested retail price of Disk Access is $49.95 (demo version is $8 from ACT Apple's Apple II PD Library).

Requires: Apple IIGs with 128k of free RAM running GS/OS 5.0 or higher. Also includes: 40 page manual, GS/OS, and Out To Launch

FOR SALE

PUBLISH-IT! EASY $170
scarcely out of the box
(cost $299 new)
It won MacUser's 1990 Editors' Choice award for Best Page Design program. That's why I bought it — but it doesn't really suit small Mac screens. So if you have a bigger screen, go for it!
Stephen, 257-2885.

FOR SALE

American Micro Research
800k Disk Drive

Fully compatible
with Apple's 3.5" drive
Daisy chain 3.5" and 5.25" drives
Bootable
Works with all software (including Photonix)
Suits Mac, Apple IIgs and IIe (with interface card)
Even cheaper than last month

ONLY $275 or offer
Call Michael Hickey on
(h) 231 3787 or
(w) 289 6413

C'mon make me an offer!

FOR SALE

//e card for Mac LC	$249
5.25" Apple Drive	$429

Apple IIe with
Duodrive, 128K,
Green Screen,
2 superserial cards,
AppleWorks $700

Call Gillian Hunt
254 2404 (h)

An Open Letter from Apple's CEO

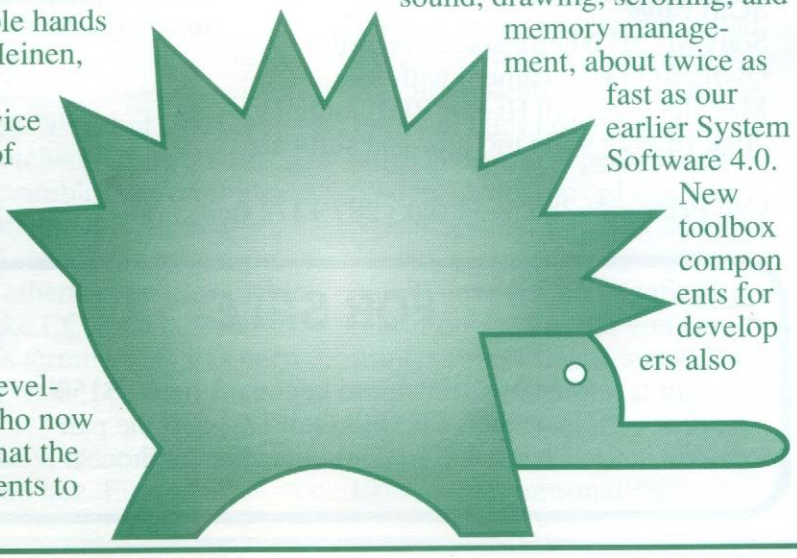
Reprinted from inCider/A+
October 1990

Have no doubt, Apple Computer Inc. is committed to supporting and marketing the Apple II computer for years to come.

Speculation whirling in the marketplace about the Apple II product family has users confused about Apple's commitment to the line. With this open letter to readers of inCider/A+, I hope to dispel concern and assure our Apple II customers that their loyalty to Apple and its products is warrented. I also will address how changes in the marketplace affect the future.

Apple II buyers are a very loyal and passionate group, and your continued appreciation of our products guides us in our decisions. It is particularly gratifying to me and Apple II engineers, both past and present, to see that the Apple II, which launched Apple as a business, continues to be endorsed by educators, consumers, and small-business owners.

During the past few months, I've become more personally involved in Apple's product research and development efforts. Recently funds to continue to improve the Apple II product line were increased substantially. The future of the Apple II's development has been put into the very capable hands of Roger Heinen, Apple Products' vice president of software, and Ralph Russo, Apple Products' director of Apple II development, who now sees to it that the enhancements to the Apple II on the drawing board come to fruition.



Within the last year we've also added employees in both worldwide product marketing and USA product marketing dedicated to the Apple II line.

In 1989 and so far in 1990, Apple introduced a number of significant technological improvements for the Apple IIgs, IIc Plus and IIe without increasing the price of the basic products. Currently, we are working closely with Apple II hardware and software developers to encourage the creation of innovative products for the Apple II family and to provide them with the information they need to make decisions so their businesses continue to be viable. A number of developers in the past year introduced new software and hardware for the Apple II family, as well as made commitments to their customers to continue to introduce creative new products that support our own Apple II development.

One major step Apple made last year to ensure the longevity of the IIgs was to introduce Apple IIgs System Software 5.0, the first 16-bit operating system for the IIgs that operates over the AppleTalk network system. In response to requests from customers and developers for improved ease of use and functionality, Apple improved the system software's speed and network capabilities as well as made changes to the toolbox that enable the system to handle basic functions, including sound, drawing, scrolling, and memory management, about twice as fast as our earlier System Software 4.0. New toolbox components for developers also make programming for the Apple IIgs easier and faster.

Besides new system software, Apple last year expanded standard memory for the Apple IIgs to 1 megabyte without increasing cost and introduced the Apple II Video Overlay Card, which gives our customers the ability to use the Apple II as a basic interactive multimedia platform. In March, we introduces the Apple II High-Speed SCSI Card, which moves information up to ten times faster between Apple II computers and peripherals. This card provides the user with greater functionality at the same price as the earlier card. This new High-Speed SCSI Card is just one example of Apple's philosophy - based on customers' needs - to allow Apple II users access to many of the same SCSI peripheral devices as Macintosh users. By building bridges between Apple's two product lines, our customers can take advantage of the strength of each. Taken together, our recent II products equal significant improvement in functionality and increase the value of Apple IIs for our customers and developers.

We also understand our customers' need for continued enhancements to the product line, including improvements in the way Apple II and Macintosh computers interact on the AppleTalk network. Apple II customers, particularly primary and secondary schools, want their installed base of Apple IIs to operate in concert with newer Macintosh purchases. We are currently working on a variety of "bridges" between the Apple II and Macintosh families to make that synergy even better, During 1990 and 1991, Apple will introduce several new entry-level Macintosh computers, and at least one will have Apple II emulation capabilities.

I can reassure our Apple customers that we value the Apple II product family as an asset, which we will continue to nourish. Beyond that, I am not at liberty to disclose specific product plans.

New products aren't the entire

answer, and at Apple we are constantly evaluating the changing needs of the Apple II community to ensure top-notch service. We recently established a one-year warranty for new owners of Apple II computers and we continue to offer AppleCare to all owners of Apple II computers.

As tool makers of state-of-the-art personal computers, we recognize the technological limits of the Apple II line, but at the same time these products have neither lost usefulness, nor are they obsolete. Hundreds of thousands of educators, consumers, and small-business owners worldwide rely on the Apple IIgs, IIe, and IIc Plus and will for many years to come. For those reasons, Apple Computer is committed to continuing to enhance the IIgs's functionality, improve our support to customers, and encourage developers to push Apple II technology as far as it can go. As Apple develops new entry-level products, the Apple II family will continue to be recognized for the immense value it provides our customers and our company.

We've made that commitment to customers both in person and in a special videotape mailed to more than 10,000 education customers this spring. In addition to a videotape, customers also received a new guide to Apple II software that cited nearly 200 new Apple II education software products to add to the already extensive library of software for the Apple II family. This fall you will see from Apple a new Apple II resource that will be a comprehensive guide covering a wide range of topics, including technical product information, telecommunications, media integration, and service and support. This new guide is another in Apple's continuing effort not only to reward your loyalty but also to make owning and using an Apple II computer the great experience it was meant to be.

John Sculley
Apple Computer Inc.

SUPERCONVERT V3.01

Seven Hills Software Presents...

At the February meeting some of us saw a demonstration of SuperConvert v3.01. Formerly known as SHRConvert, when it was a shareware product, SuperConvert has dramatically matured into a comprehensive link between your IIgs and virtually any graphic produced on any major microcomputer system.

This program converts formats from Apple II, Macintosh, IBM, Atari ST, Amiga, Commodore 64/128, and even computer-independent formats such as GIF, to formats that are usable on your Apple IIgs.

It's easy to use. Just transfer the desired graphic onto A IIGS disk, via modem or other means, then convert it to super hi-res with SuperConvert. Converted images can be printed directly with SuperConvert with a variety of options including the ability to print wall-size posters!

But Superconvert is not just for converting formats from other computers! Use its powerful "Remap Image" command to easily convert a 32O mode image so it appears correctly in 64O mode programs. Or change a color image into a grayscale or black and white picture.

SuperConvert can be used to produce color slides from any 32O mode graphic. This feature is perfect for teachers' classroom materials, game players' authentication, and anyone who wants crystal-clear screen shots. It even generates "font sample" pages, "font key" charts and can make any image appear as your "desktop background".

SuperConvert can display up to 3200 colors on screen in 320 mode by using a different 16 color palette for each scan line, allowing you to view 256 color graphics on the IIgs.

Use Superconvert for all your graphics conversion needs!

If you missed out on a demonstration of SuperConvert and would like to see it (or any other Seven Hills Software product) in action, see Michael Hickey and his IIgs before any general meeting.

SuperConvert is a Seven Hills Software product distributed by:

II Series Software,
PO BOX 1,
West Hoxton
NSW 2171
02 606 9343

Suggested retail is only $39.95

Requires: Apple IIGs with 1MB RAM and at least one 3.5" disk drive

Also includes: 200 page manual, GS/OS, Out To Launch, and Disk Initializer

CHRISTENSEN PROTOCOL

courtesy of Apple-Bug, January 1989

What is Christensen protocol and how does it differ from Xmodem? Are they compatible? Does Apple Access support the Christensen protocol?

"Xmodem" is more or less a media representation of Christensen protocol. Originally Xmodem was just a program on RCPM systems that used the protocol. It eventually became a generic buzzword for the protocol itself, unfortunately. The official name of the protocol is Christensen, from its original designer Ward Christensen. There are a number of different implementations - some of which are very brain damaged. (By the way, you can find ASCII Express for as low as $85 at various discount software operations. Apple Access is a toy program.) First off, Christensen's protocol was originally developed for CP/M, and he named his protocol "XMODEM" — hence, we've adopted the name. He's also come out with MODEM7 and a few others. So to answer the original question, Xmodem and Christensen protocols are compatible since they are, for the most part, the same.

The incompatibility factor comes when you're trying to make good use of this protocol in an environment that really needs more information than is sent with Xmodem. For example, under CP/M (where Xmodem originated), file sizes were always MOD 128 bytes in length, and terminated with <Ctrl>Z most likely, to flag the end of file. Files under CP/M don't really have "types", as far as the operating system is concerned, other that a three character "dot extension" to let the user know what kind of program it is. Now let's look at DOS 3.3, which requires a loading address parameter, a file type identifier and probably something else (I'm no DOS 3.3 expert). AE Pro needs to save an Xmodem "receive to disk" in such a way as to make the data useful -- so Bill Blue and Mark Robbins came up with a scheme of moving special Apple-only file information along with the transfer so that the receiving side (most likely another Apple) could restore the original file to its proper state (to maintain file type, loading address, etc.). The ProDOS version of AE Pro is even more complex. It sends an extra data packet at the end of the transfer that tells all sorts of information about the file in question (type, time and date created/modified, block size, loading address, record size, number of bytes, etc.). This special implementation should not cause a properly-written Xmodem receiver to choke on the transfer. It should get AE's special characters at the beginning of the transfer and just flag them as errors. AE sees these errors and then knows that it isn't talking to another Apple, so it reverts into a standard Christensen mode.

The basic protocol is MODEM2 released by Ward Christensen in 1979. It provided for both a terminal mode and a file transfer mode. All Christensen compatible modem programs use this protocol, but was enhanced with the addition of CRC mode as explained in the body of this document. Xmodem uses the same protocol as Modem2 but with the deletion (X'ed) of the terminal mode for use by RCPM operators so that callers had use of file transfer capabilities compatible with Modem2. This deletion and naming of Xmodem was done by Keith Petersen.

Obviously, it was desirable to be able to prevent remote users from putting the program into terminal mode. The program also prevented users from transferring executable files to an RCPM and then being able to execute them. They had to be renamed so that the extension part of the name would prevent execution until renamed by the RCPM Sysop.

Modem7 is the name of the original expansion of Modem2 that added batch file capability. This was done by Mark Zeiger and James K. Mills in 1980. There are many variants of this program with enhanced terminal mode capabilities, printer buffering, etc. - but the claim to be Modem7 compatible protocol should be reserved for programs that are first, Modem2 compatible; and second, batch mode capable with file name sending compatible with Modem7 filespec protocol. Other batch name protocols such as Minitel and YAM are not Modem7 compatible.

FOR SALE

Graphics printer card (suit C-ITOH 8510/Prowriter, NEC etc)	$20
CCS 7710D Serial card	$35
Microsoft Z80 card	$25
Apple Scribe printer (colour and black spare ribbons)	$125
Sendata 300 bps modem	$75
RGB IIA card	$30
Videx Enhancer board	$20
Assorted cables	CHEAP

All goods are in prime condition.
Logan Brill
Ph 821948 (AH)

MEMBERSHIP REPORT MARCH 1989

NEW MEMBERS	6
RENEWALS	11
NOT RENEWING	15
TOTAL FINANCIAL	262
Comprising:	
Mac's	122
][‘s	133
Clones (][‘s)	14
No system	9

R.Hibberd
Membership Secretary

THE //C TRIBE

by Brian Mattick

Since the birth of the //c, there have been two siblings. Their names are:

1. Original //c (born April 86)
2. Unidisk 3.5 //c (born early 86)
3. Memory expansion //c (born September 86)

The immediate family also included cousins for the international market, some of whom could not speak English.

I believe only two siblings immigrated to Australia; the original and the memory expansion. The latter was the easiest of all the tribe to recognize as it had a 'platinum' keyboard to match the colour scheme of the //GS. All the earlier members has a 'beige' keyboard. (Note 1)

The //c was different from its predecessor the //e. While still an 8 bit machine and possessing downward compatibility with the //e, it had a closed architecture, like the Mac, a 65C02 microprocessor and 128K of RAM. The original //c had no expansion slots, only ports which were the equivalent of firmware interface cards in slots. The memory expansion model had one slot (slot 4). All //c's carried a 32 icon Mousetext in ROM.

Apart from the minor cosmetic differences the //c siblings carry some significant internal differences which have considerable importance for software developers.

The port configuration for the original //c is:

Port	Use
1	printer
2	communication
3	enhanced video
4	mouse
5	reserved (unused)
6	built-in & external drive
7	external drive startup (ProDOS)

The port configuration for the memory expansion //c is:

Port	Use
1	printer
2	communication
3	enhanced video
4	memory expansion
5	intelligent devices (Smartport)
6	built-in & external drive
7	mouse

The unidisk and memory expansion models have a completely different motherboard to the original //c. (Note 2) The new motherboard has 32K of ROM, double the original, to fit:

1. the Smartport
2. four new serial and port commands
3. two new system monitor commands
4. an improved interrupt handler
5. built in diagnostics
6. new extended drive startup procedures
7. a mini-assembler

The Smartport supports a daisy chain configuration of intelligent devices connected to the external drive port. You can add a unidisk, a hard disc and theoretically up to 127 devices provided your power supply can support them. The 5.25 inch drive will be recognized as slot 6 if it is the last item on the chain.

The Smartport was a major improvement over the original //c as the original could only support a 5.25 inch external disc drive and nothing else. (Note 2)

The new serial commands help in writing programs that are compatible to the Apple Super Serial Card.

The STEP and TRACE monitor commands help in debugging assembly language programs.

The built in diagnostics are of no use to us but useful during production. To exercise the routine press both APPLE keys when switching on or doing a cold restart.

The mini-assembler is no substitute for a decent software package but a useful bare-bones job. To enter first type CALL-151 to invoke the monitor, then type ! and press RETURN. The prompt should change from an asterisk to an exclamation mark. To leave, press RETURN from a blank line.

Memory expansion is another subject. The //c accesses the Apple memory Expansion card as a RAM disk, not as an extension of the computers main memory. This is different to the //e auxiliary slot memory expansion cards or Checkmate and Applied Engineering cards for the //c.

Apple moved the mouse firmware from port 4 to port 7. A programmer cannot simply assume a particular device is at a certain location, you must interrogate the machine to find out which devices are there.

Lastly, Apple decided to reassign some of the settings in the screen holes. Programs that make direct peek or pokes to these locations will crash.

The //c was a hybrid and never considered the real development direction of the // series. The IIgs got Apple back on stream, as it where. Never the less, when it was released the //c, with 128K of RAM, broke new

WANTED

This is the second time of asking.

Do you have or know the whereabouts of a cheap Apple (or clone)? The machine does not have to be working or complete. A recognisable motherboard will suffice. If you think you can help please give me a call on 821948 (ah). Any assistance would be greatly appreciated.

Logan Brill
Hardware Loans

ground for an 8 bit machine.

The //c was not a laptop and shortly after the //c release the laptop market boomed. There were rumours that the //c line would be dropped. But, late last year a new sibling emerged, the //c+ . It has a similar shape to its predecessors, but the 80/40 switch is gone and the volume control is out. The big changes are an internal power source (about time), an internal 3.5 inch disc drive and it runs at 1 or 4 MHz. The computer, without the monitor or anything else, is priced at about US$700 (low enough to make a grown man cry when I remember how much my original //c cost). The bad news is the power supply; it is only 120 Volts and not switchable to 240 Volts and because of this the //c+ is unlikely to be released in Australia.

Note 1. If, like me, you are colour blind then check the ID byte at $FBBF. The original has a value of $FF, while the memory expansion has $03.

Note 2. The original can be upgraded and in the USA Apple did this for free if you bought a Unidisk 3.5 drive or Apple //c memory expansion card. I don't know what the cost is for a straight upgrade, or for the parts to do it yourself, or if the same replacement policy applies in Australia. Maybe someone else has information on this subject.

April Meetings

Thursday 13th April, 7:15 pm

General
Apple Australia (Canberra Office) staff (Ian Thomason and cohorts) will present the recently released new products from Apple Computer. Ian hopes to have a Macintosh IIcx, Macintosh SE30, as well as the new Portrait and the Two Page display screens.

Mac SIG
Hands on session with the new hardware.

Apple II
An introduction to the operating systems available on the Apple II range. (Dos 3.3, ProDos, CPM & ??)

Tuesday 18th April, 7:30 pm

Macintosh
Hypercard Pt 3 (remember to bring your Mac)

Apple II
Subject to an expressed demand at the Thursday meeting Logan and Graeme will be offering a session for inexperienced users: Introduction the Apple II.

HyperCard Workshops

by Brian Murphy

Although it was raining "cats and dogs", we still had another good roll-up at the HyperCard Workshop held on Tuesday 14 March at the O'Connell Education Centre (OEC), Griffith. Peter Thomas, who is a Systems Engineer with Apple Computer, led the session which dealt with stack creation. Despite the atrocious weather, failure of the Mac overhead projector equipment that afternoon and a young son in hospital after swallowing a large amount of pills, Peter was still able to give a very interesting coverage of the subject matter.

Work commitments permitting, Peter is very keen to continue as the HyperCard Workshop leader and it is proposed to run the next session on:

TUESDAY 18 APRIL COMMENCING AT 7:30 PM IN LECTURE ROOM 1 AT THE OEC.

Peter wishes to continue with self-paced tutorials for the time being with a view to commencing specific group project work in the not too distant future. One worthwhile project that he has in mind is the development of tourist information stacks for the Canberra Tourist Bureau .This would involve the collection of a considerable amount of data of interest to tourists visiting Canberra and the creation of HyperCard stacks suitable for use at the various information offices, such as the one on Northbourne Avenue.

If wishing to participate in the workshop, please bring your own system (minimum configuration 1MB RAM, 2 x 800K drives or, preferably, a hard disk). It may be possible for Peter to supply one or two additional Macs on some occasions. If you are using a 1MB configuration you may need to strip down your system folder before attending the workshop in order that you can run HyperCard - or you may need to create a special start-up disk with a very lean system on it.

TIPS FROM OPEN-APPLE

Here's a patch I came up with to make BASIC.SYSTEM display the aux type of all types of files, rather than just TXT and BIN files:

```
BLOAD BAS-
IC.SYSTEM,TSYS,A$2000
CALL-151
2EF6:13
2F13:11
3D0G
BSAVE BAS-
IC.SYSTEM,TSYS,A$2000
```

The above patch can help out a lot when trying to decipher the various types of IIgs picture files (April 1988, page 4.24), among other things. A lot of other files have interesting information here, too.

◊◊◊◊

If you have a No-Slot Clock in your Apple and are considering replacing the 6502 (65C02) with a 65802, there is a minor incompatibility problem. The software that comes with the No-Slot Clock does not recognise the clock or even confirm that it exists if it is installed on the motherboard. The solution is to move the No-Slot Clock from the motherboard to one of the expansion cards (regardless of slot number).

◊◊◊◊

Apple has released the Apple //c Plus computer. It includes a new microprocessor which runs at 4 Mhz (clock speed), an in-built 3.5" disk drive, SmartPort, internal power supply and Apple's platinum case. According to InCider magazine, this new computer runs faster than an Apple //e fitted with a Zip Chip. The bad news is that it is not available in Australia.

◊◊◊◊

Do you know that Apple sells more computers in Australia than any other manufacturer.

◊◊◊◊

If you get an I/O ERROR while trying to delete a file under ProDOS 8, 16 or GS/OS, you are in bigger trouble than you may think. If you try to delete the file a second time, whether you get an I/O ERROR or not, you will have prepared your disk for slow but sure destruction file by file.
The source of the problem is the manner in wich ProDOS marks deleted files. Without going into the mechanics of why this happens, play safe and copy the files across to a "good" disk and reformat the "problem" disk.

◊◊◊◊

PUBLISH IT 2 has been released. The main additional features are:
- supports extended memory cards which allows larger documents
- can print on all PostScript printers
- can use Print Shop compatible graphics

Upgrades are available.

◊◊◊◊

This machine language program will allow II Plus and //e owners to use their Apples as tape players. Connect the tape player to the Apple cassette ports. Adjust the volume on the player for best results.

```
6000: AD 60 C0   LDA $C060
6003: 30 FB BMI $6000 (or BPL--
      no difference)
6005: AD 30 C0   LDA $C030 (any
      even number
6008: AD 30 C0   LDA $C030
       LDA $C030s)
600B: 4C 00 60   JMP $6000
```

OK? .... try this one

```
6000: A0 1E    LDY #$1E  Create
      150 microsecond
6002: 88       DEY       delay by
      counting
6003: D0 FD    BNE $6002 down
      Y
6005: AD 60 C0 LDA $C060 Get
      cassette input
6008: 45 2F    EOR $2F   com-
      pare it to LAST
600A: 10 F4    BPL $6000 if no
      change, restart
600C: 45 2F    EOR $2F   Input
      changed. Fix A
600E: 85 2F    STA $2F   store
      for last compare
6010: AD 30 C0 LDA $C030
      Tickle speaker
6013: 4C 00 60 JMP $6000 Start
      over
```

◊◊◊◊

If you run AppleWorks from RAM-disk, you can reclaim 8K of space by deleting two files from the Apple-Works startup directory. The file AppleWorks uses when it expands its desktop is -

```
SEG.00   (Aux-Slot memory, incl
         128K)
SEG.XM   (Std-Slot memory)
SEG.RM   (IIgs Mem-Slot mem-
         ory)
```

HELP WANTED

Hartley Street Centre would like a member's assistance to undertake a number of changes to an Applesoft basic program in use with disabled children.

Please contact:
Jill Williamson at Hartley Street Centre (w) 489262 or (h) 476971

DISK SALES

Blank disks can be obtained, at the usual prices, between meetings from:

Northside
Les Humphrey (in Cook), phone 531349 (AH) from 6pm - 9pm

Southside
Logan Brill (in Garran), phone 821948 (AH) from 6pm - 9pm

We now have stocks of high density 1.2 Mb 5-1/4" and 1.44 Mb 3-1/2" disks

A BYTE FROM EACH APPLE

Edward Scharrer

About nine months ago I wanted to upgrade my current Apple *IIc* to something more powerful. (This must be a well worn path, trodden by many people with the same idea in mind.) My main consideration was that the "new" machine had to be able to read all of the valuable data that I had laboriously keyed in over the years, or at least the data must be easily transportable to the "new" machine. It was mainly AppleWorks files that I wanted to transfer to the "new" machine. Firstly I looked at upgrading the *IIc* itself. This included ROM upgrades to accommodate memory cards and a UNI 3.5" Drive, to installing the new 6502 ZIP Chip. Then I considered the *IIGS* . This was an attractive option because the IIGS was able to read PRODOS-8 disks directly. However the cost of a new IIGS was a bit much than I could afford at the time. Then an opportunity arose to purchase a new Macintosh SE at a very good price and in a rush of blood I bought the Mac. (A decision I have not regretted since!)

I realised that the only way (that I knew of at the time) of transferring data from the Apple *II* format to the Mac was by connecting the machines together via their serial ports and down loading the files in an ASCII text format by running communications programs on both machines simultaneously. (Gasp! There had to be a better way.)

After the initial learning period with the Mac, I discovered that the Mac could read 3.5" PRODOS disks using the Utility, Apple File Exchange. (I found this out by reading the manual. Shock! Horror!) The only thing now remaining was to transfer to AppleWorks files onto a 3.5" disk. This is where the IIGS comes in. The following description is the procedure that I used to successfully transfer my AppleWorks files created on the *IIc* to the Mac.

The Procedure.

1. First find someone who is willing to let you use their IIGS with an 800kb 3.5" UNI drive and also an external 5.25" drive as well. Two 5.25" drives is the ideal setup. External drives that use the D19 connector are able to be daisy chained from the back of the 3.5" UNI drive.
2. Initialise a 3.5" disk on the IIGS, using a PRODOS path name, e.g. «/AWDATA/» as the volume name. Depending on what type of drive your Mac has, format the disk to match, either 400kb or 800kb. (Note:- It's best to keep the volume name short because you will be typing it for each file that you transfer, e.g. «/A/»)
3. Run the 8 bit version of AppleWorks on the IIGS and load in a few files using the «Add files to Desktop» command. Select one of the files with the «Open-Apple-Q» command. This is where the two 5.25" drives come in handy. You can run AppleWorks program in one drive and your AppleWorks data disk in the other.
4. The file must now be printed as a text file to the 3.5" disk. Ensure that the /AWDATA/ disk is in the UNI drive. Type «Open-Apple-P» to print the file. Select to print the file as an ASCII text file on disk. AppleWorks will then prompt you for a path name. Type in «/AWDATA/[FileName]». After pressing «return» the file will now be saved as a text file on the 3.5" disk.
5. Once you have saved all of your files in text format, go to the Mac and run the utility Apple File Exchange. Insert the text disk (/AWDATA/) into the Mac drive. Apple File Exchange will read the disk and list the titles of the files on the disk. It will also recognise that it is a PRODOS disk and will add to the menu bar «PRODOS to Mac» and «Mac to PRODOS» options. It is now a simple procedure of selecting the required text file, clicking on the «Transfer» button and your AppleWorks file is transformed to a Mac text file ready to be loaded into a word processor or other applications that accept text files.

Notes.

1. The UNI drive that I used on the IIGS had a capacity of 800kb.
2. As the IIGS is capable of reading multiple drives, some investigation will need to be done in ascertaining where your data disks are, i.e. slots 5 & 6, drive 1,2 etc.
2. The Mac should also have an 800kb drive with a second drive or a hard drive so that the files can be transferred onto the second drive unit.
3. This procedure of transferring files might also work if your Apple *II* has a UNI drive, thus short circuiting the need for a IIGS.
4. This procedure should also work for any other word processor that is capable of saving files in an ASCII text format.

5. Care must be exercised when dealing with 3.5" drives of different capacities in different machines i.e. 400kb, 800kb and the 1.44Mb drives in the new SE/30, IIx and IIcx Mac's. (I have had difficulty in getting the Mac IIx to read 800kb disks. So those of you lucky enough to have one of the new Mac's, some further investigation maybe required in the conversion procedure to make in work. Happy Transferring!

Edward Scharrer 971157 (h)

Membership Report

New Members	7
Renewing	10
Not Renewing	16
Total members	287
Comprising...	
Macs	163
Apple 2s	130
No system	2

Bob Hibberd

Lucky Door Prize

The first membership number drawn was 769, and they weren't there. The second, and winning number was 44 - Justin Kummerow. The prize was a Great Plains Cap donated by ACT Office equipment.

Bob Hibberd

REVIEW OF MAC PUBLIC DOMAIN DISK GAMES 27

by Steve Neilsen.

This games disk contains :-

WYRM
STRATEGO 0.95
RASSLING
SPACE STATION
PHETA, and
WORLD CLASS DEMO

WYRM is a mildly interesting game where worms (little black squiggles) appear at the center of the screen and make for the edge. Their rate of movement is rather slow. As a player you receive a number of pieces or creatures, eg men, horses, dogs etc with which to stop the worms from escaping. Some pieces can make multiple moves, and unfortunately your pieces have only a limited movement range so a degree of strategy (not much!) is required to position your pieces to gain maximum effect. If the Wyrms run into your creature the piece is removed from play. Each generation , ie each set of moves, gives you an additional creature randomly placed at the edge of the screen. I played a few games and found it boring after a time, but theres no accounting for taste. I found the boring bit was repeatedly repositioning my creatures. It may amuse the younger players for a time. At the end of the round a score is given based on how many creatures you lost, how many worms escaped and how many were captured by you. Recommended for a rainy day. Definitely not Multifinder compatible.

STRATEGO 0.95

I did not play this game extensively but I am told by a relia-

continues on page 14

Questions & Answers

Q. I can't get AppleWorks to print. It now won't do anything. What can I do? Can you come over tomorrow and help me?

A. Fortunately in this case it was not something as drastic as a disk crash. Five minutes later I received another call to say that the problem had been fixed. It was not with AppleWorks but with the ImageWriter printer .The "select" button had been turned off.

This is an example of when things go wrong to step back, take a deep breath and calmly work your way through the sequence of events.

Q. When using AppleWorks 3.0 Word Processing how can I change the "Lines per Inch" (LPI) from the normal range of 6 or 8 LPI to a lesser number?

A. Don't forget the Double Space (DS) and the Triple Space (TS) commands in the Printer Options (Open Apple-O). Used in conjunction with the LPI commands the lines are 2, 2.5, 3, 4, 6 or 8 per inch.

Q. I have AppleWorks GS, Version 1.1, and cannot install it on my SCSI hard disk. Do I have a hard disk or an AppleWorks GS problem?

A. It is not the hard disk. The problem has arisen in the System disk 5.0.2 which has faulty SCSI drivers (SCSI.Manager and SCSI.Driver). Apple, US, are aware of the problem and have promised to correct

continues on page 8

such a form is the Name and Address of the Supplier, the Name and Address of the Customer, the Order Date, the Delivery Date, any special instructions for the delivery and then the items required, their Unit Price, the Quantity, Description of the Items and the Total Amount. These forms also require a reference number. Smartform Designer enables each element to be constructed and located on the form in the most appropriate area. The type of data to be entered into each information box can be specified with error messages for use with Smartform Assistant or the use of these formats on a computer. But more of this later.

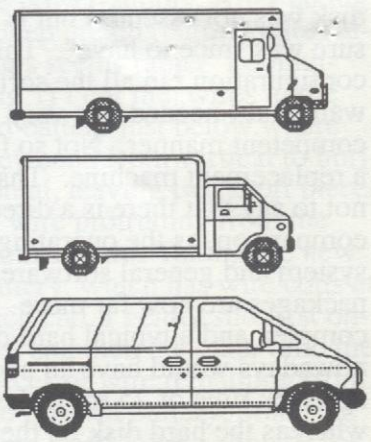
The "main" part of the form or the body of the form usually consists of a series of rows and columns which may be sequentially numbered. The type of data in this area is Quantity, Description of the Item, Unit Price, Amount. The List Tool on the palette enables these rows and columns to be formed with an appropriate heading and sized to fit the type of data to be inserted. This area is constructed piece by piece using the tools and the Text Tool for the Headings and column data entry requirements. Finally, the appearance of the form may be changed to suit your requirements, such as vertically alternating light and dark rows and finally a signature line at the bottom of the form.

If the form that you have designed is to be printed, you can view the completed design and make any alterations before printing, somewhat like "Page Review" in Word 4.

If the form is not to be printed, but used on a computer in the office, then the calculations in the amount column can be made automatically. The package enables formulas to be inserted in any of the rows or columns, such as the Quantity x Unit Price to produce Amount and then the amounts to be added together to provide a Total Amount, with or without automatic sales tax added to provide the final amount payable.

Having designed the form as you require it, Smartform Assistant then enables you to use the form that you have designed to calculate automatically, to check the data that you have entered and provide help when filling in the form. You can also export the data in your forms to a database or spreadsheet application. Thus the form that you designed with Smartform Designer can be filled with data and printed, but the original blank form remains on your disk for later use.

Whilst using the "Getting Started" manual to learn this program, a requirement arose at work to redesign a form for use as a Time Sheet for data entry into another computer program. This was accomplished in approximately three hours work at the computer. As I have tried to explain the program is simple to use and produces a very professional looking document. With access to a Laser Printer, the document produced by this program would be as good as any professionally printed form.



APPLETHETIC

What a comparison - the February and March issues of the ACTAPPLE magazine. I was really impressed with the February issue - I am a convert and can't go back to the old format.

An article in February's magazine, titled "APPLE II USERS PROTEST TO APPLE", echoed a general undercurrent of dissatisfaction being expressed in APPLE II circles and which of late is gathering momentum. I haven't the sentiment or inspiration to support the argument but I do have some sympathy for the cause. While I do not care to take issue with any of the facts put forward, in the real world computer businesses are no more philanthropic than any other business. Unfortunately, in order to gain a few Brownie points or win hearts in this game one cannot afford negative or despairing sentiment. I would have left well enough alone had I not read the article that followed the former by way of a reply. That reply may well reflect an opinion held by many, an opinion that makes me uneasy and one which I suggest warrants a rethink.

Let me explain. The basis of the defence is that the Apple II has been superseded and by a more expensive machine at that, a situation that is put forward as being acceptable and tenable. Wrong on two points - (a) the original article relates in the main to the IIGS, which is very much a current model, (b) and secondly, the complaint is not with the machine per se but with the level of support from its creator/manufacturer.

More importantly, the analogy with the motor car was rather dubious given our questionable current life styles and the inbuilt obsolescence which per-

vades the manufacturing industry. I could be pedantic and point out that while some cars may wear out only too quickly, the same can not be said about solid-state circuitry. However, even if this were not the case, this defence could be used to bury some other brands of personal computers but not the Apple II series. A rash statement you say. I do not think so and believe it to be the case for the following reasons -

. The Apple II has several attributes that make it that much more resistant to obsolescence -
expansion ports
upgraded operating systems
an extensive software base
compatible hardware releases from APPLE
many third party hardware and software suppliers
Most of the above are the result of some fortuitous decisions by Jobs and Wozniak, good market penetration and a lengthy period of support (when convenient) from APPLE.

. The computing industry is not a game for tiros, we have seen the rise and fall of Atari, Texas Instruments, Sinclair, Coleco, etc. Apple's user base and innovation has enabled it to keep its head above water.

. New releases of well designed and efficient software. AppleWorks would have to be one of the best pieces of software written for any machine. But I suppose to prove the point, AppleWorks had some small design problems that took a long time to be rectified.

The March edition of A2-Central (formerly Open-Apple) has a few pertinent observations, in reference to the recent problems in the Apple hierarchy and related dive of Apple stock on Wall Street, that bear quoting. "The changes (in top management structure at Apple) came after Apple's stock tumbled and analysts expressed concern over Apple's lack of a 'low-end strategy', a lack Apple II users have been concerned about for many months. The Apple II provides Apple with a wonderful family of low-end products, but very few people inside the company believe that the Apple II in anything more than a cash cow on its last legs." A2-Central then goes on to say .."The only problem with the Apple II is that Apple itself doesn't believe in it. Have you ever heard Apple brag that of the three major personal computer platforms available today the Apple II is the leader in integrated software? That the Apple II has the best potential for hypermedia? Those are facts that could be used to put the sex appeal back in the Apple by next Christmas".

There is one statement in the response to the original article that cannot be argued with and that is "if you are not happy with the capability of the machine that you are using - sell it!" Well it rolls off the tongue easily, but it may cost you an arm and a leg to replace "old faithful" with an new Apple that can run the accompanying resource hungry software. For example, my Apple II Plus had 256K of RAM (including a 64K print buffer) and a couple of floppy drives which was replaced with 10 Mbytes of hard disk. The presence of the hard disk was not essential but is sure was "nice to have". This configuration ran all the software that I needed in a very competent manner. Not so for a replacement machine. That is not to say that there is a direct comparison, as the operating system and general software packages are now far more complex and a typical hard disk nowadays would have an average seek time of 25 ms or less whereas the hard disk on the II Plus had a 180 ms seek time. Now an equivalent machine to run relatively comparable software will need at least 1Mb of RAM (preferably more) and a hard disk of at least 20Mb (preferably 60 to 80 Mb).

There will always be the users that buy a pile driver to crack nuts and then spend time marvelling at the nut paste that they produce. Dare I suggest that there is an efficacious group of users that find the old hand operated nut cracker effective?

Besides, who said that computer users must be a servile, agreeable bunch.

It's at this point that I must own up to the fact that I too have upgraded the much respected II Plus. However, I went beyond the Mac and purchased an IBM type machine. I have had the AT for about 18 months now and I have no regrets about the decision. I made the choice of an AT for four reasons -
. I needed more grunt than the II Plus could deliver,
. I don't like WIMP interfaces,
. I work with PCs as well as MACs, and
. I wanted value for money.

The irony of the situation is that the big numbers in the personal computer industry are all moving in the same direction. A beta version of Windows 3 that I was playing with recently looked disgustingly like a MAC II interface and to add to the irony, it may well be a better operating environment.

Despite the diminution in support of the Apple II series by Apple, it is still very much alive. However, If you feel you do need to upgrade there is computing after the Apple II on the outside of debtors prison. See you soon - maybe?

Logan Brill

A LITTLE 'SLIDE' OF HAND

By Peter Watson,
AUSOM News Feb 90

Many people may be aware that I have been selling the Nite Owl 'Slide-On' replacement batteries for the Apple IIgs since the November AUSOM meeting. I started doing this when I perceived a growing need for this area, and more particularly, when I saw the cost of a replacement performed by an Apple dealer (averaging $95!). I must admit that I was expounding their virtues based solely on reports from the USA such as A2-Central and InCider. Phillip Richardson was my first customer, and I was relieved when he told me that it was as easy to change the battery as I had been led to believe.

Many people believe (as I did) that the IIgs battery exists mainly to keep the clock accurate, and to maintain any changes made in the Control Panel while the computer is switched off. If the battery died, then the worst problem that you might face would be having your file date stamped incorrectly. I can now report from first hand experience some of the consequences of a dead IIgs battery.

I had switched on the IIgs and booted into GS/OS from the hard disk, all as usual, although I remember noticing that booting seemed a little slow. I copied a few files around, and then I tried to get into AppleWorks. The machine locked up-from memory it didn't even make it into ProDOS 8. Although I was Surprised, I just assumed that I had done something sillier earlier, and so I rebooted. When I could not get into AppleWorks the second time I started getting annoyed. After a few minutes of doing things like checking for disk errors (finding nothing, of course), I remembered that I had recently installed a Transwarp GS card. I quickly keyed into the Transwarp Gs desk accessory, and ran the self-test. Now I was really worried-the self test was reporting problems, telling me that about half the tests were failing!

While attempting to switch out the Transwarp, I entered the Control Panel to check the keyboard repeat setting as it seemed incredibly sluggish. Suddenly I noticed that the date being displayed was wrong-sometime around 1929, I think! It was then that the things started to click into place. I reset the clock and the other options to their normal settings. (I normally use the default screen colours, otherwise I would have noticed much sooner that things had changed!) A quick "three fingered salute" was performed, and the IIgs rebooted. Surprise, surprise-the Transwarp card now reported that all tests had passed, and everything was working normally. AppleWorks ran first time, and I was able to continue working normally for the rest of the night.

Now, for better or worse, I had the chance to check out the value of the Slide-On batteries. I grabbed a pair of wire snips from the toolkit, and unclipped the power-supply. After taking a deep breath (cutting wires always seems rather "committing"!) I cut the wires to the old battery just below where they bend from vertical to horizontal, leaving two short pieces of wire protruding from the motherboard. Taking the new battery, which has wire coils at each end, I gently slid first on end and then the other onto the pieces of wire remaining from the original battery. Since the wires need to be a snug fit for good electrical contact, I expected to have some difficulty sliding them on. Luckily it pushes outwards against the old wires and makes good contact. Total time to exchange the battery-about 6 minutes !

In summary, I was surprised on several counts, I did not expect the death of my IIgs battery to have such wide ranging effects. I was unprepared for the suddenness- there had been no warning signs whatsoever. And lastly I was very pleasantly surprised at just how easy the new battery was to install. On the other hand, I wasn't completely surprised-I actually had a replacement battery ready and waiting, and I did not have to receive the very unpleasant surprise of the cost of a dealer installed replacement battery from Apple.

If anyone else also wishes to play 'boy scout' so they can 'be prepared', the cost, of a Slide-On battery is $25.00, including postage. Although the batteries are the same brand (Tadiran) as Apple's, they will last about the same length of time in use, they do have a 10 year shelf life, so there's no need to wait until your battery dies before trying to find a replacement.

To order a battery, simply send your name, address and a cheque or money-order for $25.00 to :

Peter Watson, PO Box 493
DONCASTER Vic 3108

(Note:- The price for the replacement of the battery has not reached the hights of Melbourne. On the 20th March 1990 the prices quoted by ACT Office Equipment for this service was $35.30 and by PCTech was $50.00. Two other local firms contacted were not interested enough to return my calls.

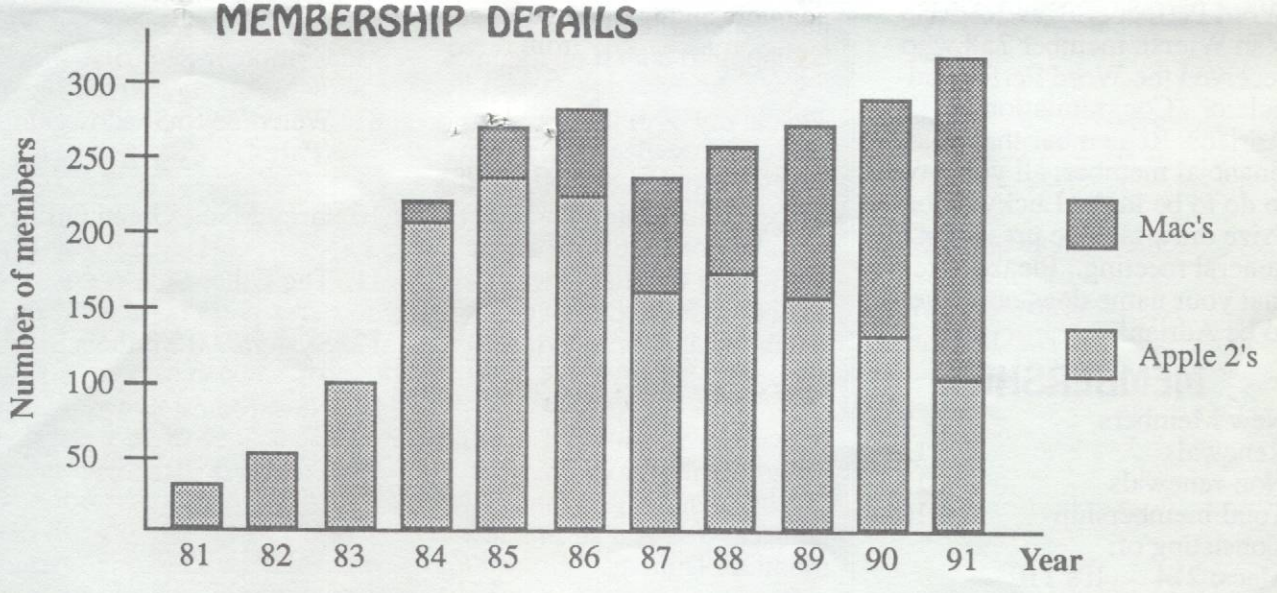
- *Les Humphrey*)

TEN YEARS OF ACTAPPLE COMMITTIES

	1981	1982	1983	1984	1985
President	Adam Bridge	Neil Telfer	Neil Telfer	Neil Telfer	Steve Neilsen
Vice President	Peter Bray	Robin Eckermann		Bob Burns	Tom Bulum
Secretary	Marco Overdale	Keith Owen	Eddie Tsui	Ian Warren	Wayne Hall
Treasurer	Steve Jackson	Richard Hunter	Tom Van Boxsel	Tom Van Boxsel	Tom Van Boxel
Editor	Rod Boswell	Jeff Brock	Neil Telfer	Styve Taylor	Mac SIG
Librarian	John Quinn		John Quinn	Robert McArthur	Wayne Gardner
Hardware Loans				Stephen Peel	Logan Brill
Membership			Ernie Kruck	Ernie Kruck	Ernie Kruck
Public Relations				Keith Owen	
Education			Chess Krawczyk	Michael Thomson	Michael Thomson
Disk Copy			Bob Burns	Kevin Webber	
Mac Sig					Maurie Auger

	1986	1987	1988	1989	1990
President	Steve Neilsen	Steve Neilsen	Roger Bernau	Roger Bernau	Roger Bernau
Vice President	Ross McConnell	Ross McConnell	Michael Thomson	Michael Thomson	Michael Thomson
Secretary	Ken Durie	Ian Thomason	Alan Poulter	Alan Poulter	Ric Lamond
Treasurer	Maurice Duke	Maurice Duke	Richard Blacksell	Richard Blacksell	Richard Blacksell
Editor	Roy Blinston	Thomas Schulze	Thomas Schulze	Thomas Schulze	Thomas Schulze
Membership	Ernie Kruck	Ernie Kruck	Bob Hibberd	Bob Hibberd	Bob Hibberd
Librarian	Bob Hibberd	Graeme Taylor	Graeme Taylor	Graeme Taylor	Graeme Taylor
Apple Loans	Logan Brill	Logan Brill	Logan Brill	Logan Brill	Gordon White
Mac Loans		Peter Dugard	Peter Dugard	Peter Dugard	Paul Burgess
Re-Inking Sysop					Peter Dugard
Education (IIe)	Michael Thomson				Naomi Hurst
Apple Pub. Domain	Roger Bernau	Bob Hibberd	Glenn Simpson		Craig MacLeod
Mac Public Domain			Brian Murphy	Brian Murphy	Brian Murphy
Mac SIG	Steve Jarrett	David Ledger		Philip Ryan	Stefan Schaefer
IIGS SIG			Les Humphrey	Len Sorbello	Len Sorbello
Disk Sales/GS SW				Les Humphrey	Les Humphrey
Mac Advice		Ken Durie		Norm Braidwood	Norm Braidwood
Apple II (BBS ?)			Ernie Kruck	Ernie Kruck	
Public Officer			Steve Neilsen	Steve Neilsen	Steve Neilsen
HyperCard SIG			Ian Thomason	Ian Thomason	Brian Murphy
Education (Mac)					R. vonBehrens
Graphics Design SIG					Christine Runnegar

MEMBERSHIP DETAILS



][- IIGS DISK?

Michael Hickey

No doubt there are a few of you out there surviving, even thriving on older model Apple][s. Many of you will be considering upgrading to the newer Apple //GS computer. But what about the large hardware and software investment you've put into your beloved Apple][!! The good news is that the Apple //GS is highly compatible with Apple //, //e and //c software.

At first glance it appears that if you want to keep one of your Disk][s (or compatibles) you'll also have to keep your disk controller card to drive it, reducing the resale value of your old system. Gladly, this is not the case! Several third party dealers in Australia sell adapter cables to enable the humble Disk][to run from the smart port/daisy chain port on both the //GS and //c. This enables the Disk][to run as slot 6 drive 1 without an interface card in slot 6. If you only need one 5 1/4" disk drive this is the way to go.

To do this, switch your Apple off and remove the Disk][interface now disconnect the drive you wish to alter. Then attach the 20 pin connector to the adapter cable and plug the DB 19 into the last device on your smart port daisy chain (ie last 3.5" drive or the DB 19 on the back of the machine) and secure any screws into the back plate.

When you have tidied up and are ready to try it out, turn your //GS on and alter the Control Panel to show slot 6: Disk Port and the Start up slot to Scan. Now when you startup your // GS (without a drive in slot 7, of course) the computer will attempt to boot from the terminating Disk][first and if no bootable disk is found it will poll the Apple 3.5 drive.
If you want two Disk][s or compatibles to run, simply purchase a dual drive adapter instead. The device supplied is a DB19 to 20 pin disk drive converter which will connect two Disk II's to an Apple //GS or //c smart port. In this case the Disk][s will run as slot 6 drive 1 and drive 2 respectively, once again without an interface card in slot 6.

This connection is just as simple. The DB19 to 20 pin disk drive converter is a double cable with mountings for two standard Disk][connectors. Simply unplug the Disk][s from the slot 6 interface card and plug them onto the adapter.

For those who already own an Apple //GS and want to add third party (cheap) Disk][compatibles both these choices are inexpensive and, more importantly, reliable alternatives. A prolific supplier of these Disk][adapter cables is:

Peter Garde
PO BOX 888
Kensington
NSW 2033

Phone (02) 663 2402

Peter supplies the Sydney Apple User's Group with the adapters and is quite willing to accept mail-orders from members / hangers-on of ACT Apple Users Group too. He charges $26 for each single drive adapter and $46 for each dual drive adapter PLUS $3.00 for postage per package. Peter also has a swag of obscure Apple][cards for sale. If you need something out of the ordinary or even your Apple][repaired, give him a call.

If you want to shop around for your (single) Disk][adapter, try :

Micro-Educational
PO BOX 160
The Junction
NSW 2291

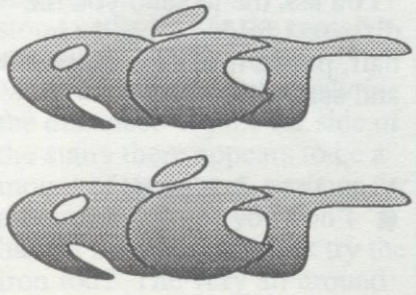
Phone (049) 26 4122
or 008 025 229 (orders only)

By the way the Apple II emulator card for the Mac LC has a DB 19 socket for Disk][connection, so you can add your cheap Apple][-type 5.25" drive to your expensive Mac with a minimum of fuss. Keep the penny, the bun AND the currant too!

How I got Interested in ACTApple

Michael G Hickey

There I was returning to work from a computer and office technology exhibition in the convention centre when I got talking to the cab driver only to discover the guy has a computer... You guessed it an Apple! A REAL one - an Apple][gs... He told me about this bunch of enthusiasts that meet every month around the back of the bike sheds at the Griffith Community Centre. Guess what? His enthusiasm spilled over and I saw the LIGHT and decided to take the plunge and join up. Wonderful meetings, intelligent conversation and a great venue. What more could a Apple][user want? (more memory maybe??) I LUV it.



DOS WOES

Trials and tribulations of a DOS computer user

"But I only stapled one piece of paper to the floppy disk."

"You asked for a copy of my floppy disk so I went to the photocopier and..."

"you said to remove the floppy disk from its jacket so I got my scissors and took it out. - Now its too floppy."

"You said to insert the disk and then close the door, so I put it in the computer and then got up from my desk and closed the office door."

"I thought it was OK to stick floppy disks to the fridge with those fancy magnets!"

"But I entered zero into the quantity on the database. I pressed the key between the I and the P."

"You mean that | is different to !. I thought : and ; could be used in place of each other."

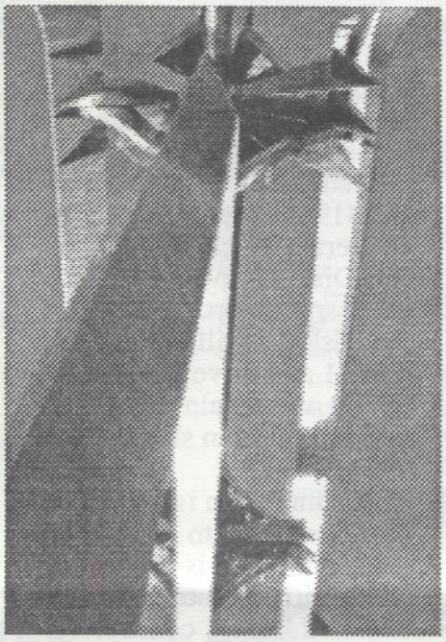
"My computer won't respond - doesn't matter how loud I shout."

"You said to move the cursor with the mouse so I put it on the screen and then I couldn't see what was happening."

"You said to move the mouse up and I must have had it at least six inches off the desk and it still wouldn't work!"

"You ask me to send you the disk, so I folded it neatly in half, poped it in a envelope, and sent it!"

You §†*π¡∂ îΩîø†!!



IDENTIFY THIS

The Picture above is part of a common sight.
See if you can work out what it is!

Answer last issue: A leather boot.

PUBLIC DOMAIN SOFTWARE - IIGS

Les Humphrey

Here is a further release of software for the IIGS.

GS56
Music Disk. SoundSmith is a very good 14 track sequencer designed to use either IFF or PSWV instrument files. Loads and saves data in its own format or Music Studio files. User can load own instrument and record own music. BackGround Music, as the name suggests, allows music to be played in the background while you are using other programs. Music contains the tunes that can be used by SoundSmith and BackGround Music.

GS57
AppleWorks GS Clip Art #1. This contains some of the best public domain clip art available. You can produce professional looking newsletters, stationery, posters, pamphlets and reports. This is true clip art and not miscellaneous paint files. There are over 250 individual pictures and range from cartoons to office clip art to sports to Christmas scenes.

GS58
Print Shop GS Graphics. This disk has a nature theme of over 100 colour graphics. The topics include nature scenes, animals, plants and related subjects.

GS59
Music disk for SoundSmith and BackGround Music. This collection contains 10 songs including Crystal Hammer.

GS60
Music disk for SoundSmith and BackGround Music. This collection contains 8 songs including Footloose.

GS61
Second Chance. When using either digitised or downloaded graphics from bulletin boards the quality may not be up to expectation. Use Second chance to enhance the gray scales. CAD.3D.GS is a 3-D is a 3-D computer aided design program, useful in viewing, rotating and scaling 3-D objects. SHR.VIEW is a slide show program that will display all major types of IIGS images. Included are some demonstrations of text animation and graphic animation.

GS62
Virus MD. This program can be installed to automatically check for viruses on the start-up of most programs. Custom.GS.OS changes messages and display upon boot-up. Desktop.Mod changes desktop to one of your creation, plus many more.

THE OTHER SIDE

Grant Kwai
Sydney Apple Users Group

Come last Christmas break, I ended up in an IBM clone shop and bought an 80386 machine. So, you think I've sold out the Apple II? Perhaps you should defer judgement until you read the following article.....

Moving to a 25mhz IBM 386 machine from a lowly Apple //e 1mhz machine, you would think I would be bewildered at the sheer increase in pace and power of the change. I obtained somewhat less that what I had expected.

SPEED
In terms of loading and running a program on both machines, there was little increase in speed. This stems from the complicated way IBM systems work. First of all, take two programs which have versions run on both the IBM and Apple. Just from having a look at the size of the program, you will notice that the IBM version will most likely be twice as large, or greater. Why is this? Firstly, in the Apple // world, programmers have to restrict themselves to writing programs which will function under 64k (or 128k's on a //e). This means they need to write the program as small as possible. This involves concise work.

On the IBM MS/DOS world, they can access 640k plus. Basically this means that programmers have much more room to program in, hence there is no need to make a program small. Thus, you will find a standard program on the IBM can take anywhere from 100k to over 5megs (megabytes -that is 5,000,000 bytes). This is comparable to around 36 standard 5.25" 140k disks on the Apple. Admittedly, if we compare the amounts of bytes which are loaded on the IBM and Apple, the IBM is much faster, but what use is this, if the end result is the same as on the Apple? Its basic advantage is in number crunching.

PROGRAMS
People generally associate IBM programs as being more powerful than Apple // programs. I can vouch for this, but they forgot to include a massive pain to use, almost impossible to use, complicated, large, plus a host of other phrases and adjectives. Take for instance Word Perfect. I have been using this program at uni now and I'm still absolutely spell bound by the amount of commands you have to at your disposal, though it may take till the end of my degree to learn how to invoke them all.

Most of you will most likely know that the standard IBM keyboard has function keys. With wordperfect (why they call it this I don't know. 'Wordcomplicated' would be more suitable), you can use these function keys to use commands.(ie like the open-apple, closed apple keys) Pressing a function key by itself will bring up a host of commands. This doesn't seem so bad, except the same function key, along with either one of the following keys, will bring up another menu, with just as many choices; Control key, Shift key or Alt key. From these menus it is also possible to invoke other sub-menus with just as many choices. Trying to do anything requires much patience.

If these comments seem harsh, it is most likely because I am used to using Appleworks or similar type word processing programs. They offered all the functions I want (justification, outline, bold, graphics etc) while letting me access them with the minimum of fuss. Commands are available from menu type system, making it much more user friendly.

DISK SPACE
Most people are familiar that the IBM, when using double sided, double density disks, can store 360k on a 5.25" disk. To do this, it uses both sides of the disk. If we disk notch the Apple // disk, it can store 280k(140k on each side). Now, most IBM users will tell you that this is a major limitation of the Apple, showing its age. Next time someone says this to you, interrupt them and ask them how much data can be stored on an IBM disk if you want it bootable. You see, IBM disks are not bootable. You need to load the operating system from disk. It takes up 100k! That is, they are left with only 260k; less than the Apple// !

CONCLUSION
The old theory about IBM being a non user-friendly operation system is true (in my opinion). Even with Windows, it is not all that great. (and to effectively run Windows, you need at-least 2megs of RAM, preferably 4+megs) Your standard Apple // will quite happily run under 128k (or 1.25meg on a GS) and this will perform just about all functions without a glitch on whatever Apple // you have.

From my experience, all I can conclude is that unless you really need a computer which can handle large volumes, your Apple will do the job quite happily. Add a hard drive to an Apple //, and you have mass storage space and speed. With Apple programs, you also have ease of use. So why are people turning away from the Apple // ? Possibly from its one greatest asset, its small and simple. People think that a bigger and faster machine must be a better machine and that a small machine is just that, small. How wrong they can be.

NEWSROOM

Michael Hickey

Well 1990 is just a memory and the council has collected the remnants of our New Years Eve excesses (TWO bottles of Chateau Fizz), the relatives have been packed up and sent home so FINALLY I get to sit around my office (noting the bent joystick - I'll blame it on my brother) to contemplate the dilapidated state of my software library. Out of the corner of my eye I note a familiar looking blue and beige manual. Could it be... no it couldn't, I lost it during the last move didn't I? Closer inspection resolves my wildest thoughts, it is... The Newsroom!

Remember those late nights pushing a chubby mouse around to produce intricate doodles and enhancing the built-in clipart on the old but faithful Apple II? Before the Macintosh became a useful machine, before laser printers were commonplace, before Desktop Publishing had been conceived of as a great way for Apple to make money, there was... The Newsroom.

This nifty little program wasn't intended to be a Desktop Publishing masterpiece, it attempted to simulate, rather well I thought, the activities necessary in creating a newspaper. Banner creation, photo production, copy writing, layout, wire service, and printing were all represented in this tiny, exquisitely written program. On 64k, 1 MHz Apple II's this program flew along despite being graphic based and produced a rather respectable printed copy.

The Newsroom set me free from the hassle of trying to combine graphics and text by leaving blanks in my Appleworks Word Processed document and filling it with a Print Shop graphic. At last I could put together a nice-looking sheet which was informative to boot.

I produced several of these education-type pamphlets for my Ward when I was working as a Registered Nurse back in Newcastle. Ward orientation for new staff, training for correct handling of Underwater Sealed Chest Drainage, pre-operative Prostatectomy education for patients and correct use of Nursing Diagnoses were just a few of the topics for which I produced pamphlets.

For all its initial usefulness The Newsroom has one major flaw, the artwork and text you create in it cannot be exported easily to other word processors. As time went on the Macintosh grew up and matured, the IIgs arrived on the scene and programs like Graphic Writer took over from The Newsroom. Yet despite this I still had to use The Newsroom to printout my old pamphlets. Graphic Writer couldn't read the files and no amount of fudging would let me load those Newsroom photos. In 1988 I bought The Graphic Exchange and was able to get my pics into super hi-res format for importing into Graphic Writer but the prospect of retyping all that copy back in really threw me. There HAD to be an easier way.

Possessing some knowledge of computers, I quickly discovered that all of The Newsroom panels were saved as binary files. So I copied a few Newsroom panels into ProDOS, and exited to BASIC. Then I cleared hi-res page 1 with a quick HGR and BLOADed the nearest Newsroom panel. I didn't expect to be able to read it on the hi-res screen so I entered the monitor with a CALL -151 and proceeded to disassemble (in 80 columns) locations $2000 onwards. To my surprise and relief there was the text I'd typed in some time ago, safe and sound. I exited back to BASIC with a hearty 3D0G and CREATEd a TXT file. I then BSAVEd filename,A$2000,L820.

When I eventually got back to ProDOS and entered AppleWorks I was able to create a new word processor document from the BSAVED text file. The rest is history. I wrote a small Applesoft BASIC program to do all the hard work for me and I was able to convert all of my Newsroom panels into text. Graphic Writer let me combine the text with graphics in much the same way as the Newsroom but with a lot less hassle.

I outgrew Graphic Writer eventually and sold it to an acquaintance. These days I use Publish It! 3 and print directly to disk for later laser printing from a Macintosh system. Publish It! is superior to Graphic Writer (and AppleWorks GS) in that it can read The Newsroom text panels as if they were (ProDOS) Bank St Writer files so importing is easier for text and Newsroom photos can be read directly from DOS 3.3 disks. If I only had Publish It! from the start!

Here is the (modified) code I used to convert my Newsroom files, I hope you use it in one of your programs.

```
100 REM Program to convert
    a binary newsroom file
    into a standard ascii
    file
101 REM 1988 - 1991
    Michael Hickey
102 REM Canberra ACT (06)
    231 3787
110 ONERR GOTO 210:
    REM UNEXPECTED ERROR
120 D$ = CHR$(4): REM
    PRODOS COMMAND CODE
121 PRINT D$;"PR#3": REM
    ACTIVATE 80 COLUMN
    FIRMWARE
```

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(Apple II SS $2.00, DS $3.00, BO$5.00; Mac&IIGS $8.00)

NAME: _____

ADDRESS: _____

_____ POSTCODE: _____

PHONE NUMBER: _____

I wish to order the following public domain/shareware disks:

Disk category and number		Disk category and number	
	$		$
	$		$
	$		$
	$		$
	$		$

TOTAL.....$ _____

```
130 PRINT D$;"CATALOG,
    TBIN": REM ONLY
    DISPLAY BINARY FILES
140 PRINT "Which NEWSROOM
    file to CONVERT?":
    INPUT FILE$
150 IF LEN(FILE$)<1 THEN
    PRINT "Filename in
    ERROR, RUN this pro-
    gram again!": END
160 REM INITIALISE PAGE 1
    OF HI-RES DISPLAY
170 HGR : TEXT
180 PRINT D$;"BLOAD";
    FILE$;",A$2000"
200 PRINT D$;"CREATE";
    FILE$;"2,TTXT"
210 PRINT D$;"BSAVE ";
    FILE$;"2,A$2000,L1000"
220 PRINT D$;
    "CLOSE";FILE$;"2"
```

TREASURER'S REPORT

Richard Blacksell
1 Feb 91 - 28 Feb 91

Receipts

Joining + Membership	$ 840.00
Disk sales	$ 999.20
Ribbon inking	$ 121.00
P.D. disk sales	$ 130.00
Total	$ 2090.20

Payments

Printing	$ 317.09
Postage	$ 0.00
Disk purchases	$ 558.00
Telephone accounts	$ 73.60
Petty cash	$ 200.00
Misc	$ 30.00
Total	$ 1178.69

Current cheque account balance	$ 6630.16
Current investment account balance	$ 3639.50
Current savings account balance	$ 0.00
Total cash assets	$ 10269.66

Newsletter Info.

This is the magazine of the A.C.T. Apple Users Group Incorporated. It is produced monthly and distributed to all financial members and Apple User Groups at no cost.
The views expressed in this magazine are the views of the authors and not necessarily that of the members.
The Apple Logo, and the words "Apple", "Macintosh" and "Mac" are trademarks of Apple Computer, Inc.
All contributions should be sent to The Editor, A.C.T.Apple Users Group incorporated, GPO Box 1231, Canberra, ACT, 2601, preferably on a Mac disk, or uploaded to the BBS.
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Articles in this Newsletter may be reprinted by non-profit organisations provided that credit is given to the source.
Advertising: Financial members may supply small advertisements for publishing at no cost at the discretion of the editor. Commercial organisations will be billed for advertising. Corporate members will receive a 20% discount. Advertising will be accepted with the same deadlines. Cost quarter page: $40, half page: $60, full page: $100.
General meetings of the club are on the second Thursday of the month at the O'Connell Education Centre, Stuart St, Griffith, 7.15 to 9:45pm. The executive meets on the 3rd Thursday of the month. A SIG meeting is held on the Tuesday after this.
MemberShip: Joining fee: Full member = $10. Junior member = $5. Organisation = $20. Annual fee: Full member = $25. Junior member = $15. Organisation = $50.
Phone numbers are published for the use of members between the hours of 6pm and 9.00pm only. The recorded answering service number is available 24 hours per day.
Warnings The Club does not condone copying of software at meetings except for the distribution of Apple upgrades and Club software disks. All members are expected to display a high standard of behavior to guarantee our continued use of the venue.
Layout and Design of the Newsletter is done using Design Studio, and printed on a Laserwriter.

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- assistance and repairs
- public domain software

Macintosh
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- magazine and book library
- public domain software
- assistance and repairs

SIGs
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- Apple][gs
- Macintosh
- HyperCard
- Education
- Youth

A.C.T.Apple Public Contact
- Public Officer
- telephone answering and advice

BBSs
- Macintosh
- Apple][

Services
- Re-inking
- Disk and disk box sales
- Specials

Marketing
- Advertisements
- New initiatives

HyperCard Special Interest Group

Brian Murphy

We had a good roll-up of 12 members at the March meeting of the SIG. A demonstration of our newly-acquired CD-SC drive, including the stacks on the BMUG and BCS PD-ROM disks, was given. Stefan Schaeffer of Apple then gave a fascinating demonstration of how HyperCard can be integrated Beethoven's Ninth Symphony.

The next meeting of the SIG will again be at Apple Computer, 31 Thesiger Court, Deakin at 1930 hours on Tuesday 15 May. It is anticipated that Peter Thomas will give his deferred demonstration of HyperTMON. All welcome to attend, including outright beginners.

GS Questions & Answers

Lez Humphrey

In last month's Questions & Answers column I gave an answer to the problem of installing AppleWorks GS version 1.1 on a SCSI Hard disk. The following is now suggested as a better alternative until the System disk is revised.

Claris has released a technical brief with a more reasonable method which involves disabling the SCSI.Driver for the purpose of completing the installation. To do this, first boot your hard disk, use the Finder to open the "Icon Info" box for the SCSI.Driver icon (in the SYSTEM/DRIVERS folder of the boot disk) and click the "Inactive" checkbox. Then shut down and restart the system from the hard disk. This will cause GS/OS to use the generated driver for the boot device (hard disk), which is at least (unlike the 4.0 SCSI.Driver) version-consistent with 5.0.2. Complete your file copy or installation and then re-enable the SCSI driver and re-boot.

Q. What are the improvements in the AppleWorks IIGS v1.1 upgrade over the previous version?

A. Loads the program eight times faster than the previous version. Enhanced screen updating to allow faster document scrolling. Faster spreadsheet recalculations. Direct importation of AppleWorks 3.0 files.

More features have also been added. These include:- A memory test utility that allows users to test their memory expansion board before using the program. A database conversion utility for covering previous version database files for use with AWGS 1.1. A custom ImageWriter printer driver that improves printing speed. A database template designed especially for creating mailing labels. Special pallets that improve the quality of imported colour graphics. "Contains", "Begins" and "ends" functions that have been added to the database and spreadsheet modules. New graphics Control Panel making it easier to perform many routine tasks, such as choosing a printer. Can create accents and diacritical marks in foreign languages.

Q. Can I print either the old or the new Print Shop in colour on an Epson LQ860 or a Star NX1000CL printer?

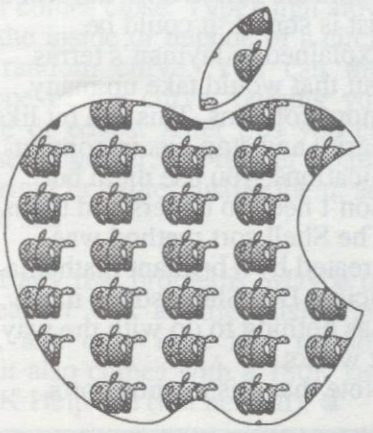
A. Sorry, the answer is no. The configuration for both of these machines only allow for printing in black and white.

Q. What do I have to do to get a backup copy of the program Type-Apple?

A. Turn the program disk over - there is a copy of the program on side two.

FOR SALE

Apple][e 128k computer, colour monitor, disk drive, joystick, printercard, software. Quick sale $1,350 ono.
Call Dennis on 069 591786 AH



IDENTIFY THIS

The picture above is part of something that you have seen before. Can you guess what it is?

Answer to last months: Statue of Liberty.

FOR SALE

Apple Printer
Model A9M 0305P
wide carriage
(38cm (15") paper)
as new $600
Call Howell 2513237

Shame Apple, Shame

Les Humphrey

During the first half of March, I, along with many others in our region, received a letter from the local Manager of Apple Australia proclaiming "Who has the real power in Canberra?".

A complete reading of the letter revealed that it was about the Apple Computer Seminar week to be held later in the month. Of the fourteen subjects listed there were seven listed as Macintosh related. Fine, so I thought, I have an interest in other Apple computers and the remaining subjects looked promising.

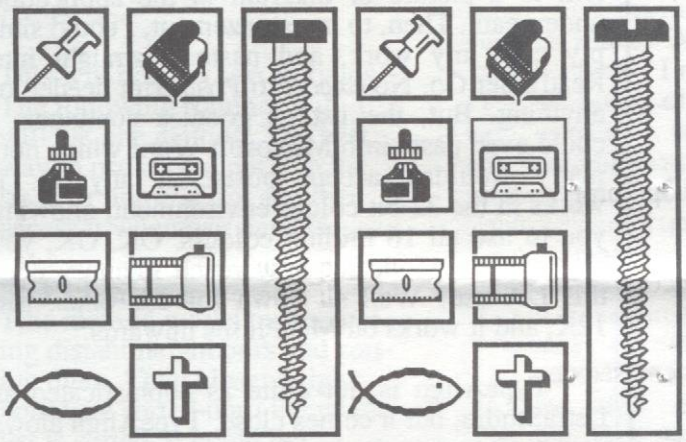
On contacting the office I was informed that the whole of the seminar was devoted to the Macintosh! No other Apple computer was to be included!

Well, being a charitable chap, I figured that Apple must be planning a seminar, along similar lines, for the IIGS and the IIe. No such luck!!

What has happened to the promises made at the Inaugural Apple Users Convention of Australia during April of last year? Where is the support for the II series? Where is the promotion? Where is the Apple Computer Seminar week that includes all of the machines currently manufactured by your company?

What about supporting the machines which have made Apple the giant that it is today, and are still making a substantial profit for it? How about support for the machines that fill a major role in education and in home use.

How about it Apple?



SPOT THE DIFFERENCES

There are 8 differences in these two groups of objects, see how many you can find.

Answers to last month:
1. Girl No.1 has a different hat.
2. Last girl is not smiling.
3. 4th girl's stiletto is shorter.
4. 7th girl's hairline different.
5. Girl 4 wearing necklace.
6. Last girl's hand missing.
7. No. 2 eye different.
8. No. 5 calf muscle different.

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NIT PICKING ?

by Anon.

It was only the night before the April Newsletter arrived that I wrote to the Editor of Communiqué concerning the abbreviations and acronyms used when reviewing Macintosh software produced by Microsoft. My complaint was predominantly tongue in cheek because I took pity on their authors as they probably came from an IBM background, possibly even from a mainframe background when only uppercase characters were used, and really didn't know any better. But I was quite dismayed when I found similar mistakes in our own newsletter. I don't blame Thomas (our Editor) as he does an excellent job and has better things to do than check for the correct usage of case, but I would have thought better of our contributors.

So far I haven't spelt out the errors, so here they are:

1. Macintosh is **not** spelt with an 'I' as in MacIntosh.

This error probably stems from an association with people with surnames like MacDougall, MacDonald, MacIntyre, MacLaren, etc, etc.

2. Mac, **not** MAC, is the short form of Macintosh.

This error most likely results from living in the 80s and forever being bombarded with acronyms, the IBM environment is full of these, e.g. IBM, PC, XT, AT, MS-DOS, OS/2, etc, but MAC is not an acronym for Macintosh, it is an abbreviation and thus only the first letter is capitalised.

I must say that both 'culprits' admit to either using or owning an IBM type machine, so I guess I can excuse them on the grounds of 'Multiple Environment Insanity'. But don't let this personal whinge put anyone off contributing in the future, as I simply meant to say that I get offended when people misspell my name, and so does my Mac.

COPY II Plus

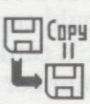
Les Humphrey

As an owner of the very versatile utility program Copy II Plus I sent a letter to Central Point Software, the manufacturer's, requesting my copy be updated. Reprinted below is an extract from their reply dated March 12, 1990:-

"Unfortunately, as of January 15, 1990, Central Point Software will no longer be selling any of the Copy II products outside of North America. This product line includes Copy II PC, Plus, Mac, and the Deluxe Option Board. This decision has been brought about by changes to laws in various countries governing the sale and use of copy protection software. We apologize if this decision causes you any inconvenience."

This is unfortunate as version 9.0 offers increased capabilities such as being mouse based, automatic exit to any program that you wish and allows increased sorting potentials of file order.

The good news is that there are software discount houses around who are only too happy to fill the official void.



Warning Signs of Computer Addiction

By Tony Pizza
- Appleholics Anonymous

Now that you're a computer owner, you have to watch out for that insidious virus that attacks not the computer, but the owner. That attacker is COMPUTER ADDICTION.

Warning sign #1: Boring your friends. – You hear yourself saying, "I've got 1 meg RAM, a 64 meg Hard Drive, and a Transwarp... etc...etc".

Warning sign #2: Making excuses to use the computer. – You have a disk full of Appleworks data base files to help organize lists of video tapes, cassette tapes, recipes, your ties, shorts, petrol receipts, silverware, etc.

Warning sign #3: You understand geek talk. – You have an urge to go beyond simple lists. You hang out in computer stores and here Michael say, "We should be getting that new assembler with the high speed relocating linker and combo Turbo Pascal editor/compiler real soon".

Warning sign #4: Thinking you can quit anytime. – You begin writing programs, successfully calculating the exact time to rotate the tires on your lawnmower. You promise to go to bed at a reasonable time, but stay up all night, perfecting your programs.

If you fail to take head of these signs, what happens next is not pretty. Your appearance goes downhill, you loose your non-computer friends, your job, your loved ones, and don't care. You're now a full-time, free lance programmer. An addict in the true sense, an Appleholic.

Apple IIGS Hardware Options

A HARD DRIVE - ESSENTIAL FOR THE IIGS

by Len Sorbello

When we speak of the IIGS what do we really mean? The GS is made up of 4 basic components: the CPU {Central Processing Unit ie the Computer}, Monitor, Input Devices and Output Devices. Lets look at each one of these.

CPU

There are in reality 3 IIGS machines that one may come across. First there's the original GS with a mere 256K of RAM {Random Access Memory} though most of these machines were supplied with an additional 256K RAM to bring the machine up to 512K in total - many users still have this basic configuration. Next came the ROM {Read Only Memory} upgrade which corrected some problems with the original ROM chip - it is essential that all users upgrade to the new chip. Upon bootup, if you do not see the words "ROM Version 01" or "ROM Version 03" on the bottom of the screen, you need to upgrade (free of charge at your Apple reseller).

In the last 6 months, Apple has released the new IIGS with an added I Megabyte of RAM - it is this GS that possesses ROM Chip Version 03. Total RAM memory in the new GS is in fact 1,150K (because of the mandatory 128K reserved for running IIE applications). The extra memory means that this latest GS is equipped with the minimum memory requirements that I would recommend to GS owners. To get the best out of the GS and to avail yourself of the excellent programs now available, your first priority is as much extra memory as you can afford.

A bare 512K GS leaves you with a limited choice of programs and uses and, importantly, you will not be able to avail yourself of the benefits of running programs under System 5.02 [more on this later]. Having said that, here is my short list of recommended programs that will run on a 512K GS and which take advantage of some of the GS's features eg the super-high resolution screen in graphics mode:

Productivity
- Appleworks3.0*
- DB Master Version5*
- Paintworks Plus
- Calendar Crafter
- PrintshopGS
- Publish -It! 3*
- GraphicWriterIII

Games
- Arkanoid
- Blackjack Academy
- Chessmaster 2100
- Duel; Test Drive II
- Mean 18
- Shanghai

Music
- Diversi Tune
- Instant Music

* I have included these non specific GS programs as they make use of the GS's extra memory and speed (cf the IIE or IIc)

I would recommend having 2 Megabytes of memory and preferably 3. This will enable you to run such programs as AppleworksGS, Paintworks Gold or HyperStudio (as well as various Desk Accessories) without suffering constant system crashes or finding that you are unable to have multiple files open at the same time.

I have been using Applied Engineering's GS-RAM without trouble for a couple of years now and would certainly recommend AE's cards. However, there are a number of others who make reliable memory expansion cards including Checkmate Technology, Applied Engenuity and Cirtech. It's cheaper if you import these from reputable US dealers or, in the case of Cirtech, from A2-Central (the people who publish the excellent AppleII magazine: PO Box 11250, Overland Park, Kansas 66207 USA.)

OK, so how much will this extra memory cost? For I Meg you are looking at $US265-359, 2 Meg will set you back $US369-445 while you can expect to pay $US489-531 for a 3 Meg card. Remember that you will also have to pay 20% customs duty and air freight/ mail costs. Buy a copy of Insider Magazine at your local newsagent to get the addresses of the US mail order houses.

Monitor

There's not much to say about this component except that Apple's RGB monitor invariably comes with the GS as you buy it and I'm not sure why you would want anything else.

Input Devices

There are a range of devices which are designed to get information to the Computer including:
- keyboard
- mouse
- joystick
- disk drives [3 1/2"; 5 1/4" and Hard Disks {both internal and external}]

Let's look at disk drives. When I purchased my IIGS I opted for a 3 1/2" and a 5 1/4" drive thinking that I would like compatibility with IIE programs. However, all the programs that interest me now come on 3 1/2" disks and so I rarely use my 5 1/4" drive . Accordingly I would not recommend the 5 1/4" drive to new purchasers. Instead I would recommend

either two 3 1/2" drives or preferably one 3 1/2" drive and a Hard Disk.

Why do you need 2 drives you ask? System 5.02 virtually occupies one 800K disk which means that most of the new programs for the GS (and many of the old ones) come in 2 or 3 disk packs. You will save an enormous amount of time disk swapping and, in my experience, there seem to be fewer system crashes if the System Disk is on line.

When it comes to 3 1/2" drives, there are only two choices: Apple's (but not the Unidisk!) and a recent arrival from American Micro Research. The Apple one comes bundled with the GS but you will save a lot of money if you purchase the AMR (which retails at about $US199) as a second drive.

However, if you want to make the GS fly you should save your dollars and purchase a Hard Disk as your second drive - indeed this should be your second priority. A Hard Disk can store huge amounts of software and data. What's more the latest technology means that data retrieval from a Hard Disk is so much faster than from an ordinary disk drive. With a Hard disk you can organise your programs and data files more efficiently and have what you want at your fingertips instead of wading through boxes of disks. A Hard Disk also allows you to install a whole range of Desk Accessories and Fonts to use in conjunction with your day to day programs. In summary, a Hard Disk enables the full potential of the IIGS to be realised. In the next issue, I'll look at the range of Hard Disks that are currently available and how best to configure it for optimum performance.

NEXUS

Les Humphrey

Oxford Dictionary: (nexus: n; a linked or sequential list)

NEXUS, by Tracy Valleau, is a program that's exciting. Nexus is a new Hypermedia program for the Mac* & IIGS. If you've never used hypermedia, here's your chance to learn what it's all about. Nexus is similar in its basic concepts to HyperStudio or Tutor Tech (or Hypercard for the Mac), and can be seen as either less or more powerful than those programs, depending on your point of view.

Put simply, Nexus will allow you to read text or Appleworks files, or view IIgs SHR graphics. Within that text file, you can set up "links" to other files, either pictures or more text.

Nexus is painless to use: a link can be added in as few as 2 mouse-clicks:
no buttons to add; no stacks to create; no fancy programming language to learn; no data to recreate or enter: just click and go!

Once the links are set up, all you (or anybody) has to do is double-click on the word in question, and the "linked to" file will be automatically loaded and displayed. It can then be read or put away, at the discretion of the user.

So, for example, you may have an article about the solar system. At every occurrence of the word "Mercury" you can set up a link to a digitized picture of the planet Mercury. At every occurrence of the word "Saturn" you could have a link to another file with a short biography on Saturn.

Nexus does not actually modify the files in question or require you to convert anything to its own format. Instead, it creates its own files that record where the files it's linked to are and in what way they are linked. Which means you don't have to run Nexus just to make changes to a file and don't have to worry about updating two versions of the same file.

By the time that you read this article I hope to have a demo version on the Mac BBS. DO NOT ATTEMPT TO RUN NEXUS ON THE DISK THAT YOU DOWNLOAD TO. Nexus needs a 256 block file that it will create for itself in order to run. There may not be room for it on the disk. So, you must either copy it to a blank disk, or, make a copy of the disk and delete any other files from it.

The version on the Bulletin Board is merely a demo copy. While it does work, you're limited in the number of links you can establish and some of the more advanced features are disabled. But even the demo version could be useful to some people.

This must be treated as a Beta version only. The commercial version will be available from 1 June. Because of the release, this program will be removed from the BBS on that date.

The current requirements to run this version are a IIGS with GSOS 5.0.2. with 1.25 meg of RAM.

* The Mac version will be available "soonish".

Trash Can Surgery

by Malcolm M^cLeary.

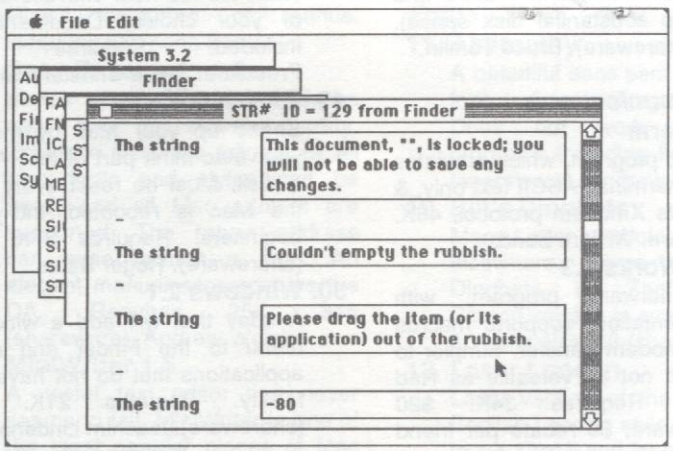
Back in March after reading an article by Steve Neilsen I decided to customise not only my System and Finder, but also a few Applications. For sake of 'Interface Consistency' I added keyboard equivalents for Save and Quit to MacWrite, FullPaint, and a few others which I can't recall just now. When I modified the Trash Can however, I decided that I preferred Rubbish instead of Bin, but that's just a personal preference.

Rubbish

During the last week, while recovering at home after Oral Surgery (removal of two impacted wisdom teeth and their mates), I was capable of doing nothing more strenuous than 'drink' Sustagen and watch daytime TV. Watching TV didn't last long as I quickly became bored with the Soaps and Host shows which proliferate our daytime airwaves. So I cranked up the CD, booted up my Mac and began to play.

There were a number of things which I had promised I'd do one day and as it passed the time was right. Firstly I tidied up quite a number of data disks into some semblance of order and shifted data files off Application disks and onto data disks where they belonged, then moved on to something really important: solving DejaVu. Actually I believe that I'm pretty close, but the Police and the Jury still don't seem to see it my way. Perhaps it's me but I think Shadowgate was a lot easier to solve in the end.

Next I moved onto something serious, analysing our Gas, Electricity and Telephone (daily) usage over the last two years with Excel, I found the results rather interesting but I won't bore you with the details. It was during this that a 'strange' Dialog box appeared (only once, and I haven't been able to repeat the same conditions so I don't have a screen dump of it) telling me that "Couldn't empty the trash". So what I hear you say, well I don't have a Trash Can I have a Rubbish Bin so I fired up ResEdit to see if I could find the problem (the inconsistency, not the reason for the Dialog box). I found it, STR# ID = 129 contains two strings which Steve Neilsen hadn't mentioned in his article. I changed both references from trash to rubbish, so I've fixed the inconsistency but since the Dialog box hasn't reappeared I don't really know.



GS BLURRY

By Anthony Rich
- Apple Bug April 1990

"The letters on my screen are all blurry"

Quite often, if you hang around an apple dealer, you will hear a customer come in and say "It doesn't work! The letters on my screen are all blurry!". If you listen further, you will find that the program responsible for the blurred letters is one written for the IIe/c which operates in the double hi-res graphics mode. Programs such as Word-Perfect, Publish-it! and MouseDesk fit into this category. There is a simple solution, and it doesn't require lugging your GS down to the dealer.

All you need to do is press Control-Open Apple-Escape and select the "Alternate Display Mode" option. You should be prompted with "Turn Alternate Display Mode On", so just press return, and then select "Quit" from the Classic Desk Accessories (CDA) menu.

And that's all you need to do, each time you run the program. (Don't forget to reverse the setting when you have finished with the program.)

While we're on the subject of settings on the GS, did you know that Apple considers 90% odd problems with the GS are related to the user settings of the control panel? This is what they tell their technicians on their training course. So next time you GS is doing strange things, check the control panel settings. If you take it to your dealer, they are well within their rights to charge you for their time, even if your GS is still under warranty.

Mono IIGS

Many users of the Apple IIgs will have noticed that even when the Control Panel display is set to Monochrome, the GS only ever displays in Monochrome when Double Hi-Res (512 * 192) graphics are used. Of course you would never want to see GS specific (Super Hi-Res) programs in plain Mono, but, like me, many of you will have a couple of old][+ or][e programs that still get dusted off for a bit of use.

The appearance of your work on screen is important when using programs such as The Newsroom, Mousepaint and some older educational packages that use the standard Hi-res screen for fancy text and graphic displays. The colour displayed in these programs is merely an artifact of using the Apple // single hi-res screen, not intentionally put there by the programmer.

If you have seen the colour display of these programs on the //GS you will know why people bought Commodore 64's! The display is a mishmash of strange colours that bear no resemblance to the printed output. Luckily there is a simple fix to force Monochrome displays for the programs which use the standard Hi-Res (256 * 192) display mode.

The ability of the Apple //GS to switch off its single-high resolution colour is an "undocumented feature" of the Apple //GS. The original intention of these soft-switches was to control Annunciator 3 on the 16 pin game port on the first Apple][. It just happened that when the Annunciator was deactivated and 80 column display activated on the first Apple //e, that the first 64k bank's hi-res display page was interspersed with the second 64k bank's hi-res display page, effectively doubling the Apple's hi res resolution and enhancing its colour capability.

The Apple //GS is able to control the display of double-hi res colour screens directly from the control panel without setting the colour soft-switch.

Step 1.

First boot or turn on your machine without a disk in any drive and wait for the "CHECK STARTUP DEVICE" message. When this appears hold down the CONTROL key and press the RESET key at the top of the keyboard. You should be greeted by the Applesoft prompt at the bottom left of the screen.

**

If you have a hard drive, boot up with the hard drive switched off.

**

If you have an internal hard drive like the Inner Drive or Vulcan, you will have to interrupt the boot process by pressing CONTROL-RESET after the drive has started booting.

Step 2.

Now go to the Control Panel by holding down the CONTROL and APPLE keys and pressing the ESC key. Select CONTROL PANEL and modify the DISPLAY type to MONOCHROME and press the <RETURN> key. Choose the appropriate selections to QUIT back to the Applesoft BASIC text screen.

Step 3.

Next set the Apple //GS colour soft-switch to OFF by typing POKE 49246,0 and press the RETURN key.

Set 4.

Nothing visible will happen, but when you start up your graphic-based program by inserting it in a drive and using the BASIC boot command (PR#7 for your hard drive, PR#6 for 5.25" drives and PR#5 for 3.25" drives) your application should display in Monochrome. Some programs intentionally use colour and may switch the colour back on using a complimentary poke to reactivate the "soft" switch (49247,0)

WARNING!!

DO NOT press CONTROL RESET or you will "disconnect" the soft switch and you will have to retype the POKE command.

Experienced Applesoft programmers will be able to write a short pre-boot program in BASIC to prompt the user for the boot disk and to set up the POKE command. Just in case you aren't familiar with Applesoft BASIC, type in and experiment with this short Applesoft BASIC program.

DON'T FORGET TO SAVE YOUR PROGRAM BEFORE RUNNING IT!

```
10 REM MONOCHROME
PREBOOT PROGRAM
20 REM    BY MICHAEL HICKEY
30 REM       (C) 1989
40 REM INITIALISE THE
COMPUTER
50 TEXT : HGR : SPEED = 255 :
PRINT CHR$(17)
60 REM
70 REM DRAW LINES OF
VARIOUS COLOURS ON THE
SCREEN
80 FOR X = 1 TO 160 STEP 7 : REM
160 LINES DOWN THE SCREEN
90 HCOLOR = X - INT (X / 5) * 5 +
1 : REM LIMITS THE COLOUR
RANGE 1 TO 6
100 HPLOT 0, X TO 279, X : REM
280 COLUMNS ACROSS THE
SCREEN
110 NEXT X
120 REM
130 PRINT "SET THE CONTROL
PANEL TO MONOCHROME AND
PRESS <RETURN>"
140 GET A$
150 REM SET THE "COLOUR-
OFF" SOFT SWITCH
160 POKE 49246,0 : REM HEX
$C05E
170 PRINT "WHICH DRIVE TO
BOOT? SLOT [5], [6] or [7]" : GET
A$
180 IF A$ <> "7" AND A$ <> "6"
AND A$ <> "5" THEN 170
190 PRINT CHR$(4);"PR#";A$
200 END
```

Classroom Computers in ACT Schools, 1990

Colleges:

AMIGA	5	1.4%
APPLE II	38	10.4%
BBC	30	8.2%
ATARI	1	0.3%
COMPATIBLE XT	221	60.7%
COMPATIBLE AT	50	13.7%
MACINTOSH	19	5.2%
Total	**364**	

High Schools:

AMIGA	8	1.1%
APPLE II	313	41.8%
ATARI	4	0.5%
BBC	44	5.9%
COMMODORE	43	5.7%
COMPATIBLE AT	6	0.8%
COMPATIBLE XT/JX	133	18.4%
MACINTOSH	131	24.6%
MICROBEE	8	1.1%
Total:	**748**	

Primary Schools:

AMIGA	3	0.4%
APPLE II	509	75.2%
BBC	42	6.2%
COMMODORE	25	3.7%
COMPATIBLE AT	2	0.3%
COMPATIBLE XT	42	6.2%
FRED	2	0.3%
MACINTOSH	14	2.1%
MICROBEE	38	5.6%
Total	**677**	

Summary of a Report on public schools from the ACT Department of Education

Apple II Public Domain - Disk Review

Gordon White's "Teacher Disk"

Thoughtfully compiled assortment of 13 very useful programs including "Grade Book" for student records etc., "Test.Writer" for writing multiple choice tests, "Math.Decathalon" maths with lots of fun, "Sumit" for testing skills in a visually and aurally stimulating way and much, much more.

Since it's introduction it has sold out once. New editions are on the way. Only $5.00 for a double sided 5.25" disk and full instructions.

See Paul or Adrian Burgess on the Macintosh Magazine Stand to order your copy.

DEAR DOROTHY DISK

(Reprinted from KAOS Newsletter)

Problem Corner
Write to Dorothy Disk & her assistant Debbie Density

Dear DD & DD,

I have a Ying Tong computer and a small hard drive. When I recently got married I took the computer on our honeymoon with us. As I was in the middle of writing a beaut program on Binomial Mathematice I used to sit up all night on the computer. My wife used to cry a lot and ask me when I was coming to bed all the time. After three days she went home to her mother. Since then I have all sorts of trouble with the program. Do you think there is something wrong with my hard drive?

Des Perate.

Dear Des Perate,

Yes. Come and see us next Tuesday afternoon, leave your computer home but bring your hard drive. We may be able to straighten it out.

DD & DD

Dear Dorothy Disk,

Where does all the writing on the screen go to, when I switch the computer off?

Curious

Dear Curious,

There is a big waste paper basket in the sky where everything ends up, including your stupid letter.

Dorothy Disk

Dear Miss Disk,

I run a business and do all the accounting on my computer. Since the decimal point key broke I have shown a phenomenal profit. I have heard that we are in a recession but don't believe it. I have bought a Mercedes Benz and have promised all my workers and shareholders a large bonus next Christmas. Should I expand the business or buy a new computer?

Wondering

Dear Wondering,

Neither! Buy a one way air-line ticket to Brazil next November.

Miss Dorothy Disk

You can write to Miss Disk or Debbie at . . . . Dorothy Disk, 3.5" Disk Drive, Eccentri City, NoddyLand, 3500.

POWER UP YOUR APPLE IIGS

Meng Ngai

The Power Up stereo card for the Apple IIGS is probably the best value for money stereo card for the Apple IIGS that I have seen.

The cost of the card is only $89.00 which includes postage and handling.

The sound quality of the card is exceptional, with clear sound reproduction. Programs like; Test Drive II, Jam Session, Music Studio, World Games, Zany Golf, etc, that have stereo capabilities truly come to life. Special sound effects are heard for the first time using the Power Up stereo card. For example, if there is gun fire on the left hand side of the screen, the sound will come out of the left speaker.

Probably the only disappointing feature about the card is that sometimes when the computer is loading up some information from the disk drive, some interference can be heard.

The card is very easy to install; simply place the card into any slot and plug the cable into the "Ensoniq" socket (which is located next to the speaker socket).

The card comes with a simple but comprehensive manual and the PD sound program, Sound Smith.

Output and input is via a 1/8' plug. On my GS, I have just used a 1/8' to RCA lead and directly hooked it up to a pair of SONY television speakers.

Oh, I almost forgot to mention the little bonus that comes with the Power Up card. The card is also a sound digitizer, all input is via a 1/8' plug. You can not use a microphone directly into the card, instead you have to connect it up to a cassette player and then record using the cassette player's microphone. If you want to record music or sound effects, all you have to do is connect a lead from the card to the earphone socket of a CD player, cassette player, etc. The sound quality isn't studio quality, but if you want a simple digitizer to record sounds for Multimedia, this is the card for you. I have recorded music and sounds using HYPER STUDIO and the results have been very pleasing.

The Power Up card is Australian designed and made so technical support is only a phone call away.

If you're interested in having a demo of the Power Up card please contact me on 2932397 (H). Or if you wish to purchase the Power Up Stereo card, here is the address:

Power Up Technology
PO Box 295
Cannon Hill
Qld 4170

Ph: (07) 395 6719
Fax: (07) 399 8362

FREE software
see information on
Training

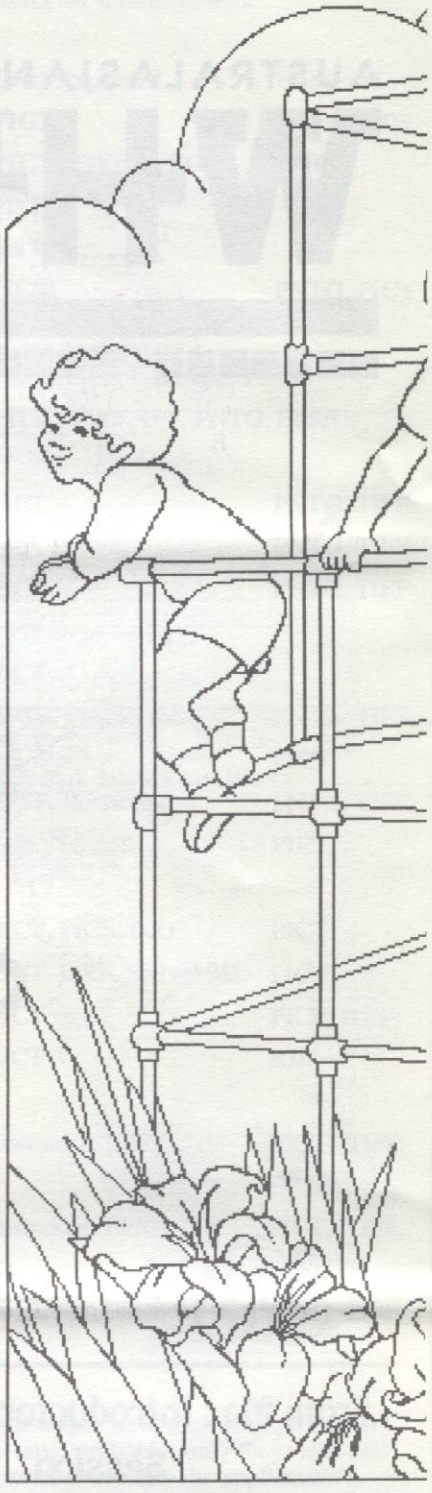
Design Us A Poster

ACT Apple Users Group needs some information posters and we'd like you to design them for us. As they are to be displayed at places such as Government Departments, Retail and Business areas, Public Libraries, Schools, Colleges and Universities we need a variety of designs to suit the different audiences and locations.
The poster can contain any information or picture or design elements that you wish to employ to support the following information:

- The designer's name (and place of work / school where appropriate).
- ACT Apple Users Group
- Monthly guest speakers and news letter.
- Hardware, reference book, magazine and Public Domain of libraries
- Help line and Bulletin Board
- Special Interest groups for: Beginners • Hypercard • Graphic Design • Apple][• Apple][GS • Macintosh • Education
- Meetings 2nd Thursday each month at O'Connell Education Centre, Stuart St. Griffith

  7:15 Disk sales + library loans and beginners session
  7:30 Guest Speaker + Questions and Answers
  8:30 Special interest topics.

Poster size A3, 1 colour (black)
Give your entries into any committee member.



Continued from Page 11

things up can cause is the facility for turning AppleTalk on and off. In older releases of the system (3.2/5.3 and earlier), AppleTalk was controlled from the Control Panel. From System 4.0, Finder 5.4 onwards, AppieTalk was controlled from Chooser. So, if you had the new Control Panel and the old Chooser there was no way you could turn AppleTalk on or off . Because of these sorts of problems and to make life easier for existing Mac owners, Apple introduced the Installer. The

INWORDS

Optical Character Recognition Software....

A review by Keith Jeeves of the Sydney Apple Users Group.

1. PURPOSE

The purpose of the Inwords package is to enable a file created by scanning a sheet of text with the 'Vitesse Quickie' scanner to be converted to a standard ASCII text file for use by other programs such as Word Processors, Page layout, Hyperstudio etc. The output file may be either text with Carriage Returns at the end of paragraphs, text with Carriage Returns at the end of each scanned line or an AppleWorks Word Processor file.

The package contains the Scanner Operating module, A Font training module, character analysis module and a full screen editor to fix up any errors which occur during the character analysis. The software is Prodos8 based and used Double Hires Graphics. It will run on a IIGS or an Enhanced IIe with at least 512K of memory but more is recommended to allow a reasonable scan length. A speed-up card is also highly recommended.

2. FEATURES

The program features AppleWorks type menu selection and is intuitive in its use. The manual is well presented and useful but the software can be operated easily without reference to the documentation.

There are three scan modes;

NORMAL...What is scanned is analysed
COLUMN...Recognises column spacing and only analyses the contents of the column
MERGE....Allows a scan of the left hand side of the page followed by the right hand side of the page. After analysis, the program will attempt to match them up into a full screen.

To allow the scanned characters on the graphics screen to be analysed, a Font Training module is included. It is simple to use, when the program reaches an unrecognised character during analysis, it will ask for the character to be typed from the keyboard. It will add the pattern to its library and pretty soon will know about almost everything that it is going to be asked to sort out. Needless to say, the training should be done with good quality text otherwise the thing becomes proficient at recognising ink blots but poor at letters. There are options available during training to ignore poorly formed letters or non characters. When a font has been trained, it may be saved on disk for use in future. There is no limit to the amount of font libraries that may be produced. The software comes with a number of font files, samples...for use in the manual practical examples and various fonts for popular US magazines.
The resulting text file is saved as a text file and the scanning options include an 'append' function to add successive scan files to the end of the previous scan file, hence building up a single document from a number of scans. The limit of the text buffer is around 38K.
The editor provides only the barest of editing options; it does not have search and replace although it will search for and remove hyphens appearing at the end of lines. It will also find each occurrence of the 'unrecognised character' marker.

3. RESULTS OF THE MANUAL PRACTICAL EXAMPLES

The manual works the user through a set of practical examples to demonstrate various the scanning modes using demonstration text. The prelearned font files are provided on the disk and the process is as simple as loading the correct font and scanning the relevant page. The examples gave 100% results.

4. RESULTS OF A HIGH QUALITY TEXT SCAN

A book was chosen with high quality type on a semi-glossy paper. The pages consisted solely of text, no graphics or separator lines. The font was learned quickly and the subsequent scans in MERGE mode were to all intents and purposes 100% successful. 4000 words with an average length of 4 letters were scanned and turned into a text file with no errors in just over 8 minutes. This is impressive and breathtaking to watch.

5. RESULTS OF SCANNING MAGAZINE AND NEWSPAPER COLUMNS

A technical magazine was selected printed with average quality text in three columns on glossy paper, The text was interspersed with graphics, diagrams and separator lines.

The font training picked up ink specks, badly formed letters, smudged letters, a number of letters running together, ink bleed across letters an addition to the correct characters, It was impossible to get the training to the point where every letter was recognised every time; the program had continuous problems with i,I,l,1 and at no point has the text been read with more than about 50% accuracy. Fixups were made with AppleWorks in preference to the built in editor which has very little in the way of editing features.

Newspaper columns had the same problem except worse. The ink specks were more prevalent, smudging was common and because of the paper texture, characters were much less likely to be well formed nor were they consistently poorly formed which the program may have been able to cope with. The best results obtained were about 20% of the characters being correctly formed.

In both the Magazine and Newspaper test, the program hung when it saw something that it could not recognise as a potential character...ie frequently. A Reset was required to take the program back to its main menu resulting in a voided scan. If the problem occurred during the right hand scan of a merged page, the whole thing was lost. Often, the hangs would mean that only 2 or 3 lines could be scanned at a time to avoid horizontal separator lines and the process became tedious.

6. RESULT OF TECHNICAL DOCUMENT SCAN

The document consisted of a clear laser printed specification on good quality paper in Courier 12 font. There were no graphics or separators on the page but there were multiple indented paragraphs and tabulated lists.

The font was learned quickly and reasonably accurately but the program found it impossible to cope with the indentation or sections in lists where the right hand scan had more printed lines than the left hand scan. The result was a hopeless mess which could not be used.

Curiously, the program hung consistently on underlined headings. As these were many, the only way of getting a scan was to use the whiteout machine to remove the underlines.

A.C.T. APPLE USERS GROUP INCORPORATED
ORDER FORM
PUBLIC DOMAIN AND SHAREWARE SOFTWARE
APPLE II - MACINTOSH - APPLE IIGS
(Apple II SS $2.00, DS $3.00, Best Of $5.00; Mac&IIGS $8.00)

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ADDRESS: _____

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I wish to order the following public domain/shareware disks:

Disk category and number		Disk category and number	
	$		$
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	$		$

TOTAL.....$ _____

Again, tedious and really not worth the trouble.

7. RESULT OF NIBBLE BASIC LISTING SCAN

The thought was that it should be possible to scan a Nibble Basic listing, produce a text file and EXEC it into applesoft as a working program. Frankly, it was easier to type and debug rather than scan and debug. Although the listings are clearly printed on glossy paper, there is enough smudging and ink bleed to make recognition hit and miss - mainly miss with characters like * + #. Proof reading Basic listings is no fun and the exercise was not worth the trouble.

8. SUMMARY OF RESULTS

If there is a need to regularly scan pages of large clear type with minimal graphics, then Inwords will work well. If, like me, you need to extract sections of documents from a variety of sources, it quite simply is not worth the effort with the current (rev 1.0) software.

One of the annoying habits, which occurred in all the above tests except for the book tests was the occasional 'doubling up' of a line. This usually occurred at the first line of a paragraph but appeared to be random. Needless to say, the resulting merge was an impossible mess.

The program will not work with draft quality dot matrix printouts (although it will make a reasonable attempt at NLQ providing the ribbon is good and the paper is good quality). Nor will it work with carbon copies, fax printouts or poor photocopies.

The frustration of 20-30% recognition and frequent hangs do not make for efficient business use. In short, Inwords cannot be recommended at this stage for the serious business user and at a RRP of around $150 it is hard to justify for occasional hobby use.

Unfortunately, I have to say that the OCR software for the IBM PC range of machines works better and more consistently so there is obviously a promising future for the technique. I am looking forward to future improvements and will, I am sure, find it to be as indispensable as spelling checkers, which were pretty horrific in the early days.

INWORDS is from WestCode Software and is available from Two Series Software.

FOR SALE

GRAPPLER LQ
Hardware and Software
incl. GRAPPLER SPOOLER
For quick sale. $100 the lot.

Bruce Thomson, Young NSW
(063) 82 2043

Newsletter Info.

This is the magazine of the A.C.T. Apple Users Group Incorporated. It is produced monthly and distributed to all financial members and Apple User Groups at no cost.

The views expressed in this magazine are the views of the authors and not necessarily that of the members.
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All contributions should be sent to The Editor, A.C.T.Apple Users Group incorporated, GPO Box 1231, Canberra, ACT, 2601, preferably on a Mac disk, or uploaded to the BBS. The deadline for articles is the Committee meeting.

Articles in this Newsletter may be reprinted by non-profit organisations provided that credit is given to the source.

Advertising: Financial members may supply small advertisements for publishing at no cost at the discretion of the editor. Commercial organisations will be billed for advertising. Corporate members will receive a 20% discount. Advertising will be accepted with the same deadlines. Cost quarter page: $40, half page: $60, full page: $100.

General meetings of the club are on the second Thursday of the month at the O'Connell Education Centre, Stuart St, Griffith, 7.15 to 9:45pm. The executive meets on the 3rd Thursday of the month. A SIG meeting is held on the Tuesday after this.

MemberShip: Joining fee: Full member = $10. Junior member = $5. Organisation = $20. Annual fee: Full member = $25. Junior member = $15. Organisation = $50.

Phone numbers are published for the use of members between the hours of 6pm and 9.00pm only. The recorded answering service number is available 24 hours per day.

Warnings The Club does not condone copying of software at meetings except for the distribution of Apple upgrades and Club software disks. All members are expected to display a high standard of behavior to guarantee our continued use of the venue.

Layout and Design of the Newsletter is done using Design Studio, and printed on a Laserwriter.

SPECIAL PURCHASE OFFER TO MEMBERS

KODAK DICONIX M150 + PRINTERS

Portable Ink-jet Printer
240v or 5 x c-size rechargeable batteries (not included)

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Member Statistics

New members	7
Renewals	11
Non-renewals	14
Total Financial	346
Macintosh owners	265
Apple // owners	100
Non system	4

FOR SALE

Epson colour scanner
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$2495
call Keith
251 1435
after 2pm

Apple II and Apple IIgs Public Domain Library

PRICES

5 1/4" Disks:
$2 Single Side Disk
$3 Double Side Disk

3 1/2" Disks:
$8 per disk
$5 per disk in SPECIAL packs

AVAILABILITY

The Apple II and Apple IIgs Public Domain Library is maintained by Michael Hickey. Call 231 3787 to order or see him at the monthly meetings. Orders will usually be filled by the next monthly meeting, or can be collected earlier by arrangement with Michael. Personal cheques, payable to ACT Apple Users Group Inc. are preferred for payment.

CURRENT SPECIAL DISKS:

64k APPLE II
#S1 Flobynoid/Defender. Great value arcade games at only $3 - Joystick/mouse recommended.

#S2 FrEd Writer. A simple and effective word processor for $3 - All documentation is on the reverse of the disk.

128k enhanced Apple IIe, IIc
#S3 ZLINK/Shrinkit. Modern, full-featured communications utilities for only $3 - Use your own modem or borrow one from the club.

APPLE IIgs
GS93 Cosmocade. Naxos and Journey to Calibus. Simply two of the very best arcade games you'll get for the Apple IIgs. $10 for 2 disks

GS94 Freeterm/Shrinkit. Modern communications software and utilities for only $5. - Use your own modem or borrow one from the club.

GS111 System 6.0. The very latest system software for the 1mb Apple IIgs. Use Macintosh, DOS 3.3 and Pascal disks on the IIgs desktop. $25 for the 5 disk set experienced in computer operation. Freewriter, however, had some serious flaws for use in schools by beginning students and teachers.

APPLE ANNOUNCES NEW MICRO LINE

By Ken Chapman

Reprinted from Maple Orchard Vol 8, No 3; May/June

Apple Computer, Inc. today announced the release of a completely new product line. The new series of micro-computers will be based on the earlier Apple /// system, using an enhanced Motorola 65816e processor, as well as math, graphics,sound and HyperTalk co-processors. The new series will have the same look and feel as the earlier Apple ///, although there will be a completely new revolutionary sound system installed at the optional discretion of the purchaser.

"The simple fact is", says John Sculley CEO of Apple, "The Apple /// was ahead of its time. But we didn't abandon it, just as we will never abandon the Apple // series. We truely believe the Apple ///'s time has come." Rumours that Apple Computer may be phasing out the Macintosh line are denied by Apple officials. "However," says Jean Louis Gassee, "we simply cannot sacrifice innovation for the sake of compatibility."

"The Apple SOS environment is simply too powerful and flexible to abandon," Gasee continues, "We just never gave it a proper chance before. But some of our fellows have been continuing to work with the system, and have come up with some truly remarkable capabilities we never before dreamed were possible for a little box that sits on the top of the desk."

Another spokesperson inside Apple Computer who wished to remain unidentified confirmed that parts and supplies for the Macintosh products have not been re-ordered, and minimum stocking levels have been considerably reduced. "We just want to get out of that mess. We know that the new Apple ///e will be a winner. We all feel it. The excitement around here is so intense, everyone is actually running into work every morning, and the only grumbling heard around here now is at quitting time and we're ordered to leave by the armed security personnel."

Rumours of the new product line first began circulating when some third-party developers began talking about new developments they were working on. For example, Supermac Technologies is said to be ready to announce a new 150-gigabyte, 5.25" floppy drive system that just happens to fit snugly into the earlier Apple /// drive casing.

Rumours have also leaked out of Redmond, Washington, that Microsoft is already working on a new Presentation Manager system for the Apple /// and that Excel had originally been designed to run under SOS but had to be slowed down to accomodate the Mac user Interface. Bill Gates was once heard to remark to a group of IBM supporters that he only wished the new OS/2 could come close to the power and speed of "good old SOS".

Microsoft is also rumoured to be developing a speedier version of Unix for the Apple ///e, as well as Fortran, COBOL, BASIC and LOGO packages.

[I think that this belonged in last months issue, - continued next month - maybe]

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New Apple II Public Domain Software.

Michael Hickey

This month I have been able to get hold of Z-Link for the Apple II series computers. Z-Link is a program for the Apple // that is small, fast, and very powerful, outperforming AppleWorks GS communications module, Freeterm GS, Apple Access II and Terminapple. (I haven't tried any others) It includes everything you'd expect from a good modem (communications) program including a text capture buffer, robust DEC VT52/100 and ANSI terminal emulation, comprehensive macro capability and a split-screen person to person chat mode. Z-Link can transmit and receive files using several protocols including XMODEM/Checksum, XMODEM/CRC-16, YMODEM/CRC-16, and YMODEM/Batch and it is compatable with Ascii Express: The Professional and MouseTalk. The program runs on an Apple //c, enhanced //e, or //GS with 128k RAM under ProDOS 8.

Comprehensive documentation for Z-Link is on the disk in AppleWorks Classic word-processor format so you can read it on-screen or print it with any AppleWorks compatible printer. Use Z-Link with any modem up to 2400 bps, internal or external, your own or borrow one from the Hardware Loans Officer, Gordon White, at any monthly meeting.

Aussie FrEd

An older program, becoming more popular recently, is Aussie FrEd. The Australian version of FrEdWriter.

Aussie FrEd is a full word processor that has been made available as public domain software. It is based on FreeWriter which was written in the U.S.A. by Paul Lutus in March 1984. Paul is the author of many excellent commercial programs including AppleWriter, one of the most popular word processors for the Apple computer, later succeeded by AppleWorks.

FreeWriter was written to provide an easy to use word processor for people who aren't experienced in computer operation. Freewriter, however, had some serious flaws for use in schools by beginning students and teachers.

An Educational Version of FreeWriter, called FrEdWriter, was developed from the original FreeWriter by Al Rogers of the San Diego TEC Centre. The FrEdWriter disk that was developed by Al Rogers was fine for use in American schools, but it was felt we needed our own Australian FrEdWriter disk. So the American version has been adjusted to suit the needs of schools in Australia, hence Aussie FrEd.

Don't be put off by the term "Educational". Aussie FrEd is excellent as a word processor with many of the features you expect from a more expensive work. Aussie FrEd has full word-wrap, search & replace, cut & paste (albeit awkwardly) and allows you to insert printer-specific commands to add boldface, change typeface etc., depending on the capabilities of the printer. Even on a 64k Apple II, Aussie FrEd leaves you enough space to edit an 11 page (22k) document!

HARDWARE AND SOFTWARE REQUIREMENTS

To use the Aussie FrEd word processor package you will need to have access to the following:

ESSENTIAL:

1. An APPLE][,][+, //e or //c computer with at least 64K of memory, a monitor and a disk drive. Apple][and][+ computers will also need to have a lower case chip installed and have had a SHIFT key modification.

2. Access to a printer that can be connected to your APPLE computer.

3. An Aussie FrEd program disk.

Availability

Both of these disks are available from the the Apple II Public Domain Library, which is maintained by Michael Hickey for $3 each. Both of these programs have extensive documentation on the disk. Call 231 3787 to order or see him at the monthly meetings. Orders will usually be filled by the next monthly meeting, or can be collected earlier by arrangement with Michael. Personal cheques, payable to ACT Apple Users Group Inc. are preferred for payment.

For all your furniture needs, call Mac West, Specialist Cabinet Maker. Unit 1/53 Hinksman St. Queanbeyan 2620. Phone/Fax 06 297 6822. - Specialising in Ergonomic Office Furniture in beige or grey melamine at very resonable prices.

TrueType Fonts for the IIGS.

Pointless is a font management utility for the Apple IIGS which incorporates TrueType font technology into the GS/OS System Software. It has been written by Alan Bird who has been involved in the development of lots of Apple II software including AppleWorks 3, and is published by WestCode Software Inc.
The Pointless program is a small application, called an INIT, which automatically loads when you start your System Software and operates in the background. Pointless is also a Control Panel Device (CDev) which lets you configure various settings from the GS control panel. The package (one 3.5" disk) contains an installer which places the Pointless/TrueType files in the appropriate folders of your startup disk. You need at least 32K of free disk space on your System Startup disk, not a problem if you have a hard disk and these days it is hardly worth using GS/OS on the IIGS without a hard disk.
All Standard GS/OS application programs use bit-mapped fonts where each character is made up of a pattern of dots which are displayed on the screen when you type a character. Bit-mapped fonts are created in specific sizes, usually 10, 12, 14, 18 and 24 point and anyone who has selected a large font size or a nonstandard size will have seen the drawbacks of bit-mapped fonts - the jaggies. TrueType fonts are an industry standard font format also used by the Macintosh and are also referred to as scalable or outline fonts. In an outline font, each character is stored as a mathematical formula which describes the lines, curves and points which make up the shape of the character. Since an outline font is not a pattern of dots, it can be resized while accurately retaining the shape of its characters. When a TrueType font is re-sized, Pointless enlarges or shrinks the outline to the selected size and then converts it to a pattern of dots that most accurately fill the outline, for display on the screen or output on the printer. Since a TrueType font file can be used to create any point size, you no longer need separate font files for separate sizes - one TrueType file does it all - saving disk space and making font organisation and installation much easier.
Pointless comes with the following TrueType fonts: New York, Geneva, Monaco, Chicago, Symbol, Courier and Courier bold.

The first time a TrueType font is selected in an application it is loaded into memory, this is relatively slow and the only time that the use of TrueType fonts is noticeable. A special Pointless cursor indicates how far Pointless is in the process of creating the font. Once the font is loaded in memory you will not notice any difference from using bitmapped fonts, except for the much improved appearance of printout and the display on the monitor.
Pointless requires an Apple IIGS with at least 1.25 megabytes of memory and GS/OS System Software 5.0 or higher (claims to be System 6 compatible).
Pointless by Westcode Software is available for $85 plus $5 p&h from Australian Two Series Software, PO Box 1, West Hoxton NSW 2171
(02) 606 9343.

The heading is a scanned version of Pointless printout on an ImageWritter II.

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D-11-7 36/49.4

Microsoft Word 5.0 Bugs

I have been using Word 5.0 for several months now and it is a great improvement on version 4. However there are a few bugs you need to know about:

1. Although the formats of Word 4 and 5 are the same, minor differences can cause problems when placing documents in PageMaker. The basic problem is that if you work on a Word 4 document in Word 5 and then want to place it into PageMaker 4.x, it sometimes fails. Documents that have never been touched by Word 5 are fine, and documents created in Word 5 and never touched by Word 4 are fine. Watch out for new import filters for PageMaker. To fix a file, open it in Word 4, save it in RTF format, open the RTF file in Word 4 again, and save under a new name. Then you can import the file into PageMaker.

2. To place a Word 5 document with a table into PageMaker, firstly open the document in Word 5 and save it as text. The document (with table) can then be successfully placed into PageMaker.

3. The graphics editor in Word 5 is not terribly stable, especially in low memory situations. Save before using the graphics editor and be prepared for crashes.

Norman Braidwood

NEW GS SYSTEM SOFTWARE

Apple Introduces New System Software And HyperCard IIGS Upgrade For The Apple IIGS

CUPERTINO, California--March 24, 1992--
Apple Computer, Inc. today introduced new system software and an upgraded version of HyperCard IIGS for the Apple IIGS personal computer. Apple IIGS System 6 software offers an enhanced user interface, greater speed and performance, and data exchange capabilities not available on current Apple IIGS operating systems.
HyperCard IIGS version 1.1 has been upgraded to include a Media Control stack for operating CD ROMs and videodisk players, and new HyperTalk scripting capabilities.
"Apple IIGS System 6 encompasses the most robust and feature-rich system software offered since the introduction of the Apple IIGS in 1986, bringing Apple II customers much of the same ease-of-use and functionality now available on the System 7 Finder for the Macintosh," said John Santoro, Apple II product manager. "The extensive development of System 6 and HyperCard IIGS version 1.1 underline Apple's continuing support of the Apple II line."

Features and Benefits of Apple IIGS System 6
Apple IIGS System 6 features three new File System Translators that provide easy access to Macintosh disks, Pascal disks, Apple II DOS 3.3 disks. In addition, Apple IIGS System 6 offers users significant feature enhancements to control panel and desk accessory functionality, providing an enhanced new "look and feel" to the Apple IIGS. Control panels can be opened directly from the desktop and Find File and Calculator desk accessories have been incorporated. Finder Help on Apple IIGS System 6 can be accessed through pop-up menus and kept on screen while users step through procedures. Window handling and window appearance have also been enhanced, making it easier to move between and manage multiple windows on a single screen. Apple IIGS System 6 offers two new applications--Teach and Archiver. Teach is a desktop text processor that enables the user to jot down notes, read disk files and create formatted or unformatted text documents. Teach also provides file import capability from ASCII, AppleWorks version 3.0, AppleWorks GS, MacWrite version 5.0 formats and AppleWriter. Archiver offers flexible hard disk backup functions to save and restore either individual files or entire volumes. The Apple IIGS System 6 Media Control toolset is a new tool/driver/control panel/desk accessory combination that allows users to integrate, configure and manage highly sophisticated multimedia effects. The performance of this toolset is optimized when used in conjunction with The Universal Access suite (also available on Macintosh System 7 software) opens the Apple IIGS to disabled users via Video Keyboard, Easy Access and Closeview programs, simplifying system use for the visually or physically impaired. As with the System 5 series, Apple IIGS System 6 users can network their Apple IIGS computers with each other and with Apple IIe, Macintosh and MS-DOS computers. However, System 6 improves networking functionality via EasyMount, a new feature which allows users to mount a network server with a simple double-click command. Apple IIGS System 6 replaces Apple IIGS System 5.0.4 for the stand-alone Apple IIGS, providing a consistent graphical interface and high performance for both the individual and networked user.

Speed and Feature Enhancements for HyperCard IIGS
HyperCard IIGS version 1.1 features a Media Control Stack for the control of external media devices such as Laserdisk players and CD- ROM drives from within the stack. Control is provided to the user through a common interface to two external devices by using standard "Play", "Fast Fwd", etc., buttons or floating control panels. A Tune Builder stack allows the user to create short original tunes by simply clicking the mouse on the stack's music staff. Notes can be played in variable time and with the voices of a large collection of instruments. These tunes can then be used as enhancements to other original stacks by cutting and pasting. HyperCard IIGS version 1.1 has incorporated features from Macintosh HyperCard version 2.0 and 2.1, such as HyperTalk extensions and X Windows. As with original HyperCard IIGS, version 1.1 is also in color.

New SuperDrive
The Apple IIGS SuperDrive Controller card is also available for the enhanced Apple IIE and Apple IIGS, allowing users to utilize Apple's SuperDrive which permits the use of 1.4MB floppy disks. The SuperDrive card also operates all other Apple II 3.5 disk drives.

System Requirements
Stand-alone Apple IIGS System 6 software requires an Apple IIGS personal computer with at least 1MB of RAM, ROM version 01 or 03 and one 3.5-inch disk drive, although configurations of 2MB of RAM and a hard drive is recommended for optimal performance. Networked systems require Apple IIGS computers with at least 768K RAM, ROM version 01 or 03 and

appropriate LocalTalk cables. HyperCard IIGS version 1.1 requires an Apple IIGS personal computer with 1.5MB RAM, one 800K disk drive and hard disk or connection to a networked environment, and system software 5.0.3 or subsequent version.

Price and Availability

The Apple IIGS System 6 package includes six 3.5-inch disks containing system and set-up software and system tools, as well as the Apple IIGS System Software User's Guide. The package will be available in early April from authorized Apple dealers, Apple Educations Sales Consultants, and Resource Central, Inc. Apple is also making Apple IIGS System 6 software available from licensed user groups and licensed on-line services.

Computers from MacHeaven

Roger Green

In America the streets are paved with Macs.

I have just returned from a holiday in the USA. There I discovered that we do not get a good deal in Australia. Apple Australia knows the reasons; in the meantime there is a way around them. Buy direct from the USA.

Walking down the streets of an American city, this innocent Australian was surprised by the number of Apple computers in the windows of shops and offices. In Australia I have seen plenty of IBM-clones but Macs are an exception, a luxury item for the fashionable office or the dedicated amateur. In America Macs are everywhere. There must be a reason.

Continuing down the street I would often come to a computer shop. This would not always be the huckster shoving clones out the door but a shop where at least half the floor space was devoted to Apples. Authorised Apple resellers can be found in the most out of the way places.

Inside the shop was a revelation. Lots of stock, the latest models and, most surprising of all, price labels on the computers. Unlike most Australian dealers who offer to fax you the price the next day, US prices are on the computers. You can actually ring dealers and learn the price straight away.

Then you find out why Macs are everywhere. They are cheap.

That first night in the computer shop (they are open most nights till 9pm), my jaw dropped. Of course you have to add one-third to account for the exchange rate and allow a few hundred dollars for freight but the prices are still pretty keen. In fact the Apple dealers' prices are the same as the mail order prices you have been drooling over in the back of American Macmagazines.

And remember those magazines are a few months old. Prices keep coming down. Unlike in Australia, Apple's price reductions are passed on to buyers immediately.

So of course I bought a computer. For the money I would have spent in Canberra I bought the next model up the line and got the latest big monitor. It's one of the best buys I have ever made.

Warranty, freight and customs

Unlike mail order, the dealers offer the Apple global (one-year) warranty. This means that, if something goes wrong with the computer in Australia, you can get the machine repaired by an Apple dealer in Canberra, pay the bill yourself, then be reimbursed in US dollars by Apple USA. It is a bit less convenient but still a good warranty.

But what about freight and customs? I carried one computer back myself and escaped without being charged excess baggage. Then I ordered a 16-inch monitor, a package of nearly 30 kilograms. Freight and insurance was $A440. CPUs are lighter and so cost less.

If you are liable to pay sales tax you need to talk to the Customs Service about how to pay, especially if you intend to carry the computer back yourself. I think the rate is about 25 per cent.

How long does it take? I once spent six months waiting for a Melbourne computer dealer to replace a faulty part. The reason for the delay was that the Australian distributor had to wait for parts from the manufacturer in the USA.

From Nowhere, New Hampshire, to Sydney airport took my computer three days. It took me that long to make the trip with some fast driving and catching connecting flights! I am still waiting for a tiny part I ordered from Sydney three weeks ago.

On my way home, in Sydney and then in Canberra, I rang around a few dealers to compare prices. My US retail price plus freight and other costs was less than the Australian wholesale price. So the high price of Apples is not the local dealers' fault. I would be interested to hear Apple Australia's explanation. In the meantime I will be buying my computers elsewhere. And I'll be in MacHeaven.

If you don't know the name of a US Apple dealer contact Peggy Todd at Neba Computer, PO Box 215, Plaistow, New Hampshire 03865. Phone (603) 382 8338 or fax (603) 382 3007. Or ring Apple in the USA for a list of 'the dealers nearest you'.

What System 6 for the Apple IIgs can do for you!

Michael Hickey

The whole philosophy behind System 6.0 for the Apple IIgs focuses on bridging the gap between Mac and Apple IIgs. If you use an Apple IIgs at home and a Mac at work (or vice-versa), or even regularly share files between systems, you are no longer burdened with having to use the Apple File Exchange to painfully export your data from the Apple IIgs to the Mac.

System 6.0 for the Apple IIgs brings the IIgs and Mac together like never before: You can now simply insert a Mac disk with its hierarchical file system into your 3.5" disk drive and have the contents appear on the desktop. No special program needs to be run, no arcane commands need be given, you just put the disk in the drive and it is read by the IIgs... even if it is on a 1.44mb disk! Apple has at last released a disk drive controller card for the Apple IIe and Apple IIgs to control the "Superdrive". You still cannot run the same programs but now you can directly share data like graphics, text, fonts and sounds between the two machines.

You would have to put the graphics into a format which can be used by both machines, like MacPaint or GIF format so all but the very highest resolution graphics would appear as good on the IIgs as they do on the Mac. Programs like SHR Convert (see March 1992 issue of ACT Newsletter) let you do this with ease. B

Transferring your word processing work is usually easier because you can print to disk or save your work as text or ASCII and drag the file onto the Mac disk. Now, included in System 6.0 for the Apple IIgs, there is a tiny word-processor, called Teach, which can import MacWrite files from Macintosh HFS disks, AppleWorks Classic and AppleWorks GS and saves your work as formatted or unformatted text on either Mac or IIgs disks.

Copying fonts is even easier, just drag the font from the Mac disk into the */SYSTEM/FONTS folder on your boot disk (called * here) and it will be available when next you boot your disk.

To use Mac sounds you should have Hyperstudio, Sonic Blaster or some other utility which lets you playback or modify the sounds. Just load the sound from the Mac disk and play it back from these applications or utilities. (A demo of Sonic Blaster is available from the Apple IIgs PD library)

The main drawback is for users of minimal systems. While System 6.0 for the Apple IIgs does perform faster than any previous version of System software for the IIgs, if all you have is a 1mb Apple IIgs with one 3.5" disk drive, you may be disappointed by all the disk swapping you will have to go through to take advantage of the best System 6.0 for the Apple IIgs can offer. For those clever enough to have a hard disk, no matter how small, or those who will buy a "Superdrive", System 6.0 can change the way you work with Macintosh systems.

System 6.0 for the Apple IIgs requires an Apple IIgs personal computer with at least 1MB of RAM, ROM version 01 or 03 and one 3.5-inch disk drive, although configurations of 2MB of RAM and a hard drive is recommended for optimal performance. System 6.0 for the Apple IIgs comes on five 3.5" disks and is available from the ACT Apple Users Group Public Domain Library for $25. Assistance in setting up and using System 6.0 for the Apple IIgs can be sought from the Apple II and IIgs Librarian, Michael Hickey. ked user.

Speed and Feature Enhancements for HyperCard IIGS

HyperCard IIGS version 1.1 features a Media Control Stack for the control of external media devices such as Laserdisk players and CD- ROM drives from within the stack. Control is provided to the user through a common interface to two external devices by using standard "Play", "Fast Fwd", etc., buttons or floating control panels.

A Tune Builder stack allows the user to create short original tunes by simply clicking the mouse on the stack's music staff. Notes can be played in variable time and with the voices of a large collection of instruments.

[I think that there was supposed to be more, but there wasn't, Ed.]

FLOPPY DISK HIGH DENSITY (FDHD)

Apple Computer Australia
Michael Wills / Tech Support

Now that our newest floppy disk drive - the FDHD Floppy disk - High Density) is being used more and more throughout our product line, several people have been seeing some interesting behavior. This tip is to help decipher what you may see and give you a better understanding on how the FDHD works. The FDHD is a disk drive that can read and write in the standard Mac 400K and 800K formats as well as the newer 1.44M format. It also allows the reading and writing of 800K Apple II, ProDOS, 720K MS-DOS, and 1.44M MS-DOS formats just for the record - the format used for MS-DOS is the same one used by OS/2. In order to make the Mac use the PRODOS or MS-DOS formats, you must use the correct software (for example: Apple's Apple File Exchange (AFE), SoftPC from Insignia Solutions, or Dayna's DOS MOUNTER).

The FDHD uses the 3.5 inch disks. These disks are available from several sources and come in three flavours: Single Sided (400K), Double Sided (800K), and High Density (1.44M). The Single Sided disk should be formatted to 400K and the Double Sided disk can be formatted as 800K or 400K. 400K may be useful if you want to pass data to a friend that only has a Mac 512 or a Mac XL, which can only read 400K disks. As an interesting point, most Single Sided disks are really Double Sided disks that did not pass the factory stringent testing standards for Double Sided media, but which passed as Single Sided disks. So, other than the implied guarantee from the manufacturer, Double Sided and Single Sided disks are the same.

However, the High Density (HD) disks are manufactured using a completely different process (different oxides, different rating of magnetic flux capacity per square inch, etc.) If you have a Mac that does NOT have the FDHD (like a Mac Plus), it is possible to take a High Density disk and format it as a 400K or 800K disk. However as this may be physically possible, it is not supported and here is why: Unlike the Double Density disk (800K) which can be formatted as a 400K and be guaranteed to work as a 400K disk, there is no guarantee (especially from the manufacturers of the disk media) that the HD (1.44M) disk formatted as an 800K or 400K will work as flawlessly as the user might expect. The HD media is a completely different media.

Even the process to read and write information to the disk is different between the 1.44M and 400/800K modes of disk operation. The nice thing is that a Mac configured with a FDHD as one of its floppy drives can tell the difference. The Macs that support FDHD include the Mac IIx, IIcx,IIfx, SE/30 adn the SE sold after August 2, 1989. Plain Mac IIs and the older Mac SE can be upgraded to support FDHD drives. If you look closely and compare a 3.5 inch Single or Double Sided disk to the 3.5 inch High Density disk, you will notice only small differences. There may be a difference in the disk labelling, but the only two ways to honestly tell the difference is that the High Density media has an extra Hole at the top of the disk and the letters HD (or 2HD) should be present on the front of the disk. The bonus hole is on the same end of the disk as the Write Enable/Write Protect tab, but on the opposite side.

The letters HD should be found near the shutter on the front of the disk. When you insert a 3.5 inch HD disk into a NON-FDHD Mac (or Apple II or IBM-PC type of machine for that matter) which does not have the necessary mechanisms to detect the bonus hole, the computers merrily presume that it is a normal Single or Double Sided disk and try to operate with it as normal. When the High Density disk is put into the FDHD equipped Macs, the FDHD drive senses the extra hole and locks itself into the mode that only allows the Mac to treat it as a 1.44M disk.

<u>Here is what confuses a lot of people:</u>

1) If you take a FDHD equipped Mac, insert and format a brand new Double sided disk, the disk will be formatted as 800K. So going from the FDHD to the older Macs, works just fine as long as you do not use the HD disks.

2) If you take a Mac Plus, insert a Double Sided disk and format it at 800K. The Mac Plus operates with the disk as expected (you insert the disk, the icon comes up on the desktop, you can open it, access applications and documents, etc). If you take that same Double Sided disk to the FDHD equipped Mac and insert it into the FDHD drive, the FDHD does not sense the bonus hole and therefore presumes that it is a 400K or 800K disk. It reads the 400K / 800K formatted data off the disk and all operates as expected just like on the Mac Plus. Now, if you take that same Mac Plus, insert and format a HD disk, you will get a maximum of a 800K formatted disk. Take this High Density disk to the FDHD equipped Mac and insert it into

the FDHD drive, the FDHD now senses the bonus hole and therefore presumes that it is a 1.44M formatted disk. It tries to read the information on the disk in the 1.44M mode and sees nothing that it recognises as 1.44M type of information. It cannot read the 400K / 800K format that the Mac Plus put on it in the 1.44M mode and therefore gives the user the dialog box stating to the effect that - it is not a readable disk, Eject or Initialise. So the user sees a disk that works fine in another Mac which will no work in the FDHD equipped Mac and presumes that it is a FDHD drive failure problem. It is not! It is because the FDHD has some smarts and processes the disk types differently that causes this behaviour and subsequently confuses the user. (A temporary fix - put some sticky tape over the extra hole tricking the Mac into thinking that it is an 800K disk. - Ed)

The FDHD also has the capability of exchanging data on disks between Macs and 3.5 inch drive equipped MS-DOS or OS/2 machines.

Here are some scenarios to help you understand the combinations of disk types, drive usage, and supported (and unsupported) combinations between the two:

Scenario 1: A user on an MS-DOS machine takes a brand new Double Sided disk and formats it to 720K. The user now copys a LOTUS 123 spreadsheet onto this disk. The user then goes to the Mac, launches Apple File Exchange (AFE) and inserts the MS-DOS disk into the FDHD. A listing of the contents of the disk, including the spreadsheet that the user wanted to transfer to the Mac, appears on the AFE window. All behaves just as expected (well ... at least like the manual says it would).

Scenario 2: A user on an MS-DOS machine takes a brand new HD floppy disk and formats it to 1.44M. The user then copys their LOTUS 123 spreadsheet from their hard disk to this disk. The user then goes to the Mac, launches AFE and inserts the MS-DOS disk into the FDHD. Again, a listing of the contents, including the spreadsheet that the user wanted to transfer to the Mac, appears in the window.

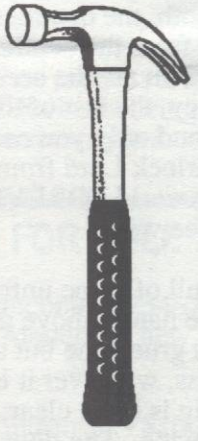
Scenario 3: A user on an MS-DOS machine takes a brand new **HD disk** and formats it to **720K**. The user can copy a LOTUS 123 spreadsheet from their hard disk to the newly formatted disk. The user then goes to the Mac, launches AFE and inserts the High Density 720K formatted MS-DOS disk into the FDHD. Now the FDHD cannot read the 720K formatted DOS disk in the 1.44M mode and the Mac gives the familiar dialog box to the effect of not a readable disk, eject or initialise.

Scenario 4: A user on an MS-DOS machine takes a Double Density disk and formats it to 1.44M Note: although this may be possible, it is not a supported configuration. (It's just that IBMs are not smart enough to realize that it is a HD disk.) The user may be able to copy their LOTUS 123 spreadsheet to the newly formatted disk. They then remove the disk from the MS-DOS machine. The user then goes to the Mac, launches AFE and inserts the Double Density 1.44M formatted MSDOS disk into the FDHD. The intelligent FDHD senses the disk as a Non-HD disk (no bonus hole) and attempts to read the disk in 800K mode. The FDHD cannot read the 1.44M formatted MS-DOS disk in the 720K mode and the Mac gives the familiar dialog box to the effect of - not a readable disk, eject or initialise. (By the way, the correct MS-DOS 4.0 command to format a Double Density disk to 720K in a 1.44M disk drive is: FORMAT A: /N:9 /T:80. This tells MS-DOS to format the disk in drive A: to 9 sectors per track and 80 tracks - which fits the specifications of the Double Density media. If you just typed in FORMAT A:, MS-DOS presumes that the disk is High Density and tries to format it to 1.44M. This is not a supported configuration even though it may be physically possible.)

In Summary: When you use the FDHD drive, make sure that you are using the correct disk for the job that you are doing. There are only two rules to remember:

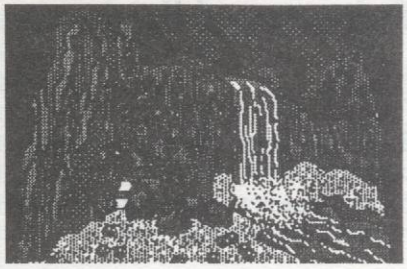
1) If you are exchanging disks with older Macs, Apple IIGS, or 720K format MS-DOS machines use only Single or Double Sided disks.

2) If you are exchanging data with FDHD equipped Macs or with 1.44M formatted MS-DOS machines (most OS/2 machines fit this description) make sure that you are using High Density (HD) disks (the ones with the bonus hole).

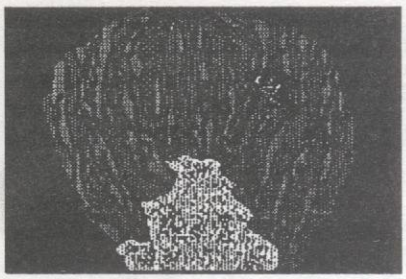


If all else fails, use one of these ! That'll fix the disk for good!

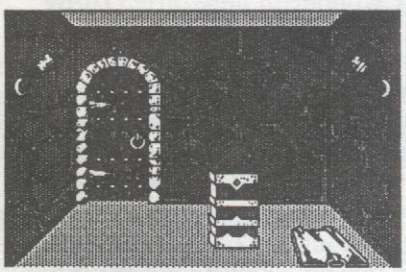
photos courtesy 'santiagmelende-0' (eBay)



able to open it. Let's move on. Water cascades over a subterranean cliff into a cool, clean stream. To the left fallen rocks have completely blocked an ancient stairway (only blasting powder will move that lot). For lack of any other weapons you'd better collect a few of those stones, you can always throw them at nasties. Wait, is that a shadow or is there a passage behind the waterfall. Yes, I think it is, let's have a closer look.



Damn, it's a dead end; the damp walls of this eerie cavern are rough and irregular, as if they've been settling for centuries, but they're not going to tell you anything. Hang on, that rock that juts out on the right, it seems loose. It moves, what have we here? Looks like a leather pouch, and it contains three precious gems. Things are looking up, let's backtrack and try that other door on the left.



You enter a cold room. The stench of flesh in decay pervades the small chamber. If that wasn't enough there's also rats! Ahead there's another door, and again it's not locked (very trusting, the residents of this castle). Central to the room is a modest pedestal, but you can't budge it, wonder what it's used for? To the right is a trap door leading down into darkness, let's see what's on the other side of the door.

This room is filled with the scent of death and the heat of a thousand torches, but apart from yours there's only one torch in the room and it isn't even lit. The room is full of gold pieces, but they've all been fused together into one mass of gold (too heavy for one man to shift). I wonder what could generate that much heat. Also there are various tools of war (they could come in handy if you meet something nasty). At the end of the room there's an archway, all you can see is a pair of eyes staring through the darkness. They seem to be watching every move you make. You get close enough to see that those eyes are attached to a huge dragon who doesn't like trespassers and sends you to your death with his fiery breath.

You've failed in your quest, let's try again next time.

IIGS SCSI CARD LOCATION

Les Humphrey

Reprinted form "Tech Tidbits"

The "preferred" slot for the SCSI Card in an Apple IIgs is usually considered to be slot 5, but this is only true if there are no floppy drives connected to that port which would create a conflict. The chart below should help in determining best slot in the //e or IIgs.

IIGS slot #	Comments/pros and cons
7.	OK if no AppleTalk devices are being used.
6.	OK if there are no Apple 5.25" drives attached.
5.	OK if there are no Apple 3.5" drives attached.
4.	Not recommended.
3.	Not recommended.
2.	OK if no modem or other serial device is being used.
1.	Not recommended.

IIe slot #	Comments/pros and cons
7.	OK unless other card installed.
6.	OK if there are no disk drives attached.
5.	OK if there are no disk drives attached.
4.	OK unless other card installed.
3.	Not recommended.
2.	OK if no modem or other serial device is being used.
1.	Not recommended.

FOR SALE

Netcomm 1234SA
Modem as new
$600

Windsurfer - $1000

Call Andrew
288 1128

LUCKY DOOR PRIZE

This month the Lucky Door Prize was a Xidex Memo Block which was kindly donated by Dataflex. Although there were several machines available, no random number programs were brought along. Therefore the old manual system was used and to save time the numbers were drawn earlier.

Five numbers were drawn as usual and they were; 377, 145, 667, 37 and 80. As 377 is ACT Office Equipment's membership number (again, would you believe it??!!) an extra number was drawn and it was 259. However, for the first time, I think, we had a winner with the the third number! That was Drew Barker membership number 667.

Congratulations Drew and thanks again to Dataflex for their support.

MEMBERSHIP REPORT JUNE1989

NEW MEMBERS	7
RENEWALS	12
NOT RENEWING	15
TOTAL FINANCIAL	280

Comprising:

Mac's	140
][‘s	143
No system	7

R.Hibberd
Membership Secretary

WANTED

Articles for this Newsletter

Tell us what you do with your computer

Contact the Editor

BBS NEWS

by Peter Dugard

Quite a few people have tried out the Mac BBS since the June meeting. There are a couple of problems some people are having with the BBS and the following may help.

Establishing a Connection

If you are having difficulty establishing a connection with the BBS, check the speed your modem is operating at. The BBS only operates at 300 baud (V21), 1200 baud (V22) and 2400 baud (V222bis). The speed used by VIATEL of 1200/75 baud (V23) is not supported. Also check that your modem is in ORIGINATE mode.

Note: If you have an automodem, just because your Communications software is set for a particular speed, it does not follow that the modem is also operating at that speed, you will need to send the modem the appropriate AT command. Most automodems can talk to your computer at a different speed to the one they are using to talk over the telephone line, so sometimes it is hard to know exactly what is going on.

Using the /es Command

When you create some mail or post a message, to save what you have written you enter /es on a line by itself. If the BBS ignores your /es command it usually means that your comms software is adding a linefeed each time you hit RETURN. You need to turn off the automatic sending of the linefeed in order to be able to use the /es command.

Unfortunately the Apple // BBS has suffered a hardware failure so it will be another couple of weeks before it is operational again.

STOP PRESS

Claris has just released Appleworks 3.0 but this is no ordinary upgrade - A2 Central (formarly Open Apple) reports in its July issue that it contains almost every enhancment Appleworks users ever wanted including a spelling checker that is better than TimeOut QuickSpell! It appears that subscribers to A2 Central are being given first crack at obtaining the new version but I'll let you know about it's release date in Australia in the next issue.

Len Sorbello

A NEW MAC NEWSPAPER

The Group has received a letter from the publishers of a new monthly Macintosh newspaper describing a subscriber promotion which includes "...a copy of the July issue of MacNews, an offer of a reduced subscription for members and a prize of major software."

It would appear that we are required to provide a copy of our membership list so that our members can benefit from the promotion. The Group has a policy of not releasing our membership list to outside bodies, however if you would like to take part in this promotion, you can add your name and address to a list at the next meeting. We will then foward this list to the publishers of MacNews.

FOR SALE

HYPERCARD MANUAL

HyperCard Power
by Carol Kaehler
Cost $38. Sell $18.
As New.

Phone 475941

CROSSING THE GAP - CROSS WORKS

Over the last couple of months, there have been articles in the club's magazine about connecting the Apple // to an IBM.

Graham McCollough (Sept 88) describes the general principles of hardwiring the Apple to an IBM (with a null modem cable) and using communications software to transfer an ASCII file from Appleworks to Word Perfect. Melody Parker (Dec 88) described how to hardwire an IBM PC XT to an Apple //e at a cost of about $450 (this seems high and it is not explained how the figure was arrived at). Ian Wright (Feb 89) uses the same approach and goes into more detail on the hard wiring aspects. Ian Wright again, (Mar 89) discusses transferring Appleworks database files to dBase III.

There is an obvious interest in connecting between the two worlds of IBM and Apple probably, as in my case, because there's an IBM at work and an Apple at home.

Let me tell you it's easy with a product called CROSS WORKS from Softspoken. CROSS WORKS is a file transfer utility. It is communication software with a difference. CROSS WORKS uses MS DOS (version 2.0 or later) and ProDOS and comes with;

1. Unprotected software for both machines on 3.5 inch and 5.25 inch discs.

2. A connecting (null modem) cable.

3. A manual.

At the Apple end of the connecting cable there is three plugs (for the //e, //c and //GS) and at the IBM end two plugs (DB-25 and DB-9 female). The connection is via the serial plug (slot/card) and, if the machines are not side by side, the software allows modem transfers.

The exciting thing about CROSS WORKS, and the reason why I needed it, is that it carries out the following file conversions;

Appleworks word processor <-> Word Perfect
Appleworks spreadsheet <-> Lotus 123
Appleworks data base <-> dBase III
Apple ASCII text <-> DOS ASCII text (Note 1)

This means important things like control characters, labels, headers, formulae etc. are preserved. It will also transfer any type of file without conversion, such as ASCII, DIF, Binary, you name it.

The software has an Appleworks type user interface which makes it very easy to use (IBM could learn a lot here). With a direct connection, the transfer is at a fast 19200 baud. File conversion is carried out in the IBM environment.

Transferring Appleworks files is simply a matter of choosing the file from a listing of those on the disc (much like adding a file to the desktop). I am usually transferring word processor files and apart from the odd message about the pitch there has not been any trouble. The spreadsheets have transferred OK even though an error message (which was ignored) was displayed when the file was loaded into Lotus 123 (I still haven't figured out what the error message means).

Transferring the other way may present some problems because Word Perfect, Lotus 123 and dBase III have a few more functions than Appleworks. Things like trig functions, page centering, memo fields and formatting options, to name a few, are unavailable in Appleworks.

The manual lists them all and the conversion simply eliminates these (Note 2) leaving it to the user to know if they were important.

I did not need to read the manual to send files from Appleworks to the IBM. I did need to read the manual to send files the other way. If conversion is needed the file name on the IBM side must include a specific extension because there are not unique file types for Word Perfect, Lotus 123 or dBase III files as there is for Appleworks. In fact all Lotus files have the extension WK1 while all dBase III files have the extension DBF, so there are no problems there. However, Word Perfect allows any type of extension which means the file may need to be renamed; this can be done within the software. One trap, which took a quick read of the manual to sort out, is that CROSS WORKS will only convert a version 4.2 Word Perfect document. Word Perfect does allow you to save any document, from version 4.0 to 5.0 in the version 4.2 format. As I was using version 5.0 it was necessary to save in the version 4.2 format and make sure the file name had a WP extension to allow conversion to Appleworks (Note 3).

The CROSS WORKS product contains simple communication software for the IBM and the Apple, a direct connect cable and the ability to transfer Appleworks files into Word Perfect, Lotus 123 or dBase III (and vice versa) for a very reasonable $US80. When communication software for one machine can cost this much CROSS WORKS is a bargain. I ordered direct from the manu-

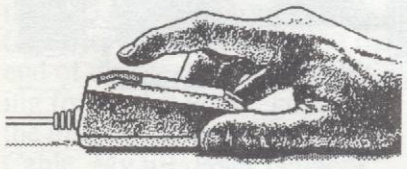
facturer, and delivery was a couple of weeks. In fact, the product saved the day as it were. Shortly after CROSS WORKS arrived the printer at work died and I was able to transfer documents to my Apple for printing with my printer.

Note 1. All ASCII files are not the same. Apple uses a CR line terminator while IBM uses a CR/LF line terminator.

Note 2. In the case of spreadsheet formulae and functions that are not available in the receiving environment "NA" is substituted.

Note 3. To convert DOS ASCII text to Apple ASCII text the file name requires the extension TXT.

Brian Mattick



MOUSE EXCHANGE

Logan Brill
Hardware Loans

The club is offering a new service. For those owners of sick mice, pre the Apple Desktop Bus mouse, (Lisa, Mac 128K, 512K, Plus, //e ...) we have an exchange service. For a nominal amount (I'm open to suggestions) we can supply you with an exchange mouse that works.

TIT-BITS FROM A2-CENTRAL

IIGS owners report that dying lithium batteries in the IIGS can be replaced with two AA alkaline batteries. It is noted that the two AA batteries provide a voltage about 20% lower than a working lithium battery, but this does not apppear to be a problem.

The ProDOS FST on GS/OS System Disk 4.0 refuses to recogise dates greater than 30. The patch is -

POKE 768,32

BSAVE/your.sysdisk.name/SYSTEM/FSTS/PRO.FST,T$BD,A768,L1,B$5CD

Publish It! 2, the new version of the program, includes the ability to import Print Shop graphics directly from DOS 3.3 disks.

MORE ON HARD DISK DRIVES

The following is a precis of a couple of letters printed in A2-Central.

One reader purchased, from Tulin Corp, a 65meg drive kit, assembled and complete with cables, SCSI card and software.

Another reader tells how he assembled a 64Mb SCSI drive for his IIGS using a 64meg, 28ms ST-277N Seagate. The case was the Apple Hive from Tulin Corp, the same size and colour as the IIGS. The case comes with all of the necessary running gear, a 30 watt power supply, fan, switch, internal cable, LED etc. The SCSI case for the IIGS was from an Apple dealer.

The prices are in US dollars and some optional products have been included for comparison.

Seagate drives (LYCO Computers, central Pennsylvania)	
20meg ST-225N	$300
43meg ST-251N	$400
64meg ST-277N	$450

Cases	
Apple Hive (Tulin Corp, San Jose)	$170

Alternate cases can be acquired from

Walker Electronics	$120
Wetex International (60w power supply)	$79
Apple SCSI card	$129

About half of one of the articles, detailed the new found joys of having a fast hard disk, made odious comparisons on how much faster the IIGS now was over the IBM ATs that the author had been using. The owner of the 64meg drive had loaded all of his software and succeeded in occupying only 10% of the hard disk. BAH!

Another source of information on the same topic can be found in the May issue of A+, titled Home Brew Hard Drive (pages 38-41).

From my limited knowledge of hard disk prices, it appears that the hard disk itself could be purchased locally for not much more than it would cost to import the same model.

If you buy a Seagate ST-2771N don't be alarmed at the small "burp" it issues when the drive is powered down. The ST-277N has automatic head park and the sound is made as the heads are moved to the park zone.

Logan Brill

REVIEWS

EPSON to IMAGEWRITER CONVERSION

Prior to the last meeting I got a call from Steve Hay of QCAL. He had a couple of products that he thought would be of interest to Apple owners. The first was the Automatic Ice Epson to Imagewriter converter, the ICECABLE. At the meeting he produced the ICECABLE and an Epson LQ-500 (24 pin printer) and a technicians toolkit, for evaluation.
I had a few tasks on my plate so I co-opted Peter Fenwick into providing a report on the ICECABLE for the magazine. Within a couple of days (less than it would take me to type the said report it was done). ... Read on.

RUNNING REPORT on the ICECABLE and FINGERPRINT GSi
by Glenn Thomas and Peter Fenwick

On the 11th of May I attended the A.G.M. of the users group (my first to this date) and at the end of the meeting while waiting for my lift home, got into the discussion about the Ice Cable. My lift, Peter Fenwick, had agreed to take the Ice Cable home with an Epson LQ-500 for a trial and report for the newsletter. For those who don't know what the Ice Cable is, it is a printer driver that emulates the Imagewriter, Imagewriter II, and/or the Imagewriter LQ. It plugs into the computer via the printer port, or the Super Serial Card (if you have one). It is available in different models for all the Apple range, so if you end up ordering one, please state which Apple you have, or it won't work. The ICECABLE comes with a brief, but very informative manual (about 6 A4 pages) that describes all the features, modifications (the cut circuit tracks) and a little more information on software considerations.

Anyway, back to the story, I was sort of volunteered to do the testing as I was the one asking all the technical questions, and have a background in electronics.

On the following Friday after the meeting I packed up my system and transported it to Peter's shop and set it up with both the Fingerprint GSi and the ICECABLE at once and tried it out (first mistake), only to find, much to my displeasure, it did not work. After a bit of tinkering I finally decided to follow the rule of Allan's Axiom, which is "When all else fails read the instructions."

So after a bit of reading in the Fingerprint handbook and only finding that I had done it correctly in the first place, I decided to have a really good look at it all. It was then that I discovered that the ICECABLE would not fit properly in the connector as the clips designed to hold a standard connector on were, in fact, pushing the box off.

Box you say? Yes a box. The ICECABLE comes with a cable and connector designed to connect to the computer it was ordered for; namely a DB25 male for the Super Serial Card, 5 pin DIN for the //c, DB9 MALE for the Macintosh, or the MINI DIN 8 for the IIGS and Macintosh II, SE, etc. At the other end is a box 90 x 55 x 32 mm with the centronics parallel plug on one edge. Unlike the Orange Micro Grappler Cable,there is no power cable for the ICECABLE as it gets its power from the incoming signal. The problem is that the centronics plug does not project from the box far enough to insert correctly into printers with recessed sockets without either bending or having the retaining clips on the printer removed. I recommend the use of an extension plug for those with recessed ports.

After overcoming this dilemma, it still didn't want to work. I decided to read the ICECABLE instructions which informed me that there were three versions of the box. It all depended on which circuit board tracks inside it were connected. We opened the box to discover which version we had. It was the version for LQ printers (appropriate for the Epson LQ-500 connected at the time. This combination required a baud rate of 19200. We then changed the baud rate in the IIGS control panel to 19200. Now the printer worked as it was supposed to with very nice print.

Now, would the ICECABLE handle colour? The book said it would, but we wanted to see it. After putting a jumper across the two circuit tracks to enable the cable to work on a nine pin printer and re-setting the control panel to 9600 baud. We connected a Star NX-1000 Colour printer to the ICECABLE. We found that the ICECABLE does not use the DSD handshaking facility because the system hangs if you try to use it. We tested the set up with an Appleworks WP file and it worked well.

Next we tried the Fingerprint GSi with the Star printer. This card is a graphic utility card for the IIGS and is completely transparent to the system, so it can be put in any slot. The manual recommends slot 3, which is reserved for use with the text display and because the control panel does not have to be told that the card is present. The card comes with a 5.25" disk with graphics and slide show program to demonstrate it's capabilities, a 73 page manual that is easy to read and un-

derstand, and a flat ribbon cable that has a 20 x 20mm red square on the end with a touch sensitive fingerprint printed on it.

To activate the Fingerprint GSi, you push the fingerprint when you have the screen you want. The screen disappears as the Fingerprint menu screen is overlaid. It is the standard pull down menu type text screen. You are then able to do amazing things to the screen you captured. It can be cropped to size, rotated, flipped, inverted, zoomed, or printed as a billboard up to 130 x 100 feet. It can be printed in colour if desired, headings added, converted to super hi-res. The card also has a full set of disk operations written in ProDOS and DOS 3.3, a basic calculator, typewriter mode, calendar, and can even over-ride the dip switch settings as to the type of printer connected, and output port used. You can return at will to the program in use.

IT EVEN PRINTS THE CAPTURED SCREEN

We printed a super hi-res screen on the Star and an Imagewriter II with the colour ribbon, and the results were exactly the same with regards to picture quality. I recommend the purchase of an ICECABLE as it makes printing from any application a breeze.

We had heard that the ICECABLE slowed-down printing. We found that this was not the case, in fact the Star NX-1000 with ICECABLE printed noticeably faster than the Imagewriter II when printing colour graphics. The Imagewriter II is still about 50% faster than the Star when printing text. When compared with the Epson LQ-500 with ICECABLE, the Imagewriter II in Best Print mode is about 50% slower and gives inferior print quality. Although we didn't have an Imagewriter LQ for direct comparison, we felt that the LQ-500's print quality is superior.

SUMMARY

If you are thinking of buying a printer for your Apple, the ICECABLE is definitely a cost effective quality option. With any Epson or compatible 9 pin printer, text and graphic output should be the equal of the Imagewriter II. With a 24 pin Epson or compatible, output should be at least the equal of an Imagewriter LQ. If you sold your Imagewriter II or LQ, and bought an Epson compatible 24 pin colour, wide bodied printer and ICECABLE (RRP $A130.00), you could easily afford a Fingerprint GSi with the change.

The Fingerprint GSi (RRP $US120.00) is a brilliantly simple and effective graphics utility card which greatly enhances the capabilities of an Apple IIGS. If only it were available for a Macintosh.

Thanks to Peter and Glenn - Ed.

Steve Hay of QCAL is offering the ICECABLE and a choice of Epson printers at the following prices -

ICECABLE	$100
Epson LX-800 (9 pin)	$430
Epson LQ-500 (24 pin)	$600
Epson 24 pin colour printer	POA
Epson LQ-1050 (24 pin 15"carriage)	$1200

TECHNICIANS TOOLKIT

The promo on the toolkit states "A unique selection of tools for advanced computer equipment service." The toolkit contains -

- Digital multimeter
  - 3 1/2 digit LDC display
  - 10 Meg Ohm input resistance at all ranges
  - DC current ranges 0.5% accuracy
  - polarity and over range indication
  - low battery indicator
  - fuse protected on all current ranges.
  - A rotary switch provides selection between the options and ranges with separate press button switches for ON/OFF and AC/DC.
  - Ranges
    - Resistance 200, 2K, 20K, 200K, 2M, 20M
    - Voltage 200mV, 2, 20, 200, 1000
    - Capacitance 2nf, 20nf, 200nf, 2mfd, 20mfd
  - Other facilities
    - Diode, continuity and transistor checking
- 25W pencil tip soldering iron
- Solder sucker
- Needle nose pliers
- Side cutters
- IC extractor
- IC inserters (16 pin and 20 pin)
- VLSI chip puller
- Wire strippers (very fancy)
- Screw driver set -
  - Handle
  - Extension
  - 10 screw driver blades (phillips,slotted,torque ,etc)
- Antistatic wrist strap
- Keycap puller and brush

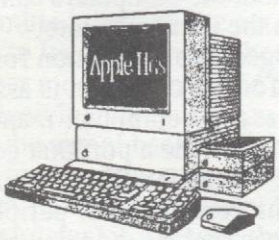
The toolkit comes in a substantial vinyl zippered case 33 x 27 x 7 cm.

At the price of $300, I found

myself asking what tools I would find useful and what was a typical cost of those individual items. The multimeter got a guernsey straight away on the basis of the facilities offered. An equivalent unit would cost between $100 and $120. The VLSI chip puller will be of use to owners of later model machines; cost about $20. The IC puller $10. Pliers and side cutters about $8.00 a pair. Soldering iron $20. The rest of the tools are usually found in most households.

I note that a smaller tool kit consisting of the same screw driver set, the chip pullers, insertion tool and antistatic strap, all in a zippercase, cost $50.

The toolkit is a collection of reasonable quality computer oriented hand tools. As a package it does not represent great value but for some it could be a convenient way of buying the basic tools for simpler computer maintenance.



NEW SIG FOR GS OWNERS

by Len Sorbello

With a number of ACTAPPLE's members acquiring the new Apple 11GS it is appropriate to formalise presence of the 11GS SIG (special interest group). Much of the software now reaching the market is unique to this machine, a SIG would further awareness of products, knowledge of the computer's characteristics and idiosyncrasies, as well as provide a forum for discussion within the existing club. Currently the club receives the newsletter of the Australian GS Users' Group.

This SIG will be organized along lines similar to the Mac SIG, that is have a general meeting followed by the SIG meeting. Obviously there will be common interest meetings because of the GS's ability to run 85% of //e and IIc software. This should help keep the new SIG well integrated with the main club body.

If you own, or regularly use, an Apple 11GS and would like to know more about forming a GS SIG contact Graham Dawson or me at the next meeting. I can also be reached on 889473, after hours.

We are kicking off our first meeting next week with an introduction to the IIGS System - configurations, desk accessories, fonts, utilities and if time permits Appleworks GS.

DISK SALES

Blank disks can be obtained, at the usual prices, between meetings from -

Les Humphrey (in Cook), phone 531349 (AH) from 6pm - 9pm
Logan Brill (in Garran), phone 821948 (AH) from 6pm - 9pm

We currently have stocks of DSDD and HD 5 1/4" and DSDD and 2 Mb (HD) 3 1/2" disks as well as storage boxes for both.

Prices are as follows -

5 1/4" DSDD	$10.00 per box
5 1/4" HD	$13.00
3 1/2" DSDD	$25.00
3 1/2" HD	$35.00
Storage boxes (100 x 5 1/4 80 x 3 1/2)	$12.00

GS NEWS

by Logan Brill & Len Sorbello

Apple Tech. Support now has the chip upgrades for the 11GS. All 11GS with the first three digits of the serial number above 725... are OK, those with 704...to...725... require ROM and UGC chips, those below 704... require ROM only.

The new operating system with PRODOS 16 V1.2 is now available.

DANGER!!!

The Smartport assembly language command that causes a 3.5 drive to eject its disk causes a SCSI drive to reformat itself! So if your program can eject a disk beware.

BATTERY TROUBLE

Don't try to change a GS battery yourself IT MIGHT EXPLODE. Its a lithium thional chloride battery plugged into the motherboard and reacts violently with water (no sweaty hands). Apple asks its dealers to remove the dead batteries, clip the lead wires off and return them to Apple who will dispose of them according to ENVIRONMENTAL PROTECTION AGENCY GUIDELINES. Why not a Mac style battery?

MEMORY SAVER GS

Checkmate Technologies have announced a battery backed up device which makes the Apple and Applied Engineering GS

RAM cards look like ROM. Simply plug your RAM expansion card into Memory Saver, plug Memory Saver into the RAM expansion slot and then copy your favourite software onto it for near instantaneous boot up.

BAR CODES

Contact TPS Electronics have released bar code and magnetic strip (as on credit cards) readers which plug into the GS's desktop bus (keyboard connecter).

MISSING 3.5 DRIVE

11GS owners who daisy chain their 5.25 drives off their 3.5 drives (as Apple recommend) will occasionally find their 3.5 drive goes "missing". The 5.25's motor apparently causes a "surge" that wipes the 3.5 from the connection. Those of us using the old 5.25s with a controller card in slot 6 (because no one could supply DB19 pins for the conversion) are unaffected by this glitch.

COPY PROTECTION

Tom Weishaar of Open Apple fame recently called for a boycott on the purchase of all copy protected software on the grounds that copy protection costs more than its worth. If a program is copy protected you can't load it into RAM or ROM disks or make yourself a safe backup. It doesn't work unless the hardware is just right and often can't be used with a program selector. It can even mess up your other disks and software if you're accessing them. This is especially true with the 11GS. Even Microsoft have seen the error of their ways and no longer copy protect their software. The three major companies to avoid are Electronic Arts, Activision and Broderbund. How about joining the boycott?

SYSTEM DISK 5.0

Apple has announced the release of System Disk 5.0 which is said to speed up the loading of entire AppleworksGS modules from the present 4 minutes to 1 minute - pretty impressive stuff! But that's not all. A new 3.5 driver includes a feature called "scatter read" which can read entire disk tracks into memory in **one** revolution of the disk. Apparently this feature lowers the startup time of AppleworksGS to 35 seconds!

The extra speed is not limited to Apple 3.5 drives but will also be available to hard disk owners who use Apple's SCSI Card - this is courtesy of a new SCSI Manager which increases throughput from 18k per second to 80k per second. Perhaps the best news is that the speed at which the IIGS draws the super-high-res screen is several times faster. Other features of note include a new Desk Accessory 'Control Panel' - this will an ⌘-Control-Escape in the middle of a program.

The release date is expected to be sometime this winter.

—

COMMUNICATIONS

by Logan Brill

At long last the members of ACTAPPLE have the protection that "incorporation" extends. As you have been told on several occasions, general access to the ACTAPPLE Bulletin Board services has been awaiting the incorporation of the Group. Now that the two ACTAPPLE Bulletin Board Services (BBS) are available, it is appropriate to discuss the general subject of communications.

While considering the subject and the approach appropriate to this forum it occurred to me that the title at times belie the subject. Communication can be defined as the imparting or interchange of information. For some, attempts in connecting two computers together, directly or through a telephone line have been singularly frustrating and attempts to remedy the situation by conversing with other people or reading learned articles, often leave the inquirer none the wiser and wondering where and why there was a breakdown in communication.

So, what is meant when the word communication is used in conjunction with computers. It loosely refers to the transfer of data between two or more machines via an uninterrupted connection. This may be via a telephone line, OTC satellite, Local Area Network (LAN) or a direct connection. The latter is the simplest and only requires a cable to connect the two computers, that the two computers each has a port that has a similar electrical standard and that the computers can form the data to be interchanged into a common format. The former condition is assured in that most computer manufacturers provide a port that conforms to the RS-232C standard for the connection of peripheral devices such as modems, printers, plotters, etc. And the latter is also resolved by the use of a standard data coding system referred to as ASCII.

ASCII - American Standard Code for Information Interchange is a standard way of representing letters, numbers, special characters and control characters as a 7-bit binary number.

For links that extend beyond the electrical capacity of the cable to reliably transfer the signals between the two computers, 10, 30 or 100 metres, additional devices must be introduced to ensure integrity of the signal. In the case of two

computers some distance from each other but interchanging data, the solution could be a signal booster. If the computers are kilometres apart, the expense of providing a cable would normally warrant an alternate solution. Commonly this is a leased line from Telecom. This will be in the form of a dedicated line of an agreed standard. That is, capable of carrying data up to a specified rate.

The next variation arises where the connection may be casual or to a number of computers. Usually the amount of data to be transmitted is not great so it is feasible to use the Telecom telephone network.

Where the quality of the line is a constraint, as is the case with the voice grade lines within the normal telephone network, the normal solution is to use a modem. This device connects to the communications port of the computer and converts the signal from digital to analogue. This analogue signal can be transmitted through the network to its destination where another modem connected to the receiving computer converts the signal back to digital form for computer consumption. A modem (modulator/demodulator) is a device that converts digital signals to analog signals and vice versa. I knew that! we all say in unison. Simple isn't it.

The complications arise as technology "solves" our problems offering more options and facilities, thereby increasing the number of data transmission speeds that can be selected, the modems taking on additional tasks such as dialing, answering, resetting for the next call, the addition of more protocols, etc. In this context a protocol is a set of rules for sending and receiving data on a communications line. The handshake protocol is that set of rules used for data flow control such as request to send, clear to send, data set ready, etc. This interaction between machines is invisible to the user.

A few other terms that you will come into contact with when using modems are -

DATA FORMAT The number and interpretation of the bits per transmitted character. For example 7,even,1 represents a format of 7 data bits, the parity bit set for even parity, and the number of stop bits present.

BAUD The speed of transmission (not bits or characters per second). In practical terms 1200 Baud is approximately 120 characters per second.

CARRIER This signal of fixed frequency is modulated by the modem. If the modem looses contact with the carrier, the connection is broken.

DUPLEX In full duplex mode the message is echoed back by the receiving computer to the transmitting computer. In half duplex the message only travels in the one direction.

The remaining connection type is the LAN. This is where several computers in a common area, say within a building (a LAN may typically span 100 metres or so), share resources such as printers, large capacity high speed disk, modems, gateways to other LANs or mainframe computers and/or data. In a LAN environment the fact that there are several computers on the line, necessitates additional considerations such as the need to add a "destination" label to the data being sent down the communication channel so that it is received by the right computer.

So where does that leave us?

I should mention at this point that while no more than a cable, for direct connection, or a pair of modems is all that is required for two computer users to chat to each other via the keyboard, there are other functions that are made simpler with software support. Functions that may be invoked during a communication session with the aid of a program are -

. instructions to the modem,

. transmitting a file from or receiving a file and saving it to disk,

. interrupting the transmission without terminating the connection or loosing data,

. turning the printer on or off,

. filtering the transmitted or received characters,

. keeping accounting information, etc.

These programs, loosely referred to as comms packages, both utilise the full resources of the computer, that is extending it beyond a "dumb" terminal and enabling maximum control of the computer by the operator.

Now, what should I buy?

This question itself is sufficient to generate a discussion session. For computers that do not have expansion slots, the choice is limited. There are a handful of high quality modems on the market. Most of the models currently offered for sale are "intelligent". That is they perform functions in addition basic data transmission and receipt. Intelligent modems respond to commands, from the comms software or the keyboard. There is a standard for instructing modems, pioneered by Hayes Microcomputer Products, that has been taken up by manufacturers and software writers alike.

The other terms to look for are CCITT and BELL. These are the European and American standards, respectively, for communications. In Australia, CCITT is the standard.

If you are shopping for an intelligent modem then be prepared

to pay $300 or more and look for the terms auto-answer, auto-dial, auto-ranging, non-volatile RAM and inbuilt error testing and the capability of 300, 1200 and perhaps 2400 bps. If you are considering Viatel or any other system that utilises a split baud rate, such as 1200/75, ensure that the modem is suitable. For anything less I recommend that you save your dollars and buy a manual connect 300 bps modem ($50-$100). Remember, you pay dearly for performance and prices are falling steadily. Most of the modems on offer locally are Australian made and modems from manufacturers such as Netcomm are equal to any imported article.

If you are fortunate to own one of the Apple II family, your choice is greater. Apart from the range of modems mentioned above, you can also select from a range of internal modems. These are peripheral cards that combine the functions of serial port and modem. There are several advantages with an internal modem and one large disadvantage. If you change computers, there may be no point in keeping the modem.

The choice of comms software is extensive. Without making any recommendations, the following could be considered -

Apple II

Appleterm, Apple Access, Terminapple, Proterm, ASCII Express, most generalised packages include a comms facility and this includes AppleWorks courtesy of Pinpoint or Timeout accessories.

Mac

Red Ryder, MacTerminal, VersaTerm, Microphone, Mock Terminal, Microsoft Works includes a comms facility too.

Having acquired a modem, what then?

If you have an auto-answer modem there is a chance that the default hardware and software settings may not be appropriate. Bad news. My best advice is to read the modem manual and the software manuals first. If you think you are ready and a call to the local BBS fails, contact a one of the User Group (or a patient friend) to help you sort out your problem otherwise your humour could suffer badly.

Setting up with a manual connect is straight forward and can be explained to a novice in a matter of minutes.

What can I send and receive.

There are two type of operation:

.Chat mode, where the user talk via the keyboard to another user or to an unmanned system such as a BBS, and

. File transfer, where text or program files are transmitted via a modem or a direct connection. As in chat mode the host machine need not ne attended.

Moving data via text files is the most common and the simplest. The obstacle arises when special characters, such as format codes, are transferred. For example, there is no standard across word processing packages for format codes so there is no point in attempting to retain formatting. More often that not the transfer causes more problems than it attempts to solve.

Transferring executable programs is of course only practical for like machines. There is no point in downloading a Mac program to an Apple II as the instruction sets of the machines are different. However, if the code is source code or interpretive code it is likely that with a bit of human intervention the program can be adapted.

The good news

Prior to the last twelve months or so, data transfers were primarily limited to pure text files. Thanks to some practical applications programmers there is a growing set of conversion programs that enable a complete transfer of data between machines of differing architecture. This means for example the transfer of word processor documents with full formatting and spreadsheets with formulae. As far as we users are concerned, this is a quantum leap in microcomputing.

Conversion programs, in one form or another, are seen in most computing environments.

On a LAN where TOPS provides basic LAN facilities, good file and device sharing between Apples (Mac's) and that other make of computer and the option to convert the files tansferred so they can be directely input into the receiving computer

File Exchange - While I have seen File Exchange operating, that is the limit of my knowledge. With file exchange running on a Mac, data files can be readily transformed to run in other systems. With the added ability to read MS-DOS formatted disks, (as can the Mac SE 30) or earlier Macs fitted with drives capable of reading an MS-DOS formatted disk, the user has maximum flexibility.

All these words and we have not addressed the functions of the Groups BBSs and how they can work for you. Next time.

FOR SALE

Mac Plus
Imagewriter II
800k External Drive

$3500

Warren Smith
66 2826 (w) 86 1265 (h)

PRESIDENT'S DESKTOP

Something magic seems to be happening in ***A.C.T.Apple*** and I want to thank you, the members, for it. On the other hand, maybe I should keep quiet about it in case I spoil it.

When in doubt, rush in. My style is to tell it like it is - so here goes.

Members of ***ACTApple*** have come alive and are responsive! ...It all started when 17 members volunteered to become Committee members - an unprecedented number.

....Then members started to talk to Committee members and tell them what they wanted.

....Then members came forward out of the blue to volunteer their services for various tasks.

....Then the Mac SIG discussion group at the last meeting was extremely productive in giving feedback on members wishes.

....Then the call for help in the last Newsletter and at the last meeting for volunteers to assist on the Radford Computer Mart stall that ***ACTApple*** was mounting resulted in many members stepping forward.

Well what I am going on about is excitement about the health of ACTApple that the above set of circumstances shows. **This is great.**

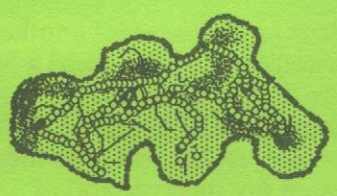
Thank you all. Keep up the good work. Keep participating.

By the way, my plea for someone to run the Apple][Hardware Library also bore fruit. Thanks to Gordon White, the library is again operational.

As a matter of interest, I am preparing this Desktop on a Cambridge Z88, A4 size computer. You may recall seeing this computer demonstrated at one of our meetings last year. Next time I will try to have a full article on this.

At the AGM a member suggested that we should consider supporting Apple computer use more widely through the establishment of a prize of some sort - for example, the A.***C.T.Apple*** Prize for ..... The Committee has agreed with the concept and is organising research into the matter. If anyone has any ideas please let me know. Thanks to the member for the idea, more about this later.

More news next time,
Roger Bernau
PRESIDENT



TimeOut Series Update - Program enhancements for AppleWorks V3.0 or later.

- Les Humphrey

Beagle Bros have been at it again and have released two more programs in their TimeOut Series of enhancements for AppleWorks. These are TextTools and MacroEase.

TextTools is another collection of "little" desk accessories that add up to a big package. Similar in concept to SpreadTools, TextTools greatly expands the power of the Appleworks word processor. They include the following:

GLOSSARY - lets you select boilerplate text from a menu.

SUPERFIND - lets you do Find or Replace on anything in a document, including printer options (underline, boldface, margin settings, etc.).

QUICKTABS - Lets you select tab rulers in Appleworks 3.0 from a menu, and also makes setting and changing tabs easier.

COPYBLOCK - You guessed it, copy text in blocks (good way to make columns, for example!).

MARKMERGE - It basically brings back the old Autoworks mail merge function. It's much more powerful than Appleworks' built-in mail merge.

ANALYST - a style checker

TABLE OF CONTENTS GENERATOR - automates the process of building a table of contents.

INDEXER - automates the process of building an index.

This isn't a review of course, but the TextTools sounds quite useful. List price is US$49.95.

MacroEase, the other new Beagle product, is basically an updated and enhanced version of the old MacroTools that Beagle sold before TimeOut 3.0 came out. It's a collection of sample macros and useful tools for macro programmers, including some extra Timeout applications (a debugger, a reference chart, a linker, and a few others). It sounds good and lists for US$39.95.

APPLE IIGS PUBLIC DOMAIN SHAREWARE

- Les Humphrey

Our Public Domain/Shareware library has just received a boost with an additional eight disks. These are available now!

The first three disks are all graphics which, on each disk, include SHRCONVERT for viewing pictures and converting the graphics formats of the images. But to print or edit the pictures, a graphics editor such as Paintworks Gold or Deluxe Paint II is required.

GS34 Sub titled "New Enterprise" this has twelve graphics including the graceful Goldfish to the bizarre Creepshow. It also has the Ghostbusters logo and Bill The Cat.

GS35 Sub titled "Space Paintings" this has fifteen graphics including Astronaut and Saturn. Also included are Blue Angels, Capt Kirk and Ernie from Sesame Street.

GS36 Sub titled "Fantasy Screen" this has ten graphics including Alien and Max Headroom. Also included are Geometries, Einstein and Fantasy Screen.

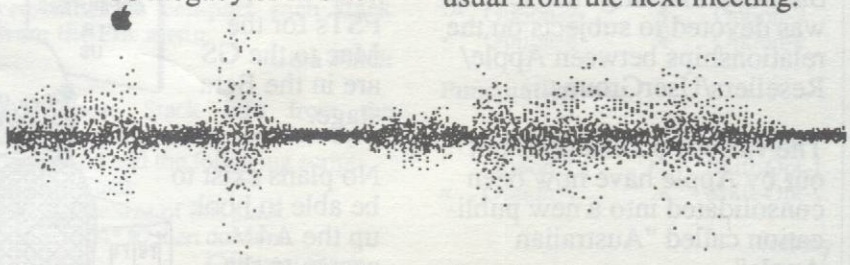
GS37 Mini Golf is a computerised version of that summer night pastime - miniature golf. There are two different courses.

GS38 Flight Simulator is the main game. The disk also includes Copy Killers, Deathmaze, Miami Ice and Galaxy Pinball.

GS39 This is a Utilities disk which contains Desk Accessories (DAs). Catalog a disk from within any ProDOS 16 or GS/OS application with GS.CAT. KEY.CAP.GS is an NDA version of the Macintosh DA Key Caps. Also is DT Painter DA and a Utilities DA.

GS40 Blue Bayou contains 23 songs for use with Music Studio.

GS41 Font.Edit.8 and Font.Doctor are two powerful applications that create new custom fonts and changes existing font characteristics. AW.Superpatch 3.1 installs patches, or minor bug repairs onto your AppleWorks program V2.0 or 2.1 only. AW3.Ramset installs an emulated RAM disk and prevents AppleWorks from overwriting. Back.Rest.GS saves and restores control panel settings - great for multi-user IIGS computers. Faz.V2.3 and File.Batch are utilities for file conversion. Hy.For2.System is a fast disk formatting/scanning utility, that scans for bad blocks. List views contents of any disk, directory or file up to 16 megabytes in size.



Some music from SoundEdit – for your listening pleasure.

APPLE II TECHNICAL NOTES

- Les Humphrey

I am holding the index and a 95% complete set of the Technical Notes and File Type Notes for the Apple II series. If anyone wishes to obtain a copy of an individual one I will supply a hard copy. The alternative is, if the set is required, the IIGS Librarian has them available on a set of five (5) 3.5" disks in a text format (suitable for reading with AppleWorks).

The subjects which are covered in the Technical Notes are:-

Apple //c, Apple //e, Apple IIGS, Apple II Miscellaneous, AppleTalk, GS/OS, ImageWriter, Memory Expansion Card, Mouse, Pascal, ProDOS 8, SmartPort and Uni Disk 3.5".

The File Type Notes, as the name implies, are details which define the standards required for developers of software and for any problems in programming that have been reported.

APPLE][HARDWARE LIBRARY

I am pleased to announce that the Apple][Hardware Library is now reopened. The new librarian is *Gordon White*. He will be offering business as usual from the next meeting.

National Apple User Group Convention 1990

- Les Humphrey

When & Where

Friday 8th to Sunday 10th June - Sydney.

Attendees

Seventeen Groups from around Australia with each Group having three delegates.

Friday

Friday evening Conference Dinner with the speaker being David Strong, the Managing Director of Apple Australia. Also invited to dinner were the entire Apple board. Only two were unable to attend - one overseas and the other had just returned from overseas.

The main thrust of the speech was that Apple had rediscovered its roots and were addressing the problem. They had appointed an Apple II development division - not just for the IIGS but for the II line.

Stronger links with the User Groups and its dealers would be established.

An expansion of the Mac range over the next few years both downwards, with less options and therefore a lower price and upwards, with more options and therefore a higher price.

Saturday

Saturday morning first session was devoted to subjects on the relationships between Apple/ Resellers/UserGroups.

The various publications put out by Apple have now been consolidated into a new publication called "Australian Apple".

The second session dealt with the various activities of the User Groups such as, PD acquisition and distribution, meeting organisation, bulk purchasing, etc,.

During this session it was confirmed that near the end of the year Hyper Card will be released for the IIGS and the stacks will be interchangeable with the Macs! The bad news for the Mac owners was if the IIGS stacks incorporated colour then the Macs could not make use of them - this includes the version 2.0 expected soon.

Saturday's third session saw three gurus from Apple talking about Developers, Apple II future and Apple's pricing policy.

The important parts for me were:-

Apple II is to be here for a long time.

The Apple II Roadshow should start sometime in August.

The prices for the //e and the IIGS are to fall!

The last session on Saturday afternoon was split into Mac and II sessions. Naturally I went with the strength to check out the IIs.

I saw and heard a Beta version of a program called "SynthLAB" - it used a Power Stereo card (about $70.00). If you are into music check it out.

FSTs for the Mac to the GS are in the Beta stage.

No plans exist to be able to hook up the A4 screen to the GS.

The IIC+ will be discontinued in the USA very shortly.

At dinner on Saturday evening we were joined by representatives from various software distributing houses.

Sunday

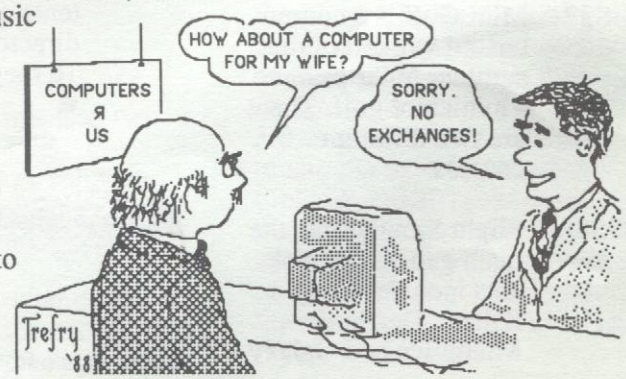
Sunday's session went nearly continuously until the end at 3.00 pm.

An attempt was made to form a National Association, but aims and structures got confused, and it petered out. However, steps have been suggested which I believe have the potential to lead down this path.

Apple intends to have an 'affiliated user group' setup. It will have both advantages and obligations to the affiliates. The details are being worked out.

Next year's conference will probably be held in Sydney but the User Groups will have a greater input into the composition and the running of the convention.

I got a lot out of the Conference, both at a personal level and at an organisational level, which should assist in the running of our Group.



APPLE // ID

Why do you need to know the ID of the computer when its obvious from the outside, I can hear you say. Well did you know that here are two versions of the //e and four versions of the // c, and while most of these look the same from the outside internally, particularly with the //c, they are quite different.

There seems to be two main ways to determine what sort of computer you have without actually lifting the lid.

The first method is to examine a location within the ProDOS section of the computers memory called MACHID at $BF98. This one location can tell you whether its and Apple //, //+, //e, or // c, if it has 48K, 64K, or 128K, if it has an 80 column card and a clock card. Any ProDOS manual will explain what to do. I do not know what info this byte has for the //GS.

The second method is to examine particular ROM locations. I have seen various combinations suggested and the current recommendations from the Apple // Developers Support Group are;

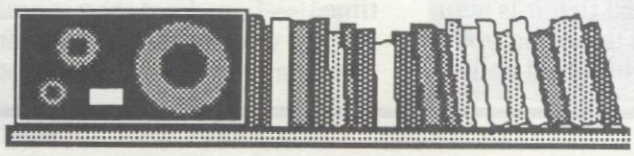
Apple Machine	ROM addresses				
	64286	64435	64447	64448	65055
//	-	56	47	96	96
//+	173	234	234	234	96
/// (emulation)	138	-	234	-	96
//e	-	6	-	234	96
//e (enhanced)	-	6	-	224	96
//c	-	6	255	0	96
//c (3.5 ROM)	-	6	0	0	96
//c (org RAMexp)	-	6	3	0	96
//c (rev RAMexp)	-	6	4	0	96
//c+	-	6	5	0	96
//GS	-	6	0	224	173

In BASIC simply use an IF PEEK (XXXXX) = N THEN statement to examine the bytes. The only anomaly is the //GS value in 65055 which could change at a later date. In this case use IF PEEK (65055) <> 96 THEN its a GS etc.

Note: The table of ROM address was recently published in the A+ Magazine but they got it wrong. Apple announced a new logic board for the GS last year.

Does anybody know if this revision warranted a new ID?

Brian Mattick



MACINTOSH SPECIAL INTEREST GROUP

Welcome to the first column of the Macintosh SIG. I work with Apple Computer Australia as a Government Account Manager and have joined the Apple User Group to act as a facilitator for the SIG in the hope that both members and Apple can learn a lot more about each other. I also have a personal interest in the activities of the group as I have a variety of personal projects currently underway that could benefit with members input.

For those that weren't at the last general meeting, the Macintosh SIG had a discussion on what the group would like to do over the next year. It was noted that Norm Braidwood had acted in the role previously. Many suggestions were raised, some of which are listed below:

- product presentations
- basics of applications
  - eg Word 4.0 tricks / tips, macros
- lower level problem solving with novices getting knowledge from experts.
- question and answer times at SIG sessions
- Informal Mac training school before meetings, small fee?
- how to use Utilities, System enhancements, CDEVS, games, music
- sessions on types of applications, comparisons by users
- sessions on specific applications by software distributors
- hardware maintenance
- workshops on basic networking, sources of information
- more time in SIG session on meeting nights / having a second session each month
- list of members and brief interests (Hypercard Stack)
- using the Mac at home and at work

It was evident that more information on what members did with their Macs was needed to be able to cater for the different activities suggested. Enclosed is a questionnaire which will give the group a basis to work from. If you are interested in actively participating in the group, please reply and send or bring the completed form to the next general meeting. I hope to see the group become a very active forum for discussions of common problems and solving them, and that members can benefit from my role in Apple.

Stefan Schaefer

A.C.T. APPLE USERS GROUP INCORPORATED
ORDER FORM
PUBLIC DOMAIN AND SHAREWARE SOFTWARE
APPLE II - MACINTOSH - APPLE IIGS
(Apple II SS $3.00, DS $4.00, Mac&IIGS $8.00)

NAME: _____

ADDRESS: _____

_____ POSTCODE: _____

PHONE NUMBER: _____

I wish to order the following public domain/shareware disks:

Disk category and number		Disk category and number	
	$		$
	$		$
	$		$
	$		$
	$		$

TOTAL.....$ _____

NOT ANOTHER APPLE II VIRUS

Courtesy Applesauce
by Ron Crouse From the InterNet network

[WARNING WARNING]

DO NOT, and I repeat DO NOT use a new IIgs copy program called ZZ.COPY!!! Its not really a 'VIRUS' program, but it is very very nasty program none-the-less!!! When you run it, it looks like a very nice program. Good graphics, good sound etc. But after a bit it gives you this message:

Go (expletive deleted) You aren't a (expletive deleted) user: CACA

Then the Open/Closed Apple goes back and forth across the screen (like when you get the Check Startup Device message). Then it does something to your control panel so that your computer can not be used in any way shape or form.

Re-booting, or even unplugging your computer will not give you control of your computer. Your IIgs is hung (like its broke) and there is nothing you can do to get it to work!!! The only way to regain control of your computer is to take it apart and clip the battery. Once the battery has been clipped, turn your computer on and this will clear the control panel ROM so you can regain control of your system. You can then shut it off and re-solder the battery back in (you only need to clip one of the leads). After the battery has been soldered back in, you can reset your control panel and everything will be fine again.

This is a very mean thing to do, and I am sure that a lot of people will end up taking their computers to the shop to get 'fixed'. PLEASE post this notice everywhere you go so that this doesn't happen to people!!!

There you have it...

More next month.....

Newsletter Info.

This is the magazine of the A.C.T. Apple Users Group Incorporated. It is produced monthly and distributed to all financial members and Apple User Groups at no cost.

The views expressed in this magazine are the views of the authors and not necessarily that of the members.
The Apple Logo, and the words "Apple", "Macintosh" and "Mac" are trademarks of Apple Computer, Inc.

All contributions should be sent to The Editor, A.C.T.Apple Users Group incorporated, GPO Box 1231, Canberra, ACT, 2601, preferably on a Mac disk, or uploaded to the BBS. The deadline for articles is the Committee meeting.

Articles in this Newsletter may be reprinted by non-profit organisations provided that credit is given to the source.

Advertising: Financial members may supply small advertisements for publishing at no cost at the discretion of the editor. Commercial organisations will be billed for advertising. Corporate members will receive a 10% discount. Advertising will be accepted with the same deadlines. Cost quarter page: $40, half page: $60, full page: $100.

General meetings of the club are on the second Thursday of the month at the O'Connell Education Centre, Stuart St, Griffith, 7.15 to 9:45pm. The executive meets on the 3rd Thursday of the month. A SIG meeting is held on the Tuesday after this.

MemberShip: Joining fee: Full member = $10. Junior member = $5. Organisation = $20. Annual fee: Full member = $25. Junior member = $15. Organisation = $50.

Phone numbers are published for the use of members between the hours of 6pm and 9.00pm only. The recorded answering service number is available 24 hours per day.

Warnings The Club does not condone copying of software at meetings except for the distribution of Apple upgrades and Club software disks. All members are expected to display a high standard of behavior to guarantee our continued use of the venue.

Layout and Design of the Newsletter is done using ReadySetGo 4, and printed on a Laserwriter.

Public Domain Software - IIGS

Les Humphrey

Here is a further release of software for the IIGS.

GS56
Music Disk. SoundSmith is a very good 14 track sequencer designed to use either IFF or PSWV instrument files. Loads and saves data in its own format or Music Studio files. User can load own instrument and record own music.
BackGround Music, as the name suggests, allows music to be played in the background while you are using other programs. Music contains the tunes that can be used by SoundSmith and BackGround Music.

GS57
AppleWorks GS Clip Art #1. This contains some of the best public domain clip art available. You can produce professional looking newsletters, stationery, posters, pamphlets and reports. This is true clip art and not miscellaneous paint files. There are over 250 individual pictures and range from cartoons to office clip art to sports to Christmas scenes.

GS58
Print Shop GS Graphics. This disk has a nature theme of over 100 colour graphics. The topics include nature scenes, animals, plants and related subjects.

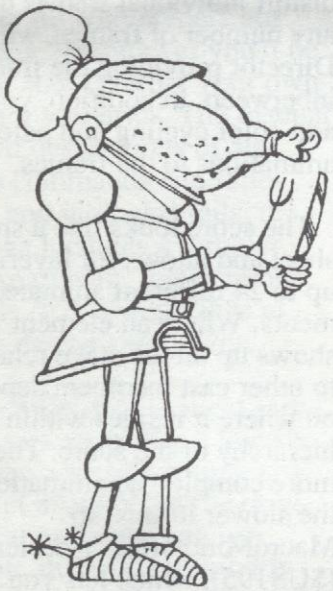
GS59
Music disk for SoundSmith and BackGround Music. This collection contains 10 songs including Crystal Hammer.

GS60 Music disk for SoundSmith and BackGround Music. This collection contains 8 songs including Footloose.

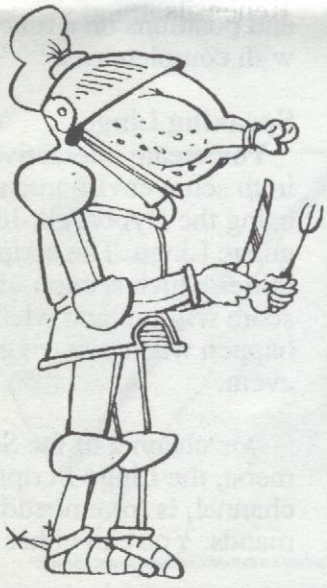
GS61
Second Chance. When using either digitised or downloaded graphics from bulletin boards the quality may not be up to expectation. Use Second chance to enhance the gray scales. CAD.3D.GS is a 3-D is a 3-D computer aided design program, useful in viewing.

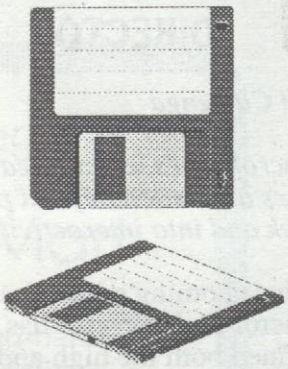
Spot the Differences

What a greedy knight! I can find 7 differences. How many can you find this time?



How many did you find last month. There were at least 7 (not including the two staple holes).





Disks Crash

ACTApple's disks have crashed..... well their prices have. Fully guaranteed disks are for sale at the monthly General Meetings at very competitive prices.

So competitive that they are seldom beaten for value. All disks are well known brands

Check this month's prices for packs of 10 disks:

Specials **5.25"**	**$6.00**
Sony 5.25"	**$9.00**

Kao *Rainbow*

3.5" DSHD	**normally $34**
reduced to	**$24.00**

Axiom

3.5" DSDD	**$14.00**
3.5" DSHD	**$24.00**

See Les Humphrey in the main hall for these fabulous offers while stocks last.

Sorry... No rain checks on these items.

Kodak

Thank you to Kodak for the use of their Kodak Colour Datashow which they kindly loaned for the June General Meeting on System 7.0.

fonts. That is, if you really want to hold on to those 12, 14, and 18 point bitmap versions of Helvetica you simply need to place them in the same file as the TrueType Helvetica. However, the only good reason for keeping the old-style bitmap version of a font is the potential speed of font rendering. The bitmaps will draw, initially, faster than their corresponding TrueType fonts. Even on machines like the Mac Plus this should only be a short-lived problem.

You should not run into this problem if you do not use a program like Suitcase II or MasterJuggler. If you are running under System 7.0, you will not encounter this problem either.

Q: I am using Adobe Type Manager. Can I use TrueType fonts too?

A: Yes you can. ATM and TrueType solve essentially the same problem. They just use different fonts and rendering engines to reach the same goal. You can freely mix ATM and TrueType fonts without any problem. You can even have the same version of a font in TrueType and ATM. That is, you can have both an ATM version and TrueType version of Helvetica on the same System. In such a case, the TrueType font will take precedence over the ATM one.

Q: My Mac is connected to a postscript printer. Can I use TrueType? Which fonts will the printer use?

A: You can use TrueType to get good quality fonts on your screen. The printer will use its own Postscript fonts when printing, even if TrueType versions of those fonts exist.

Q: I am using a DeskWriter

SYNTAX FOR SU2.OBJ

Brian Mattick

Applesoft's INPUT may have been state of the art in the mid 70's but, in the 90's, it has numerous limitations. Many authors have published improvements; from the simple INPUT.ANYTHING patch to smarter routines such as those in Roger Wagner's Toolbox series, but even these improvements still do not have all the features I would like to see.

The INPUT routine I want should have the following features;

(1) accepts all characters
(2) terminates input with ESC and RETURN
(3) terminates input with open or solid apple key
(4) terminates input with CTRL key but does not execute
(5) screens terminating characters used with OA, SA or CTRL
(6) allows insert or overstrike modes
(7) allows field definition and checks string length
(8) recognizes the DELETE key
(9) reasonably fast
(10) not too large
(11) relocatable

Sounds like a tall order but then all modern word processor's have this type of routine.

Apple have been deafeningly silent on the issue of a machine language general purpose input routine for Applesoft. The need arose when the 80 column card was released as Apple made it quite clear that this card was not designed to support INPUT and GET. They did publish a BASIC input routine in the program MAGIC MENU and this seems to the only 80 column example ever released by them.

Yet would you believe, a machine language routine, with many of the above features, has been published by Apple and many of you already have it. If you received a System Utilities disk with your computer, and all //c owners certainly did, then its tucked away as a file called SU2.OBJ.

This article is based on four letters that appeared in OPEN-APPLE magazine some time ago plus some playing around with the routine by myself.

SU2.OBJ is used by System Utilities. The routine resides at a fixed address, is 4608 bytes long and is accessed via the & command. It recognizes the open and closed apple keys, the ESC key and some CTRL keys. Actually there are five new commands within SU2.OBJ; these are &INPUT, &GET, &PRINT, &EXIT and &HTAB.

To load it must be BRUN. The code is initially loaded at $2000 and then is moved to its finally resting place at 35584 ($8B00). The & vector is also set to point to SU2.OBJ's entry point (This point may be different on the Unidisk version). The size of the routine has now been reduced to 3840 bytes. Apparently part of the code that carried out the initialing is then overwritten as it resides in a 160 byte buffer area of the routine.

The original //c version of SU2.OBJ sets HIMEM at 34560 (this is the version I have). The version that comes with the Unidisk model of the //c (which means the Memory Expansion Model in Australia as the Unidisk Model was never released here) is different. One difference is that the newer version does not set HIMEM to protect itself which is, incidentally, contrary to Apple's own guidelines on allo-

A.C.T. APPLE USERS GROUP INCORPORATED
ORDER FORM
PUBLIC DOMAIN AND SHAREWARE SOFTWARE
APPLE II - MACINTOSH - APPLE IIGS
(Apple II SS $2.00, DS $3.00, Best Of $5.00; Mac&IIGS $8.00)

NAME: _____

ADDRESS: _____

_____ POSTCODE: _____

PHONE NUMBER: _____

I wish to order the following public domain/shareware disks:

Disk category and number		Disk category and number	
	$		$
	$		$
	$		$
	$		$
	$		$

TOTAL.....$ _____

printer and like the fonts that HP has given me more than the TrueType ones. But I like TrueType enough to want to use it on screen. Which fonts will the printer use.

A: As with Postscript based printers the printer's font will take precedence over the TrueType equivalents. The HP font will be used when printing. This holds true for other printers like the DeskWriter, including GCCUs Personal Laser Printers, that use their own outline font technology.

From Page 14

cation of memory space. Looks like the smart thing is to always protect the routine by a HIMEM command.

Another limitation is that this routine must be the first one allocated space by Basic System, a feature common to all Apple published routines. If its not you get a NO BUFFERS AVAILABLE message.

To be continued.

FOR SALE

Apple II *Europlus* 48K with 16K and 80 column cards.

Kaga Denshi green screen

5.25" Apple II floppy drive (with problem)

Zardax word processing and other software

$200 the lot

Contact John
(06) 258 2990 (ah)

Personal Column

Keiran

Sorry. Your advertisement should have been here but I lost it with the crash of the Newsletter hard disk. Give me a call if you would still like to advertise - free.

Ed.

Keiran has both a IIGS and IIe to sell; either with a Imagewriter printer and software.

Newsletter Info.

This is the magazine of the A.C.T. Apple Users Group Incorporated. It is produced monthly and distributed to all financial members and Apple User Groups at no cost.

The views expressed in this magazine are the views of the authors and not necessarily that of the members.
The Apple Logo, and the words "Apple", "Macintosh" and "Mac" are trademarks of Apple Computer, Inc.

All contributions should be sent to The Editor, A.C.T.Apple Users Group incorporated, GPO Box 1231, Canberra, ACT, 2601, preferably on a Mac disk, or uploaded to the BBS. The deadline for articles is the Committee meeting.

Articles in this Newsletter may be reprinted by non-profit organisations provided that credit is given to the source.

Advertising: Financial members may supply small advertisements for publishing at no cost at the discretion of the editor. Commercial organisations will be billed for advertising. Corporate members will receive a 20% discount. Advertising will be accepted with the same deadlines. Cost quarter page: $40, half page: $60, full page: $100.

General meetings of the club are on the second Thursday of the month at the O'Connell Education Centre, Stuart St, Griffith, 7.15 to 9:45pm. The executive meets on the 3rd Thursday of the month. A SIG meeting is held on the Tuesday after this.

MemberShip: Joining fee: Full member = $10. Junior member = $5. Organisation = $20. Annual fee: Full member = $25. Junior member = $15. Organisation = $50.

Phone numbers are published for the use of members between the hours of 6pm and 9.00pm only. The recorded answering service number is available 24 hours per day.

Warnings The Club does not condone copying of software at meetings except for the distribution of Apple upgrades and Club software disks. All members are expected to display a high standard of behavior to guarantee our continued use of the venue.

Layout and Design of the Newsletter is done using Design Studio, and printed on a Laserwriter.

THE DARK HEART OF UUKRUL

Wayne Short

The Dark Heart of Uukrul is a fantasy role playing game for the Apple II line of computers. It is a game where you will explore an immense underground city, searching for the means to the incarnation of evil: Uukrul. The adventure leads you from the simple passages and markets in the west to the final confrontation in the palaces of Adron and the areas of chaos in the east.
The game has passing similarities to both Wizardry and Ultima but retains originality by developing its own unique world and gaming system. It offers more than the simple "bash and kill the monsters approach". The success of any game of this type is the ability to retain the interest of the "gamer". The fantasy must provide interest through its subtlety and depth.
Your party consists of four characters, one from each of the ancient disciplines: a Fighter skilled with weapon use, a Paladin who has the ability to lay on hands as well as skill with weapons, a Priest who can call on the gods and elementals to aid the party, and a Magician whose magical skills are vital to the party's success.
Eriosthe is a huge city and Uukrul has not corrupted the whole of it. In the west you will find a marketplace with a shop for the purchase and sale of weapons and other items, a Forge for the repair of broken weapons, a Hospice which will heal your wounds, a Mausoleum where your dead can be resurrected or laid to rest and a Guild where you can meet and recruit other party members. Temples and Magic Circle allow your Priest and Magician to advance in skills and powers.

Upon booting the game you are presented a title menu with three choices : Play the Game, Generate a New Party, or go to the Game Utilities. There is a default novice party on the disk if you wish to start playing the game immediately. If you would like to generate your own party you will be asked several questions about the characters, to shape their personalities.
The games' utilities are available for the following functions:
- You can change the name or sex of any characters in the party.
- You can restore your game from the last backed-up position. At each sanctuary you have the option to save a back-up image of the game at that point. If you later restore your game from that back-up with this utility, everything that happened since then will be forgotten.
- You can start the whole game again.

While playing the game, a summary of each character is presented in the status area. This is always shown in the order of fighter, paladin, priest and magician. Each line shows the characters name, armour class, health state and hit bar. More details about each character are available by examining the character Profile.
A character armour class indicates the probability of damage being taken from a hit. The higher the armour class the lower the probability of damage.
The various health states of a character are : HEALTHY, WEAK, HUNGRY, STARVING, STUNNED, POISONED, PLAGUED, CRITICAL and DEAD.
A dead character can only be resurrected in the Mausoleum, but the chance of resurrection succeeding declines as the corpse ages.
The hit bar reflects the amount of damage that the character is able to sustain before being slain.
The Character Profile screen for each individual show character attributes such as Strength, Intelligence, Piety, Dexterity and Vitality. (These, of course have similar usage to the other games of this type such as the Bard's Tale and Wizardry.) 'Encumbrance' reveals the weight of the items currently carried by a character. A weight limit is imposed and this increases as a character progresses through skill levels by gaining experience.
In addition the Character Profile shows other information which is specific to the different character classes. The Fighter and Paladin show their armour worn and weapons wielded, the Priest and Magician show their energy and rings. The Inventory screen shows the items carried by a character.

Priests are able to invoke help from the gods through Prayers. The god's may answer such prayer, but their response is never certain.
A Priest's rings are ranked in order of metal - Iron(Fe), Copper(Cu), Silver(Ag), Gold(Au), Platinum (Pt) and finally Crystal(Xt). As your Priest progresses in experience he will be awarded more powerful rings from the Shrines within the Temples: these will give him greater success in his communion with the gods. The rings worn are shown in the Character Profile.
Every Prayer successful or not, demands a toll of your Priest's Virtue Points. These represent his spiritual energies, and regenerate slowly to a maximum.
A Magician's power lies in his wide range of magical spells. These come from the five disciplines of magic : FIRE, FROST, PROTECTION, HEALING, KNOWLEDGE.
In order to harness these Spells, your magician must make use of his rings of power. Each Spell requires a minimum ring to cast. The power of each ring is indicated by its metal, and they are ordered like the Priest's rings.
As your Magician's skills increase, more powerful rings will be awarded at the Circle of Magicians. Every spell demands a

toll of your Magician's Psychic points and these points slowly regenerate to a maximum.
Food is required by your party to survive will in the maze. It must be purchased from the supply shop in the marketplace with any money you obtain while exploring Eriosthe. Money is important because it is required to buy an services or food in the marketplace.
Exploring the city Erisothe requires your careful powers of observation, as there things such as secret doors, grates, pits, roof openings and teleporters to reveal their true usefulness. The exploration commands along with the dungeon view are reminiscent of Wizardry (Hard of course to improve upon..).
Characters gain experience by meeting (and defeating) Uukrul's evil horde in combat. The combat screen itself is modelled upon Ultima's grid pattern with the option of you moving your characters adjacent to their adversaries. Your characters will gain experience from the combat from the combat depending on the amount of valuable work contributed by each individual.
Many inscriptions are found within the city... these will provide you with clues to aid you in your quest. Some will yields their meaning easily, other will require powerful magic to do so.
The Players Handbook is well written and comprehensive at 74 pages. A summary of spells and prayers is provided.
The game is supplied on two double-sided 5.25 inch disks which are not copy-protected. Backups may be made with your own favourite copying program. If you wish to use multiple parties, just make more copies of the "scenario Disk" and Restart each new game from the beginning. Like WIZARDRY, the game has been written in Pascal and therefore is not transportable to a hard disk for continuous play.
It is immense in size considering the size of the game disks and will take some time to complete.
As for myself I have reached an impasse after the fifth sanctuary in Eriosthe'. There is a locked gate and I haven't yet located the keys....

Game: The Dark Heart of Uukrul
Authors: I Boswell and M Buis
Publisher: Broderbund
Hardware : Apple IIe/IIc/IIGS, 128K of Ram 5.25 inch disk
Australian Distributor : DataFlow
phone (02) 606-9343
Price $90

FOR SALE

Mac SE - 4MB RAM, 40mb Hard Disk with Carry Bag, System 7, 40 TT Fonts $2,250
NetComm 1234 2400baud Modem with MicroPhone Software $360

AdobeTypeManager 2.02	$75
CanOpener 1.0	$75
Claris MacDraw II 1.1	$135
Correct Grammar 2.0.1	$60
DiskDoubler 3.7.4i	$50
Microsoft Excel 3.0	$250
Microsoft Word+	
SuperPaint4 1.1	$200
Norton Utilities 1.1	$100
PictureBook 1.0	$45
SuperPaint 2.0	$50
Symantic GreatWorks 1.0	$100
WriteNow 2.2	$100

Also available -
Other Software including some early versions suitable for 512k Macs ! A selection of Mac books & games
Call for latest list and make an offer !
Norm Braidwood - 2880485

FOR SALE

Techtronics ColourQuick colour printer $3495ono (includes $400 worth of ink)

Epson Colour scanner $2000

ring Keith on 2511435 after 2pm

WANTED

Apple Laserwriter II any model (functioning motherboard not needed)

Roger 247 0059 (w)

FOR SALE

Vette	$40
Leprechaun	$30
Firebrigade 2.0	$30
Sim Ant	$40
Think C 4.0 manuals	$20
Resedit 2.1 manual	$30
Sharp pocket Computer	$50

call Thomas
296 2139 (h)
270 5649 (w)

FOR SALE

Macintosh SE, 4MB RAM, two 800K floppy drives $1800ono

Quantum external 42MB Hard Disk drive $500

or $2100 for both together

Call 282 4889

DISK PRICES

Disk prices are on the move again. This month we have stocks of Xidex Precision disks. The double sided double density 5 1/4" disks are $10.00 a box and the double sided double density 3 1/2" disks are $25.00 a box. All disks carry a full guarantee.

MODEMS

We have three (3 only) Autoice modems to suit Apple II, II+, //e or IIgs, at a very attractive price.

If you have been considering a modem for your Apple II and you are after a modem with auto dial, auto answer, 300,1200/75,1200 baud, inbuilt comms software and lots of other features, this is the modem for you.

The first of the ACTAPPLE Bulletin Boards is running in test mode and will be available for general use as soon as our incorporation is finalised, which I understand is imminent.

If you are interested give me a call on 821948.

Logan Brill
Hardware

MACINTOSH PUBLIC DOMAIN / SHAREWARE SOFTWARE LIBRARY

Brian Murphy

Thanks to Ernie Glass we have just been able to add another nine BMUG disks to our library. The titles of these disks are given below. A further 33 disks, the details of which also appear below, were recently ordered directly from BMUG and should be available early in August. These latest additions will bring our library holding to just over 100 disks. Please update the catalog appearing in the June newsletter by either underlining or adding the titles of the nine disks received from Ernie. Identify the 33 disks ordered from BMUG by adding an asterisk suffix to the disk title appearing in the catalog (you should already have an asterisk after most, if not all, of the latter disks). We are still hoping to produce a separate PD/SW library catalog in the near future.

Disks Donated by Ernie Glass:
Utility 9
Graphics 7
HyperCard

Hyper Education 7H, 8H, 9H,15H and 17H
Hyper Utility 11H
Hyper Graphics 6H

Disks Ordered From BMUG
Games 4, 19
Business 1,2,3
Education 3,4,5
Graphics 5
Fonts 2,3
HyperCard
Hyper Education 1H, 2H, 4H, 5H, 6H,10-14H incl.
Hyper Demo 1H
Hyper Utility 6H, 13H
Macintosh II
Paris 1-9 incl.

It must be pointed out that, due to the very nature of PD/SW software, you may very occasionally find that an application, DA, game, utility etc. continually "bombs out". Remember that some of this software is written by relatively inexperienced programmers using a specific Macintosh configuration (ROM and System/Finder) and that such software will run only with this configuration. If you have this problem it is best to "trash" the offending software - you will find that there is plenty of other good quality PD/SW software available which will do the same job. If you do find such a problem with any of the software obtained from our library please let Brian Murphy know and we will add an appropriate caution to our catalog e.g. will not run on a 512E.

REAL-TIME CLOCKS

For those of you that have not experienced the convenience of a clock in your computer, there are several devices that will provide a date and time.

. a clock card, either a single purpose clock card such as the Time II, Thunderclock, TIME II HO, etc.

. a multifunction card that includes a clock as one of its functions, such as Versa Card, Mountain Mutifunction card, AutoIce Modem, etc.

. a clock chip. The first of these that was well packaged and worked with ProDOS was the No-Slot Clock. It sits under a 2764 ROM on the motherboard or on an expansion card and has its own inbuilt lithium batteries. The drawback is that while it sits in a //e, most of the ROMs in a II+ are 2716s or 2732s, not 2764's. Now we have the go-anywhere clock. It sits in an empty RAM socket or under an existing RAM chip and will work with ProDOS. The clock has been developed by Apricorn, is called Clockpro, costs $59.95 and is available from Apricorn, 10670 Treena Street, Suite 10, San Diego, CA 92131.

APPLE CD ROM'S

The Apple CD-ROM drive will support many formats, including HFS, ProDOS, Yellow Book, Sierra, and audio. This will mean that the CD-ROM can work with both the Apple // range and the Macintosh, whilst being able to read compact disks of the various standard formats, and playing regular compact disks.

CDs will not replace other storage mediums, mainly due to its speed, similar to that of an 800K disk drive. At the moment there is no way of altering data on a CD-ROM. The real benifit of a CD-ROM is that large amounts of information can be stored. A CD holds about 500 megabytes of data. Thirteen applications and 19 development tools have so far been announced for Apple's new CD ROM. See last issue of this newsletter.

TimeOut Series - Latest Releases

This is the first of three articles on the latest Timeout Appleworks enhancements series. All of the products in this series work inside Appleworks (version 2.0 and later) and are quickly and easily accessed.
The complete set (to date) comprise:-

QuickSpell,
SuperFonts,
Graph,
UltraMacros,
DeskTools,
SideSpread,
FileMaster,
MacroTools,
Thesaurus,
PowerPack, and
DeskTools II.

The last three items, by coincidence, are the subjects of the articles.

TimeOut Thesaurus

The program arrives on both 3.5 0disk and on a 5.25 disk with a 40 page manual of the high quality that one expects from Beagle Bros. The synonym dictionary on the 3.5 disk contains entries for almost 5,000 words with more than 46,000 synonyms. Because the dictionary on the 3.5 inch disk is slightly too large to fit on a 5.25 inch disk, the 5.25 inch version contains fewer synonyms - more than 43,000!

The installation of the Thesaurus is menu prompted and even I was able to complete the task very quickly. The longest installation is the very first application in the series to be established. There are a few questions that need to be answered. Once this is achieved any subsequent applications that are required need only a very short time.

To select a word all that is needed is to place the cursor on any part of that word and press the Open-Apple key and Escape to call up the menu and select Thesaurus.

The screen at the bottom then shows three lines of text around the highlighted selected word. Above this are the distinct synonyms under various headings of:-

nouns,
verbs,
adjectives,
conjunctions,
adverbs, and/or
prepositions

Once the word or the number of the word is selected it is automatically entered into the original document.

The Thesaurus removes suffixes such as "events' changed to 'event'. IT DOES WARN YOU OF THIS ON THE SCREEN. It also adds suffixes from time to time. This allows the Thesaurus to give a greater range of options. In addition, it is possible to disengage these features. One other quality is to allow you to leave the cursor on a blank space between words and asks for a word to be entered.

The minimum hardware required is any Apple IIc, IIe, or IIGS with at least 128K. Having more memory means the faster it will operate.

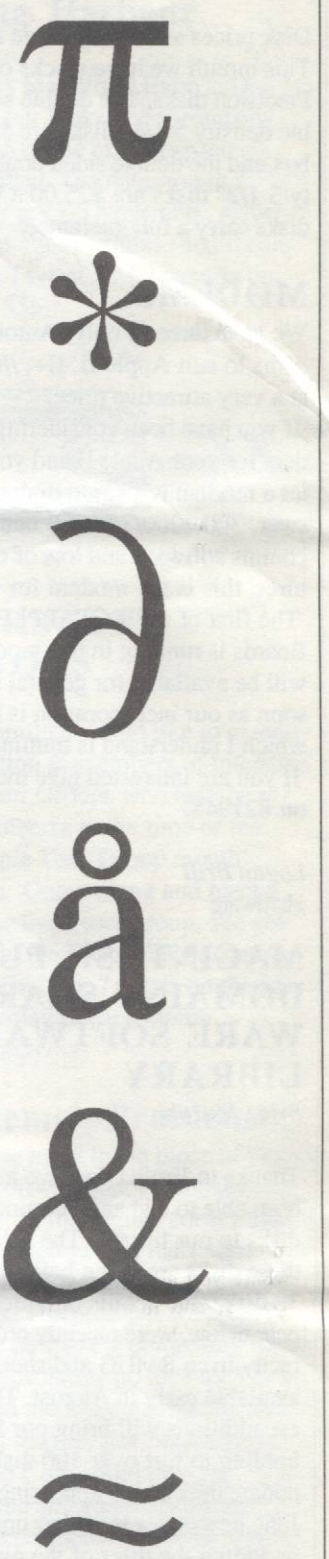
All in all I am impressed with this package which is available direct from Beagle Bros for (US)$49.95, plus postage.

Les Humphrey

FOR SALE

128K Apple //e, 2 drives, mono
$1490
or
128K Apple //e, 2 drives, RGB
$1980

Roland RGB monitor + interface
$650
CPM Card $40
Thunder clock card $145
512 Ramfactor card $750
Genuine apple extended 80col. card
$150
15" imagewriter I $650
All as new, prices negotiable.
John Pinkerton 461377 (BH)



HIGHLIGHTING TO ENHANCE YOUR WORDSTAR

by Glenn Simpson

Many Apple][owners have a Z-80 Card running CP/M 2.2 (and those who don't are missing out on perhaps the most powerful software available for their machines). Of all CP/M programs, WORDSTAR seems to be the most widely available, and is still one of the best word processing programs around for 8 bit machines. It can also be used to write dBase II Commannd files and Turbo Pascal source files (it's similar to but better than Turbo's built-in editor, and much better than dBase), yet few people seem to make full use of it. Here is a simple tip for getting more out of your WORDSTAR. Note that this works for CP/M 2.22, 2.23, as initially supplied by Microsoft (ie SOROC IQ 120/140 emulation) and WORDSTAR 3.00 - 3.02, NOT 3.3; (I don't know the patch points for 3.3). If you don't know your WS version, it's on the opening screen along with the serial number - most people seem to have 3.00 or 3.02.

2. Highlighting (inverse to you DOS 3.3 users) is simple to install, and greatly imroves Wordstar's ease of use. You will now see just what block of text (including spaces) you have marked to be moved/deleted/copied, without any disturbance to your formatting from the insertion of ugly <B> <K> symbols. The highlighting of spaces as well as letters is also very helpful when doing column moves. Highlighting also shows you where you are when you indent paragraphs, and marks "soft" hyphens inserted by the hyphen-help facility. The highlighting also gives the whole program a much more professional appearance, especially when used with a colour monitor and RGB/80 Col card such as the DIGICARD - I have mine set up for green text on Ablack, with white on purple highlighting, although grey/black red/white is also attractive.

3. So how do you install highlighting? There are two ways, either using the Wordstar Install program (which came with your original Wordstar, right?) or using DDT or an equivalent debugger. If you know how to use DDT, you can make the changes directly, using the patch point information given below; use of the Install program is easier, however, and this is what I will cover here. Just type "install" and you will be asked if you want a normal installation of WS - answer "N", then choose item "D" from the options list then presented. Tell the computer the file you want modified (eg "B:WS") and then go through all the questions with a "U" for unchanged, "Y" to confirm, till you get to the question "Are the modifications to Wordstar now complete?" Answer "N" for no, and it will ask you "location to be changed? (0=END)", and you type in "0284", which is the hexadecimal address of the bytes which turn on highlighting (all the locations for WS 3.0 are listed in the file WSPATCH.DOC, available on User Group CP/M Disk 18). The machine responds by showing the value of this address (probably 00). Now enter "2" and press <Ret>; you will then be asked for the next location to modify, so press <Ret> again, which takes you to the following location (0285) and its contents; enter 1B (that's one bee, not eye bee, for those of you unused to hexadecimal notation). Again press <Ret> twice, and enter "28".

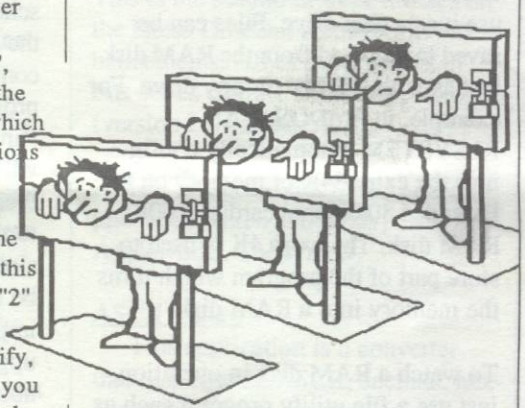
4. This completes the "turn on highlighting" function - now for the function to turn it off again, which lives at 028B. You can step through the addresses one at a time by pressing <Ret> till you get there or enter 28B directly when asked.
Enter "2" at 28B, then "1B" and "29"at the succeeding addresses 28C and 28D. Then press "0" to end. Don't worry if you make a mistake, just go back to the address and re-enter; the program will ask you at the end "Are the modifications to WS complete?" and give you a last chance to change anything. If you say "Y", it will modify the WS and then run it - voila highlighting, if you have done everything right.

5. The codes you entered were the hexadecimal equivalents of "Escape (" and "Escape)", which are the usual commands for highlighting for CP/M as supplied (ie you haven't used CONFIGIO to change terminal emulation, though these codes do seem to work with the Apple emulating some other terminals such as Lear/Sigler as well). They also work in other programs, eg in dBase II you can type " ? <type Esc> (" and this will turn highlighting on (not normally recommended, as this makes the dot prompt very hard to see!) For some reason, the highlighting codes are removed whenever the WS install program is run, so you"ll have to re-install it if you make other patches to WS.

6. If you found this change easy, get a copy of User Group Disk 13 from the club's Apple][PD Software officer (currently me) and have a look at some of the other patches you can make - I have my WS come up with hyphen help off, justification off, page numbering off, help level 0 (more text on screen), and margins set to my likings. Why don't you do the same?

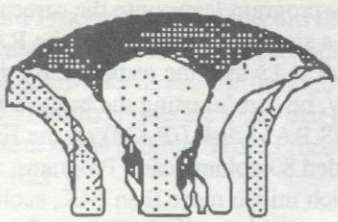
Spot the differences

There are 7 differences in the 3 men below, can you find them?
Answers to last month:
1. Tray longer
2. Eyebrow different
3. Button missing
4. Shoe different
5. Feet not reflected



Identify This

The picture below is part of something, and is usually not eaten. See if you can identify it.
Answer last months: Your friendly editor



RAMDISK

Even though a specific application may not take advantage of either of these memory expansion cards, it is still possible to utilise the memory. The manufacturers of all the different types of cards provide a utility that allows the extra memory to be treated as a RAM disk. A RAM disk configures the extra memory so that an operating system, such as ProDOS, can use it as a disk drive. Files can be saved to and read from the RAM disk just as with a 5 1/4" floppy drive. For example, in ProDOS, BASIC.SYSTEM automatically configures the extra 64K of memory on the Extended 80-column card as a 60K RAM disk. The extra 4K is used to store part of the program which turns the memory into a RAM disk.

To watch a RAM disk in operation, just use a file utility program such as the 'Filer' to copy a file onto the RAM disk. The name of the volume is /RAM. For example, copy either the 'Filer' or BASIC.SYSTEM onto /RAM, then run the program. To run a program on the RAM drive from Basic, type "-/RAM/filename". From the Filer, just choose Quit and type "RAM/filename". Notice how fast the new program leaps onto the screen. Do a simple CATALOG of the RAM drive and watch the response. By the way, be careful using the built-in ProDOS RAM disk (/RAM) on the Extended 80-column card. Programs which utilise more than 64K, such as AppleWorks, will clobber the RAM disk and all data and/or files on the RAM disk will be lost).

RAM disks allow users to speed up file reading and writing. A drawback is that the data in the RAM disk is not stored permanently (with one exception which we will discuss below). If the computer is turned off, all files and data are lost. A user should be careful about saving data on a RAM disk; if there is a power failure or a system crash, the data will be wiped out with little or no possibility of recovery. On the other hand, RAM disks are very useful for storing programs since the program can be restored from the disk from which it was originally loaded. Many people use a RAM disk to store their most popular programs so that they can switch back and forth quickly. This also allows some of the popular desktop accessory programs such as Pinpoint and Jeeves to run lightning quick.

ADVANTAGES
DISADVANTAGES

An advantage of the regular slot card scheme is that developers can think of the extra memory as a single large contiguous data area, which makes programming a lot easier. Another advantage of Apple's scheme is that it will plug into the Apple IIgs. As there is no slot in the IIgs equivalent to the //e auxiliary slot, the auxiliary slot memory expansion cards cannot be used in the IIgs. This is especially important if a //e user thinks that an upgrade to a IIgs is on the cards (sorry about that).

A disadvantage to the regular slot protocol is that a program can not actually execute code from the card, but instead must first transfer it to regular memory and this takes some time. Another disadvantage is that accessing small chunks of data spread throughout the card is very time consuming, due to the extra overhead of using the Protocol Converter firmware. This makes the auxiliary slot cards more efficient for many programs.

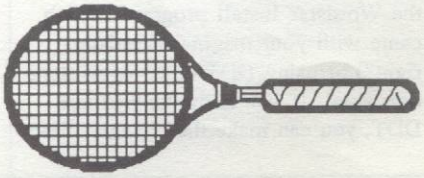
The one exception to the power loss problem mentioned previously is the Applied Engineeering's RamFactor card. This card is compatible with Apple's memory expansion protocol, but contains an additional hardware feature. This card contains an option that allows the user to retain the contents of the RAM card, even when the system is powered off. This battery backup option, which can be purchased separately, consists of a separate power supply with a battery.

The power supply provides constant, uninterruptable power that protects the contents of RamFactor's memory during momentary and extended power outages. One of the differences between the two styles of cards is in the routines they use to configure the extra memory as a RAM disk. In auxiliary memory cards, the configuration procedure for the RAM disk is part of the operating system and is stored in system RAM. When the system reboots and reloads the operating system, the operating system reformats the RAM disk, destroying any data that it may contain. Cards that are compatible with Apple's Memory Expansion card, on the other hand, are not reformatted when the system is rebooted with the Open-Apple-Reset. This is because the Apple style memory cards store the RAM disk configuration routines in ROM.

This leads to another feature of Applied Engineering's RamFactor card. It does not use any of the built-in system memory to store RAM disk configuration data, like Apple's card. Apple's Memory Expansion card keeps information which is vital to the structure of RAM disk in system memory. If this information is destroyed, then the entire contents of the RAM disk are lost. The RamFactor card keeps its configuration data internal to the card. This is especially important when a bug in a program causes it to run wild and destroy system memory, which includes the configuration data. While this will clobber Apple's RAM disk, it leaves RamFactor unaffected.

Conclusion

The hardware-firmware protocols are only one of the criteria to consider when you are determining which card to buy. The deciding factors for most people will be the software features, software compatibility and price. This is especially true if you use AppleWorks as one of your primary programs. However, if you want a battery backup for the RAM card, the Applied Engineering RamFactor is the choice. Otherwise, you should evaluate the cards based on software considerations first and price second. Generally the third party manufacturer's products are less expensive than Apple's, but a more important consideration should be whether the product fits your software needs.



TimeOut Series - DeskTools II

The third and last in a series of articles on the latest TimeOut Appleworks enhancements. All of the products in this series operate within Appleworks (version 2.0 and later).

DeskTools II is a set of eleven tools in addition to the original Desktools program. These are:-

Area Codes
This contains the area codes for major cities in the United States and Canada. This would be a boon to American users of the program but of very limited value in Australia.

Calculator+
This is a Reverse Polish Notation calculator which includes basic mathematics, scientific and financial functions. This would be fine for mathematicians. I do not recommend using it to work out your mortgage repayments (which it does quite well) as the resultant information is very depressing.

Clipboard Viewer
The Viewer displays the information that is currently on the clipboard. It also allows you to erase the clipboard, or selectively delete part of the information.

DirecTree
Will display all of the files on your disk in a tree format, making it easy to scan multiple sub-directories in seconds. It is also possible to obtain a hard copy for future reference. The author is sorry that Directree is limited to displaying only 4096 files per drive!

Disk Tester
This is another program available to enable you to test a disk to ensure that it can be read and written to. It also displays the number of free blocks on a disk.

File Search
File Search is a utility that allows you to search for a sequence of characters in Appleworks files on disk. This is particularly useful to me at the moment trying to translate some programs from IBM Basic to Applesoft.

Measurements
Another handy converter for length, volume, weight, and time from one unit to another.

Printer Manager
This allows you to directly control your printer by sending control codes or text. This lets you do such things as compress the print, change the fonts, set top of form, or enter a line of text.

Screen Out
This clears the screen. It is useful for both increasing the life of the screen as well as security. You may retrieve the screen by pressing any key. Optionally you may select up to a twelve character code which must be typed before the screen will be restored. The drawback of this is evident if you have a bad memory.

Screen Printer
This will print any portion of the Appleworks screen to the Open-Apple H Printer.

Stop Watches
A set of five stop watches for timing up to 24 hours duration. From one to all watches may be used at any one time. It is possible to enter a 20 character memo to each stop watch. Seconds are timed on the Apple IIGS. All other models track time in increments only. Can be used to keep track of how long you have been using the computer or if in business it would be of advantage for billing time on the computer.

The minimum hardware required is any Apple IIc, IIe, or IIGS with at least 128K. Having more memory means the faster it will operate. It arrives both on a 3.5 inch and 5.25 inch disks from Beagle Bros for (US)$49.95 plus postage.

Well that's all in this series, however I will keep you informed from time to time of any additions to the applications and of any updates.

Les Humphrey

TimeOut Series - PowerPack

This is the second of three articles on the latest TimeOut Appleworks enhancements. All of the products in this series operate within Appleworks (version 2.0 and later).

PowerPack is a series of ten new applications which add more power to Appleworks. These are:-

ASCII Values
This application is a converter that displays the ASCII, decimal, hexadecimal, binary, code and screen equivalents for any number from 0 to 65535. Use it as a reference when defining printer codes, writing macros, or learning more about the ways numbers can be used in a computer.

AWP to TXT
This application creates standard ProDOS text files from Appleworks Word Processing files. This has the advantage over the present capabilities of Appleworks in that the only carriage returns it uses are those that are present in the original Word Processing file.

Category Search
New capabilities are added for searching in a Data Base file. It lets you pick a specific category to search in. This, of course, speeds the search and reduces the number of false finds. Several wildcards are allowed in a search.

Desktop Sorter
Allows you to change the order of files on the Appleworks Open-Apple Q Desktop Index. The files may be alphabetized or manually repositioned. The minimum number of files on the Desktop for the Sorter to work is two.
(cont. page 15.)

ters... right, it's mercury! And the bottle has a gold cap. Recalling one of the scrolls, "Gold, silver, and mercury. Together they form a key." But wait, first of all you have no silver, and second of all if you did, there would be no way to put them all together. The "key" mentioned is not what you think.

Let's take a look at the box. Seems to be airtight. Maybe we can open it... then again, maybe not. Notice there are no hinges on this box, so it's a "hingeless box". Sound familiar? But we can't open it... yet, so just drag it into the inventory.

By now you'll have noticed a couple of things which haven't been addressed here, so I'll address them. The first is that skull which pops out of nowhere. The game gives you a certain number of turns in which to finish. If you don't finish by then, you're finished for sure. The skull just is a reminder of how long you have left.

Also, you most likely have seen a little creature run across the screen waving a key. Unfortunately, you can't do anything while he's there, so anything you do to him must be set up beforehand. And yes, that key is useful, but not now.

Now it's time to head for the hall. We can go several directions here, so you might want to explore the various exits. But there's no time to lose, your brother's in danger!

Uninvited is copyright 1986 by Mindscape, Inc.

This walkthru has not been copyrighted yet by Kiran S. Kedlaya, but this walkthru may be distributed freely, provided that it is distributed in its entirety, including this notice.

Stay tuned for more hints, next month. [Ed.]

GEOS

- by Berkeley Softworks

A synopsis of an article by Eric Grevstad in March '88 inCider

You will have noticed the trend in microcomputer operating systems towards icon or graphics based operating systems. Even that other computer company is working on an icon based system. There have already been several packages for the Apple II that offer an icon/desktop operating environment, such as Mouse Desk and Catalyst. However, until now they have been only an "envelope" in which to run a limited set of programs or your "favourite" ProDOS based systems. Now we have GEOS.

Cop this for a bit of advertising hype. GEOS (Graphic Environment Operating System) is a mouse-driven, icon-loaded, graphical operating powerhouse that packs all this power into one package: A desktop file manager, four applications, three utility programs, five desk accessories, six fonts and an interrupt management card. GEOS opens your Apple to an infinite number of graphically oriented applications. Like writing, painting, desktop publishing, calculating - in fact, GEOS can do just about anything a Mac can do.
Well!.....

In more sober terms, GEOS is a package with a Macintosh-style desktop with desk accessories, a paint program, a word processor, a database, a spreadsheet, a desktop publisher, a programming environment, a menu and BASIC. All promise mouse or joystick control, cut and paste integration among applications and all the menus, graphics and fonts you may require.
What does hardware does GEOS require? An Apple //e (preferably enhanced) with mouse, or a //c with mouse or joystick, with 128K. Preferably 2 disk drives to cut down disk swapping. A RAM disk of 512K (or a hard disk) will provide an immense increase in speed and convenience.

While some functions have solid-Apple key shortcuts, you cannot run GEOS from the keyboard. GEOS will support up to four disk devices and consists of double hi-res monochrome programs - no colour.

The menus offer familiar functions such as copying or renaming disks and viewing file names sorted by name, size type or date instead of icons,although you can work with files only when file names are displayed as icons. The desktop differs from Apple's original in several ways. A double click to open a disk or folder and two single clicks to highlight the image for a move. The panels or windows in which the icons appear cannot be resized or moved. A window can hold up to seven page icons which inturn can each hold upto eight files or subdirectory folders. The windows are flipped by clicking on the "dog ear" at the bottom left hand corner or by typing a number.

Windows cannot be overlapped and either one drive or a directory can be opened the desktop at a time. The GEOS housekeeping is awkward if you have many files or directories although it could be said that GEOS avoids the mess of nested folders found on the IIgs System Disk; most applications have just one /SYSTEM folder below the root directory for essentials such as fonts and desk accessories.

By itself geoWrite will not surprise anyone used to WYSIWYG WPs such as MultiScribe. Like other graphics-based WPs, geoWrite cannot keep up with fast typists. Nevertheless, in some areas it is considerably faster that AppleWorks.

Owners of Deluxe Paint II will not be tempted by geoPaint. Less demanding artists will find it a competent clone of MacPaint. A tiresome feature is the scrolling which lacks "page up, page down" and is slow.
GeoCalc has the "Graphics" look of Excel

Few would predict that GEOS will replace AppleWorks overnight. The wordprocessor fonts are fancy but slow in scrolling. Even bearing these shortfalls in mind, GEOS is the biggest Apple II software news in years. There is a place in the range of software for the Apple II for beginner's programs that are easier to use than AppleWorks.

UNDERSTANDING XMODEM PROTOCOL

courtesy of the Tasmanian Apple User's Group

The following text, though directed at IBM users might prove helpful in understanding how XMODEM works in all comms programs.

XMODEM File Transfer Protocol

When transferring files between computers using the telephone system, there is always the chance that electrical noise will result in data transmission errors. To ensure proper transfer of files it is necessary to detect data transmission errors and to retransmit data that contains errors. Most people think that asynchronous parity error detection provides that capability. It does not. Parity error detection does tell you when a data transfer error has occurred, but it is up to you to retransmit the data to correct errors. The problem is that parity error detection is not actually performed by most IBM PC communication packages. If a package does perform the error detection, it may not inform you of errors in such a way that you know to immediately retransmit the data. ASCOM, for example, places an asterisk in a file where parity errors are detected, but you may not realize the errors occurred until long after the file is transferred. To ensure "error-free" data transfer you need a protocol file transfer technique. Andrew Fluegelman has added such a technique to PC-TALK.III called the XMODEM protocol.

A protocol is a set of rules and conventions that apply to a specific area of communications that allow participants to properly communicate regardless of the hardware brand or software package being used. The protocol file transfer is a set of rules for transferring files which specifies a set of ASCII handshaking characters and the sequence of handshaking required to perform certain file transfer functions. Protocol handshaking signals allow communication software to transfer text, data and machine code files, and to perform sophisticated error-checking. The handicap in using protocol file transfer techniques is that the computers on both ends of the communications link must be using compatible software; there is no standard that controls these protocols and almost all communication packages that have a protocol file transfer option use a protocol unique to that package. This means that a business or group of people must standardize its microcomputer communications software to take advantage of protocol transfers.

The Ward Christensen XMODEM protocol is one specific file transfer protocol that may become a default standard in personal communications because of its widespread use on bulletin boards and because of its inclusion in low cost personal computer communication packages such as PC-TALK. It has not gained widespread acceptance in business communication packages partly because the protocol is public domain; most business communication package designers use unique protocols to force businesses to use their software on both ends of communication links. By providing you with this insight into protocol transfer and explaining in detail the operation of the XMODEM protocol, I hope to add momentum to the development of a "standard protocol" whether it be the XMODEM model or some other model. Users of communication software deserve a standard protocol that will allow them to use the technique with any microcomputer regardles of the software packages employed.

The XMODEM protocol is illustrated in Figure 1. As you can see from that figure, XMODEM does not begin the transfer of data until the receiving computer signals the transmitting computer that it is ready to receive data. The Negative Acknowledge (NAK) character is used for this signal and is sent to the transmitting computer every 10 seconds until the file transfer begins. If the file transfer does not begin after 9 NAK's are sent, the process has to be manually restarted. After a NAK is received, the transmitting computer uses a Start of Header (SOH) character and two block numbers (a true block number followed by a 1's complement of the number) to signal the start of a 128-byte block of data to be transferred then sends the block followed by an error-checking checksum. The checksum is calculated by adding the ASCII values of each character in the 128 character block; the sum is then divided by 255 and the remainder is retained as the checksum. After each block of data is transferred, the receiving computer computes its own checksum and compares the result to the checksum received from the transmitting computer. If the two values are the same, the receiving computer sends an Acknowledge (ACK) character to tell the receiver to send the next sequential block. If the two values are not the same, the receiving computer sends the transmitter an NAK to request a retransmission of the last block. This retransmission process is repeated until the block of data is properly received or until 9 attempts have been made to transmit the block. If the communications link is noisy, resulting in improper block transmission after 9 attempts, the file transfer is aborted.

XMODEM uses two block numbers at the start of each block to be sure the same block is not transmitted twice because of a handshake character loss during the transfer. The receiving computer checks the transmitted block to be sure that it is the one requested and blocks that are retransmitted by mistake are thrown away. When all data has been successfully transmitted, the transmitting computer sends the receiver an End of Transmission (EOT) character to indicate the end of file.

The XMODEM protocol offers the IBM PC several advantages over other protocols and file transfer methods. First, the protocol is in the public domain which makes it readily available for software designers to incorporate into a communications package. Second, the protocol is easy to implement using high level languages such as BASIC or Pascal. Third, the protocol only requires a 256-byte communication receive buffer which makes it attractive for IBM PC owners who only have 64K systems. Fourth, the protocol allows a user to transfer non-ASCII 8-bit data files (i.e., COM, EXE and tokenized BASIC) between microcomputers because it calculates the end of a file based on file size and uses handshake signals to indicate the end of a file instead relying on an end of file marker character (control-Z) to terminate a file transfer. Fifth, XMODEM error-checking is superior to normal asynchronous parity error checking. The parity method of error-checking is 95% effective if the software on the receiving end checks for parity errors. XMODEM error-checking is 99.6% effective, and the software on the receiving end must check for errors. Parity errors detected also do not result in automatic retransmission of the bad data; XMODEM detected errors result in data retransmission until no errors are detected or until 9 retransmissions have been attempted. Finally, the protocol is used by many CP/M bulletin boards and having the protocol in a commu-

nications package allows the IBM PC user to receive error-checked files from bulletin boards.

XMODEM Protocol File Transfer

```
Receiving Computer          Transmitting Comp.
Ready to Receive              Ready to Transmit
|                                             |
|-----------------NAK------------------------>|
|                                             |
|<--/SOH/Blk #1/Blk #1/Good Data/CkSum/-------|
|                                             |
|-----------------ACK------------------------>|
|                                             |
|<---/SOH/Blk #2/Blk #2/Good Data/CkSum/------|
|                                             |
|-----------------ACK------------------------>|
|                                             |
|<-/SOH/Blk #3/Blk #3/Garbled Data/CkSum/-----|
|                                             |
|-----------------NAK------------------------>|
|                                             |
|<--/SOH/Blk #3/Blk #3/Good Data/CkSum/-------|
|                                             |
|-----------------ACK------------------------>|
|                                             |
|<----------------/EOT/-----------------------|
|                                             |
|-----------------ACK------------------------>|
|                                             |
V                                             V
File Receipt Ends           File Transmit Ends
```

Figure 1

CHISTIANSEN PROTOCOL

What is Christiansen protocol and how does it differ from Xmodem? Are they compatible? Does Apple Access support the Christianson protocol?

"Xmodem" is more or less a media representation of Christensen protocol. Originally xmodem was just a program on RCP/M systems that used the protocol. It eventually became a generic buzzword for the protocol itself, unfortunately. The official name of the protocol is Christensen, from it's original designer, Ward Christensen. There are a number of different implementations of it - some of which are very brain damaged. By the way, you can find ASCII Express for as low as $85 at various discount software operations. Apple Access is a toy program. First off, Christensen's protocol was originally developed for CP/M, and he named his protocol program "XMODEM" -- hence, we've adopted the name. He's also come out with MODEM7, and a few others. So to answer your question, yes, "Xmodem" and "Christensen Protocol" are compatible since they are, for the most part, the same. The incompatiblity factor comes when you're trying to make good use of this protocol in an environment that really needs more information than is sent with xmodem. For example, under CP/M (where xmodem orginated), file sizes were always MOD 128 bytes in length, and terminated with ^Z most likely, to flag the end of file. Files under CP/M really don't have "types", as far as the operating system is concerned, other than a three character "dot extension" to let the user know what kind of program it is. Now, let's look at DOS 3.3, which requires a loading address parameter, a filetype identifier, and probably something else (I'm no DOS 3.3 expert). AE Pro needs to save an xmodem receive to disk in such a way as to make the data useful -- so Bill Blue and Mark Robbins came up with a scheme of moving special Apple-only file information along with the transfer so that the receiving side (most likely another Apple) could restore the original file to its proper state (to maintain file type, loading address, etc). The ProDOS version of AE Pro is even more complex. It sends an extra data packet at the end of the transfer that tells all sorts of information about the file in question (type, time and date created/modified, block size, loading address, record size, number of bytes, etc.) This special implementation should not cause a properly-written xmodem receiver to choke on the transfer. It should get AE's special characters at the beginning of the transfer and just flag them as errors. AE sees these errors and then knows that it isn't talking to another Apple, so it reverts into a standard Christensen mode.

The basic protocol is MODEM2 released by Ward Christensen in 1979. It provided for both a terminal mode and a file transfer mode. All Christensen compatible modem programs use this protocol, but was enhanced with the addition of CRC mode as explained in the body of this document. XMODEM uses the same protocol as MODEM2 but with the deletion (X'ed) of the terminal mode for use by RCPM operators so that callers had the use of file transfer capabilities compatible with MODEM2. This deletion and naming of XMODEM was done by Keith Petersen.

Obviously, it was desirable to be able to prevent remote users from putting the program into terminal mode. The program also prevented users from transferring executable files to an RCPM and then being able to execute them. They had to be renamed so that the extension part of the name would prevent execution until renamed by the RCPM Sysop.

MODEM7 is the name of the original expansion of MODEM2 that added batch file capability. This was done by Mark Zeiger and James K. Mills in 1980. There are many variants of this program with enhanced terminal mode capabilities, printer buffering etc. - but the claim to be a MODEM7 compatible protocol should be reserved for programs that are first, MODEM2 compatible; and second, batch mode capable with file name sending compatible with the MODEM7 filespec protocol. Other batch name protocols such as in MINITEL and YAM are not MODEM7 compatible.

reprinted from the Tasmanian Apple User's Group magazine of Feb '88

MEMORY EXPANSION IN THE APPLE II

by Peter Allen Baum, courtesy of Call-A.P.P.L.E.

Why memory expansion?
Users want extra memory for a variety of reasons, such as finishing their work faster. Notice we do not say that the system will run faster, because adding memory doesn't make the processor any faster. However, adding memory can reduce the number of times a program has to read from a disk drive, which is a very time consuming task.

This analogous to replacing the petrol tank in yor car with a bigger one. While it doesn't mean that you can drive any faster, it does mean that you'll spend less time stopping for petrol.

Additional memory can also be used to increase a program's data space, allowing for larger spreadsheets, more records in a database, or more words in a wordprocessor. However, this will only happen if a program understands how to take advantage of any extra memory.

Most of the popular programs on the market today take advantage of the extra 64K that resides on an Extended 80-column card, which plugs into the //e auxiliary slot. For example, AppleWorks uses this to expand its desktop from 10K to 55K bytes.

However, very little software on the market takes advantage of any other memory expansion card. Buying a memory expansion card does not guarantee that the software you're currently using will suddenly increase its data space.

This is true even if you buy Apple's Memory Expansion card. In fact, until recently, the major usage of memory expansion beyond 128K has been for AppleWorks. Most software developers in the Apple II world write their software so that it works with the typical hardware configuration. This allows them to sell to as many users as possible. Very rarely does a program require a piece of hardware that a typical consumer does not have, unless this hardware can provide a function that is not available in the typical system. For example, there are mouse-based applications on the //, such as the word procesors MouseWrite (Roger Wagner Publishing) and MultiScribe 2.0 (Styleware), which provide a Macintosh-like interface of pull down menus. These programs were designed to use the mouse because they offer a superior interface which is awkward to use with the keyboard-based system, (Both these programs offer keyboard equivalents for most of the commands, however, both companies strongly suggest using a mouse).

While software developers may not require an uncommon peripheral, they may allow their software to take advantage of its unique features. For example, while AppleWorks does not require 128K of memory, it will take advantage of a memory expansion card and expand the desktop beyond 10K of memory. But developers will only take advantage of a specific hardware device if they feel that a significant portion of users have bought, or plan buying, the device.

Why should they waste the time to program an extra feature that nobody uses? Since memory expansion cards are not present on a typical sysem, most programs on the market today do not take advantage of them directly. But this might change soon.

When do developers decide that a device should be supported by their software? In many instances they just wait until enough people have asked whether their software supports a particular device. They monitor the phone calls from users and dealers, while watching the best-seller chats provided by distributors. Most of the time, however, they just wait until Apple announce a new peripheral. Apple can legitimize a market or set a standard. This is apparently the case with memory expansion. While Applied Engineering and other manufacturers have been shipping memory expansion hardware for many years, only recently has software taken direct advantage of it.

So now Apple has a memory expansion card and the software gods are happy .... well, almost happy. When Apple announced their card, the software developer was presented with an interesting dilemma. Apple's card was not compatible with any memory expansion card on the market. This means that if a developer enhanced a program to take advantage of the Apple memory card, it probably would not take advantage of any other manufacturer's cards. But on the other hand, a year after Apple shipped their card, the third party cards have a huge lead over Apple in units sold.

So now there are two major types of memory expansion methods in the Apple //e. One used by cards which go into the Apple //e auxiliary slot, such as the RamWorks card from Applied Engineering and another scheme used by the Apple Memory Expansion card, which plugs into one of the regular slots (1-7). We'll start by analysing the difference between these two protocols - the auxiliary memory card's and the regular slot card's.

A Description of Terms
The microprocessor accesses data and programs from memory by referring to the 'location' where the program or data is stored. This is analogous to the way that mail is sent to an address. In fact, in computer terms, the 'location' is called the 'address'. Each address must be unique in the same way that the address to your mail box must be unique, or your phone number must be unique.

The microprocessor in the Apple II (the 6502) can access at most 65,536 (64K) addresses at any one time. This does not mean that the processor can only address 64K, but that it can address 64k at any given instant. If the processor wants to read data from outside this 64K address space then it must switch in the appropriate 'bank' of memory before reading the data. This mechanism of switching banks of memory is appropriately called 'bank switching'.

An everyday use of bank switching is the phone system. To continue the analogy with phone numbers, there are identical phone numbers for different locations but they are individually identified by the use of area (STD) codes. The area code is the mechanism that is used to bank switch. The two types of memory expansion cards use very different mechanisms for bank switching memory.

Auxiliary Memory
Expansion Protocols

The cards which plug into the auxiliary memory slot take avantage of the design of the extra 64K which can be added to the Apple //e (Extended 80-column card). Most popular programs today make use of a protocol Apple developed for addressing this extra 64K of memory. The RamWorks card was designed to follow this convention, instead of trying to invent a new one in order to make software development as easy as possible. The actual protocol works as follows:

• The memory in the auxiliary cards is broken into multiple 64K banks.

• A special location keeps track of the 64K bank that is being used as the auxiliary bank at any given time.

• Each 64K bank is 'shared' with the memory that resides on the Apple //e motherboard in the same way that the auxiliary 64K on the Extended 80-column card is shared.

• Auxiliary slot memory expansion cards can be expanded from 64K up to 16 Megabytes and usually contain the capability to drive a digital RGB monitor, such as the discontinued Apple Monitor 100 (but not the new Apple Analog RGB Monitor for the IIgs).

Companies with cards which follow this protocol include Applied Engineering, AST Research and Checkmate Technology.

Apple Memory Expansion Protocol

Apple decided that the protocol for accessing this extra 64K was already far too complicated and set about to design a new technique which they thought would be easier for software developers to use. They developed their own card called the Apple II Memory Expansion card, which is expandable from 256K to 1 Megabyte. Other companies quickly followed with compatible cards, some of which are expandable beyond the limits of Apple's card, including one that supports up to 16 Megabytes. These cards work in the regular slots (1-7), not the auxiliary slot, which means that they will also work in the Apple II+. Apple's hardware scheme for addressing the extra memory is significantly different than the method used by the auxiliary slot memory cards. It can be argued that Apple's card also uses bank swiching to access the memory. However, in their case the card is bank switched only a single byte at a time.

The hardware consists of two sets of registers, an address of the data and a data register for reading and writing the data. The address register is 3 bytes long, requires 3 I/O locations, and is automatically incremented after each access to the data register. So, in order to read data from a specific location in memory, the 20 bit address must first be stored in the address register and then the program can read data from the data register. The next data location can be read without updating the address register, since it was automatically incremented when the first data byte was read. This technique makes reading block of data, stored as consecutive data locations, very efficient.

But Apple 'strongly recommends' that the memory on the card be treated as a block storage device accessed through the Protocol Converter firmware, rather than writing directly to the hardware locations. Apple originally made this point so that in the future they could introduce different hardware configurations while ensuring software compatibility. Sure enough, the IIgs expansion memory hardware configuration is different than the Apple II memory Expansion card. The only software programs that take advantage of the extra memory in the IIgs are those that use the Protocol Converter. Other programs which write software directly to the hardware locations (such as AppleWorks) do not recognise the extra memory in the IIgs. If a program follows this recommendation, then it should be compatible with any future incarnations of the Apple II and Apple II peripherals.

Companies with cards which support the regular slot protocol are Apple, Applied Engineering and AST Research (playing both sides of the fence), and Cirtech.

A.C.T.APPLE USERS GROUP INCORPORATED

NEWSLETTER

An Independent Publication For Users of APPLE Computers

GPO BOX 1231 CANBERRA ACT 2601 CIRCULATION 300 August 1989

TELEPHONE (24 hrs.)
958818

ACT Apple Committee
6pm-9pm only

President *88 4030* *II*
ROGER BERNAU

Vice President *31 6417* *II*
MICHAEL THOMSON

Secretary /Apple II Software *97 6633* *II*
ALAN POULTER

Treasurer *54 1193* *Mac*
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Editor *86 3180* *Mac*
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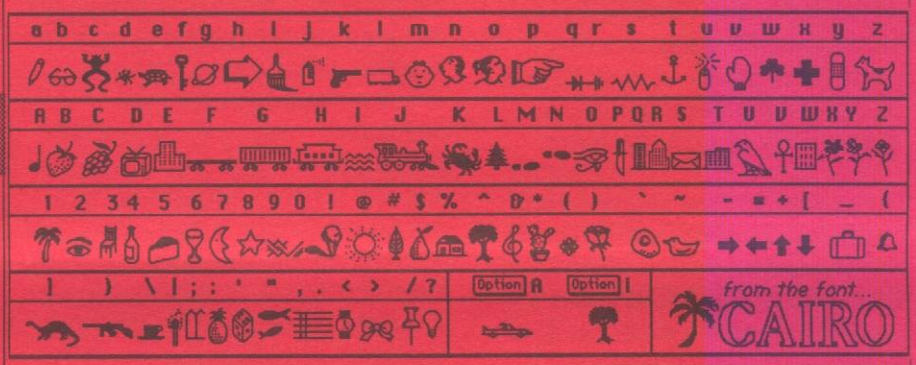


EDITORIAL

Hi, I'm back. You may have noticed that we have changed our official logo in the top left hand corner of this newsletter. Well there was a reason for that. Now that we are incorporated the logo should have been changed to ACT Apple Users group incorporated, and since that wouldn't have fit, we changed it all together.

Other news: the IIGS people are getting a SIG (Special interest group) off the ground. Their first meeting will be on the Thursday night, after the break.

Last news: Newsletter articles can now be left on the Mac BBS. But preferably they should be shorter than about 20-30K. (If they are longer, I would prefer a disk!) Bye.

WINGZ HYPERSCRIPT TRAINING COURSE
20-21 August.
Contact Jenny McPherson of Informix Software for further details. Ph. 43 5108

CONTENTS

Page:

1. Editorial etc
2. Presidents Desktop
Membership report
Lucky Door Prize
3. Software donations
Software raffles
4. Disk sales
Apple II tips
IIGS Public domain
Hardware support
6. Spot the differences
Identify this
Hyperstudio for GS
7. Hyperstudio cont.
8. Sonic Blaster (Apple II)
Machine language in Apple II Basic
9. ditto
10. Microsoft Excel 2.2
OCR's for the Mac

DISK SALES

Blank disks can be obtained, at the usual prices, between meetings from -

Les Humphrey (in Cook), phone 531349 (AH) from 6pm - 9pm
Logan Brill (in Garran), phone 821948 (AH) from 6pm - 9pm

We currently have stocks of DSDD and HD 5 1/4" and DSDD and 2 Mb 3 1/2" disks as well as storage boxes for both.

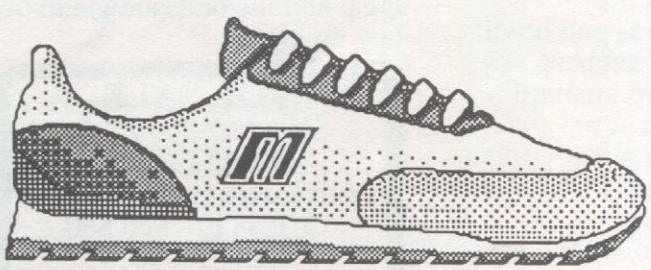
Prices are as follows -
- 5 1/4" DSDD$10.00 per box
- 5 1/4" HD$15.00 .. ..
- 3 1/2" DSDD$25.00 .. ..
- 3 1/2" HD$35.00 .. ..
- Storage boxes
(100 x 5 1/4 80 x 3 1/2)$12.00

HARDWARE SUPPORT SERVICES

In addition to the Mouse exchange service introduced last month, I remind Apple II owners that apart from the Apple fix-it service that has been operating successfully for some time of Apple II's, we also offer power supply repair and/or exchange.

FOR SALE

A DataNetComm In Modem suitable for an Apple][+ or //e. Complete with manuals and software. $345. Contact Les Humphrey on 531349 between 6 - 9 pm.



Apple II TIPS

The Fingerprint Card and Applied Engineering's TransWarp accelerator card cannot be activated together.

AppleWorks 3.0 was announced on June 20 and it's a major enhancement. Read about all the goodies offered in the July edition of A2-Central. While it occupies more memory of the computer, it still runs on a 128K machine.

You can upgrade to 3.0 for $US79. If you don't have and original copy of AppleWorks, the upgrade will cost $US99.

AppleWorks 3.0 Upgrade
Alexander & Lord Distribution Center
P.O. Box Claris
Carmel Valley, CA
93924-9978

If you registered your AppleWorks with Claris you should receive an upgrade offer directly from Claris.

Apple have a PAL video output conversion kit for the IIGS. For earlier machines, it involves a motherboard exchange.

Cirtech is offering their SCSI interface card for $US99. Software provided allows you to split the SCSI hard disks for combinations or all of the following operating systems - ProDOS (GS/OS), DOS 3.3, Pascal 1.3, CP/M 2.2.B or 2.23.

IIGS PUBLIC DOMAIN LIBRARY

Additional disks are now available in the IIGS library:-

GS24
A games disk of IIGS versions of BOUNCE IT, F1 RACE, SHANGHAI, MASTERMIND, OTHELLO and TOWERS OF HANOI.

GS25
A games disk containing YAHTZEE, WHEEL OF FORTUNE, DAZZLERGS AND SOLITAIRE.

GS26
Contains four Classic Desk Accessories (CDA's) and 13 New Desk Accessories (NDA's). Control Panel.NDA uses a full mouse interface to manipulate the System settings of the computer. CDA.Term is a simple terminal. Two.Apples allows you to use two Apple menus at once. Also a CDA to change the settings of the ImageWriter II, plus an alarm clock.

GS27
Over 20 DA's: Screen dumps: get a calendar from the Apple menu: send type to printer after a carraige return, file info on file type, date created and modified: also funny DAs.

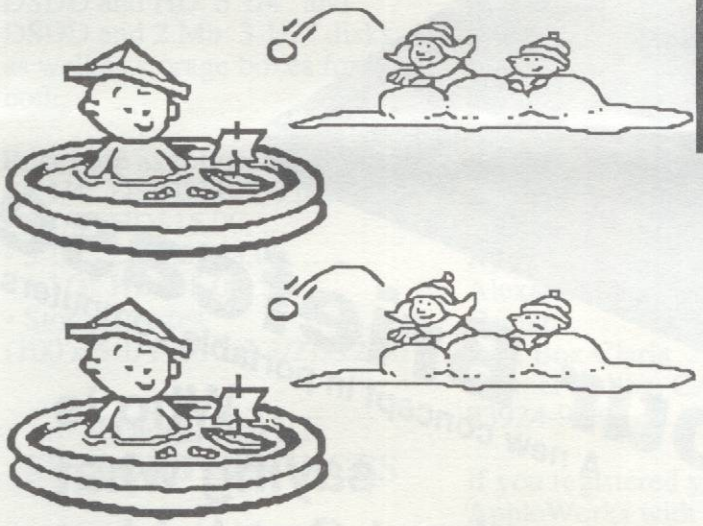
GS28
More golf courses for the Mean 18 golf fanatics. This disk has six new courses:- Restless Cove, Swope, Sunava Beach, Vhills, Wild1 and Summer. (You must have a Mean.18 master disk to use this.)

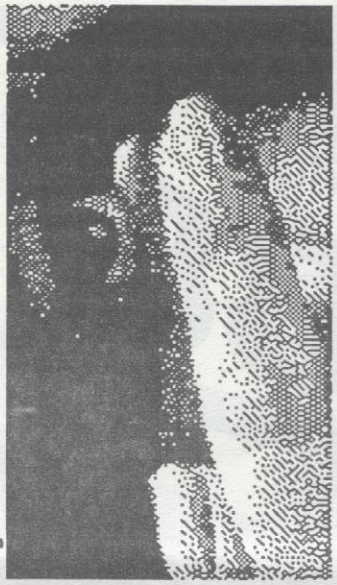
GS29
A games disk including MASTERMIND board game - guess a sequence of coloured pegs in as few as tries as possible. WARGAME is a two-player medieval battle simulation. Requires at least 512K of memory.

SPOT THE DIFFERENCES

See it you can find the 7 differences in the two pictures below.

Answers to last months:
1. Collar Missing
2. Bolt Missing
3. Shoe Coloured
4. Extra Stitch
5. Foot Missing
6. Bat wing different
7. Bat eye missing





FOR SALE

Apple IIe with manuals, 1Mb RAM card (Applied Engineering - great for Appleworks as a second disk drive), Apple Monitor (mono), Apple disk drive, Z80 card, Super serial card. Great value $1100 ono ring Maurie 54 2953

IDENTIFY THIS

The picture above is part of something quite familiar to some of us. Can you guess what it is.

Answer to last month:
British soldiers.

HYPERSTUDIO STORMS THE IIGS WORLD

"The future. A fifth grader sits at her computer, studying the 50 States. Her screen shows a map of the U.S. Using a recording of her teacher's voice, the machine asks, "Where is Iowa?" She moves the mouse pointer to the nation's heartland and clicks. Her teacher's voice praises, "Right! Iowa!" The computer adds to her score.

At the bottom of her screen are two buttons. One says, "Next State," the other, "More About Iowa." Clicking the latter, the student sees Iowa zoom to the centre of the map. The capital city, Des Moines, is highlighted. Information about principal products, year of statehood, and population appears. In addition to the "Next State" and "More About Iowa" buttons she now also has a "Go Back" button. In all there are five screens about Iowa. She chooses to examine three before clicking onward to the next state.

On other states she may study more or fewer of the informational "cards". In the end she has correctly identified 47 of the 50 states. The computer records her score. The student has simultaneously taken a test and extended her knowledge of the subject.

Her teacher created this high-tech teaching tool on her own terminal. And just think, she never had to learn a thing about computer programming! Surely this is what the future

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for
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ought to hold for computers to be truly useful in school. The concept is called "hypermedia", and it isn't in the future anymore. It's here!"

David G. Sparks in Call -A.P.P.L.E.

I would not even try to write a better beginning than David Sparks did in his review of this very remarkable program from Roger Wagner.

Every now and again along comes an outstanding product. There has been such creations as spreadsheet programs and desktop publishing products. Hypermedia programs, like HyperCard, created the same wave for the Macintosh. Now, with HyperStudio, the ball is rolling for the IIGS.

When I attended a recent meeting of ACTAPPLE a demonstration of Hypercard was given, the presenter, along with the publicity from Apple itself, could not give a clear definition of "hypermedia". You're already familiar with the various ways of exchanging information that currently exist. Newspapers, books, movies, radio, TV - all these are referred to as the media, and so are those channels that handle the mass distribution of information. In addition, the term media also refers to the specific physical form that carries the information. However, in the most part, all of the current ways of conveying information in the modern world are passive. That is, you act as a silent viewer of the information presented.

The word "hyper" is derived from a Greek word meaning extreme or beyond. The word hypermedia was coined to describe a way of communicating that went beyond the current notions of the media.

Imagine starting with something commonplace, like a book. This is a typical form that information in our world takes. Now imagine seeing not only text on each page but certain areas that you could touch with your finger that would expand into a whole new page of information, or even that would perhaps instantly take you to an entirely different part of the book, perhaps even to a completely different book. While you are thinking of that, wouldn't it be nice if the pictures on the page could actually be animated to show a bird in flight, or the path that an explorer followed? Better still, imagine hearing the sounds of nature while you follow the explorer!

Imagine no more, because this is what hypermedia offers.

The version of HyperStudio that I had for review was Version 1.2. In reality, it is a commercial release of a Beta version. Wagner explains in a covering letter that it is not the final version but that so much interest was generated in its development that he felt justified in the early release. Even though there are a few features which are not yet implemented, it has sufficient to allow for the construction of stacks which include text, graphics, animation and sound.

The documentation consisted of a tutorial and reference material. Included was a paper detailing those features which were not fully active. The updated version is to be released shortly, probably by the time that you are reading this. All registered owners will be given a free update of the software and a revised manual.

Sound may be obtained from a microphone (supplied with a digitizer card), tape recorder, compact disc player, or from the disk supplied. It can also be used for converting sound files from other sources, such as public domain sound sample disks, and sounds recorded with the MDIdeas, FutureSound, or Applied Engineering products. One of the things that I tried was to replace the Apple "beep" on a GS/OS disk with the sound of "breaking glass". It does grab the attention.

I also, on the same disk, changed the boring "thermometer" with one of the magnificent graphics from the "Calendar Crafter". It is much easier on the eye to look at a butterfly in full, colourful, flight.

The graphics that are used can be in either 320 or 640 Super Hi-Res mode. This means any of the paint programs such as Calendar Crafter, PaintWorks Gold and the like that use this mode can have their graphics incorporated within the stacks. Animated sequences, and most interesting of all, include video images, through the "Apple Video Overlay Card", a new device which is about to be released, can be imported.

For IIGS users, and those considering the upgrade, HyperStudio should be a welcome product. It fully implements the promising potential of the machine and adds to its usefulness.

System requirements:-
Apple IIGS with at least 768K of RAM One 3.5" disk drive (two preferred)

Components of package:-
Four 3.5" disks (System, Program, Sound and Art). One HyperStudio digitizing board Two bolts and two nuts Microphone with stand Amplified speaker with connecting cable. (You will need to provide four "AA" batteries for the speaker.)

Review package supplied by:-
ACT Office Equipment Pty Ltd
37 Townsville Street
Fyshwick Phone 804912
Cost:- $215.00 (less 10% for card carry members of ACTAPPLE).

- Les Humphrey

SONIC BLASTER

Reveiwed by
Robert Millar

Applied Engineering has done it again with another quality card available for the Apple IIGS. This card is for the serious user as well as for the user who wants fun. It is designed for two main functions: To produce quality stereo sound and as a budget digitizer.
The sound of my GS was greatly improved upon the installation of the Sonic Blaster and with a set of headphones I listened to programs including Bill Basham's 'Diversi Tune' and they sounded terrific. Of Course with quality Stereo speakers attached to the Sonic Blaster, the sound is even better.
Now to the digitizer side of things. Included in the package are two disks: one is the program disk and the second is full of pre-recorded sounds including sound effects. The software is like 'Macintosh' software complete with pull-down menus. The program disk is necessary for digitizing sounds while the other disk basically provides examples of recorded sounds including some sound effects. I recorded various sounds using an ordinary tape-player, including the sound of my voice and enjoyed changing them with some of the features of the Sonic Blaster software such as: Turning the speed of voices down to sound stupid or turning it up to sound weird. Also you can turn your whole recording backwards. These are some of the many features on the Sonic Blaster program disk. The software also has it's own oscilloscope for making the sound just right. Since Sonic Blaster is 100% compatible with GS/OS you can make any program that uses GS/OS have start up sounds e.g on my GS/OS system disk it now comes up saying "Welcome to GS/OS please wait while loading." Of course the more memory you have the better. As I have 1 Megabyte, I can record for roughly 40 seconds which is certainly good enough for my purposes but to save this takes a fair amount of disk space. If you buy Sonic Blaster with less than 1 megabyte of memory your recording time will be a lot shorter. naturally, if you have more than 1 megabyte of memory your recording time will be increased.
Sonic Blaster is useful as well as fun. It would be particularly useful for the musically inclined because you can record tunes and voices which you could not put onto music programs. Also you can change sound effects on some programs. Also, since Sonic Blaster provides stereo sound all your programs will will sound a lot clearer and better. Overall Sonic Blaster is a tremendous product and worth buying. The recommended retail price for Sonic Blaster in US $129.00 but I got it for US $95.00 from a US company called Golem Computers. The recommended retail price in Australia is $315.00

APPENDING MACHINE LANGUAGE ROUTINES TO APPLE BASIC

by Steven Zanker - courtesy Applecations April 1989

This article will show you how to append machine language routines to either Applesoft or Integer BASIC.
Why append the routine? Appended routines use less space in memory and on disk than DATA or POKE statements. Execution time is also reduced. In Applesoft, using a FOR/NEXT loop to read and poke DATA can use up to 5 times the space taken by the resulting routine. By appending the routine much space can be saved.

Routines to be appended either should be re-locatable, that is execute in any portion of RAM, or have a short move routine prefixed (an example is given later).

Applesoft BASIC:
An Applesoft program line appears in memory under the following format: the first 2 bytes contain the absolute address of the next line; bytes 3 & 4 contain the line number; the tokenised line then appears; and an end of line indicator (O) follows. For the end of the program both address bytes contain zero.
To append, first run the existing program to get the routine poked into memory, or key it in using the monitor. Append 3 zeros to the routine, then BSAVE it onto disk and delete the now un-needed POKE and DATA statements, then enter the following program line, exactly as shown:
63999 RO = PEEK(121) + PEEK(122) * 256 + 33: RETURN

Line number 63999 is used because it is the highest permissible line number, and any appended routine will be lost if a line is added d between it and the appended routine. Locations 121 and 122 will contain the address of that line when executed, and the constant 33 is the lines length. Any two character variable name may be used. To set variable, GOSUB 63999.

Now enter the monitor with CALL-151 and locate the end of the program using the end of program pointer (175/6 dec) by keying:
*AF.BO <return>

The monitor will respond with the low byte of the address on one line and the high byte on

the next.

Now BLOAD the machine language routine, using the A$ parameter, at that address, then find the end of the routine by keying successive list commands (*L <return>). The first location following the 3 zeros is now the end of the program. Change the end of program pointer by entering:
*AF:lb hb <return>

where lb & hb are the low and high bytes of the location. The LOMEM pointer must also be changed;

enter:
*69:lb hb <return>
and re-enter Applesoft with CTRL-C.

The appending is now complete, and any line, with the exception of the last, may be added, changed or deleted without loss of the routine.

WARNING: using RENUMBER will cause loss of routine, BSAVE and re-append the routine.

Where the routine must be moved to a specific location to execute properly, prefix with the following routine:

```
300- 20 58 FFJSR  $FF58
;save address
303- BATSX
304- BD 00 01LDA  $OlOO,X
;get low-byte of address
307- A8TAY
308- CADEX
309- BD 00 01LDA  $0100,X
;high-byte of address
30C- 18CLC
30D- 69 38ADC  #$32  ;this
routines length
30F- 90 01BCC  $0312
311- C8INY
312- 85 3CSTA  $3C   ;start
low
314- 84 3DSTY  $3D   ;start
high
316- 18CLC
317- 69 11ADC  #$11  ;11
319- 90 01BCC $031C
31B- C8INY
31C- 18CLC
31D- 69 12ADC #$12   ;12
31F- 90 01BCC  $0321
321- C8INY
322- 85 3ESTA  $3E   ;end low
324- 84 3FSTY  $3F   ;end hi
326- 18CLC
327- A9 dlLDA  #dl   ;dest low
329- AO dhLDY  #dh   ;dest hi
32B- 85 42STA  $42
32D- 84 43STY  $43
32F- AO 00LDY  #0   ;must=0
331- 4C 2C FE JMP  $FE2C
;mem move
```

The bytes 11,12, dl and dh must be supplied by you: 11 + 12 must add up to the length of your routine less 1. Two additions enable routines of up to 510 (dec) bytes to be moved. For less than 256, use zero in 11. Bytes dl and dh are the low and high bytes of the destination address.

Integer BASIC:

Appending to Integer is entirely different. The program loads from HIMEM ($4C and 4D) down, the start being pointed to by $CA and CB. The program is stored in the following format: the first byte indicates the length of the line; followed by a two byte line number; then the tokenised line; with an end of line indicator (l) byte bringing up the end.

To append, first BSAVE the routine onto disk, making a note of its exact length, then delete all unnecessary POKE statements, and insert the following line, exactly as shown:

```
32767 RO = PEEK(228) +
PEEK(229) * 256 + 30:
RETURN
```

Line number 32767 is used, to prevent insertion of line between it and the routine, which would be destroyed. As with Applesoft, GOSUB 32767 and the variable will be set to the starting address of the routine. Now enter the monitor with CALL -151 and locate the beginning of the program:
*CA.CB <return> and also HIMEM:
*4C.4D creturn>

The program must now be moved down the length of the routine, using a memory move command; eg if the program begins at $7E33 and ends at $8000 and the routine to be appended is $52 (82 dec) bytes long, enter:
*7DEl < 7E33.8000M <return>

($7DEl = $7E33 - $52). Now reset CA and CB to point to the new starting location, and calculate the new end location (eg $8000 - $52 = $7FAE), then BLOAD the routine at that location.

Re-enter basic with CTRL-C. The program can now have lines deleted, inserted or changed (with the exception of the last) with no ill effect. Unfortunately, the Integer BASIC interpreter will list the program from start to HIMEM, meaning the routine appears as garbage lines at the end of the program.

Warning: HIMEM must never be > 32768 ($8000) otherwise a fatal error message will generate.

NOTES:
1. Routines may be moved to a location away from either BASIC program instead of BSAVEing it.
2. Where two or more routines need to be appended, combine before actually appending. To find the starting address of each routine add the length to its start address, giving the next, eg: 100 GOSUB 63999: Rl = RO + 36 : R2 = Rl + 20, routines start at RO, Rl and R2.

3. Shape tables and other data can also be appended.

contrast reduces it.

Regarding the problem of too light typing caused by an old ribbon, which I mentioned above. This can be improved by photocopying the material with the machine set for 'darker.' Poor photocopies, however, raise the recognition error rate. Those flyspeck marks, which are endemic to photocopies, often cause errors.

While material high in quality might seem easy to scan, it too, can cause problems. Very glossy paper, such as that found in many magazines, can wash out the letters and make recognition difficult. In this situation, the solution might be to turn the brightness down on the scanner.

CLEANING UP

Perhaps the area where OCR technology shows it's imperfections is in formatting. Essentially, you lose all of it in the tran
scribed copy. For sure, you lose the font and size. In most cases, you lose the style as well. Saving as MacWrite can keep **bold** or ***italic,*** and sometimes some tabular information. Multiple columns are always lost. Replacing this lost information does not take so long to restore, but it is one more session of massaging the data that will some day be done automatically by the software.

Perhaps the most tedious part of cleaning up copy is removing the recognition errors and unrecognised character symbols. The OCR software packages all use an infrequent character to mark unrecognised characters. While a spelling checker is a great help in finding recognition errors, most of them ignore diacritical marks. Consequently, they usually have trouble with the tildes or bullets inserted by the OCR recognition process. If your software does not recognise diacritical marks, it is best to go through first with the **find** and **replace** feature of your word processor and change all the unrecognised characters to a letter such as "**Q**" or "**Z**." Then your spelling checker should find nearly all errors.

ERROR RATE

People who uses OCR software regularly have told me that they rarely get errors in their regular work. My experience confirms this. Most errors are caused by either sloppy work, poor quality material, or inexperience with the software.

Many are shocked by how high the error rate can be. Assuming a normal typewritten page has about 350 words on it, they think that a one or two percent error rate might give them about five misspelled words on a page. But marketing people figure it differently. They assume each word has about seven characters. That gives about 2,200 characters on the page. That may mean over twenty errors on the page.

We still have a long ways to go before we have the OCR product of our dreams. I assume that will be invisible in the normal office. It will use a multipurpose machine to scan the material. A combination photocopier, laser printer, FAX, and OCR product. Just put a page on the screen, and it will appear moments later, fully formatted, on your computer screen. For large projects, it should be capable of working unattended — all night if necessary. That day may not be as far away as you think.

APPLE II HINTS

courtesy of
Apple Computer Australia

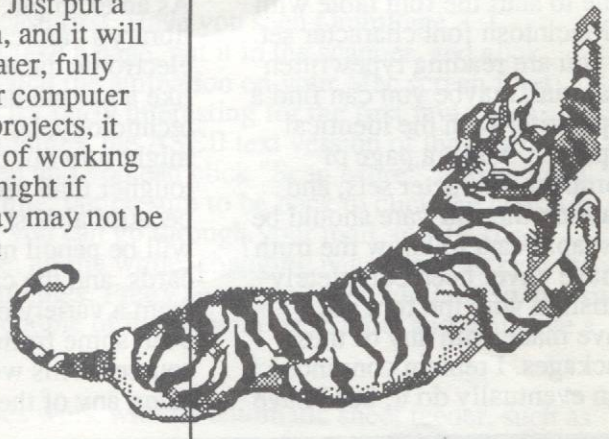
AppleWorks Access to ImageWriter LQ Proportional Font

AppleWorks offers the option of using either the Proportional-1 or Proportional-2 font. The printer must be set correctly (DIP switches 1-6 and 1-7 set closed), and both lights on the Print Quality button (on the control panel of the printer) must be on.

It appears that the only major differences between a sample printed with "Proportional-1" and one printed with "Proportional-2" are line length and spacing. The fonts look identical. One example shows some anomalies in spacing, underlines do not align properly and tabs are misaligned. There seems to be some difference in the way the application handles spacing and the way the ImageWriter LQ fonts handle spacing, which causes the problems.

AppleWorks 2.0: Custom Printer Driver and Control-Print Command

When configuring a custom printer driver in AppleWorks 2.0, you cannot enter a CTRL-@ (ASCII 0) in a printer



command string. This is because AppleWorks 2.0, in order to ignore input processed by an accessory, looks for CTRL-@'s ASCII value in the accumulator after the AfRead Test routine.

Because of the obvious need to enter CTRL-@'s, the program has been changed to test the status of the carry bit rather than the accumulator when AfRead returns. In addition, a BASIC program ("AppleWorks Control- Patch utility for AppleWorks 2.0 ONLY", March 1978 - supplied to dealers and support personnel) patches existing AppleWorks 2.0 disks to ignore the test for a CTRL-@ and process the character normally. The lines that perform the patch are:

```
20D$ = CHR$(4)
360PRINT D$;"BLOAD
APPLEWORKS/APLWORKS.
SYSTEM,A$2000,T$FF"
370IF PEEK(13055) <> 46
THEN 525: REM Check the
version number
380POKE 13057,112: REM
Changes the version number
390POKE 11760,242: REM
Replaces 54 with F2 in 0DED
offset
400PRINT D$;"BSAVE
APPLEWORKS/APLWORKS.
SYSTEM,A$2000,L8531,T$FF
"
410GOTO 999
525PRINT "This is not an
AppleWorks 2.0 disk"
999END
```

Implemented to facilitate communications between AppleWorks and add-ons like PinPoint utilities, the new feature works like this: once read from the keyboard, a character is passed to the routine AfRead Test. Here an accessory can examine the character. If the accessory decides to do nothing with the character, it is passed back. If the accessory does perform some action based on which key was pressed, then the accessory sets the accumulator to zero, which also happens to be the ASCII value of a Control-@. Therefore, if a user were to type CTRL-@ from the keyboard, AppleWorks would ignore it because it assumes that key-press had been handled by an accessory.

AppleWorks 2.0: Memory Management on the Apple IIGS

After recognising that it is running on an Apple IIGS, AppleWorks 2.0 uses the built-in memory manager to allocate all memory use. If the Apple IIGS is cold started, several of the tools in ROM are initialised and given small portions of memory for their own use. These tools include the Tool Locator, Memory Manager and Desktop Manager. Also, the RAMDisk is defined, either as the number specified as the "Minimum RAMDisk size" or 10K, whichever is larger.

When AppleWorks runs, it starts by allocating most of the first 64K bank and portions of the second 64K for itself. The rest of the memory remains free, available for expansion by the AppleWorks desktop and the RAMDisk.

Therefore, the amount stated by AppleWorks as "nK free" is the sum of:
the memory not allocated by the memory manager
plus the memory already owned by AppleWorks
less the memory owned by AppleWorks but occupied by documents currently on the desktop.

As AppleWorks runs, this nK of free space gets consumed either by AppleWorks, by the RAMDisk, or by Add-on accessory programs.

AppleWorks allocates memory to:
files that appear on the desktop
portions, or all, of the AppleWorks program
free space

As in earlier versions, AppleWorks removes portions of itself from its portion of RAM if the memory is needed to store data files.

Printing from an Apple IIGS to ImageWriter LQ on an AppleTalk Network

System 3.1 (the current version) does not support printing to an ImageWriter LQ on a Network. You can print only to an ImageWriter II. Your dealer can get a patch that allows you to print only to an ImageWriter LQ on the network.

The next release of Apple IIGS System software is expected to allow users to print both the ImageWriter II and ImageWriter LQ - the same as with a Macintosh.

The manual says that you can print to the ImageWriter LQ on the network with no problem; however, because the system disk that supported this feature has slipped, this is incorrect.

Other Fonts for the ImageWriter LQ and ImageWriter SC

A few companies are working on 3x and 4x fonts for the ImageWriter LQ and LaserWriter SC; however, none is available at this time. Fontastic Plus 2.0 gives the users the ability to do bitmap editing and create their own 3x and 4x fonts. We have not tested this yet. At this time, Apple does not have any.

Apple IIGS: Printing to a LaserWriter using ImageWriter

Emulation

Apple IIGS users who want to print to any type of LaserWriter using an application that does not support postscript (such as AppleWorks) need to follow instructions below:

Run Chooser II before using the LaserWriter from your application on an Apple IIGS. Chooser II works much like a Macintosh Chooser desk accessory, except that it is a stand-alone application. When the LaserWriter is selected, Chooser II will check the LaserWriter to verify the presence of the ImageWriter Emulator.

The ImageWriter Emulator (IWEM) is a postscript file that is downloaded into the LaserWriter. If the IWEM is not present, Chooser II will download the file. If IWEM is present in the LaserWriter, Chooser II will acknowledge and not download.

The ImageWriter Emulator understands all of the standard features of the ImageWriters I and II, including boldface, underline, superscript and subscript in the default font, Proportional-1 font and Proportional-2 font.

The ImageWriter Emulator defaults to Courier at 12 characters per inch, unless you have specified Proportional-1 or Proportional-2 font in the Open-apple-O printing options.

With the ImageWriter Emulator version 1.1.2, Times Roman will be selected for Proportional-1 and Times Bold will be selected for Proportional-2. If you use the characters per inch option, this will cause Courier to be selected and printed at the CPI you specify.

more next month...

FOR SALE

Apple II+ with 2 Apple disk drives, Language card, 80 column card and the Mill Card, z80 card, vision80 card.
Also various software and documentation.

David Eaton 811 764

SPEED ADVANTAGES OF USING DIVERSI-CACHE ON THE IIGS

Thanks to Steve King for the following information.
courtesy of Applecations, April 1989

Here are the results of the testing I did using the Diversi-Cache program from DSR Inc. in Farmington MI, on the Apple IIGS.

The hardware configuration was:

Apple IIGS with new ROMs and 1.25M RAM
HD20SC Hard Disk attached through slot 1,
Two (2) Apple 3.5 floppys on the Smartport
One (1) Apple 5.25 drive daisy-chained on the 3.5 drives.

I did not disable slot 6 for this test. This would have sped up the booting process because the 5.25 drive would not have been accessed during the boot. Disabling the slot would have decreased the times approximately 2.5 seconds.

This software stays intact in the Apple IIGS's memory even after a warm-boot!

For instance, you can warm boot to go from floppy boot to Hard Disk and still use Diversi-Cache. However, after you power down, you must boot up with a disk that has been installed with the Diversi-Cache software.

I tested such things as the time to mount a diskette, eject a diskette, boot a floppy, launch a program, etc., both with Diversi-Cache off and on. With Diversi-Cache on, I also tested with the cache set at various increments, 0 though 364K. I tested Diversi-Cache no cache allocated to determine if any improvements exist when are RAM constraints.

You may set up a cache using the Diversi-Cache Classic desk accessory in increments of: 8,16, 24, 32, 40, 48, 56, and 64K. Cache settings past 64K are in increments of 32k up to 800k. I only tested 0, 128, 256 and 384K to save time and because when the cache is set to more than 384k, the available RAM begins to shrink and some programs won't run. For instance, when I set the cache to over 416K, I had some peculiar problems with programs like Paintworks Plus and AppleWorks. These programs would not load properly. (I forwarded those results to the manufacturers for correction.)

The main thing I found was, with a cache of 128K, the disk drive access became significantly faster. The time to boot from floppy, mount the 5.25 drive icon and mount my hard disk icon (the disk window was closed) was cut by 23 seconds! This alone made the product well worth its price. My results suggest a cache setting of more than 128K though gives you only an incremental additional increase in speed.

You will note that this product is designed primarily to speed up floppy access ONLY. The times illustrate the software

A.C.T. APPLE USERS GROUP INCORPORATED
ORDER FORM
PUBLIC DOMAIN AND SHAREWARE SOFTWARE
APPLE II - MACINTOSH - APPLE IIGS
(Please note: Mac&IIGS disks are $8.00)

NAME: _____

ADDRESS: _____

_____ POSTCODE: _____

PHONE NUMBER: _____

I wish to order the following public domain/shareware disks:

Disk category and number		Disk category and number	
_____	$	_____	$
_____	$	_____	$
_____	$	_____	$
_____	$	_____	$
_____	$	_____	$

TOTAL.....$ _____

does practically nothing to speed up access of a HD20SC.

I talked with the programmer, president and main sales-person for the company - in other words THE COMPANY - Bill Basham. He said his software patches the memory manager sections that control disk I/O to achieve what it does. Bill also stated the Apple engineer who wrote this manager liked the way the software worked, but was concerned that Bill patched into some routines preventing a warm-boot from clearing the cache. I don't know what this will mean for any updates to the Apple IIGS, but for now it works fine.

Following are the results for the normal Finder and Diversi-Cache (D-C):

Finder Cache Setting	D-C Ok	D-C Ok	D-C 128k	D-C 256k	D-C 384k
Mount a Diskette	6.5	5.4	4.6	4.4	4.5
Eject a Diskette	4.3	4.1	4.2	4.5	4.7
Copy the ProDOS File Diskette to Diskette	8.3	7.2	6.2	6.1	6.1
Copy the ProDOS File Diskette to HD20	6.7	5.7	4.2	4.2	4.2
Boot a Floppy SCSI Boot	1:23.4 47.4	1:10.6 47.2	47.5 47.2	47.1 47.3	44.7 47.4
Launch Paintworks Plus from HD20	38	36.5	35.6	35.6	35.6
Launch Paintworks Plus from Floppy	42	42	33.6	31.8	31.8

Newsletter Info.

This is the magazine of the A.C.T. Apple Users Group Incorporated. It is produced monthly and distributed to all financial members and Apple User Groups at no cost.

The views expressed in this magazine are the views of the authors and not necessarily that of the members.
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All contributions should be sent to The Editor, A.C.T.Apple Users Group incorporated. GPO Box 1231, Canberra, ACT, 2601, preferably on a Mac disk. The deadline for articles is the Committee meeting.

Articles in this Newsletter may be reprinted by non-profit organisations provided that credit is given to the source.

Advertising: Financial members may supply small advertisements for publishing at no cost at the discretion of the editor. Commercial organisations will be billed for advertising. Corporate members will receive a 10% discount. Advertising will be accepted with the same deadlines. Cost quarter page: $40, half page: $60, full page: $100.

General meetings of the club are on the second Thursday of the month at the O'Connell Education Centre, Stuart St, Griffith, 7.15 to 9.45pm. A workshop meeting is at the same venue the following Tuesday. The executive meets on the 4th Thursday of the month.

MemberShip: Joining fee: Full member = $10. Junior member = $5. Organisation = $20. Annual fee: Full member = $25. Junior member = $15. Organisation = $50.

Phone numbers are published for the use of members between the hours of 6pm and 9.00pm only. The recorded answering service number is available 24 hours per day.

Warnings The Club does not condone copying of software at meetings except for the distribution of Apple upgrades and Club software disks. All members are expected to display a high standard of behavior to guarantee our continued use of the venue.

Layout and Design of the Newsletter is done using ReadySetGo 4, and printed on a Laserwriter.

Transfer to a PC or Mac is simple and quick. On the Mac it is a matter of connect, point and click and I tried and proved all options. On a PC it seems, from the manual, to be only a little more difficult but I did not test it. Automatic translation is available between the Z88 and Lotus and Excel formats and MacWrite, Wordstar and ASCII text formats.

I had a brief play with the diary application. It interacts with the calendar to go to any date, and the clock and alarm for reminders. There is no pre-set entry format. The user can put in diary information in any way. The manual suggests a diary like approach of time first and entry second but this is up to the user. Searching, editing and other functions are available and moving between dates have various options. More than one diary can be saved and files or parts of files can be amalgamated.

To me, the Z88 makes an ideal, economical and portable text input device. It has versatile, powerful and innovative processing features but my preference would be to do post-input editing and processing on a larger machine. For what it does, however, it is most useful, and it does it better than anything else I have seen so far.

WANTED

For a Mac Plus—
- 20 Meg Hard Disk
- 2400bps modem
- SPSSx or Statview

phone Deb 2744135 (W)

FOR SALE

- 2400bps modem

Netcomm 1234SA
$500
call Andrew 288 1128h

APPLE IIGS PUBLIC DOMAIN/SHAREWARE

Les Humphrey

Our Public Domain/Shareware library has another injection of disks. These are:-

GS42 This is the first of a set of two disks with over 200 pictures for use with Print Shop GS. They are divided into music, objects, occupations, places, sports (mainly American) and symbols.

GS43 This is the second of the Print Shop GS set of art work. This disk has over 200 more pictures. They are divided into animals, cards and card games, characters, computer, dolls, food, greeting cards, military and vehicles.

GS44 This comprises 40 of the early favourite Apple II games that ran under DOS 3.3. These have been converted to run under ProDOS. A word of warning - about half of the games need either a joystick or paddles to operate.

GS45 The second of the early favourite Apple II games that have been converted to Pro DOS. This disk has 40 of the games.

GS46 Deverminator. This is a virus checking program that checks the first two tracks on the disk for any corruption, - an unfortunate must in these days when precautions have to be taken against the unprincipled.

GS47 For the AWGS owner. A set of about 30 spreadsheet and database templates to cover a variety of situations.

GS48 If you are looking for a very good Data Base, then this is it - DB Master V5. It was only released in May of this year. It is a Shareware release.

INCREASE YOUR MEMORY

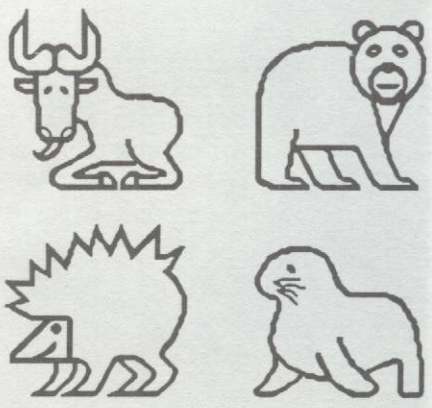
by Peter Clayton

Unless you've kept an eye on advertisements recently, you may not have noticed how much the price of memory for your Mac has dropped. According to April 1989 Australia Macworld, 2 Mb 100ns SIMM kits were $1363. In June this year I purchased 2 Mb 80ns SIMMS for $264, including tax.

I bought mine from Pelham in Sydney: (02) 427 0011, Suite 205, 83 Longueville Rd. Lane Cove 2066. Pelham seem to be just about the cheapest supplier around at the moment. The chips are made in the US using Korean DRAMs (Samsung). They carry a two-year guarantee, and so far seem to be working with no problems at all.

With the chips I was given a Torx wrench and a photocopied sheet of instructions for installation. Whoever wrote this has a nice sense of humour: "Remove the aluminium shield which covers the board... At this point you may wish to put a bandage on the knuckles of your right hand. The Mac has many sharp edges, and a bandage used now will obviate a bandage used later."

After installation "If you're optimistic, screw it all closed, otherwise plug everything in and test it all first."



DATA TRANSFER

- by Logan Brill

Ed Scharrer wrote an interesting article in April on his experience in moving data from his //c, basically AppleWorks files to a Mac. The same day that I read the article I was asked by an acquaintance (my wife) to move a database file from an Apple II to a PC. The problem was not dissimilar to that resolved by Ed but the difference was in the way it was resolved. Resolving problems for the "acquaintance" is taxing at the best of times so I was not about to involve a third party to provide the bridge for incompatible disk formats. Instead I chose to use the comms (serial) ports on both machines, a solution that some seem to treat with some trepidation.

Transferring data from one system to another is usually done in one of two forms :

- formatted - typically a file from a word processor package that may include a variety of control codes (invisible characters) that are imbedded in the text to signal format changes such as tabs, indents, fonts, point size, underline, bold face, etc.
- unformatted or ASCII - this is a file that has all special characters removed.

Unfortunately software packages such as word processors have not standardised on their use of special characters let alone file formats. Therefore, moving data from one system to another means that a conversion program may be required. The alternative is to strip off the special characters at the source or destination. Fortunately most major types of software package, other than word processors (eg spreadsheets and databases) offer a range of standardised data interchange formats. This ensures that data can be loaded directly into "another system" with little or no reformatting of the data.

Back to the case at hand. The Apple had a serial printer, so the link between the two machines was no problem. I unplugged the cable from the printer and plugged it into one of the serial ports in the PC. I then booted up a communications package (PROCOMM) on the PC and without much thought I set it to expect an ASCII file on the appropriate serial port at 9600 bpi, 8 data bits, 1 stop bit and no parity. To test that link was operating I booted the Apple, engaged the printer slot with a PR#1 and typed a few things on the Apple keyboard. The characters should have appeared in the screen of the PC. What appeared on the PC screen was →

IDENTIFY THIS

The picture below is something I see every day, and many of you will also have seen. See if you can work out what it is.

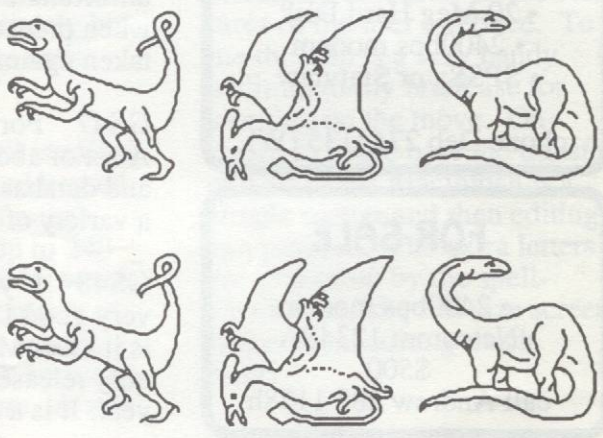
Answer to last month: Bards tale map.

SPOT THE DIFFERENCES

There are 8 differences in the two set of dinosaurs below. How many can you find?

Last month:

1. Floppy disk drive on wrong
2. Shelf support missing
3. White Book missing
4. Power cords plugged wrong
5. Logo missing on Mac
6. Ventelation slot missing in mounted PC
7. One less hole in paper
8. Row on ventilation Slots missing on mac.



Your complimentary Planet rise and set times for tonight: 9 Aug 90, in Canberra.

	Rise	Transit	Set	Con
Sun	06:52 AM	12:06 PM	05:22 PM	Cnc
Mercury	06:48 AM	12:16 PM	05:43 PM	Leo
Venus	08:46 AM	02:54 PM	09:03 PM	Vir
Mars	10:36 AM	05:27 PM	12:21 AM	Vir
Jupiter	01:20 AM	06:29 AM	11:38 AM	Ari
Saturn	05:40 AM	10:35 AM	03:32 PM	Gem
Uranus	10:54 PM	04:35 AM	10:10 AM	Psc
Neptune	02:33 AM	07:34 AM	12:33 PM	Tau
Pluto	07:00 PM	02:18 AM	09:31 AM	Aqr
Moon	02:13 AM	07:03 AM	11:49 AM	Tau

gobbledegook. Thinks .... "I must have the data format incorrectly set". Resetting the data format to 7 data bits and tapping a few keys on the Apple keyboard, voila! the characters appeared on the PC screen - all systems go.

Going to the Apple, I loaded the data file that I required. The fact that it was within a Pascal based system was of no real bearing as the print option generated output to the printer in ASCII format, not in graphics form. When the file was loaded I then sent a report to the "printer", which listed all of the data items that I required. The data items went out of the Apple via the serial cable (at speed I hasten to add) to the PC which saved them as a file. That file was then available for input into a simple database.

The whole process from linking the two machines via the serial cable to having the file saved on the PC took no more than 10 minutes. That's not bad if I say so myself as the file was so large that it had to be stored on the Apple as two files. In reality I "printed" both files on the Apple and saved them as a single concatenated file on the PC.

The only thing remaining was to check the integrity of the file on the PC. The file looked OK on the screen so it was loaded immediately to the database. The only problems were minor and were with the contents of some of the fields. This had nothing to do with the data transfer but rather was a result of the quality of the data in its original form on the Apple. I haven't said anything to the "acquaintance" about that, these matters have to the broached with some caution you must understand.

I related this story to allay doubts or concerns that users may have on the simplicity of direct transfer of text files between dissimilar machines. The operation was fast and required no additional hardware, software or a third computer.

XYBER PRICE LIST - 19 July 1990

Product	Price Incl Tax	RRP
Int Hard Disk Mac SE		
Xpress 20SE	791.00	930.00
40SE	1063.00	1250.00
80SE	1624.00	1910.00
100SE	1882.00	2214.00
Int Hard Disk Mac II		
Xpress 20/2	791.00	930.00
40/2	1063.00	1250.00
80/2	1624.00	1910.00
100/2	1882.00	2214.00
Int Hard Disk MacPlus or 512e		
Xpress 20Plus	1053.00	1239.00
40Plus	1299.00	1528.00
80Plus	1892.00	2226.00
100Plus	2081.00	2448.00
Ext Hard Disk Mac or IIGS		
Xpress III-20	1053.00	1239.00
III-40	1299.00	1528.00
III-80	1892.00	2226.00
III-100	2081.00	2448.00
140	2608.00	3068.00
Xactor H14	1012.00	1191.00
Xactor V15	1403.00	1650.00
SCSI Port	204.00	240.00
X/MIDI	167.00	196.00
MacPlus Quiet Fan	62.00	68.00
SE Quiet Fan	62.00	68.00
SCSI Cable 50/50	58.00	68.00
SCSI Cable 25/50	58.00	68.00
Memory Products		
Xcalibur 512 (128-512K)	306.00	340.00
Xcalibur 1meg (0.5-1Mb)	421.00	495.00
Xcalibur 2meg (1-2Mb)	328.00	386.00
1meg SIMM (Low prof)	POA	POA
1meg SIMM (Low prof 10's)	POA	POA

Note

1. All prices are CIF Sydney.
2. The prices for hard disks are reduced by 5% for prepaid or COD transactions.
3. Further details are available from Les Humphrey.
4. Prices are subject to change without notice.

HARD DISK DRIVES: FOUR CHOICES

by Len Sorbello

In my previous article I made the point that a Hard Disk {"HD"} was essential for the IIGS. Okay, so which Hard Disk do you purchase? GS owners now have four choices they can make:

(a) Internal GS specific HD
(b) External GS specific HD
(c) External SCSI HD
(d) Build Your Own.

The first two decisions are: internal or external and SCSI or non SCSI?

It should go without saying that the main reason for purchasing an external drive would be the ability to continue to use it, if at some later stage, you were to decide to change computers. On the other hand, if you want portability and do not want to clutter up your desk, an internal drive is the obvious choice.

If you do decide that an external HD is right for you, then a SCSI drive is the best choice though there are traps for the unwary. What is SCSI? The term stands for *Small Computer Systems Interface* and is supposed to allow you to use your HD with any computer (Apple, MS-DOS etc). When you buy a HD you get a SCSI card to slot into your computer and in theory you should be able to use any SCSI HD with that card. However, there are now different SCSI standards which makes a nonsense of the interchangeability of SCSI devices. In the Apple world, if you use Apple's SCSI card you should be reasonably confident of being able to use any SCSI HD that is made for the Macintosh. Luckily, Apple has just released a new High-Speed SCSI card which is compatible with a wider range of SCSI drives.
On the other hand a number of HD manufacturers use their own interface systems and this means that if you change computers you will need a new interface card as well (assuming the manufacturer supports your new computer). Don't think however that SCSI drives are superior in performance to proprietary HDs - in many cases the contrary is the case.

Lets look at each HD type more closely.

Internal Drives

About a year ago there were no internal drives for the GS - now 3 makers have stepped into the breach. Two of these, Applied Engineering and Ingenuity, have built drives that include, and indeed replace, the GS power supply.

CirTech, on the other hand, have come up with a first and have managed to build a drive onto a card which simply slots into any spare GS slot. What's more it's quiet though an internal cooling fan will be essential (CirTech also make these at about $US49). The real beauty about such a drive is that you don't need an extra power source. The CirTech comes with software which allows partitioning for GS/OS, PRODOS, DOS 3.3 etc and has a SCSI connector to allow you to attach external SCSI HDs. I have not seen the CirTech in operation but it is an option well worth considering.The cost? $US695 for the 20 Meg Drive and $US895 for the 40 Meg Drive. They are available from:

A2-Central
PO Box 11250
Overland Park, KS 66207
USA

Don't forget you'll have to pay airmail costs and 20% customs on entry to Australia.

Applied Engineering with its "Vulcan" and Ingenuity with its "Inner Drive" have produced virtually identical internal HDs. I understand that the specifications and features of each are very similar so the following review of the Vulcan's performance should apply equally to the InnerDrive.

Vulcan Internal Hard Drive

The Vulcan comes in 20, 40, 100 or 200 Meg configurations. I purchased a 40 Meg Drive last November so my review is based on personal experience since that time minus the 2 months it took for AE to replace my first faulty drive.

Installation is very easy - you simply pop out the GS power supply and replace it with the Vulcan. You also have to install a Controller Card into a spare slot in your GS. Any slot will do as Vulcan won't interfere with that slot's normal operation and, if you have to, you can pseudo-slot from slot 7. The Vulcan comes with its own power supply which is rated at 70 watts (more than Apple's original output) and works at the Australian 230 voltage or the US 110 voltage at the flick of a switch. It comes with a cooling fan which some users have complained is too noisy though my own unit operates quietly enough.

Presumably, anyone purchasing a Vulcan would want to boot from it and, as this will usually be from slot 7, you need to ensure that the GS Control Panel is set to boot from that slot. The Vulcan 40 Meg Drive comes already divided into 2 partitions {"AE1" and "AE2"} with GS/OS System 5.02 already installed on AE1. AE1 is set to 32767K while AE2 is

set to 9190K (yes I know it's more than 40 Megs in total) and, while GS/OS can handle more than 32 Megs, PRODOS can't and this causes problems for some programs - so watch the size of your partitions.

You are not limited to the 2 partitions already created. Vulcan supports up to 16 partitions although only 4 can be active at anyone time. Each partition can be formatted with any of the Apple II operating systems which are recognized by the GS - GS/OS, ProDos8, DOS 3.3, CP/M or Pascal 1.3 [Note that DOS 3.3 and Pascal will recognise only 2 partitions]. What's more you can name the partitions as you wish subject only to the limitations of the operating system in use. You can set the GS to boot from any partition under any operating system.

To enable you to manage the Vulcan, AE has supplied two tools - a CDA {Classic Desk Accessory} and a program called "Partition Manager". The CDA allows you to set the boot partition, write protect partitions and to park the Vulcan's read/write heads (to a more durable part of the hard disk to reduce the risk of damage eg during transportation). The Partition Manager, as the name implies, enables you to divide the Vulcan into different size volumes. As well as doing all the things described above, it allows you to turn off particular partitions so that they will not be recognised for any purpose by the computer (note, however, that the data stored within a 'turned off' partition is saved).

Okay, so how does the Vulcan perform? Very fast and very well. Vulcan uses its own custom driver which needs to be copied to the Drivers folder of the System Disk. There is no doubt it is a good machine and should be seriously considered by GS owners.

The one negative point has to do with AE's customer support. AE is an American company based in Texas and so, if you import their products direct (its far cheaper that way) you need to conduct your dealings with the company itself. You can ring Technical Support between 9-5 US Central Stand Time. However, it can be very difficult to get through at times and you have to be very patient and persistent. Once you make contact the technicians are very friendly and helpful. If they consider there is a problem that requires the unit to be returned to them for repair/replacement they issue an authorization number.

If you do need to return an item to AE, postal airmail (with appropriate insurance cover) is the cheapest. AE usually return by airmail or UPS express. Unfortunately in my case AE took almost 2 months to replace my first drive which had a problem with the power supply. Indeed I should mention that some 4 members of ACT Apple Users have purchased Vulcans with similar results. However, all our replacement units seem to be working flawlessly so this can be put down to initial quality control problems (unit unusual with new technology)

I'm not sure who distributes AE's products in Australia these days but it is most unlikely that you could purchase their products cheaper than direct import from one of the discount mail-order merchants in the USA. The following price [as in May issue of Incider] are from Roger Coates, a dealer a number of ACT Apple Users have found to be reliable:

Vulcan 20 Meg $US499
Vulcan 40 Meg $US649
Vulcan 100 Meg $US1299

I've also heard good reports of Quality Computers who are offering the following prices:

Ingenuity Inner Drive 20 Meg $US499
Ingenuity Inner Drive 40 Meg $US619
Ingenuity Inner Drive 100 Meg $US1295

Both these dealers use UPS so that your order should usually arrive at your door within 7 days of receipt of your order. It's express service but you will be up for a minimum of $US50 and possibly $US80. In addition, you'll have to pay 20% import duty so be sure to take account of these extra costs when you do your sums. The addresses of these dealers are:

Roger Coates
PO Box 171466
San Diego CA 92177
Phone: 0011-1-619-2741253

Quality Computers
15102 Charlevoix
Grosse Pointe MI 48230
Phone: 0011-1-313-3310700

In the next article I'll look at the other types of Hard Disks that are available, including Removable Cartridge Drives.

For Sale

Mac SE, 1987
2.5 MB RAM
40 MB internal Xyber HD
two internal 800k floppy drives

System 6.04,
HyperCard 1.25
lots of PD software
only $3800

Phil Ryan 249 4678 (w)
or 241 1303 (h)

A.C.T. APPLE USERS GROUP INCORPORATED
ORDER FORM
PUBLIC DOMAIN AND SHAREWARE SOFTWARE
APPLE II - MACINTOSH - APPLE IIGS
(Apple II SS $3.00, DS $4.00, Mac&IIGS $8.00)

NAME: _____

ADDRESS: _____

_____ POSTCODE: _____

PHONE NUMBER: _____

I wish to order the following public domain/shareware disks:

Disk category and number		Disk category and number	
	$		$
	$		$
	$		$
	$		$
	$		$

TOTAL.....$ _____

CUSTOMIZE YOUR BEEP !!

by Andrew Helgeson

The Apple][+'s speaker is controlled by a 'soft switch' at location $C030. When this location is 'looked at', either by reading or writing, it changes the position of the switch. Once the speaker has been turned on, it will be turned off the next time the switched is looked at.

```
0300 - A2 03LDX #03
0302 - 8D 30 C0STA $C030
0305 - 20 12 03JSR $0312
0308 - 8D 30 C0STA $C030
030B - 20 12 03JSR $0312
030E - CA DEX
030F - D0 F1BNE $0302
0311 - 60 RTS
0312 - A0 40LDY #40
0314 - 88 DEY
0315 - D0 FDBNE $0314
0317 - 60 RTS
```

Enter the monitor by typing CALL-151. The monitor prompt, "*" will then appear, type the starting adress, in this case 300, followed by a ":", the rest of hex code follows. One byte at a time, with spaces separating each byte. Run the program by typing, 300G <Return>. You will be rewarded with a short beep. Changing the value at 301 changes the length of the beep, 313 changes the note. Save the program with, BSAVE MYBEEP,A$300,L$20. Using Beep from Applesoft can be accomplished by first loading the routine, once in memory, the pitch and duration can be controlled from your Basic program.

```
10 D$ = CHR$(4)
20 PRINT D$,"BLOAD MYBEEP"
30 REM CHANGE DURATION
30 POKE (769,3)
40 REM CHANGE PITCH
50 POKE (787,128)
60 REM CALL MYBEEP
70 CALL 768
```

Now you can have a beep for every occasion, for example a unique note for each entry or miss entry of data. Hint - try putting the values from the paddles into the pitch and duration locations.

Newsletter Info.

This is the magazine of the A.C.T. Apple Users Group Incorporated. It is produced monthly and distributed to all financial members and Apple User Groups at no cost.

The views expressed in this magazine are the views of the authors and not necessarily that of the members.

The Apple Logo, and the words "Apple", "Macintosh" and "Mac" are trademarks of Apple Computer, Inc.

All contributions should be sent to The Editor, A.C.T.Apple Users Group incorporated, GPO Box 1231, Canberra, ACT, 2601, preferably on a Mac disk, or uploaded to the BBS. The deadline for articles is the Committee meeting.

Articles in this Newsletter may be reprinted by non-profit organisations provided that credit is given to the source.

Advertising: Financial members may supply small advertisements for publishing at no cost at the discretion of the editor. Commercial organisations will be billed for advertising. Corporate members will receive a 10% discount. Advertising will be accepted with the same deadlines. Cost quarter page: $40, half page: $60, full page: $100.

General meetings of the club are on the second Thursday of the month at the O'Connell Education Centre, Stuart St, Griffith, 7.15 to 9:45pm. The executive meets on the 3rd Thursday of the month. A SIG meeting is held on the Tuesday after this.

MemberShip: Joining fee: Full member = $10. Junior member = $5. Organisation = $20. Annual fee: Full member = $25. Junior member = $15. Organisation = $50.

Phone numbers are published for the use of members between the hours of 6pm and 9.00pm only. The recorded answering service number is available 24 hours per day.

Warnings The Club does not condone copying of software at meetings except for the distribution of Apple upgrades and Club software disks. All members are expected to display a high standard of behavior to guarantee our continued use of the venue.

Layout and Design of the Newsletter is done using ReadySetGo 4, and printed on a Laserwriter.

STOP PRESS

From your correspondents at the Third National Users Group Convention Sydney.

Date Line 20 July 1991
From Ian Diery, Managing Director Apple Pacific

Apple is out for a larger market unit share. Mac Classic is the highest selling machine in the world - bar none! Massive swing back to low end users by Apple marketing strategies. 50% of these buyers have never owned a computer before.

Keating may have led Australia into recession, but Australia leads the english speaking world (where?). No one is making money out of computers, he said.

For the March 1991 quarter Apple had 18% of the personal computer market and held that at 12% for the June quarter. They showed a remarkable $135m profit for the March quarter.

Hint of new releases including a Notebook Mac to compete with MS DOS lines.

As a matter of interest IBM sought the recent agreement with Apple, not vice versa as misreported elsewhere. Apple signed a Letter of Intent with IBM to form an autonomous development company aimed at developing a common operating platform. Good luck for the IBM fraternity!

DID YOU KNOW that Apple is second only to IBM in world computer unit sales? Eat your heart out Dig****, Comp**, etc.

Apple is looking at new ways of selling lower end machines, however at the loss of profit margins, which means user groups will be acting more in support roles. Apple fully acknowledges this. You may be able to buy your next Apple computer at a department store.

Other points of interest.

Compuserve has been available in Australia for about a month now offering the most comprehensive communications service in the world. Based in the USA, it has 800,000 subscribers around the globe. As simple as our bulletin board to use and only a LOCAL call. Has fantastic information and connectivity to the rest of the world. Apple are thinking of using it to disseminate information to user groups. You can even order lingerie and cookies through it!

HyperMover is nearly here. The to be released version has just fallen over on the Mac platform but works well on the IIGS. (Thanks to System 7.0.) It allows you to transfer stacks between Apple platforms (Mac <--> GS).

Training packages have been acquired by your reps at great personal risk. Explanations, by appointment, at the next general meeting.

GS/OS 6.0+? It is hoped to be available. (This year!!!?) At this stage we have not seen the Beta version in operation, however some suggestions were made, including support for more SCSI peripherals.

Full listings of System 7 applications compatibility will be made available to the user groups through nominated contacts. An extensive assortment of TrueType fonts developed by Apple are still not yet available to users - be patient.

Claris is to release in August "Resolve", a dynamic spreadsheet package developed to give Excel and Wingz a run for their money. (Looks good.)

Exchange for any spreadsheet package (eg Wingz) only $129.00, full price $599.00 RRP. MacDraw Pro is superb, combining many features found in other separate packages. (Check out the presentation slides!) Also $129.00 for upgrade or normal MacDraw II price for new package.

MYOB (Mind Your Own Business - No offence intended.) This is available in a fully Australian format which complies with the commercial standards. Excellent package for you accountants and treasurers.

Having fun, glad you are not here, regards Les, Paul and Glenn.

LUCKY DOOR PRIZE

Bob Hibberd

The lucky door prize for the July General Meeting was a super, new Approved System mouse mat. Thanks go again to Approved Systems for their continued support of the A.C.T. Apple User Group Inc.

As usual five membership numbers were drawn, these being; 559, 582, 208, 403 and 355. No one with these numbers was present at the meeting so the closest to the last number received the prize. This was Paul Connell with membership number 354. Can't get much closer than that! Congratulations Paul.

Remember that as a financial member, all you have to do to be in the Lucky Door Prize draw is to be present at a General Meeting.

APPLE II GS PUBLIC DOMAIN LIBRARY

Michael Hickey

Since the release of the last list of Apple II Public Domain Disks we have added several new disks to the library. Most are samples of commercial products but Disk 66 is the complete HyperCard disks for the Apple IIGS. They are available from ACT APPLE for the special price of $30 for the set of 6 disks. The other disks are available from the PD library at the usual rate of $8 per disk.

DISK 63
II MEG Software Demo.

While this disk doesn't use the Apple IIgs's toolbox it isn't from the FTA (Free Tools Association). Boot this disk to view an animation sequence from the bridge of the Starship Boobyprize (NCC-1702). Features the "Blue Monday" soundtrack. Hook up your external (powered) speakers to appreciate this sound. Also contains "Not" Stellar 7, a joystick game showing wire-frame graphics on the Apple IIGS and FillMaze a "find your way through the maze" game, very simple but is good for entertaining 5 - 11 year olds and features 3200 colours on screen.

DISK 64
HyperBole Sampler.

For the HyperStudio user. Contains "stacks" of literary articles. If you enjoy reading journals of short stories and/or poetry, this disk will give you a new view on the theme. Well worth buying just to see if its worth subscribing.

DISK 65
Stack Central Sampler.

Also for the HyperStudio user. An excellent sample of the type of information you can get from Stack-Central. Contains "stacks" of ideas for your own HyperStudio presentations.

DISK 66 HyperCard GS.

This six disk set contains long-awaited HyperCard for the Apple IIGS. Features include full colour, 15 voice sound, hyperscripting and drawing tools. Requires 1.5meg to load AND a hard disk (or at the absolute minimum two 3.5" disks and LOTS of swapping). Recommended 2 Meg and 3.5 Meg hard drive space. (Contrast this with HyperStudio which runs in 768k and loads into about 1.5meg of hard drive space.) Manuals for HyperCard GS are available from the Apple II Librarian.

DISK 67
Telecommunications Disk

This disk contains FreeTerm GS a Freeware telecommunications program for the Apple IIGS. Drives an external modem to 2400 baud through the internal serial ports only. Supports Xmodem file transfers. Disk also contains the standard SHRINKIT for Apple II+/e/c and SHRINKIT GS. These programs allow you to compress files for archival purposes or for reducing the size of a file before uploading.

Apple II Public Domain Library

Once again we have added several new disks to the library. Still $2 per disk!!

Flobynoid.

This self-booting disk contains an action-packed game of Arkanoid-like action, works on a Apple IIe/c, but may work on an II+. Requires 64k.

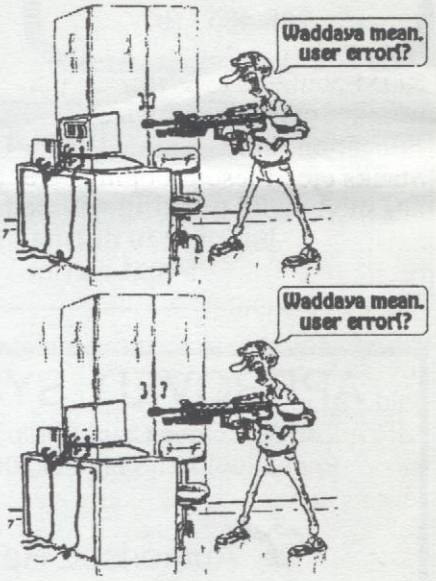
Shrinkit 3.2.2

This ProDOS disk contains the latest version of SHRINKIT for the Apple IIe/c. Great for compression of all types of files. Use it to compress several disks onto 1 disk or use it to shorten files before uploading to the Bulletin Board. Easy to use and cheap too!

IDENTIFY THIS

The picture above is part of a common everyday item, can you guess what it is?

N.B. This is an easy one just because I'm in a good mood after my break in Vic. - Wait till next month!



SPOT THE DIFFERENCES

There are 8 differences, see how many you can find!

SYNTAX FOR SU2.OBJ

Brian Mattick
(*continued from last month*)

Now lets describe the five new commands, starting with the simplest.

1. `&EXIT`

Removes SU2.OBJ from memory and releases the space.

2. `&PRINT`

Primary purpose is to PRINT strings that are compatible with both the 40 and 80 column screens. `&PRINT` checks the mode and provides word wrap at the right places. The syntax is: `&PRINT A$`

One curious thing is that a maximum string length of 160 characters is allowed by `SU2.OBJ` Just why 160 was chosen and not 240, which is closer to the maximum string length Applesoft can handle, is beyond me.

3. `&HTAB`

This command seems irrelevant as HTAB works just fine with &PRINT on both a //c and enhanced //e. Other authors say '...if you want to `&PRINT` to the screen at other than column 1 you must use `&HTAB`'. They claim '...`&HTAB` works with `PRINT` and `&PRINT`, however, `&PRINT` does not work with just `HTAB`'.
The syntax is: `&HTAB 10`

My guess is that `&HTAB` may have been included to avoid the clumsy `POKE 1403,H-1` syntax required on the unenhanced //e when the 80 column card is enabled and it may also fix the `HTAB 1` bug, both of which I have not checked.

4. `&GET`

Accepts any character from the keyboard, just like Applesoft's `GET`. In fact the only difference I could find was the blinking-underline cursor. The syntax is: `&GET A$`

Although I have not checked it would be nice if this command did not have Applesoft's `GET` problems.

5. `&INPUT`

This is the command of greatest interest. Apparently there is a bug in part of the routine and the patch to correct it is described in Open-Apple vol. 2, No 4. So far I have been unable to reproduce the bug but I applied the patch anyway.

The routine includes a blinking-underline cursor, allows character insertion and the DELETE key is enabled (DELETE to left). Its simplest form is;

```
&INPUT A$
```

and it has the following features.

(1) RETURN can be pressed anywhere in the string
(2) Left & right arrow keys limited to the string
(3) Special CTRL keys can be pressed anywhere in the string

CTRL-X	deletes string
CTRL-Y	deletes from cursor to right
CTRL-R	replaces the last string
CTRL-D	deletes character to left of cursor
CTRL-F	deletes character under cursor
CTRL-H	left arrow
CTRL-U	right arrow
CTRL-[	same as ESC
CTRL-M	RETURN

(4) Other CTRL keys produce a beep
(5) ESC can be pressed anywhere in the string
(6) if ES=1 then ESC pressed, otherwise ES=0
(7) open and solid apple keys not recognised

There is one limitation that can be overcome. You will remember the string length is limited to 160 characters. The bad news is that the routine does not check on the maximum length but instead lets you keep going and in the process write over ProDOS.
Apart from the warning above `&INPUT` looks promising, however, if we define a few parameters its real power becomes evident.

To reiterate, to recognise an ESC keypress check variable ES,

`ES=1` ESC pressed on exit from routine
`ES=0` ESC not pressed on exit from the routine

Specifying a value for FL will set the maximum string length. This is how you can limit the string length to 160 characters or less. If you are inserting characters and the maximum string length exceeds FL the end characters are simply chopped off. If you don't specify FL it's default is one which means if you reuse the same string variable the first character of the last string will reappear. But the default value does not prevent you from creating a string with more than 160 characters.

This brings me to another feature. You can edit an existing string and the cursor is placed at the end of the string. Pressing any key other than the DELETE, right arrow or left arrow erases the string but CTRL-R replaces it and you can then add additional characters to the end. This is an awkward syntax but has a particular significance in Basic Utilities.

You can specify a character which will indicate the allowable input field length with the variable FL$. Normally FL$="_" would be used but anything can be specified.

To recognise an open-apple and solid-apple keypress, check variables OA and SA respectively,
OA=1 - open-apple pressed
SA=1 - solid-apple pressed
OA=0 - open-apple not pressed
SA=0 - solid-apple not pressed

However, before this function works you must specify which open-apple and solid-apple key combinations are allowed. Variables OP$ and SO$ allows screening of acceptable characters that, in conjunction with open-apple or solid-apple, allow termination of input, eg.

```
10   OP$="12$4"
20   &INPUT A$
30   ON OP=1 GOTO 1000
1000 PRINT "You pressed open-
     apple-";CHR$(PEEK(49152))
```

ie Open-apple with either '1', '2', '$', '4' causes exit from the routine with OP set. Incidentally the apple key screen is case sensitive.

For completeness, I would have expected another string variable to hold the character that was pressed in conjunction with open-apple or solid-apple. This does not seem to be the case but a PEEK(49152) easily recovers this character.

When you exit from &INPUT the string is placed into Applesoft's string variable space irrespective of the mode of exit. &INPUT does not include a carriage return on exit and this must be supplied if needed. Without a disassembly of the code that's all I could find about SU2.OBJ. It certainly sounds like a little gem but there are two regrets.

The routine does not recognise the up and down arrow keys. This means moving up to a new field, as in a data base entry screen, is not possible. You can get around this problem by using the up or down arrow key in conjunction with the open or closed apple keys but I would have preferred to adopt the same keystrokes as used in Appleworks.
The other regret is speed. Its slow, very slow. In fact my two fingered typing is at times actually faster than &INPUT can handle which means every second or third character is missed. I believe this indicates clumsy programming rather than a CPU limitation; it doesn't have to be this slow. What a shame Apple crippled this useful routine.

XYBER PRODUCT AND PRICE LIST

Product	Member's Price	RRP
Mac SE, II etc, Internal Hard Disks		
20 MB	639.00	752.00
40 MB	819.00	964.00
80 MB	1182.00	1390.00
105 MB	1207.00	1420.00
120 MB	1386.00	1630.00
170 MB	1624.00	1911.00
210 MB	1816.00	2137.00
XL, Portable, External Hard Disks		
20 MB	706.00	830.00
40 MB	886.00	1042.00
80 MB	1248.00	1468.00
105 MB	1273.00	1498.00
120 MB	1452.00	1708.00
170 MB	1691.00	1989.00
210 MB	1883.00	2215.00
XPRESS III External Security Hard Disks		
20 MB	904.00	1064.00
40 MB	1045.00	1229.00
80 MB	1407.00	1655.00
105 MB	1432.00	1685.00
120 MB	1611.00	1895.00
170 MB	1850.00	2176.00
210 MB	2042.00	2402.00
670 MB	4286.00	5042.00
XStream Streaming tape archival/ offline storage		
60 MB	1337.00	1573.00
150 MB	1698.00	1998.00
320 MB	TBA	TBA
Xactor H14	1012.00	1191.00
Xactor V15	1402.50	1650.00
SCSI Port*	204.00	240.00
X/MIDI	167.00	196.00
MacPlus, SE Quiet fan	58.00	68.00
SCSI Cable 50/50, 25/50	58.00	68.00
Memory Products		
Xcalibur 512 (128-512K)	306.00	340.00
Xcalibur 1meg (512-1024K)	421.00	495.00
Xcalibur 2meg (1-2MB)	328.00	386.00
1 meg SIMM (low profile)	POA	POA
1 meg SIMM (lp - 10's)	POA	POA

NOTES:
* A Mac 512 has to be upgraded to 512e before a SCSI port can be installed.
1. All prices are CIF Sydney.
2. Further details are available from Les Humphrey.
3. Prices are subject to change without notice.

collect information. The type of information he needs is the software, a short description of what it does, what age group and educational area it addresses, what it runs on, who it is aimed at, and your thoughts on this particular product. Initially he will collect it in any word processor format. When he has a collection (provided by you) he will publish it in some form, perhaps as a disk or on the BBS.

Graphics SIG

The last graphics SIG meeting was not well attended. We put this down to the school holidays and the lack of advertising. The next one should be great. Its a beginners guide to using a bureau. At some time you will almost certainly be required to send you publication to a bureau for final publishing. This session will be run by Chris Rowney of Signature Laser Typesetting and should be very interesting. Beginners will be especially welcome as the professionals already know how to use bureaus for publishing. Details are else where in the magazine.

Steve

High Speed Modem Hardware Handshake Cable

There is a difference between a normal Modem cable (such as the one Apple sells) and a high speed hardware-handshake modem cable. Hardware handschake allows the modem and the computer to talk to each other without having to clog up the data line. This has two advantages.
1) It is faster, usually throughput is increased by about 10%
2) It makes it easier to set the data-rate between modem and computer higher than the rate between modem and the far modem. This is necessary for proper operation of data correction and compression protokolls such as MNP and V.42/ V.42bis.
Some modems even require you to have a hardware handshake cable for proper operation.

There is one disadvantage. Because there are only 8 pins on the Mac serial port one of the signals gets lost. This is DTR (Data Terminal Ready) this tells the modem whether a terminal program is running on your Mac. You can tell the modem to ignore this signal.

Hardware Handshake Modem Cable:

Mac Din8	Modem DB25	
1	4	used for RTS (you lose DTR, sorry no way around this)
2	5	used for CTS
3	2	TD
4	7	Ground
5	3	RD
6	NC	
7	8	Carrier detect
8	7	

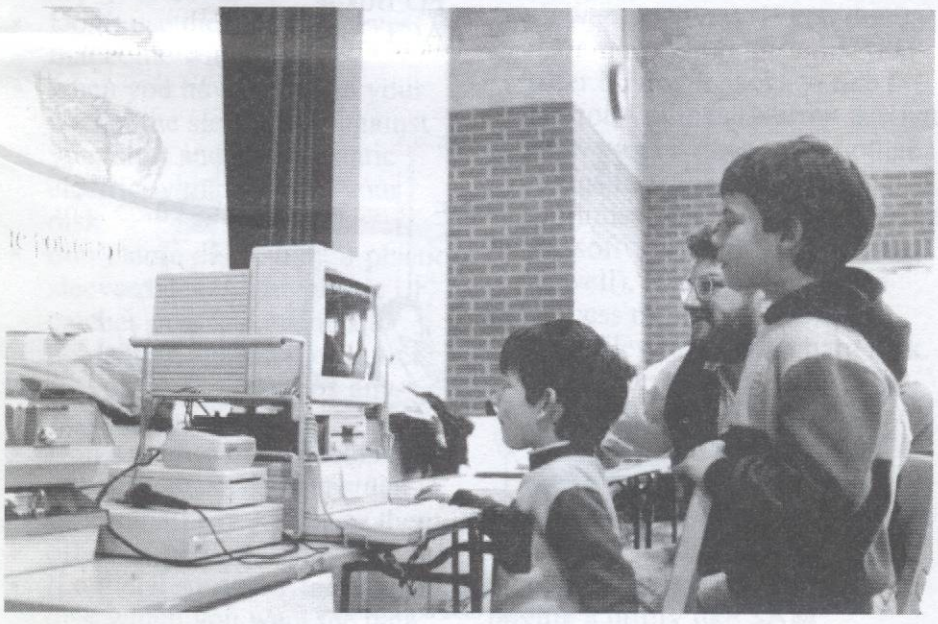
Connect Mac pins 8 & 4 together, to tell the Apple serial port (RS-432) to run in the standard RS-232 mode.

Pin 7 (GPi, general purpose pin) is usually used for Carrier Detect. Carrier Detect tells the Mac that the modem is connected to another modem. Note that Pin 7 (GPi) is available only on the better Macs (not on the Plus, Classics and LC).

If you already have a standard modem cable you will probably only have to rewire pin 1 (thats usually whats different).

Tell the modem to ignore DTR (often on dip switch 1). You need software capable of hardware handshaking, of course.

Norman Braidwood



ACTApple at Radford College

identify the committee member!

APPLE II PUBLIC DOMAIN

A.C.T. Apple Users Group Incorporated. Apple II Public Domain Software Library. If you wish to order a disk from the PD library, call Michael on 231 3787 or see him on the PD Sales stand before the meeting.

All disks in this catalog are suitable for all Apple II computers with a minimum of 48k of RAM and 1 5 1/4" disk drive unless otherwise noted. All disks cost $3 for 2 disks or $2 for 1 disk. Personal cheques preferred for payment.

000 TUTORIAL

Learn about AppleSoft Basic, Integer BASIC and 6502 assembler language.

001 TUTORIAL

Demo of the Apple][computer, Programming demo, a simple PILOT editor.

002 TUTORIAL

AppleSoft BASIC reference and guide.

003 TUTORIAL

6502 Assembler reference and guide.

016 ART

This disk contains a variety of "Electronic Wallpaper" artworks. Some of them are as simple as a kaleidoscope and some are true animation. This disk works on any Apple][, or compatible computer, but best effects are achieved when used with a TV set or colour monitor.

018 ART-FIRE ORGAN

This disk contains one of the very best "Electronic Wallpaper" programs ever written for the Apple][, "Fire-Organ". At its simplest level it is just another kaleidoscope program but includes documentation so that the more adventurous can create their own "Fire-Organ" sequences. Works on any Apple][, but begs for a colour monitor or TV.

028 ASTRONOMY

Programs for the amateur astronomer. Get the correct exposure times for photographing celestial objects, calculate distance and position of planets and moons and find times for sunrise and sunset.

029 ASTRONOMY

Another disk full of utilities for the amateur astronomer. Includes a satellite "calendar" and a constellation recognition chart printer.

034 AVIATION

Contains a database of different types of aircraft, including bombers, fighters, sailplanes and commercial aircraft.

035 AVIATION

This disk contains an aircraft slide show, descriptions and pictures of three jet fighters and a program to calculate the potential performance of an aircraft.

038 BUSINESS-HOME MANAGEMENT

This disk includes a cheque book balancer, an equipment register, budget analysis program, electricity cost analyser, a calendar and many others.

039 BEST OF BUSINESS

This disk has many different financial programs including: amortization schedule; future value of annuity; present value of annuity; payments to pay off debt; annuity to retire debt; face value of discounted paper; proceeds of discounted paper; income from investment; effective annual interest rate; interest on investment; present value of a fixed debt; term required to reach amount; declining balance depreciation and many many more. All up, very good value for all Apple][s.

040 BUSINESS

This disk contains an address list, a general ledger printer, a cheque book program and a general database program.

041 BUSINESS

This disk contains a weekly payroll program, a car loan program, a label printer, a decision analysis program, several repayment calculators and many more.

042 BUSINESS

This disk includes several stock, bonds, annuities and shares performance measurement utilities.

043 BUSINESS

Includes a real estate agency management program and many Visicalc (tm) support utilities.

044 BUSINESS

This disk concentrates on stock and inventory control and includes some banking and finance programs.

045 BUSINESS

Several finance and banking programs concentrating on depreciation, interest earnings, loan management and expenses management.

046 BUSINESS

Sports a home acounting system for charge accounts, purchases and other record keeping programs.

047 BUSINESS

Major program ion this disk if File Cabinet, four versions of a database program which can store up to 2300 records. The latest version can hod only 1600 records but is vastly improved from the first version.

048 BUSINESS

This disk Apple File, a database program, lets you use your computer as a "Rolodex" or card file. Some other accounting programs and a budgeting program are included.

049 BUSINESS

Another DATA BASE Management program, but one of the better ones in the public domain for the Apple][. Includes extensive instructions. It creates, retrieves, tansfers, copies and merges files. Appends new data, updates, deletes, inserts, searches and sorts. Instructions are given to de-bug such problems as running out of memory.

050 BUSINESS

BasiCalc, a VisiCalc-like spreadsheet program compatible with some VisiCalc files. Includes documentation on disk.

052 BUSINESS

SoftGraph produces bar, line and chart graphs. Instructions included.

060 SCIENCE

Battery Demo, DNA, Periodic Table and other Chemistry programs.

061 SCIENCE

Radioactive, Solar System, Chemistry Drill, Physics and other programs.

063 EDUCATION - PILOT

Programmed Inquiry, Lesson Or Teaching (PILOT) is a computer programming language designed to help you write teaching or other educational programs. The language is not included on this disk but the disk contains a language reference and some PILOT to BASIC conversion utilities.

064 BEST OF EDUCATION

This disk includes Music education, Math drills, History, Metric -> Imperial conversions, Spelling, Typing and Vocabulary testers.

066 EDUCATION

Maths education, alphabet for pre-schoolers, grade book, test maker, test taker and spelling.

071 EDUCATION

German, French, Grading system, English vocabulary programs.

072 EDUCATION

Maths! Fractions, addition, subrtaction, multiplication and division. Geometry program also included.

073 EDUCATION - MATH

Musical Math, Math Tutor, SuperMath; you name it... it's here.

074 ELECTRONICS AND RADIO

Teach yourself Morse Code and other Morse-based utilities. Including a morse code encoder/decoder.

077 ELECTRONICS AND RADIO

Utilities for the Ham Radio Operator. Too QRL to write down contacts? Cut through the QRH and get on with completing your your QSL cards pronto! QRV to help you. Includes a loaded dipole calculator to determine loading impedence etc.

078 ELECTRONICS AND RADIO

Antenna design and other electronics utilities.

079 ELECTRONICS AND RADIO

Build your own dipole antenna, analyse logic circuits, study speech and data circuits.

092 FOOD AND NUTRITION

Calorie counter, food values, Ideal body weight, recipe box, and life expectancy calculator.

099 BEST OF GAMES

Chess, Shark Bait, Radar Defense, Bowling and more...

100 GAMES

A collection of miscellaneous games for all Apple][s

101 GAMES

A collection of miscellaneous games for all Apple][s

102 GAMES

Destroy the aliens, Toss coins, play basketball, play checkers (draughts) and more. Includes a text adventure game.

103 GAMES

BattleStar, Chess, Concentration, Boggle, Eamon cheat, Super Pinball and more.

104 GAMES

Anagram+, Basketball, Cribbage, Monopoly, a Dragon Maze Generator for D&D enthusiasts and more.

105 GAMES

Darts, Backgammon, Casino Royale , Gin-Rummy, Simon-Says, Yahtzee and more

106 GAMES

Animal, Bombard, Boxed In, Ball Catcher, Fort!, Golf and many more.

107 GAMES

Atom War, Keno, Clewso, King, boxing, Othello, BattleShips, Star Lanes and more

108 GAMES

Artillery Duel, Bomming Mission, Bullfight, Hurkle, Monopoly II, Lunar Lander, Sword and Sorcery and more

109 GAMES

Adventure, Quack Stack, Breakout, Black Box and others.

110 GAMES

Acey Deucy, MasterMind, Ping Pong, Rocket, Tic Tac Toe, Target, tennis and more.

111 GAMES
Airport, Blackout, Bombs Away, Hammurrabi, Midway, Sea War and Sea Hunt.

112 GAMES
3D Tic Tac Toe, Chess, Checkers, BlackJack, Oregon Trail, Solitaire and others

113 GAMES
MasterMind, Breakout, Blackjack, Connect 4, Guided Missile, Thief and more.

114 GAMES
Anti-Aircraft, Apple Wars, Star Trek, Star Ship, WarLords and more.

115 GAMES
Alien Invader, Air Attack, Bingo, Baseball, Balloons and others

116 GAMES
Battle, Frustration, Geography II, HangMan, Sub Scan, WAR and others

140 ADVENTURE GAMES
Adventure! Battle Wizards and Dragons in a dark dank cave.

141 ADVENTURE GAMES
Explore the Magic Cave or Kill Darth Vader in the Death Star

166 HELLO AND MENU
Menu programs for your Apple][DOS 3.3 disks.

167 HELLO AND MENU
More interesting menu programs for your Apple][.

172 MATH AND STATISTICS
Imperial <-> Metric, Calculus, Maths of Finance, Fourier Analysis, Gauss-Jordanian manipulation of Matricies, Fibonacci series and lots more.

176 MATH AND STATISTICS
Compound Interest, Doubling Theory (Chess Board), Function Plotter, Metric Conversions and more.

178 MATH AND STATISTICS
Newtonian methods, Parametric plotter, Quadratic plot, Harmonics, LaPlace inversion and more

179 MATH AND STATISTICS
Find X relative to f(x), Conic Grrapher, Fast Fourier Transform, Binomial distribution, Hex conversion, and more.

182 MUSIC
Plays a variety of tunes through the Apple][speaker.

183 MUSIC
More Apple][Music

184 MUSIC
Plays classical, pop and nostalgic music through the Apple][speaker.

185 MUSIC
Compose your own music, Birthday with fireworks and others

190 PASSION
Nude Pics of Female Persons, Touch Me, and others.

191 PASSION
Apple PET, Strip Cubik, Sex Positions etc. Very educational.

195 PASSTIME
Biorhythm plotter, Calendar, Calorie counter, Igpay Atinlay Eneratorgay (Pig Latin Generator), Dietary requirements and more.

196 PASSTIME
Hector the Psycho-analyst, Banner-maker (Colossus), Bio-cycle, Booze 'n You, Freud, ESP and many more.

197 PASSTIME
Perpetual Calendar, Computer Ralph (?), Horrorscope, MPG calculator, Teaser, Timer, Unbelievable and more.

199 PASSTIME
Computer Analyst, Easter Calc, Haiku poetry, Super Life, Igpay Atinlay and others.

200 PASSTIME
Lucy, Temperature converter, Cryptograms, add-libs and others.

201 PASSTIME
Bicycle gear ratios, Castle, Temperature Interface, Quilt design progam and more.

202 PASSTIME
Rubik, PowerDice, Benchmark, StopWatch, Jury Simulator and others.

213 BEST OF UTILITIES
DOS 3.3 disk utilities, including a disk copier.

215 UTILITIES
RAM diagnostics, BASIC, Assembler and graphics routines.

215 UTILITIES
RAM diagnostics, BASIC, Assembler and graphics routines.

216 UTILITIES
AppleSoft BASIC utilities, HEX conversion routines, Serial Card utility.

217 UTILITIES
AppleSoft BASIC sort routines.

218 UTILITIES
A collection of DOS 3.3 disk utilities.

219 UTILITIES
AppleSoft BASIC and DOS 3.3 disk utilities.

220 UTILITIES
All-purpose disassembler, Applesoft to text converter, 30 other utilities.

221 UTILITIES
Cross-reference programs, 6502 Assembler, 6502 disassembler, copy disk, BASIC program editor and more.

222 UTILITIES
Apple <-> Heathkit Interface

223 UTILITIES
Simple Database program, Disk cataloger and others.

224 UTILITIES
Undelete file utility, Catalog analysis, EXEC a text file, Program debugger and others.

225 UTILITIES
DOS 3.2 utilities.

226 UTILITIES
Diversi-Dos System Master reads, saves, loads and writes much faster than normal Apple DOS 3.3 and it includes a keyboard buffer and a printer buffer routine using your ram card.

228 EPSON UTILITIES
Screen dump utilities for Epson-compatible Printers.

229 UTILITIES
One-Key DOS, Text File reader, Hi-res slide show.

230 UTILITIES
Catalog utilities, Electronic billboard, Applesoft programming utilities.

231 UTILITIES
Autonumber Applesoft programs, Catalog header utilities, Text file converter, Text file editor, Dos3.3 file undelete utility

232 UTILITIES
Ram tester (48k), REMark stripper, Applesoft utilities, Joystick/paddle tester, Prin Using.. command for Applesoft Basic, HEX <> Decimal converter.

233 UTILITIES
Applesoft sort routine, Poor man's word processor, screen dump util, memory map utility, RAM tester, Applesoft BASIC screen formatter

234 UTILITIES
Apple III utilities, memory dump, list formatter, BASIC error handling routine.

236 UTILITIES-ED'S PLOT PACKAGE
This is an extensive array (1 or 2 dimensional matrix) plotting and generating system including 38 seperate, but interlocking programs. Complete documentation is in the next disk, (Ed's Plot Package, Disk No.237), which is recommended reading before starting on this. Hi-Res pictures and arrays are included.

237 UTILITIES-ED'S PLOT PACKAGE DOC
Complete documentation for ED'S PLOT PACKAGE, Disk 236

238 UTILITIES
Disk access utility, catalog management, DOS 3.3 sector editor, file dump utility, sector dump utility

239 UTILITIES
Read Pascal disks from DOS 3.3, Disk extender (adds extra tracks), DOS 3.3 utilities.

240 UTILITIES
Disk copier, Print catalog, Sort catalog, Screen design utility, Super mailing label printer.

260 COMMUNICATION
Complete Apple Bulletin Board System (ABBS) for use with modem. allows other users to call your apple, leave messages and transfer files.

261 COMMUNICATION
Documentation for ABBS (Disk No 260), readable from a word processor or from the software on disk

262 COMMUNICATION
A collection of utilities for Hayes Micromodem II, includes modem test and phone dialler.

263 COMMUNICATION
Modem-related utilities including a chess game which can be played by two players over the telephone lines via modem.
[LN Length:RM, String:"*"]

EAMON
Eamon is a complete text-based adventure gaming system for the Apple][. Eamon is extremely popular and has hundreds of modules written for it. We are lucky to have the first dozen of these games. If you feel creative, you can create your own adventure modules. The Eamon Master is on the "Main Hall And Beginners Cave" (Disk E1). Boot the Eamon Master first to start any of the other adventures.

E1 MAIN HALL & BEGINNER'S HALL
Create a character and explore the first of many caves

E2 LAIR OF THE MINOTAUR
Escape from the LAIR OF THE MINOTAUR

E3 THE CAVE OF THE MIND
Adventure in your own mind... or is it?

E4 THE ZYPHUR RIVER VENTURE
Deliver Professor Axom from the hands of the Evil Dude (a.k.a. the black warrior).

E5 CASTLE OF DOOM
Adventure in a castle run by old ladies

E6 THE DEATH STAR
Star Warz adventure. Try to shut down the DEATH STAR while trying to defeat DARTH VADER

E7 THE DEVIL'S TOMB
Escape from the Devil's Lair

E8 THE ABDUCTOR'S QUARTERS
Rescue a friend from a madman.

E9 ASSAULT ON THE CLONE MASTER
Destroy the Evil Clone Master
E10 THE MAGIC KINGDOM
Escape from the Magic Kingdom
E11 THE TOMB OF MOLINAR
Free the Ancient Wizard from his tomb so he can save the world
E12 QUEST FOR TREZORE
Get past Trezore's traps and get help for your friend
E13 CAVES OF TREASURE ISLAND
Rescue a fellow adventurer from Treasure Island
E14 UNDERGROUND CITY
Escape from the Underground City with your life and fabulous treasure!
E15 DUNGEON DESIGNER
Create your own game! All the tools are here on this disk!
[LN Length:RM, String:"*"]
[PIC APPLEC.EPS]

NEW DISKS (Since 1990)

Disks numbered from here on are "fresh" and may not necesarily run on an Apple II or 64k IIe. Read the text for details on machine requirements.

264 GAMES
Flobynoid. Crash your way through the bricks in this great new "Breakout" style shareware game. The quality of sound , colour and animation used in this game is almost unbelievable and is a result of a unique operating system! This game will only run on a 128k, enhanced Apple IIe, IIc or IIgs. Colour is supported if your computer has it, but a mouse or a joystick is required.
265 GAMES
Defender. Rescue the astronauts from vicious aliens. A great Arcade game that works on any 64k Apple II with a joystick.
266 PRODUCTIVITY
Aussie FrEd Writer. This is a full-featured word-processor which has word-wrap, search & replace, cut & paste and allows you to insert printer-specific commands to add bold, italics, underlining etc. to your printed document. Best of all it works on any 64k Apple II in 40 or 80 column. If running it on an Apple II or II
you will also need to have a lowercase chip installed and a SHIFT key modification to activate the lowercase.
267 PRODUCTIVITY
Aussie FrEd Documentation. The full Aussie FrEd manual which can be printed from FrEd.
268 COMMUNICATIONS
Z-Link. The ultimate shareware communications software with VT-100 and ANSI terminal emulation, capture buffers, simultaneous chat mode, modern transfer protocols and much much more. Runs on a 128k enhanced Apple IIe, IIc or IIgs. Modem recommended (Borrow one from the hardware loans officer). $US25 shareware fee should be paid to the author.
269 COMMUNICATIONS / UTILITIES
Shrinkit. Simply the best archival utility around. Shrinkit can compress files or whole disks into files only a fraction of the size of the original. Use this utility to store large files on one disk or multiple disk backups onto one disk. Excellent for transferring files over a modem since not only does it compress the size of the file but it also stores all the file information as well. This compression utility is a MUST for comms buffs or for the serious computer user. Runs on any 128k Apple II.
270 PASSTIME
Family Tree. This disk contains a program which will help you record your family tree. Less awkward than using a word processor or a spreadsheet, this mini database can format your printout too! Runs on any 48k Apple II or compatible. Printer recommended but not required. No documentation provided, but easy to work out by using the menu system.
271 PRINT SHOP
Print Shop Lover's Utility. This utility lets you view all the Print Shop graphics on a DOS 3.3 disk on-screen. No longer do you have to guess what a picture may be like from the name! The utility also includes a PS Graphic Maker, which converts part of a Hi-Res graphic into PS format; a Newsroom Clip Art converter which takes "the Newsroom" clipart and converts it for Print Shop and a "The Newsroom" clipart maker. Suitable for any 64k Apple II with The Print Shop or The Newsroom software.
272 PRINT SHOP
98 graphics for use with Print Shop. Includes a Print Shop Graphic viewer. Suitable for any 64k Apple II with "The Print Shop" software.
273 EDUCATION
Joyreader. This disk has a large-text reading program which allows young readers to use the computer to read supplied stories in a typestyle suitable for young eyes. The text is displayed in 36 point (1/2" tall on-screen) in a proportional font. This disk is suitable for all middle-senior primary school aged students Interested owners of this disk are encouraged to register their copy with the author. This disk requires you to have a 64K Apple II or higher.
274 EDUCATION
Joyreader. This JoyReader disk uses 40-column type for older readers and includes a system for testing the readers comprehension of the stories supplied. Suitable for even junior high-school age students. This disk requires you to have a 64K Apple II or higher.
275 EDUCATION
An introduction to the JoyReader disk (275) in AppleWorks format.
276 GAMES
Strategy Games. Concentration, Connect, Rubik's Cube and MasterMind. 48k Apple II required.
277 GAMES
Adventure Games. Empire, Oregon Trail, StarWays, Rebel. 48k Apple II required.
278 GAMES
Sports Spectacular. Baseball, Football, Bowling, Golf. 48k Apple II required.
279 GAMES
Arcade Games. Sub-Nodule, D-Day, Shark Bait and Pinball. 48k Apple II required.
280 GAMES
Adventure Games Solutions!!! Yes! At last you can complete those games you bought so long ago! Soliutions to Hitchikers Guide To The Galaxy, Zork, Leather Godesses of Phobos and Tass Times In Tonetown in AppleWorks Word Processor format. Requires Appleworks or compatible (ie.Publish It!) to read.
281 GAMES
Dungeons and Dragons Assistant. Two little programs which let D&D Games kick off a little quicker by automatically "rolling up" fresh meat (aka role playing characters) for the game. Written by ACT Apple's PD Librarian back when he was a younger man. Runs on any 48k Apple II.
282 ASTRONOMY
Miscellaneous collection of short programs for the amateur astronomer. Includes programs to locate planets, assist selection of lenses, locate satellites and dozens more. 48k Apple II required.
283 ASTRONOMY
Miscellaneous collection of short programs for the amateur astronomer. Comet finder, Inner planet locator, Newtonian reflector parameters and many more. 48k Apple II required.
284 ASTRONOMY
Weisen Collection of Astronomy programs. Times, Catalogs and Coordinates of astronomical objects, The Solar System, Planetary Astrophotography. 48k Apple II required.
285 ASTRONOMY
Griffith Observatory Museum disk. Used as an interactive display for the Griffith Observatory in Los Angeles. Features a quiz/educational theme. 48k Apple II required.
286 ASTRONOMY
Astronomical Almanac, Disk 1. Astronomical information about Sun, Moon and Planets. 48k Apple II and Disk 287 required.
287 ASTRONOMY
Astronomical Almanac, Disk 2. Astronomical information about Sun, Moon and Planets. 48k Apple II and Disk 286 required.
288 UTILITIES
Utility Bonanza Disk 1. Over 60 useful utilities for the DOS 3.3 user / Apple II owner. Everything from RAM tester to DOS patches to Applesoft routines. Requires a 48k Apple II.
289 UTILITIES
Utility Bonanza Disk 2. Another 40-odd useful utilities for the DOS 3.3 user / Apple II owner. Requires a 48k Apple II.
290 UTILITIES
DogPaw, a text file reader; Sneeze an excellent program launcher & picture viewer and an address book feature on this disk
291 UTILITIES
Diversi-DOS Version 4-C. A faster, cleaner replacement for Apple's DOS 3.3
292 UTILITIES
Diversi-Copy Version 1.0. A super multi-disk copy utility. Strictly shareware, but is definitely a must for 5 1/4" disk users.
293 COMMUNICATIONS
Talk Is Cheap Demo. A "cut down" but working demo of the latest TIC software. Requires 64k Apple II.
294 COMMUNICATIONS
PROTERM 3.0 Demo. A "cut down" of the absolute best communications package yet available for the Apple II computer. Outperforms almost any other comms package around. Requires 128k enhanced Apple IIe, IIc or IIgs.
295 COMMUNICATIONS / UTILITIES
II
ShrinkIt!. A version of ShrinkIt which runs on an Apple II
with 64k of RAM. Shrinkit is simply the best archival utility around. Shrinkit can compress files or whole disks into files only a fraction of the size of the original. Use this utility to store large files on one disk or multiple disk backups onto one disk. Excellent for transferring files over a modem since not only does it compress the size of the file but it also stores all the file information as well. This compression

utility is a MUST for comms buffs or for the serious computer user. Runs on any 64k Apple II+.

296 ART

Graphics utilities/programs. Photomatrix, IIe Super Hi Res, Fractals IIe. Fantastic quality graphic utilities in Double Hi Res for the modern Apple II. These programs let you create great graphics or eve import them onto the Apple IIe/IIc from an Apple IIgs! Requires a 128k Apple IIe, IIc or IIgs

297 AppleWorks UTILITIES

UltraMacros. This is the first of a two disk set filled with useful Macros for AppleWorks users who also use UltraMacros.

298 AppleWorks UTILITIES

UltraMacros. This is the second of a two disk set filled with useful Macros for AppleWorks users who also use UltraMacros.

299 AppleWorks UTILITIES

More AppleWorks Utilities. Includes ListWorks, AppleWorks Message Mangler and some patches to help you rid AppleWorks 3.0 of some annoying bugs.

300 UTILITIES

File Compare utility, Find File utility, a multi-column text file formatter and a block editor all feature on this disk.

301 TUTOR-TECH DEMO DISK 1

Tutor-Tech is a Hypercard-like authoring tool for the Apple IIe, IIc and Apple IIgs. This disk features a game, called "Red Tape", and instructional "Stacks" on the solar system and Geometry. An excellent system ann this disk lets you "try before you buy".

302 TUTOR-TECH DEMO DISK 2

This disk shows you how easy it is to "author" your own Hypercard-like "stacks" Once again it lets you "try before you buy". Requires a 128k Apple IIe, IIc or Apple IIgs.

303 KID MAIL

When is a Bulletin Board Board System not a Bulletin Board Board System? When it's Kid Mail!! The messaging system you type directly into without having a smidgin of remote access. Post messages etc, just as you would on a remote BBS but it all happens in the one machine. Check it out. Requires 64k Apple II's

304 GAMES

Pinball Games. Maxx's Madness, Flip It and Super Blast. These games are on a ProDOS disk so can only be run from an Apple II with 64k.

305 GAMES

Othello aka Reversi. This interesting text-based game features source code so you can modify the game or pull it apart to see how it works. The game is on a ProDOS disk so can only be run from an Apple II with 64k.

306 COMMUNICATIONS

Apple II Kermit v3.85 a simple but effective Comms package. Not as useful as disk 268 but contains some useful transfer protocols. Documentation on disk 307. Requires 64k Apple II.

307 COMMUNICATIONS

Documentation for Apple II Kermit v3.85, Disk 306.

Seven Hills Software NEWS

UPDATE TO INDEPENDENCE PRINTER DRIVERS

The new Apple IIgs System 6 aggravated a memory condition in the Independence printer drivers to the point where 300dpi printouts would almost always result in "tiny print" (Shaston.8 getting reduced to Shaston.2 on the printout).

The new Independence drivers have changed the way they allocate memory so that the "tiny print" problem should be a thing of the past (unless memory is running VERY low). Testing of these new drivers has shown that users will see an increase in the number of "bands" that are processed, however the total print time is about the same as before and the text comes out correctly!

ACT Apple members who own Independence must present an original Independence disk and a blank disk before an update will be performed. The new drivers are all version 1.1 and are free to legitimate owners.

QUICK LAUNCH FINDER EXTENSION

Quick Launch lets you add the names of your favorite applications to the Finder's Extras menu. To launch one of these added applications simply select it as you would any other menu item. To use Quick Launch, unshrink and place in your *:System:System.Setup folder and restart (requires System 6). After installing, PLEASE open the "Quick Launch List" and click the "Help" button to read why Seven Hills are giving away this great utility. The Help window also provides information about using Quick Launch.

SHOEBOX VERSION 1.1 UPDATE STACKS

ACT Apple members who own Shoebox must present an original Shoebox disk and a blank disk before an update will be performed. The new version 1.1 is, once again, free to legitimate owners.

PRODUCT DEVELOPMENT STATUS REPORT

Seven Hills has several other IIgs projects in development, some of which are mentioned below. We cannot yet comment about any others; you will be notified as soon as possible about our other products for the IIgs.

SoundSmith , Apple IIgs Music Program

The commercial version of SoundSmith for the GS is dead. Seven Hills Software had concerns that the author would not want to make some significant interface changes that they felt were required. But it turns out that he WAS open to the changes, but he refuses to continue. Why? Because one or more beta testers let someone else have a copy of the latest beta version and, according to the author, "the software has been posted on every IIgs Bulletin Board around the world... As you can imagine, I do not like to work for free." He is understandably upset and so are Seven Hills Software. Not only have Seven Hills invested a great amount of time that is now down the drain, but a great product will now not be released. Seven Hills Software feels betrayed by the Pirate(s) who shared it with someone else. "One person doesn't matter" is a common justification. Well, this is a prime example that one person DOES matter...a product is dead because of it! Unfortunately Seven Hills Software have no way to know who was responsible for this, so Seven Hills were forced to stop "blanket" beta testing. Instead Seven Hills Software are forced to use a smaller group of testers. This is a prime example of how software piracy stifles future development of software.

SPECTRUM -- IIgs-SPECIFIC TELECOMMUNICATIONS

Spectrum is still progressing, but Seven Hills Software cannot project a release date. Support for 19,200 baud was recently added. Spectrum is essentially feature-complete, but before shipping Seven Hills Software plan to add ANSI, ProTerm Special, and MiniTel (Similar to Discovery 40) screen emulations (it currently supports the Super Hires Screen, the 80 column text screen, VT100, and ViewData screen emulations).

QUESTIONS AND ANSWERS

WHAT HYPERCARD STUFF DOES SHOEBOX INCLUDE?

Seven Hills Software provide the HyperCard IIgs program with Home Stack. Because there is no such thing as a "runtime" HyperCard, Seven Hills Software have licensed the use of that part of HyperCard that will allow our customers to run ShoeBox. Currently Seven Hills Software also provide the basic "Help" stack which contains general HyperCard IIgs information, but that might change in the future if it becomes a problem fitting ShoeBox and HyperCard IIgs software/stacks onto the four ShoeBox disks. With ShoeBox retailing for $59.95 and HyperCard IIgs retailing at $99, it should be obvious that Seven Hills Software do NOT provide everything that is in the HyperCard IIgs package at computer dealers. By providing the HyperCard IIgs software Seven Hills Software accomplish two things: ShoeBox can be run without anyone having to buy additional software, and people

can see if they like HyperCard IIgs without having to first purchase it. If anyone wants to go beyond just USING HyperCard IIgs they can still purchase the complete package.

WHAT'S THE DIFFERENCE BETWEEN GRAPHICWRITER III AND PUBLISH IT!?

Now that System 6 is shipping it would be a good time to address this question once again. The biggest area of difference to a GS user is that GraphicWriter III is GS/OS based and Publish It! is not. That means GraphicWriter III fully supports innovative programs like Express and Pointless; hundreds of useful desk accessories; any printer that works with the GS using drivers available from Seven Hills, Vitesse, and Apple; the most flexible use of fonts and graphics; and increased performance and features from all the engineering Apple has provided in the latest GS/OS. If you have an Apple IIc/e, Publish It! is a fine choice; but if you have a IIgs, GraphicWriter III should be your only choice!

COMPETITIVE UPGRADE

Since System 6 has been released Seven Hills Software have been pleased with the response from GS users who are finally sick and tired that Publish It! is not moving with the times (not GS/OS compatible). They have asked us to offer a special trade-in price. That's a great idea so here it is: Anyone who sends Seven Hills their Publish It! original disk, or front cover of their manual (a photocopy is fine) can buy GraphicWriter III for only $US60.00 (plus exact US Airmail Postage s/h). There's no time limit to this offer but it's only good directly from our company.

HOW DO PARTNER PURCHASES WORK?

It's really simple. The Partner takes orders from club members and collects payment however he/she wishes. Then, the Partner places the total order with II Series Software in Sydney and pays by any means they accept. II Series Software ship directly to the Partner, in order to save on shipping costs, then the Partner distributes the software to whomever ordered it. However, be sure to include $5.00 (per order) per shipping address for this service.

NOW THAT POINTLESS IS AVAILABLE, WHY WOULD ANYONE WANT TO USE FONT FACTORY GS?

There are several good reasons:

- Manipulation of bit-mapped fonts that are not available as True Type
- Loading a bitmap font requires less memory than generating one from an outline, so they work better in restricted memory situations
- You can convert fonts to/from other Apple II formats
- Bit-mapped fonts in smaller sizes (e.g. 9, 10, 12 point) usually look better on screen than TrueType fonts.
- Loading a bitmap font from disk is much faster than generating a font in memory.

POINTLESS SPECIAL OFFER

WestCode Software approached Seven Hills Software with an offer that both companies could benefit from. They offered to distribute promotional literature about their products and asked Seven Hills to do the same for them. This type of cooperation is healthy among Apple II companies and is especially needed in tough times like many companies are experiencing in the Apple II industry.

Seven Hills Software volunteered to go one step further and actually distribute WestCode's product Pointless. WestCode graciously agreed to make Seven Hills an authorized dealer of this outstanding product and Seven Hills Software now offr Pointless at a very competitive price.

SPECIAL AMNESTY OFFER

Seven Hills Software know that many people who use their software have not purchased it. Sometimes they try the software before buying it, but then never purchase their own copy (although at Partner prices there is no excuse not to). This situation is why so many companies have abandoned publishing for the IIgs. The IIgs market is small compared to other markets, but it is big enough to support several companies if people would simply purchase the software they use. Seven Hills Software plan to continue publishing for the IIgs, but they want these people to become legitimate owners. If anyone in ACT Apple has an illegal copy of their software and they still haven't purchased at the low Partner price, then they can send them a small "registration" payment.

By submitting this payment Seven Hills Software will enter them as a registered owner with full benefits (eligible for updates, etc.). At the same time they can purchase the program documentation and latest software revision for an additional fee. Seven Hills Software will accept online or FAX orders (credit cards), personal checks, money orders, and even purchase orders from schools. The deadline is 9/31/92 and will not be extended. Orders are limited to supplies while they last. Seven Hills Software thank all the legitimate owners for their support, and Seven Hills Software hope they do not think this is a "reward" for those who stole from us. Seven Hills Software are simply trying to generate cash (that would otherwise be lost forever) so Seven Hills Software can better finance our IIgs publishing efforts.

INDEPENDENCE/DISK ACCESS SPECIAL OFFER

Buy GraphicWriter III from any source and get Independence or Disk Access for free. Send Seven Hills Software the sales receipt along with the GraphicWriter III registration card and a note indicating which product the person wants. This offer is good until 8/31/92 OR until current supplies last. Serial cables (mini 8 to DB25) are available for only $US10 + exact US Airmail Postage shipping. Please note that these cables are also perfect for use with Harmonie and are offered at a very competitive price.

SUPERCONVERT VERSION 3.01

BUG: SuperConvert crashes if you "Save as Desktop Background INIT" two times. The only interim workaround is to quit and restart SuperConvert between each INIT file you want to save.

BUG: Under System 6, New Desk Accessories do not appear under the Apple menu. The only interim workaround is to quit to use NDAs (or use System 5.0.4).

Both of these will be fixed in the next SuperConvert version, which will also be supporting some new graphic formats.

SAD TO SEE...

Times have taken their toll on two companies who have figured prominently in the Apple II world. It appears that Beagle Bros. won't be doing much, if anything, with Apple II software development They've assigned their products to Quality Computers while they devote themselves to the Mac (BeagleWorks) so they can "feed their families." Seven Hills Software know just what they've been through. Their customers also report that Claris has indicated the current version of AppleWorks GS is the last version people will see. Now, what does that mean to Seven Hills and GS users? At this point, GraphicWriter III and Publish It! remain the only two actively supported DTP's on the market for the Apple II series computers. And when someone moans that "NO ONE is producing software for the Apple II anymore," tell them about Seven Hills Software! We're still committed to releasing great software for the IIgs.

APPLE IIGS GAME EXTRAVAGANZA!

TALLAHASSEE, FL — May 22, 1992--Seven Hills Software's two newest products for the Apple IIGS are ready for shipment. Both programs were developed by master gamers Bright Software!

"Gate" blends action, adventure, aesthetic pleasure and intellectual challenges to create a stimulating adventure game for the IIGS. You are held captive in a castle's prison and must find a way to escape while you battle enemies and solve puzzles along the way. Ultimately, your goal is to find and defeat your captor so you can bring peace to the land. Gate features brain-teasing challenges, lots of action in smooth, synchronized animations plus exciting stereo music and sound effects. Gate has been awarded the inCider/A+ Editors' Choice for excellence.

"Space Fox" is an exciting arcade game where you are the ace pilot who must guide your spaceship through nine levels of assorted bad guys. Your mission is to destroy The Brain at level ten but you'll need to collect fuel, shield power, and new weapons as you destroy your enemies along the way. Skill and a bit of luck are needed to complete your mission because the higher the level, the harder it is to survive! Space Fox features fast action, smooth, synchronized animations and sixteen-voice stereo music (over 1MB of background music is included).

Big Red Computer is the exclusive dealer for Gate and Space Fox in the U.S. Those outside the U.S. can purchase from Big Red Computer or directly from Seven Hills Software. The price from either source is $US30 plus shipping (add $US3.50 s&h per order from Seven Hills).

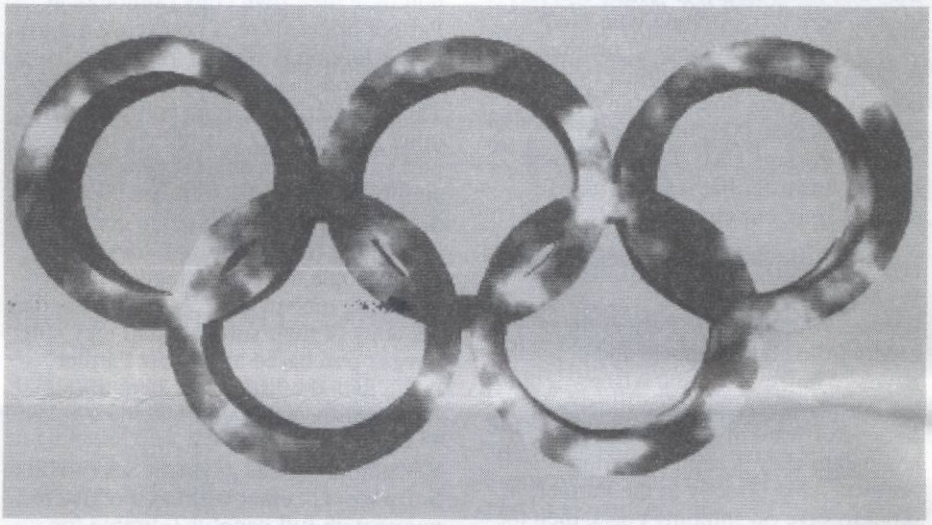
BIG RED COMPUTER CLUB
423 Norfolk Ave., Norfolk, NE 68701, 402-379-4680, FAX 402-379-3361

SEVEN HILLS SOFTWARE
2310 Oxford Rd., Tallahassee, FL 32304, 904-575-0566.

MEETING LOCATION

ACTApple meetings are held at the CSIRO Conference Centre at Campbell. This is off Limestone Ave. just near the Olims Hotel and Campbell High School.

The CSIRO Conference Centre consists of a small entrance foyer (complete with security guard) as you enter the building, and a larger room to the right. Some activities are held here. Passing through this room leads to a troll wielding a battle axe. (Woops sorry, thats Zork I.) Passing through this room leads you to the main conference room. This is a large circular room with about 100 large chairs, and some tables. A big screen is provided.
- Please don't park at the entrance, this is for committee members with equipment only.



FOR SALE

Sharp pocket computer, programmable in BASIC. (Not a digital Diary!)

$50

call Thomas
2962139 (h)
2705656 (w)

FOR SALE

Macintosh Classic 2/40, Stylewriter inkjet printer, Clarisworks. - All new and in box, - unwanted Raffle Prize!

$3000ono
Call David on 2753810(w) or 254 5698 (h)

FOR SALE

Macintosh SE, 4MB RAM, two 800K floppy drives, Quantum external 42MB Hard Disk drive.

$2100 ono

Call John on 282 4889

System 6.0 - The Bomber!

Peter Dugard

Twice in the last week I have been asked for help by people who have just taken delivery of their new Mac. In both cases their system crashed frequently and some of their brand new applications would not work. The cause of their problems was the fact that their Macs came with the latest system from Apple - System 6.0. In short System 6.0 is a disaster!

I would strongly advise that nobody uses System 6.0.

The August edition of Australian MacWorld gives a list of applications which are not compatible with System 6.0.

The following applications have "cosmetic" problems: Mac3D 2.0, MacDraw 1.9.5, Excel 1.06, Adobe Illustrator 1.1, Color More 1.1c, CricketDraw 1.1, CricketGraph 1.2, FullPaint 1.1, MacWrite 5.0, MGMStation 2.09, Pixel Paint, PowerPoint 1.0, Red Ryder 10.3, Graphic Works 1.1, Suitcase 1.21,CAT 1.0, Microsoft Word 3.02, Plain & Simple 1.02, Frame Mac 1.10.

The following applications have a minor loss of functionality: Color More 1.1c, Frame Mac 1.10, Guide 1.0, Mac Cogo 1.01, Works 1.1, Mc Net, VideoWorks II 2.0, Microsoft File 1.05, WriteNow 1.07.
The following applications are not compatible at all: dBase Mac 1.0, MacDraft 1.2a, MacTex 2.0, ResEdit 1.1b3, Trapeze 2.0, 4th Dimension 1.0.4, Insight General Ledger 2.0, Excel 1.04.

The above list is a veritable Who's Who of business applications for the Mac. I doubt that there is a Mac user who isn't using at least one of these applications, so how could Apple release a system which is incompatible with so many popular applications? The statement that where there are problems it is because the developer did not follow Apple's official guidelines doesn't quite hold up when so many applications (and even some of Apple's own) are affected. I would have expected that Apple would have tested the more popular applications with System 6.0 before they released it, but obviously they didn't. Not a very smart move.

You would expect Apple and the dealers to be on top of the problem wouldn't you? Well they're not! Apple seems to be trying to ignore the problem and continues to ship new Macs with System 6.0. The dealers either don't know about the problem or cannot be bothered warning their customers of the problem. It doesn't say much for the competence or professionalism of dealers that they can sell a customer a Macintosh and applications which are incompatible with the Macintosh system software.

Both Apple and the dealers should be ashamed. They both need to re-think their attitudes and take some positive steps to correct the problems. System 6.0 should never have been released and the sooner a corrected (and thoroughly tested) version is released the better. In the meantime, I believe that Apple Australia should make the effort to replace System 6.0 with System 5.0 before they ship Macs to the dealers and the dealers should be informing their customers of the problems with System 6.0 and supplying a copy of System 5.0 with the Macs they sell.

So come on Apple and you dealers, get your act together and give us back the easy-to-use Mac of old!

APPLE IIGS INCOMPATIBILITIES

Leigh Rowan-Kelly

courtesy of the Tasmanian Apple User Group

CP/M Cards

The Apple IIGS is designed to be used with the vast majority of Apple //e hardware and software. However, there are some design differences that will cause some products to be incompatible with the Apple IIGS.

Some CP/M cards designed for the Apple //e use non-Apple conventions on the I/O Select and Device Select lines in the expansion I/O slots. These cards are not compatible with an Apple IIGS. Among others, cards currently available from Microsoft and Digital Research cannot be used on a IIGS. I am using a PCPI Applicard or Starcard successfully, and there is even a re-fashioning of the BIOS available to allow booting from, and use of, 3.5 inch drives, giving some 776K (I think) storage space on a disk. There are of course also available the Cirtech and CP/M Plus cards which have been redesigned to work on the IIGS, and have a new operating system, which in the case of the Cirtech System, even supports the use of the Mouse.

Applewriter II (ProDOS): Printing from an Apple IIGS

The Applewriter program works fine on the APPLE IIGS until the program locks up when you try to have it print through the Apple IIGS's serial ports. If a Super Serial card with an Imagewriter or an Imagewriter II with an AppleTalk option is used, Applewriter works fine. The problem occurs with prints to the internal Apple IIGS serial ports. Applewriter may address and only address the Super Serial Card's communications chip and not the Apple IIGS's communications chip.

MS-DOS on the APPLE II

from the Applied Engineering IBM Emulation Card review
Applecations, August 1988

One of the major frustrations in computing is the incompatablity problems which are imposed by the various proprietary disk operating systems. This means that a computer user is often restricted to software that is written specifically for their hardware configuration. Of even greater significance is the fact that this imposes restrictions to accessing data between different computer environments. The use of communications facilities gets around this but a modem may then be required as well as data conversion routines.

To this end, a number of computer systems now have had third party emulation systems developed for them, for example, IBM/MS-DOS emulation in the Macintosh, various terminal emulation modes and UNIX on the Mac, to name just a few. Emulation may be in the form of software and/or hardware. The IBM environment has even had an Apple II emulator (the Quadram Quadlink card) developed for it. It only makes sense that now the Apple II has now been given an IBM emulator in the form of the PC Transporter - a card and software by Applied Engineering.

The PC Transporter has had extensive exposure in the American magazines and no doubt most of you would have seen these. Briefly it features a card that slots into the Apple II+, //e or IIGS. A 360K IBM type drive is mandatory and this is supplied as the PC Transdrive and finally an installation kit is required for the particular computer. The card can house from 384K to 768K of RAM of which 128K is used for MS-DOS processing. This represents the minimum configuration. I evaluated the card, courtesy of Computer Lighthouse, Paramatta; on the Apple //e. The test card had 512K of RAM which seemed adequate for all the programs tested.

The PC Transporter

Installation procedures are basically the same on the three Apples. The card fits into any slot except the auxiliary slot. It then interfaces with the rest of the computer by cables to the keyboard, video and sound sockets, a fourth cable goes to the Transdrive. This procedure is well documented, albeit fiddly, and reasonably foolproof. I did come across a problem with linking the Apple speaker cable but this can be easily overcome by extending the wiring from the Apple side. With these connections made, the Apple will now function both in Apple mode and in IBM mode with the video as a CGA monitor and the keyboard as an IBM type complete with function keys, Alt and PgUp/PgDn keys.

The disk drive setup is a little more complicated and requires a thorough understanding of MS-DOS. The manual gives only a cursory description of MS-DOS.

At this point I must mention that the system does not include an MS-DOS system disk. The software included in the package is only the Applied Engineering utilities and Transporter boot and configyuration facilities. Thus an MS-DOS system disk and documentation will have to be purchased from an external source.

Mode of Operation

The disk drive rules are extensive and a multitude of configuration are possible. These will become apparent as I move through the booting process. The PC Transporter comes with a ProDOS disk (3.5" and 5.25") containing the PC Trasporter boot information and utilities which configure your particular hardware. This ProDOS file (version 1.4) is one that recognises the extra memory on the PC Transporter. A utility is provided which will convert your own favourite or modified version of ProDOS if you so desire. I shall run through some tricks that one can perform with these, in the Apple mode.

ProDOS starts up a file called AEPC.SYSTEM and it is this that starts up the MS-DOS disk in the Transdrive. The PC Transporter does not have any boot ROMS and hence it cannot be used to boot ProDOS. Also a Unidisk cannot be plugged into the PC transporter because of its own on-board processor. The PC Transporter can have up to four drives daisy chained to it - these being the 5.25" and 3.5" Transdrives and /or the 3.5" Apple drive. Naturally if any of these are to boot up MS_DOS, then the appropriate format will be required. Once the Transdrive boots MS-DOS, the computer runs like an IBM.

In the vein of the GS, a control panel is available on-line at the press of <shift><caps lock><caps lock>. This control panel may be accessd before MS-DOS starts up or during any process in IBM mode, be it just the system or even during an application program.

The control panel lets you set up printers, communication ports (Super Serial card as COM1), line printers, soft switches on the serial cards and mouse recognition. The ImageWriter can be set up as an IBM graphics printer with the control panel. Disk drives are also configured, thus any drive (up to 4) plugged into the PC Transporter or to the Apple via its own disk controller may be assigned an MS-DOS drive letter (A to D). This means that 5.25" Apple drive will be able to format a 136K MS-DOS disk and a Unidisk a 360K 3.5" disk. For some reason the Unidisk will not format to its appropriate size. Even the RAM disk in slot 3 is recognised but writing to it sometimes gives unpredictable results. This is a pity because it would have meant a large ramdisk for extended memory users.

The fifth drive is the most novel and it places a ProDOS file type ($6F) on any ProDOS formatted disk. This is labelled a hard disk and allows the full size of say a Unidisk. For example, on any ProDOS volume, one can create a file which is seen by ProDOS as a file type $6F but seen by MS-DOS as a separate drive. This allows the storage of ProDOS and MS-DOS fils on the same disk and is the method by which Applied Engineering

supplies its PC transporter MS-DOS utilities. This so called hard disk can also be partitioned, if applicable, if you are using a hard drive.

AE MS-DOS Utilities

APLCLOCK sets the time and date function for any ProDOS clock.
TRANSFER transports files across the ProDOS/MS-DOS boundary by converting MS-DOS files to ProDOS files and vice versa. This is done either by running the Transfer program or by typing "TRANSFER" on the MS-DOS command line. This is truely an ingenious facility and is a logical piece of sofware for the PC Transporter. It is only available from the MS-DOS side.
MSMOUSE.SYS to be included in the MS-DOS CONFIG.SYS file on startup if you wish to use a mouse. Unfortunately none of the programs I tried had a mouse facility so this could not be evaluated.

An AUTOEXEC.BAT (MS-DOS Turnkey routine) is also included. This reads the time and changes the MS-DOS prompt to display the AE name.

IBM Mode

A number of programs includng GW-BASIC were tried and all worked well without any flaws. IBM's own BASICA apparently is not compatible.

On the Apple video, a graphics resolution of 640 x 200 pixels is possible in IBM mode.

The keyboard maps solid-apple combinations as IBM function keys and the open-apple key as the Alt key.

The control panel has five options -
1. A graphic of the IBM keyboard emulation
2. Hardware configuration. Reassigning or changing drives requires a restart of MS-DOS whilst any other procedure lets you return to the very spot from where you entered the control panel.
3. Re-entry to MS-DOS
4. Restart MS-DOS
5. Quits to ProDOS this requires rerunning the AEPC.SYSTEM.

Apple Mode

As mentioned before, in Apple mode the PC Transporter is totally transparent. Although a special ProDOS file (46 blocks) is included for booting the AE disk, I found that it is possible to run my own ProDOS (version 1.4) file and still access the PC Transporter both for MS-DOS and the extra RAM. Now for some of the tricks that you can play which are not documented in the manual.

Booting either the PC Transporter ProDOS or ProDOS version 1.4 lets you access the extra mamory. One can them load the RAM disk with programs and read and write to it. Subsequent warm boots with the PC Transporter ProDOS overwrites the PC Transporter RAM disk regardless of which ProDOS was used to boot in the first instance. But the following combination with the PC Transporter ProDOS and then warm booting with the original version of ProDOS retains the files in the RAM disk. The thrilling aspect of all this is that unless you have a power failure, any data on the RAM disk is safe from system hangs, etc. Booting twice with the original ProDOS prevents you from returning to the RAM disk intact.

The 360K Transdrive can also be used to format 360K ProDOS disks. In ProDOS, the RAM disk is drive 1 and the next largest drive is drive 2. Only two drives are allowed for the slot.

Conclusion

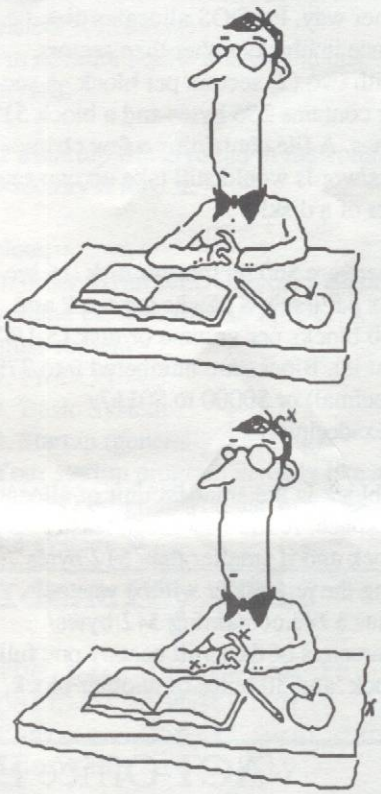
The PC Transporter is just another example of a product by Applied Engineering which shows true ingenuity, a high level of compatibility and totally transparent operation. The card is expensive but this is something that will have to be evaluated by specific needs. On the plus side, it provides a RAM disk which either complements or supplements your Apple system, provides an MS-DOS environment without a separate computer if you are already committed on the Apple side and also provides an excellent DOS conversion facility.

Problems noted with the card have all been related to which MS-DOS version to used and localised hitches such as printing from the screen and so on, which may have to do with the operating system or even my own hardware. I also experienced difficulties with the ANSI.SYS escape sequences while using DOS 3.3.

Spot the Differences

There are 7 differences in the men below, can you find them?

Answers to last month:
1. #3 missing hair
2. #2 catch different
3. #1 mouth different
4. #3 trousers different
5. #2 eyes different
6. #3 R/H foot different
7. #2 R/H fingers different



Beginner's Guide to ProDOS

Greg Powell
reprinted from AUSOM, July 1988

ProDOS in general

ProDOS is "bigger, faster and more powerful" than DOS 3.3 but I'm sure it will never have the same affection as the latter did for Apple users.

When a ProDOS disk/volume is formatted, only one block of disk space is reserved for the main volume directory (which can carry a maximum of 51 files). Although subdirectories can alter this figure. This means that the operating system does not allocate blocks of disk space for directory use initially. ProDOS does this progressively; that is as required.

Yet while it saves disk space in this way, it also wastes disk space in another way. ProDOS allocates disk space in blocks rather than sectors. With two (2) sectors per block. A sector contains 256 bytes and a block 512 bytes. A file containing a few characters/words would still take up two sectors of a disk!

There are 560 sectors per disk, 16 sectors per track, 8 blocks per track and 280 blocks per volume or disk (5 1/4" that is). Blocks are numbered 0 to 279 (decimal) or $0000 to $0117 (hexadecimal).

A block is the smallest unit of allocated space. A file will use at least 1 block and if smaller than 512 bytes long the remainder will be wasted. Thus a file containing 542 bytes/characters of data will occupy one full block and 30 bytes of another block, with the remainder of the block (482 bytes) being wasted.

For those readers that are interested in graphics, a ProDOS volume with a 17 sector file, that you know is a graphics file, can be transferred to a DOS disk (use a program like Copy II Plus) and you 'll see that it is now 34/33 sectors long! So don't be put off with ProDOS. Remember that ProDOS simply pairs the sectors into blocks. Thus 16 sectors are 8 blocks in ProDOS.

Free space on a volume is allocated from low block numbers to high blocks, but ProDOS always occupies the lowest blocks on a floppy disk. Usually block 6 is the bit map (this tells ProDOS which blocks are in use) and blocks 2 through to 5 are the volume directory blocks of a disk/volume. Block 2 is often called the primary or key directory. Thus when ProDOS is searching for a file it reads the volume directory in block 2 and if it can't find it, ProDOS goes to the next directory block 3 and so on until it finds the correct file. Within each of these volume directory blocks there are "pointers" which direct ProDOS on its course.

All these volume directory blocks, other than the primary/key block, contain descriptions of up to 13 files. (Yes .... subdirectories could be described within these entries also. But let's not complicate the discussion). The primary or key directory in the volume directory contains something called the header which describes the directory and characteristics of the volume/disk etc. Thus block 2 contains entries for 12 files and not 13 as for the other blocks (3,4 and 5) because the header takes up one).

The four volume directory blocks (2, 3, 4 and 5) can contain 4 x 13 minus 1 (for the volume directory header of block 2) equals 51 files. This can be represented in tabular form as follows:

Block	Number of files
2	12 (Header space takes one)
3	13
4	13
5	13

Total: 4 (Blocks) 51 (files)

Now you've possibly heard a lot about sapling, seedling and tree files. No ? ..... Yes ? Well initially this was really confusing for me to understand but things are beginning to make sense after a fair amount of reading.

Files are treated by ProDOS according to their length. A file which is 512 characters/bytes or less in length is called a seedling file and fits into one block. A file with a length more than 512 characters but less than 128,000 characters (128K bytes) of data is called a sapling file and is stored in blocks ranging from 3 to a total 256. Larger files than this, up to 16 megabytes are called trees. (I suppose that's how much paper you'd use printing them.) Most AppleWorks files would be sapling files.

One point to note is that proDOS may not put continuous blocks of data next to each other.

So if ProDOS places data in say block 32, it may decide not to place more of that data in block 33. Rather

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it could be placed in any free block on the disk/volume. ProDOS does this by creating an index block which contains the information of each of the blocks for a particular file.

Finally let me discuss some basic (excuse the pun) ideas re ProDOS. A file type BAS is really a Basic file, a TXT file is just a text file, a DIR file is a directory file, a SYS file is a system file and there are a few others we won't worry about as they are less common. So whenever you CATALOG a ProDOS disk and you see these names (BAS, BIN, TXT, DIR and SYS) listed under TYPE you'll understand.

Booting

When you turn your computer on usually there is nothing in memory (know the feeling?). With a disk in the drive you Boot, or bootstrap the loading of, ProDOS into RAM. Bootstrapping loads successive pieces of a program until it is all in memory and runs.

ProDOS bootstrapping has two main stages of loading -
a) ProDOS Kernel, and
b) Basic Interpreter (BI).
Within each of these stages there are minor stages which must be performed in order to complete the full loading process.

Stage 1
The execution of the Read Only Memory (ROM) on the disk controller card is usually referred to as Booting ROM. That is, when your Apple computer is first turned on the monitor ROM searches all the slots for a disk controller card. It starts at slot 7 and moves down until it finds one, then it branches to $Cs00 [where s equals the slot number]. This is usually $C600 and corresponds with the controller card in slot 6. The disk controller boot ROM is a 256 byte (or there abouts) machine language program. When it is executed it recalibrates (who said computer terminology is difficult?) the disk arm by yanking (this we all understand) it back to track 0. Now you know why you hear that clattering sound coming from the disk drive. Then it reads sector 0 from this track 0 into RAM at location $800. Once this sector is read the boot program goes to, or jumps to, $801 which is the second stage boot or ProDOS loader.

Stage 2
Now the ProDOS loader occupies the first block on a ProDOS disk (first block consists of sectors 0 and 2). Since the boot ROM only loaded sector 0, the first task the ProDOS loader must perform is to load the remaining sector. It does this by loading the boot ROM at $900. Next a portion of this ROM is copied into a subroutine in the ProDOS loader and then uses this to search the disk's volume directory for a system file with the name ProDOS. Once this is found its contents are read into memory at $2000 and the ProDOS loader jumps to the ProDOS relocator at $2000.

The ProDOS relocator prints onto the screen a copyright and version number and begins to examine your computer to find out what model it is (Apple][,][+, //e, //c or Apple III).

Now the relocator tests the monitor ROM for special model-dependent indicators (ankle biters for short) and checks for language card memory. It then assembles the collected data into a byte of flags which indicates the model of your computer. It also indicates the amount of memory available.

Next the Kernel Image (not to be confused with the Kentucky variety) is copied to either bank switched memory language card (if a 64K or more computer). If the machine is 128K, a RAM drive is established in the alternate 64K memory. (Have I lost you yet?) Also checked at this time is the peripheral card configuration and a table of occupied slots and interface card configuration is made. (Easy to understand isn't it?)

The initialisation of the Kernel is completed by moving an image of the system Global Page to $BF00. The Basic Interpreter Loader searches the volume directory for the first file it can find whose name ends with "SYSTEM". Usually this will be the BASIC.SYSTEM file. Its contents are loaded into memory at $2000 and control passes to the BI Relocator at $2000. .... well!

Here's a little quote from Beneath Apple ProDOS by Bon Worth. "Now the BI Relocator copies the BI image to high memory ($9A00), sets up the BI Global Page at $BE00 and marks the Page occupied by these as being 'in use' in the System Global Page's memory bit map. The screen and keyboard vectors in Zero Page are modified to cause immediate transfer of control to the relocator and a jump to Basic's coldstart entry is executed."

When "... Applesoft has completed its initialisation it prints a prompt character "]". This causes control to transfer back to the BI Relocator, the screen and keyboard vectors are restored to normal settings and initialisation of the BI Global Page is completed." (So there!)
I'm not sure I quite understand this myself.

If a startup file is found in the volume directory it runs it.

Note:
In order to run ProDOS your disk or volume (as it's called in ProDOS) must contain -
1. ProDOS
2. Basic.System
3. Startup (generally speaking)
Your startup program is really like a HELLO program you use in the DOS 3.3 system.

Identify This

The picture below is part of something famous. See if you can identify it fully

.

Answer last months:
1/2 apple core.

Specialty Printing to Epson LX-80 using AppleWorks

Trevor Drover
reprinted from Applecations May '88

Recently, on the club's bulletin board, there have been a number of queries on using Apple Works on a //c and printing on an Epson LX-80 printer. As I had a similar setup I decided to help out and learn something myself at the same time. I now know a lot more about the limitations of both AppleWorks and the LX-80, and a few tricks as well. But beware, just when you think you have tricked this dynamic duo into doing something for you - they trick you right back!

I bought my LX-80 (with a serial board installed for the //c) just after they were released. They had a reasonable NLQ print, a good price and compatibility with all software packages I have tried so far.

To utilise the inbuilt features of the LX-80 you must decide how many of them you want, and how to activate them. Then use the custom priner in AppleWorks. What follows is probably more than you require, and is my way of seeking a solution.

In the custom printer routine we can enter codes for the following:

1. characters per inch
2. lines per inch
3. boldface, subscript, and super script
4. underlining

1. Characters Per Inch

In the January/February edition of Applecations was another interesting article on using an Epson LX-80 with AppleWorks. This makes good reading for background for those new to entering codes. The author only used three printing pitches, whereas I have mine set up for six. I chose to use the "Master Select" command to setup the printer as I have encountered problems with feeding the printer the necessary commands individually.

The features available are Pica (10 cpi), Elite (12), Condensed, Emphasised, Double Strike, Enlarged, Italics and Underline, though I suggest forgetting about the underline as the numeric value is difficult to incorporate. For those not familiar with this system, each feature is alloted a numeric value and by summing the values of the features you want to incorporate, you input one value only. It is shorter and more reliable. The best way to work out what you need with master select [its code is Escape!] is to build a table as below.

Feature	Value per	Characters per inch					
		5	6	10	12	17	20
Pica	0	x		x		x	
Elite	1		x		x		x
Condensed	4					x	x
Emphasised	8		x				
Double Strike	16		x		x	x	x
Enlarged	32	x	x				
Italics	64					x	
Total Value		32	57	0	17	84	21

Once you arrive at a total value, you then look-up your ASCII table for the corresponding key to input for each value; eg ASCII (57) = "9" & ASCII (20) = Control U . So from the above table we can input the following codes, just adding a further code to turn on and off the NLQ mode (Escape x0 for off and Escape x1 for on).

5 cpi	Escape x1 Escape !<space>
6 cpi	Escape x0 Escape !9
10 cpi	Escape x1 Escape ! <Control>-@ (see note #1)
12 cpi	Escape x0 Escape ! <Control>-Q
17 cpi	Escape x0 Escape !T
20 cpi	Escape x0 Escape ! <Control>-U

You can make virtually any combination you want, just consult your ASCII table to find the relevant key for the value you come up with.

The above illustration only utilised six of the twenty possibles for characters per inch, so those remaining can be put to other uses. As AppleWorks expects to be controlling CPI, it will not allow you to activate these features mid paragraph, but any features so activated will be in force until you turn them off or otherwise modify them.

In the table following, I will show how I activate the various international character sets built into the LX-80 using the CPI interface.

Character Set	CPU	Code to Enter
USA	4	*see note #1*
France	7	Escape R <Control>-A
Germany	8	Escape R <Control>-B
UK	9	Escape R <Control>-C
Denmark I	11	*see note #2*
Sweden	13	Escape R <Control>-E
Italy	14	Escape R <Control>-F
Spain	15	Escape R <Control>-G
Japan	16	Escape R <Control>-H
Norway	18	Escape R <Control>-I
Denmark II	19	Escape R <Control>-J

Note #1
The first trick Appleworks (version 2.0) has instore for you is that it will not accept <Control>-@ (NULL) from the keyboard to get back to USA set. I recommend using a previous version (eg 1.3) to setup the printer routine then transfer the file SEG.PR to your version 2.0 disk. You could also select the UK set as only the pound sign is different.
Those more adventurous may like to use a sector editor to find "RRR" in file SEG.PR and change it to hex "1B 52 00". The next time you look at 4 cpi you will see the correct code.

Note #2
As you may gather the next control character we type in should be <Control>-D, but as DOS usually uses this for its prompt to act, I assume AppleWorks (versions 1.3 and 2.0) filters it out to prevent prob-

lems. The only way I have found so far to trick AppleWorks into accepting <Control>-D is by fiddling at disk level. Once AppleWorks has been tricked I have not encountered any problems in operation. Use the sector editor again to find "DDD" and change it to "1B 52 04".

Now, how do we return to his feature? On a fresh line after a cariage eturn, <Open Apple> "O" for Options, then select the "CI" # for the character set you wish to use, then return to the document. Now you have set up your printer to use the German set for example, and remain in 10 cpi, but AppleWorks thinks it is in 8 cpi and formats your on-screen document accordingly. You no longer have th ability to calculate page breaks, so we must tell AppleWorks to go back to 10 cpi.

Unfortunately it seems you must output something from the printer to activate your required character set. Anything will do, so I use a sticky-space <Open Apple> spacebar, then a single <Return>. Then reselect the "CI" previously in use (10 for NLQ). See page 53 of your printer manual for examples of the characters.

2. Lines per Inch

There are only two alternatives and I suggest leaving these for their intended use.

6 lines per inch	Escape 2
8 lines per inch	Escape 0

3. Boldface, Subscript and Superscript and
4. Underlining

I'll treat these separately - the 'scripts first.

Sub and superscripts work fine in draft pica and elite, but as soon as you try to activate them whilst in NLQ mode you run into the proverbial brick wall.

Did you know that sub and superscript were inoperative in NLQ mode? it is not a feature that I use, but I could find nowhere in the book where they tell it is not available. The following is only for those who need to use subs and supers in NLQ mode. Firstly, turn off NLQ, then issue the command to print in bold draft supers or subs, do your printing, then turn it off and NLQ on again. Simple isn't it?

To do just this we have the following codes:

Superscript on	Escape x0
	Escape S0
	Escape E
Subscript on	Escape x0
	Esacpe S1
	Escape E
Sub and super off	Escape x1
	Escape T
	Escape F

Sub and superscript printing is valid for one line only. AppleWorks automatically turns it off at the end of each line, whether you want it to or not. So if you need to run them over the next line, you must turn them on again.

Next we shall look at underlining and boldface. These two features are very handy as you don't have to enter the Options menu to invoke them. Just pressing <Control>-B or <Control>-L gives the respective boldface and underline codes. These codes "turn on" only within a paragraph. When a <Return> is encountered, the AppleWorks automatically turns them off for you or more precisely executes the commands that you have told it "turns it off". Otherwise, within a paragraph the first <Conrol>-B turns on bolface, the second <Control>-B turns it off, the third on, and so forth. As I said these are handy because they can be put to other uses. My first application was to use <Control>-B to backspace on the printer. The screen remains normal, but you can overtype on the printer. To set it up, it is advisable to make boldface begin and end the same.

Backspace <Control>-H

If you do utilise this feature, do not be surprisecd if the right hand margins get messed up a bit on those lines where you are using backspacing. The reasons should be obvious.

You can also select one of the international character sets if you wish, but the "off" should be the way back to your default set.

Select Italian set	Escape R
	<Control>-F
Select USA set	Escape R
	<Control>-@

* see note #1 above *

This gives you acces to the Italian characters within the paragraph as well as the USA set if needed.

A special thanks must go to Jules Black who encountered problems trying to print to his LX-80, and was not afraid to ask for help. He then inturn helped me by beta testing the many modifications I had made to the custom printer option in AppleWorks suggested in this article. I am sure there are more modifications we can make if we put our minds to it.

As I am a country member I do not attend meetings, but I can be contacted via the bulletin board. My user number is 44, and I will be happy to answer any query thrown at me.

PEEKS, POKES AND CALLS

reprinted from the Jan and Feb '88 TAUC Newsletters

This month I promised some of the Zero Page Information - this is the area that your Apple uses to do its housework and keep everything in order - in order for you to run your programs that is!

I will give you a list of locations that exist in Zero Page (that means from memory address 00 to FF in case you don't know) and what they do or mean. How you use them is up to you, but remember the old saying - if you don't know what you are doing then don't do it - no, seriously folks, you can play around to your little heart's content, but don't use a good disk to play with. I would suggest you use your System Master (DOS 3.3) and initialise a new disk to use. When you have finished looking around, reboot another disk if you want to use the computer for anything else.

Address		What it does or what it can be used for.....
HEX	BIN	
$20	32	Left edge of the Text Window (Range 0 - 39)
$21	33	Width of the Text Window (Range 1 - 40)
$22	34	Top edge of the Text Window (Range 0 - 22)
$23	35	Bottom edge of the Text Window (Range 1 - 24)
$24	36	Horizontal Cursor Position (Range 0 - 39)
$25	37	Vertical Cursor Position (Range 0 - 23)
$2B	43	Boot Slot x 16 (After Boot)
$2C	44	End Point of last HLIN, VLIN or PLOT Command
$30	48	Lo-Res Color value x 17
$32	50	Text Output format (63 = Inverse, 127 = Flash if 243 is set to 64, 255 = Normal
$33	51	Prompt Character
$4A.4B	74-75	LOMEM Address (INT Basic)
$4C.4D	76-77	HIMEM Address (INT Basic)
$4E.4F	78-79	Random Number Field
$67.68	103-104	Start of Program Address (FP Basic)
$69.6A	105-106	Start of Variable Space Address (FP Basic)
$6B.6C	107-108	Start of Array Space Address (FP Basic)
$6D.6E	109-110	End of Numeric Storage Address (FP Basic)
$6F.70	111-112	Start of String Storage Address (FP Basic)
$73.74	115-116	HIMEM Address (FP Basic)
$75.76	117-118	Line Number being executed (FP Basic)
$77.78	119-120	Line Number where program stopped (FP Basic)
$79.7	121-122	Line being executed Address (FP Basic)
$7B.7C	123-124	Line where DATA being read
$7D.7E	125-126	DATA Location Address
$7F.80	127-128	INPUT or DATA Address
$81.82	129-130	Last used Variable Name (FP Basic)
$83.84	131-132	Last used Variable Address (FP Basic)
$AF.B0	175-176	End of Program Address (FP Basic)
$CA.CB	202-203	Start of Program Address (INT Basic)
$CC.C	204-205	End of Variable Storage (INT Basic)
$D6	214	RUN Flag (Auto-RUN if set > 127) (FP Basic)
$D8	216	ONERR Flag
$DA.DB	218-219	Line where ONERR error occurred
$DE	222	ONERR error code (See full list at article end)
$E0.E	224-225	X-Coordinate of last HPLOT
$E2	226	Y-Coordinate of last HPLOT
$E4	228	HCOLOR Value (0 = 0, 42 = 1, 85 = 2, 127 = 3, 128 = 4, 170 = 5, 213 = 6, 255 = 7)
$E6	230	Hi-Res Plotting Page (32 = Page 1, 64 = 2, 96 = 3)
$E7	231	SCALE Value
$E8.E9	232-233	Start of Shape Table Address
$EA	234	Hi-Speed Collision Counter
$F1	241	256 minus SPEED Value
$F3	243	FLASH Mask (64 = FLASH if 50 set to 127)
$F9	249	ROT Value

Error Codes

0 = Next without For
12 = No Buffers Avail.
107 = Bad Subscript
1 = Lang. not Avail.
13 = File Mismatch
120 = Redim. Array
2,3 = Range Error
14 = Prog. too Large
133 = Division by Zero
4 = Write Protected
15 = Not Direct Command
163 = Type Mismatch
5 = End of Data
16 = Syntax Error (FP)
176 = String too long
6 = File not Found
22 = Rtn w/out Gosub
191 = Too Complex
7 = Volume Mismatch
42 = Out of Data
224 = Undef. Function
8 = I/O Error
53 = Illegal Quantity
254 = Bad Input Resp.
9 = Disk Full
69 = Overflow
255 = Ctrl-C Interrupt
10 = File Locked
77 = Out of Memory
11 = Syntax Error (DOS
)90 = Undef. Statement

These Codes are what your Apple uses when you make an error (Heaven forbid!) - you can look at Address 222 ($DE) to see what error has occurred (ie PEEK 222) and if you want to see where it occurred then look at Addresses 218-219 ($DA.DB) via the same means. If you are using some of the Alternate DOS Systems (eg DiversiDOS) then these may not print out the Error Code in full, only by Number.

Now we will have a look at the DOS area of Memory. That is the area that has all the routines in DOS 3.3 that do everything clever, and also the area that should not be changed unless you really know what you are doing, as you can really stuff things up! Perhaps I should begin by digressing - do you know what I mean when I talk about Memory Pages? If yes then go onto the next paragraph now. If no then keep reading. Essentially a page is the area of memory that is $FF bytes long (or 256 bytes) and so is bounded by eg $100 to $1FF inclusive, or eg $C500 to $C5FF, and you get no prizes for guessing that your 64K Apple has exactly $FF pages of $FF bytes (or 256 pages of 256 bytes), meaning 65536 bytes or 64K.

OK, movin' right along..... I will now attempt to give you a brief rundown on the relevant addresses etc. for the various routines. Those of you who have done any programming will know some of these terms; those of you that have done a lot of programming will know all of these terms! Remember that if you want to fool around some, then boot a DOS 3.3 Disk, clear Memory by typing 'NEW' and you are then free to mess around to your little heart's content. When you are tired, just re-boot, or preferably turn off your Apple and then turn it on again with another DOS 3.3 Disk in the Drive. NEVER EVER initialise a disk after you have played around with DOS UNLESS YOU REALLY KNOW WHAT YOU ARE DOING!!

Address [HEX]	Addres [DEC]	Command
$3D0.3D	976.978	Re-enter DOS Vector
$3F2.3F4	1010.1012	RESET Vector
$3F5.3F7	1013.1015	& Vector
$3F8.3FA	1016.1017	Ctrl-Y Vector
$A56E	42350	Start of CATALOG routine. Note all addresses from here on are for 48K machines or greater only. Deduct 16384 from decimal address for each 16K lesS you have.
$A884.A907	43140.43271	DOS Command Table
$A972.AA3E	43378.43582	DOS Error Message Table
$AA60.AA61	43616.43617	Length of last BLOAD
$AA72.AA73	43634.43635	Start Address of last BLOAD
$AAB2	43698	DOS Command Character
$AAB6	43702	BASIC Flag (0 = INT, 64 = FP in ROM, 128 = FP in RAM)
$AA57	43607	MAXFILES Value
$AAB1	43697	MAXFILES Default Value
$AA68	43624	Drive Number
$AA6A	43626	Slot Number
$AC01	44033	CATALOG Track Number
$AE17	44567	No. of Characters minus 1 allowed in CATALOG File Names
$AE43	44611	No. of Digits minus 1 allowed in Sector and Volume Numbers
$B3A7.B3AE	45991.45998	File Type Code Table
$B3AF.B3BA	45999.46010	Disk Volume Heading
$B3C1	46017	Disk Volume Number
$B3F0	46064	Number of Sectors (13 = DOS 3.2, 16 = DOS 3.3)
$F3DE	62430 or -3106	HGR
$F3D4	62420 or -3116	HGR2
$F3F2	62450 or -3086	Clear Hi-Res Screen to Black
$F3F6	62454 or -3082	Clear Hi-Res Screen to last HCOLOR
$F5CB	62923 or -2613	Move Hi-Res Cursor Coords to 224-226
$F832	63538 or -1998	Clear Full Lo-Res Screen to Black
$F836	63542 or -1994	Clear Upper Lo-Res Screen to Black

Address[H]	Addres[D]	Command
$F85F	63583	
	or -1953	Add 3 to COLOR
$F940	63808	
	or -1728	Print Hex. of X and Y Registers
$FAD7	64215	
	or -1321	Display all Registers
$FB2F	64303	
	or -1233	TEXT
$FB40	64320	
	or -1216	GR
$FB4B	64331	
	or -1205	Set Normal Text Window
$FB60	64352	
	or -1184	Print 'APPLE][' on newer Apples
$FBE4	64484	
	or -1052	Ring Bell
$FBF4	64500	
	or -1036	Move Cursor Right
$FC10	64528	
	or -1008	Move Cursor Left
$FC1A	64538	
	or - 998	Move Cursor Up
$FC42	64578	
	or - 958	Clear Text Cursor to Bottom
$FC58	64600	
	or - 936	Clear Text (HOME)
$FC66	64614	
	or - 922	Move Cursor Down
$FC70	64624	
	or - 912	Scroll Up One Line
$FC95	64661	
	or - 875	Clear Entire Text Line
$FC9C	64668	
	or - 868	Clear Text Line Cursor to Right
$FD0C	64780	
	or - 756	Wait for Keypress
$FD5A	64858	
	or - 678	Wait for Carriage Return
$FD5C	64860	
	or - 676	Ring Bell and Wait for Carriage Return
$FD6F	64879	
	or - 657	Input (Commas and Colons OK)
$FDDA	64986	
	or - 550	Print Hex. Value of A Register
$FE2C	65068	
	or - 468	Memory Move after Poking (60 - 61 = Old Start, 62 - 63 = Old End, 64 - 65 = New End, 66 - 67 = New Start)
$FE80	65152	
	or - 384	INVERSE
$FE84	65156	
	or - 380	NORMAL
$FF2D	65325	
	or - 211	Print 'ERR' and Ring Bell
$FF3A	65338	
	or - 198	Ring Bell
$FF59	65369	
	or - 167	Return to Monitor in Text Mode
$FF65	65381	
	or - 155	Enter Monitor with Bell Ring
$FF69	65385	
	or - 151	Enter Monitor, No Bell Ring
$FF70	65392	
	or - 144	Scan Input Buffer

For the last collection of subroutines, I have included the CALL Address (the minus ones) for your information as well.

Next time we will look briefly at some of the Display Switches, Slots and Keyboard, Speaker and Paddle Addresses and continue our look at this useless area of Apple Information (useless unless you happen to be into programming that is). Perhaps I will even tell you how to actually use all this information! - The Phantom Poker Strikes Again!!

TIPS FROM THE Apple AUGBBS

from Desmond Yip

For those of you who have a clock-card and/or AppleWorks on a 3.5 inch disk the following is a patch that eliminates the redundant keystrokes at the beginning of the program needed to get to the main menu.

BLOAD APL-WORKS.SYSTEM,TSYS,A$2000
for version 1.3: POKE 13193,44:POKE 13855,208:POKE 13856,19
for version 2.0: POKE 14468,44:POKE 14148,208:POKE 14149,19
BSAVE APL-WORKS.SYSTEM,TSYS,A$2000
Note: This patch works with Auto-Works enhancements but not with TimeOut.

April's COMPUTE via Jeff Quinn
If AppleWorks locks up
1) press reset
2) C073:0
3) 3<CTRL>P
4) 2F0:2C 83 C0 2C 83 C0 4C
5) versions 1.1, 1.2, 1.3 :33 10
version 2.0 :27 11
6)2F0G

Explaination
1) gets you into the monitor
2) ????
3) returns you to 80 columns
4) turns on bank 2 of RAMcard and jumps to re-entry
5) the re-entry locations for the versions of AppleWorks.

MULTI-COLUMN TEXT WITH APPLEWORKS

reprinted from Applesauce July 1988

For all the people out there in Appleland that can not yet afford the asking price for one of the desk top publishing programs, then here is a technique that you can use to create multi-column text using Appleworks. In essence we are going to print a justified single column sized word processor document to disk and retrieve it as a database, to turn each column line into a database record. Print the database to disk as a DIF file, then retrieve it as a spreadsheet to move the data and arrange them in any number of columns. Printing this spreadsheet to the clipboard and converting it to a wordprocessor document are the final steps.

Once you have formatted it and placed it into a wordprocessor document, you can add headers and other features (underlining, boldface, and so on).

Formatting the Document

Here now is a detailed description of the process. Use Open-Apple O to format the final wordprocessor document. First set the left and right margins to zero. Set the number of characters per inch to 10. Set the platen width (PW) to the desired number of characters per column divided by 10, and set for justified printing (JU).

AppleWorks displays the format (without justification) on the screen. Now review your document to see whether you like the new format. Correct lines that are spread out (they will appear short on the screen by inserting hyphens (followed by a space) where appropriate to break long words. Print your document to see the justified copy.

When you are satisfied with the format, print the document to disk as an ASCII file. You can adjust the way AppleWorks prints to disk to include a carriage return after each line by creating a new label format (option 3 on the report menu).

Create a database from this text file (option 2 from the database menu) and set the number of categories to one. This datbase now contains each line of text as a sequential record. Delete any blank lines resulting from text that is longer than the page length of the wordprocessor document. Press Open-Apple P to create a new table format. Format a single column to the exact length of the file (the right justification will be apparent). The print the document to disk as a DIF file.

Setting up the Columns

Ceate a new spredsheet file from this DIF file. The document now appears as a single column under A. Change this column's layout to increase its width to show the entire right justified text. Go to the bottom of the spreadsheet to determine the number of lines of text. Divide the total number of columns you want and relocate the text into alternating columns with AppleWorks copy and delete options.

Let's say you have 90 lines and want to print them in three columns. Place the cursor on A61 and copy to the end of the document. Move the cursor cell to E1, press Return to copy the third column of text to the desired location, and return the cursor to cell A61. Since AppleWorks has copied this text, delete the remaining text. Then move the cursor to cell A31 and copy the second third of the text to column C. You now have to format the column widths (columns of text and the spaces between the columns). Insert a blank column on the left whose width represents the margin that you want. Next set the right and left margins to zero. Set characters per inch (CI) to the desired format, set the platen width (PW) to the calculated overall width, and turn off the headers (PH).

Backto the Wordprocessor

Print this report (all or a block) to the clipboard, verfiying that the information identified and your printer option values represent the same number of characters.

Create a new wordprocessor document, set the left and right margins to zero, characters per inch to the desired final format, platen width to the overall width, and set for unjustified margins.

Move the clipboard text to this document (Open-Apple M). The screen (limited to 80 characters per line) may not be easily to read, but a hardcopy will tell you if all your calculations are correct.

NOTE

[A quick way of simulating serpentine printing using the AppleWorks word processor can be used. This involves formating the document into columns and then backspacing the printer until all columns on the page have been printed. The individual steps are as follows -

When you have completed typing your document, set the line length (ie individual column width) and page length as you plan to use in the document.

Pagenate the document (Open-Apple K) to check that the page breaks are correct. Insert new page "NP" indicators where necessary.

At each new page in the document, set the left and right margins so that the text appears in column format. Thus for a two column page print, your AppleWorks document will have alternating pages of left hand and right hand columns. Take care to use the same line/column width used when pagenating in the previous step.
. Set the pause each page "PE" option for the document.

Print the document, backspacing the printer at the end of each page as necessary to print the columns on the right of the page.] - Ed.

Apple To IBM

When I saw the following article, the devil in me told me to put it in our next Newsletter. It caught my eye as I am about to make the same move from an Apple to a PC. Secondly, the best way I know to keep track of odd "important" articles is to include them in the magazine, then I have them on file permanently. - Ed.

by Graham McCologh
reprinted from AUSOM July 1988

Having purchased an IBM AT computer, my wife said "well you cannot keep the two of them .... and ..... what happens to all the information stored on the Apple?"

My information stored on the Apple is in AppleWorks (still the best integrated package I have ever used) and the IBM wordprocessor is Wordperfect, a real wordprocessing package.

The Apple //c to IBM cable connection was achieved via a null modem through the Apple serial port #2. to the IBM Com 1 serial port. For the record the pin connection of a null modem are as follows - pins 1 to 1, 2 to 3, 3 to 2, 4 to 5, 5 to 4, 6 to 8 & 20, 7 to 7, 8 & 20 to 6. Of course this connection needed some modification because the //c only has 5 pins 2, 3, 6, 7 and 20.

The Apple communication package chosen was ASYN 2 as it was the only package I could get to work satisfactorily. Others tried were Apple Term II, ASCII Express, AE Pro and DataHighway. The IBM communication package was Procomm, but Telex was found to work equally successfully.

[If you do not have an Apple II communications program but run a serial printer and/or have a serial card in the Apple, not to worry. You can connect the PC to the end of the serial cable and send the data file to be transferred to the PC as if it were a printer. The comms program in the PC will save the incomming data instead of printing it. - Ed.]

The first task was to convert my AppleWorks files to ASCII files by printing them to disk, the hardest part of which is to use the correct file pathnames.

Then load the communication program and set up all the sending parameters they are comms port/slot 2, comms card super serial, line configuration speed 9600 (the natural speed of the Apple //c), number of data bits 8, parity none, handshake xon/xoff, duplex full, terminal configuration "%terminals/VT52 Tabs "0 8 16 24 32 40 48 56 64 72".

Set in terminal mode and use the Closed-Apple / command and the "S" for send files, type in the name of the file you wish to send (using the full pathname).

On the IBM the Procomm program was set with the exact same parameters as the Apple. File transfer was achieved with the "page down" key.

Conversion of ASCII files to Wordperfect format was achieved by use of convert file in the Learn package within Wordperfect. The interesting thing was the conversion required was from Wordstar 3.3 to Wordperfect. The other conversion options did not work or caused the set up to be changed causing a long and involved amount of work to reformat paragraphs etc. Using this method the layout and print commands did not require rework.

The next step is to convert my Spreadsheet and Database files.

I hope this may be of assistance to others, particularly the people in the club who sent articles to me from Call Apple and other publications.

APPLEWORKS REVISION CAUSES PRINTER PROBLEMS

by Mike Firth, courtesy of Harvest

Although AppleWorks 2.0 contains some neat added features, one change is going to cause problems for users of another Apple product, the ImageWriter II, and some other printers.

Under earlier releases, any control character (in fact, any keyboard character except ^) can be typed in for database and spreadsheet setup strings, and for print-card strings and custom-printer setup. Release 2.0 does not allow typing in <Control>-@ (ASCII 0). Unfortunately this character is needed to address the alternate character sets built into the ImageWriter printer. This problem came up when someone wanted to use the mail merge feature of 2.0 to send letters in Spanish. The alternate characters are entered using the ()![]\ keys, for those who have never tried.

I suppose everybody knows it but me, but either one of the Apple keys on the //e will work in AppleWorks even though the direcions always refer to Open Apple. This means the nearest Apple key can be used to avoid long reaches or two-handed operation - especially Apple with the arrow keys.

Some other programs, like PinWorks, use Closed Apple, so it might be a poor habit to get into and the //GS has both keys to the left of the spacebar. I discovered this upon sitting down to help someone who was merrily using AppleWorks even though the Open and Closed Apple key caps had been exchanged on the keyboard, with Open Apple key now on the right.

ACT APPLE USERS GROUP
ORDER FORM
PUBLIC DOMAIN AND SHAREWARE SOFTWARE
APPLE II — MACINTOSH — APPLE II GS

NAME: _____
ADDRESS: _____
_____ POSTCODE: _____
PHONE NUMBER: _____
I wish to order the following public domain/shareware disks:

Disk category and number		Disk category and number	
_____	$	_____	$
_____	$	_____	$
_____	$	_____	$
_____	$	_____	$
_____	$	_____	$

TOTAL.....$ _____

Public Domain and Shareware Software Libraries

The group now has three libraries of public domain and shareware software catering for Apple IIs, Macintoshes and Apple II GSs.

Apple II Library
Glen Simpson is the librarian for the Apple II software. The library contains about 200 disks. A catalog is available from Glen. The cost of Disks is $3 for single-sided disks and $4 for double-sided disks.

Macintosh Library
Brian Murphy is the librarian for the Macintosh library which now contains just over 100 disks. A catalog is currently being prepared. In the meantime please refer to the June and August newsletters for a list of the disks available. All disks are 800K. If you require 400K disks, please mark your order accordingly. Disks cost $5.

Apple II GS Library
Les Humphrey is the librarian for the II GS library. The library contains 17 disks. A catalog is being prepared and will be issued when it is finished. Disks cost $5.

APPLE II HINT

reprinted from Applesauce July 1988

APPLEWORKS TITLES

If you're using AppleWorks and want to place the same title, say your name, on everything you print, try this.

Select the "Specify Information About Printers" option from the "Other Activities" menu and then indicate that you want to change printer specifications. When the "Change Printer" menu appears, select the "Interface Cards" option. AppleWorks asks you to enter a printer command string, which is normally Control-I 80N for an ImageWriter. Instead, enter the title string that you want to use. Since AppleWorks prints the printer-command string before the main document is printed, the string appears at the top of the first page of anything you print.

Newsletter Info.

This is the magazine of ACTApple (to be incorporated), the ACT Association of Apple Computer Users. It is produced monthly and distributed to all financial Club members and Apple User Groups at no cost.
The views expressed in this magazine are the views of the authors and not necessarily that of the members.
All contributions should be sent to The Editor, ACTApple, GPO Box 1231, Canberra, ACT, 2601, preferably on a Mac disk in text format. The deadline for articles is the Tuesday workshop meeting.
Advertising: Financial members may supply small advertisements for publishing at no cost at the discretion of the editor. Commercial organisations will be billed for advertising. Corporate members will receive a 10% discount. Advertising will be accepted with the same deadlines. Cost quarter page: $15, half page: $25, full page: $40. Artwork prepared for an extra $10.
General meetings of the club are on the second Thursday of the month at the O'Connell Education Centre, Stuart St, Griffith, 7.15pm to 9:45. A hands-on workshop meeting is at the same venue on the following Tuesday. The executive meets on the 4th Thursday of the month.
MemberShip: Joining fee: Full member = $10. Junior member = $5. Organisation = $20. Annual fee: Full member = $20. Junior member = $10. Organisation = $40.
Phone numbers are published on the front page of the magazine for the use of members between the hours of 6pm and 9.00pm only. The recorded answering service number at the top is available 24 hours per day.
Warnings The Club does not condone copying of any software at meetings except for the distribution of Apple upgrades and Club software disks. All members are expected to display a high standard of behaviour to guarantee our continued use of the current venue.
Layout and Design of the Newsletter is done using Ready Set Go 3 on a 512K Mac, and printed on an Apple Laserwriter.

APPLE IIGS: SYSTEM DIAGNOSTIC ERRORS

Here's the currently available, though incomplete, list with explanations, of error codes generated by the Apple IIGS when running system diagnostics for the Apple II Family (V1.OBl).

Apple IIGS error codes have the form AABBCCDD.

Test numbers AA
Error Code (AA) Test

"RM"/OlChecksum
02 RAM Moving Inversions
03 Softswitch
04 RAM Address
05 FPI Speed
06 Serial I/O
07 Real Time Clock
08 Battery RAM
09 Front Desk Bus
0A Shadowing
0B Interrupts

AA=06 serial test
BB Meaning

---

01 Register R/W
04 Tx Buffer empty status
05 Tx Buffer empty failure
06 All sent status fail
07 Rx char available
08 Bad data
09 System will explode

AA=03 RAM test
BBCC= Address

AA =Ol ROM Checksum
BB = Failed checksum
DD =l Bad RAM

AA =05 Speed
BB =l speed stuck slow
BB =2 speed stuck fast
AA =08 Battery RAM
BB =Ol address test failure
CC = bad address
BB =02 memory failure and CC = pattern, DD = Address
AA= 02 Softswitches
Bb= Statereg bit
CC= Read softswitch address

AA=04 Front Desk Bus
BBCC= Bad checksum found
DD=Ol FDB toolcode
encountered a fatal error and no checksum computed

AA=04 Ram Adddress
BB= failed bank No
CC= failed bit

AA=06 Clock Test
BBCCDD=not used
DD=Ol a fatal error occcurred after the test to within a second

AA=OA shadow register functionality
AA=OB Mega II and VGC capability of generating interrupts.
BB=Ol VBL interrupt timeout
BB=02 VBL IRQ status fail
BB=03 1/4 SEC interrupt
BB=04 1/4 SEC interrupt
BB=05 ---
BB=06 VGC IRQ
BB=07 SCAN Line

NEW DISKS ORDERED

The following new disks have recently been ordered for our library from BMUG. These disks should be available for delivery to those members who ordered them at the September meeting

FKeys #1
HyperCard Education #24H
HyperCard Sounds #3H
HyperCard Games #8H
Paris #15 (Mac II)
Paris #16 (")

NEW VIRUS ALERT

Reprinted from "Tech Tidbits" with the permission of Apple Computer.

Articles on both CompuServe and Delphi have reported that there is a new Macintosh virus which, unlike previous viruses, does not create an additional resource. This makes detection more difficult. This new virus is called ANTI, and apparently infects only Applications or other files with ID=l resource. The virus has been found in Paris and Marseilles, at the time of the message posting. At this time, there have been no reported cases of the virus in the US. However, knowing how fast they travel, it is best to be on the alert for it, and to practice "Safe Software" precautions.

* The ANTI virus will and can install itself even when Vaccine is on: Vaccine will only alert the user with beeps if the "Always compile MPW Inits" is NOT checked.

* VirusDetective can not detect this virus.

* Virus Rx does not detect ANTI's presence in other files - only when Virus Rx is itself infected. When Virus Rx is itself infected it changes its name to "Throw me in the trash."

* It does not seem to infect all applications: Apparently it only infects applications with a CODEl resource called "Main".

continues on page 7.

PUBLISH IT! 2

Breaks Memory Barrier
(Reprinted from AUSOM News June 89 by Adrian Gallagher)

This is a brief update concerning Timeworks Publish It!, for the Apple II family. Version 2 of this program is now available, sporting some very attractive features.

Extended Memory Support

If your Apple is equipped with more than 128K of memory, Publish It! 2 can now take full advantage of it, thus breaking away from the biggest limitation of the original version. This also considerably speeds up the program's operation, but does not (or cannot) eliminate the screen refreshing.

Graphics Enhancements

Publish It! 2 is capable of enlarging or shrinking the area of a graphic, up to the full size of a page. Some very good effects can be had with judicious use of this excellent feature, but experimentation is important. Print Shop graphics can now be imported directly from a DOS 3.3 disk, another very useful feature, allowing use of all those public domain graphics without tedious conversion to ProDOS format. Text and graphics can now be superimposed, allowing for some interesting effects such as white text.

Other Improvements

There is an improved file dialog box, making switching to other disks or subdirectories easier; selection of words, paragraphs, or entire articles of text for editing is easier; selection of multiple objects is easier; text or graphics areas can have an automatic frame inserted around them; laser printing is built-in, without the need for an extra module; objects can be more precisely aligned; the document can be printed to the screen, showing graphics and fonts as they will be actually printed, useful for working out whether or not a pair of letters needs to be kerned without wasting "another" page; when importing a text file, you can now elect to have all extra carriage returns at the end of lines stripped, a nice touch, given AppleWorks' and other word processors' habits.

Still Problems

Not all is perfect yet, but I'm sure there will be version 3 to follow for this winning program. There are still two bugs carried over from version 1 - concerning the use of the number space, which sometimes causes corrupted text, and the use of the smaller fonts with large amounts of text.
Features I would like to see in the next version are:- change-over to the GS Fonts instead of the present IMG ones, and a way to gain access to the larger selection of characters in these fonts; a "Master" pages facility, allowing "left" and "right" oriented templates; ability to move quickly to a specified page, essential now that the 30K memory barrier has been crashed; ability to save the text part of a document as ASCII text for use with spelling checkers or communications programs, or for easier editing in a full-featured word processor.

A Quantum Leap

The new version of Publish It! is a quantum leap from the original one. I said "Wow!" when I saw version ! - I am now over the moon. There are a number of other DTP packages now available for the Apple, such as Geo-Publish, Springboard Publisher, Personal Newsletter, GraphicWriter III, AppleWorks GS, and Medley. Publish It! 2 will deservedly maintain a position at the top of this list, I feel certain.

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continued from page 5

The only known ways at present to determine if the infection is present are

* By using Res Edit and opening its CODE ID=l resource and search for the ASCII string "ANTI"

* Use the advanced features (resource fork search) of GOfer.

Copies of this virus have been given to several of the authors of anti-viral programs and detectors, who are working on updating their software to cope with this latest virus.

Further update on this virus will be made available in Tech Tidbits as we receive further information, and additional information can also be obtained on CompuServe, Delphi, and other on-line services.

Safe Software Practices

Although the current virus detection tools will not locate an ANTI infection, at present, it is good practice to use them to alert you to other infections.

contunued on page 14

GS FONTS

(*By Adrian Gallagher* - Reprinted from AUSOM News June 89)

Since the AUSOM News April 1989 article by Michael Levine, on IIGS public domain disks, I have become enthused about GS fonts. Never fear, I haven't deserted my trusty IIe. The name "GS fonts" simply describes the style of font - most of them will work on the more established Apples. Michael pointed out that several of the programs on the disk FONT.UTE1 will work on the IIe, so at the April meeting I purchased my first 3.5 inch disk, and I haven't yet got a 3.5 inch disk drive. Using my dealer's IIGS, I transferred the appropriate files to several 5.25 inch disks, then went home to read them all. What I found was well worth the effort.

Documentation Files

Surprisingly, the most interesting files to me were those containing the documentation for the programs on this disk. From them, I learnt several things about the workings of GS fonts. For example, they are closely related to Mac fonts, the only differences being at the start of the files. Theoretically, it would appear that almost any Mac font could be transported to the GS format, and vice versa.

Publish It!'s Fonts

The documentation confirmed a suspicion of mine about the fonts supplied with Publish It!, that they are very nearly the same as the GS/Mac fonts. The major differences lie in the file type, Publish!'s being IMG (Hex $F7) whereas the GS fonts are FNT (Hex $C8), and the number of characters available in each (see below). Simply by changing the file type, these seemingly incompatible fonts become compatible. Unfortunately, the same trick does not work for the fonts supplied with the Apple IIe version of MultiScribe (Hex $07 file type). It would be great if all programs utilised a common approach to fonts, but I guess that would be like expecting all computers to adopt a common method of disk reading and writing. Maybe both will come in time, my tape recorder is able to read tapes manufactured by several different recording companies.

Enter TimeOut FileMaster

One of the main programs of interest to Apple IIe/c users supplied on the FONT.UTE1 disk, CHG.FONT.FILETYP, sets out how to alter the GS fonts for use with Publish It!. I am unable to comment on how well it works, because I have found that FileMaster, a TimeOut AppleWorks application which I purchased at the April meeting does the job much better. In fact, it does a double switch for me, allowing the Publish It! fonts to become GS fonts, for use with TimeOut Paint, SuperFonts, or any other program which will read a GS font (with reservations - see below). Discovering this neat FileMaster trick immediately made me glad of my choice of it as my second TimeOut application. Beagle Bros will deservedly become millionaires, their programs are that good.

Procedure

The most important step in all of this is to copy the desired font files to a work disk, so that you are making changes to backups, rather than originals!!! Then, from the FileMaster <Files Menu>, select Option 8, <Change File Type>, mark the file(s) you wish to alter, and do the following:

* Publish It! -> GS font:

change file type to FNT (Option 10)

* GS Font -> Publish It!: change file type to ??? (Option 4), and when prompted, enter 247 as the new type. This will convert the file type to the required IMG ($F7) which Publish It! will look for. Before leaving FileMaster, any fonts with suffixed numbers less than 10 should be renamed with a 0 added before the numeral, otherwise Publish It! will report an error when trying to install the font. Then, from the Publish It! <Apple Menu>, select <Install Font> to add the newly "created" one to your list. With some experimentation, this method of font conversion should gain you several useable fonts from the many available in the public domain, which will be of most use when using a dot matrix printer. An added bonus is that many of these new fonts will print over twice as fast on your dot matrix printer as the standard Publish It! one take.

LaserWriter Down-Loading

The converted fonts can be downloaded to a LaserWriter, in the same way that Publish It!'s own non- LaserWriter fonts such as Madison can be - the result is a little chunky with the larger fonts. I strongly recommend sticking to Publish It!'s LaserWriter supported fonts if you want the best output from a LaserWriter.

Some Warnings

1. Some of these converted GS fonts seem to have small problems with Publish It!, so you'll need to test them out fairly comprehensively first, especially before using them in an important job. I have found that Palatini 12 seems to drop the full stop when printing. Sometimes, with certain fonts, the last part of a character is not printed when doing a special justification like centering or full. These problems do not occur with all the converted fonts, and I have never had similar problems with Publish It!'s supplied fonts; obviously not all is perfect with using them. I suggest that, until you are sure they will work for you, you should slick to Publish It!'s own fonts.

2. GS fonts can have up to 255 characters, compared with the 96 available in Publish It! or MultiScribe fonts. There is no way, at present, for Publish It! to gain access to these extra characters, but their presence in the file does not appear to cause Publish It! any problems. It seems a pity that the creators have elected not to use the GS fonts, which are the coming "standard" fonts, and would allow true desktop publishing touches such as accented characters, em dashes, and correct inverted commas. TimeOut Paint and SuperFonts, by the use of their Control-X command, do allow access to all of the extra characters in the GS fonts. I have found that if I invoke Control-X when using a converted Publish It! font in TimeOut Paint, the program hangs. I'm not sure what happens in SuperFonts, since I Don't as yet own it. Of course, there are only 96 printable characters in the Publish It! font, which is probably the reason for this crash. At this stage, I do not have a GS font editor (Beagle Bros have one which will work on the Apple IIe, c, or GS) so I can't say whether or not the converted Publish It! fonts can be edited and added to up to the limit of 255 characters. Also, a converted Publish It! font cannot be larger than 4K to work with TimeOut Paint. There is not the same limit with SuperFonts, I believe.

Type Face Families

On the FONT.UTE1 disk are several type face families, with each size or style being a font of its particular type face. So, ART.DECO is the type face name with fonts in 9, 12, 18, 24, 36, and 48 point. Other type faces supplied on the disk are CHICAGO (9, 12, 14, 18, and 24), BOSTON II (9, 10, 12, 18, 20, and 24) and CALLIGRAPHY (12, 18, 24, 36, and 48). This last family is one I have found which will not work correctly in either TimeOut Paint or Publish It!, there being a spacing problem with all its members in both programs; a pity, since it looks to be particularly attractive.

Using Type Faces and Fonts

There are apparently hundreds more public domain type faces, with thousands of member fonts. I do not suggest using them all on the same page, like I tried to do with my first MultiScribe document; the result will be an unreadable eyesore. The idea is to select one family throughout a document. For example, do the main heading in Boston II 24 point, sub-headings in Boston II 12 point, and the main body in Boston II 10 point; footnotes, if needed, could be in Boston II 9 point. If you really do have to use another type face, then you should select one which matches fairly closely with the one(s) already used. A general rule is that serif and sans-serif (unadorned letters) should not be mixed. Another accepted practice is to restrict the use of sans-serif to small areas, such as business cards or invitations; generally, people prefer to read a serif type face if there is a lot of text on the page. Another good general practice is to ensure that any advertisements are set out using a different type face from the main body of your text. Having all these new fonts at my disposal will, I am sure, help improve the appearance of my pages; all I need to do now is find someone to read them all.

APPLE II HINTS CONTINUED

Apple IIGS: Characters Print larger than Specified Point Size

The Apple IIGS screen can display 320 by 200, or 640 by 200 pixels. The Apple IIGS Print driver's default is to match the vertical resolution of the screen. This does not give you a true Point size - a "Point" being 1/72 inch - as the Macintosh does. The Apple IIGS Print driver's default is to Print in screen pixels, not in points. This causes the characters to Print larger than the Macintosh characters of the same font and size.

If You Choose "Condensed" in the Page Set-up dialogue, the Print driver will print in points instead of screen pixels. The printed characters will approximate the size of the equivalent Macintosh characters.

How to PRINT TAB on an ImageWriter using a IIGS

Q. How do you get a BASIC "PRINT TAB" statement like:

PRINT TAB(lO);"A"; TAB (20);"B"; TAB(30);"C" to work on the Apple IIGS and ImageWriter II? The same statement works on the Apple //e and ImageWriter II, provided the statement:

PRINT CHR$(9);"T E"

(Tab Enable) is issued before the PRINT TAB statement is executed. Using the Apple IIGS, the statement results in spacing 10 or 20 spaces rather than tabbing to those columns.

A. When printing hardcopy, PRINT TAB appears to be tabbing the specified spaces from last character. For example:

50 PRINT TAB (20);"Column 20";TAB (40);"Column 40" causes the first tab to be placed at column 20, but the second tab is placed at column 68. "Column 20" is 9 spaces, first character is placed at 20, adding the next 8 characters, placing the last character at column 28. When the TAB 40 statement is executed, 40 spaces are added to the last cursor location (column 28), placing the cursor at column 68.

When using PRINT TAB for screen formatting, we consistently got good results, however when the statement was used for hardcopy, it did not work.

For hardcopy printouts, use the HTAB statement to format columns correctly:

40 HTAB 40:PRINT "Column 40": HTAB 60: PRINT "Column 60"

Old Apple II manuals state that this is not possible, but the HTAB statement works correctly on the Apple IIGS, both on the screen and on the printer.

Overall, TAB and HTAB work as expected on the screen. When TAB ad HTAB are used for printing, three factors must be considered:

the Apple II being used
the interface card it has
the printer being printed to

Each of these variables affect the TAB and HTAB commands. When used in hardcopy printing.

Printing from Apple IIGS to LaserWriter

Connecting a LaserWriter IINT via LocalTalk cables to a Macintosh Plus with a 20MB hard drive, a Macintosh SE with a HD20 SC, and an Apple IIGS.

Q. When printing with AppleWorks from the Apple IIGS, will the LaserWriter IINT respond correctly to printing options, such as characters per inch, boldface, underline, superscript, and subscript?

A. Before using the LaserWriter from AppleWorks on an Apple IIGS, run Chooser II. Chooser II works similar to the Macintosh Chooser desk accessory except it is a stand-alone application. When the LaserWriter is chosen, Chooser II checks the LaserWriter to verify that the ImageWriter Emulator is preset. The ImageWriter Emulator (IWEM) is a postscript file that is downloaded to the LaserWriter. If the IWEM is not present, Chooser II downloads the file. If IWEM is present in the LaserWriter, Chooser II acknowledges and does not download.

Hooking Up Two Joy-sticks on the IIGS?

There is no Apple solution to this, but alternatives are available from third party sources. At least one such solution is available from CRG (California Research Group) at 805/529-2082. They advertise a product called "Paddle Adapple".

MS-DOS on the IIGS?

Applied Engineering has announced their "PC Transporter" that allows MS-DOS to run on the IIGS. Prices vary depending on memory configuration. They are also selling a 5.25" 360K PC compatible disk drive. For full details, contact Applied Engineering, Carrollton TX (214/241-6060).

Formatting a SCSI drive on a IIGS

The answer to this lies in the Technical Procedures Manuals under Hard Disk 20SC. In the basics section, there is a heading "Re-initialising with an Apple IIGS or Apple //e". In brief, the section tells you to first initialise with Apple II SCSI Diagnostic Diskette and then use the System Utilities. Both disks must be used in conjunction with the Tech. Procedures to format the disk properly.

AppleCD SC Is Compatible With ProDOS

Concerning the Apple II, current ProDOS applications can use the AppleCD SC. For example, an AppleWorks database on CD-ROM can be accessed as though the file resides on a hard disk. Because CDs are read-only, you can't record any changes made back to the CD-ROM, though these changes can be written to other media with no difficulties.

Some things to keep in mind:

The Apple II SCSI card requires the Rev "C" ROM.

There is a volume limit of 32MB, resulting in several partitions on a single CD-ROM.

The AppleCD SC appears the same as any SCSI drive to ProDOS.

Apple IIGS: Changing Control Panel Settings

Toolbox routines, explained in the Addison-Wesley manuals Apple IIGS Toolbox Reference and Programmer's Introduction to the Apple IIGS, allow Pascal, assembly, and Apple IIGS BASIC programmers to change Control Panel settings from within a program. Changing the settings from Applesoft, however, is not possible.

Apple IIGS Chooser

Q. When using Apple IIGS's on an AppleTalk network with ImageWriter II's with AppleTalk cards, how will a person be able to choose which printer they will print their files on from within programs such as AppleWorks or Print Shop?

From within either program you can select slot, machine and interface, but not which networked machines to print on. I have used CHOOSER on the GS system utilities to choose the LaserWriter or ImageWriter before booting AppleWorks, is that what must be done for each machine each time the machine is turned on?

A. Currently, this is the only way choose an AppleTalk Printer (by using the Chooser on startup). Future solutions could include: a startup application that will let you choose a printer or automatically choose a default printer; a Classic Desk Accessory that will act like the Macintosh Chooser and let you change the printer on the fly. The Apple IIGS Printing Manager will offer the ability to choose and remember a printer, but will only work from the Super Hires interface.

GS/OS and Boot Volume Name

Q. I encountered a problem with GS/OS (System disk 4.0 Finder 1.2) when I changed the boot volume name:

1. Started up in the GS Finder.
2. Changed the name of the boot volume from "system.disk" to "ralph".
3. Ran a ProDOS 8 program.

After quitting the application, a dialogue box appeared asking for the "system.disk" to be inserted. Since this was not possible, I had to press the "cancel" button. GS/OS reported an error, and the system had to be restarted.

A. All portions of GS/OS that need to know of a disk name change are notified when the change is made - except one, the Loader. After quitting an application, the Loader reloads the Finder. Because the Loader is not notified of the name change of the start-up disk, the dialogue box you saw is generated.

Apple II Family: 80-Column Card Control Codes

A "CHR$(21)" response to a "GET A$" input statement in a BASIC program may disable the 80-column card on an Apple IIGS, Apple //e and Apple //c (but not an Apple II Plus with Applied Engineering's Viewmaster 80).

The 80-Colomn Text Card Manual for the Apple II contains a table of CONTROL character functions for the text card:

CONTROL-Q CHR$(17) Sets display to 40 columns

CONTROL-R CHR$(18) Sets display to 80 columns

CONTROL-U CHR$(21) Deactivates 80-Column Text Card, homes cursor and clears the screen.

These functions are part of the 80-Column ROM routines. Any time the codes are entered, these actions take place.

To halt the CONTROL-U function, the CONTROL-U keystroke needs to be trapped

on input. Using the "GET A$" method:

```
10 GET A$
20 IF A$=CHR$(21) THEN
A$="":REM traps the
CONTROL-U, sets it to blank
30 PRINT A$;
40 GOTO 10
```

What Version ROM Shortcut

When you want to see if a //c has the new ROMs, from the BASIC prompt just type PR#7. If it comes up with, "APPLETALK(R) OFFLINE" then you have the new ROMs.

Printing Forms from the Database or Word Processor

Some AppleWorks printing jobs have a page length less than 11 inches for continuous tractor-feed envelopes or mailing labels.

With data base documents, most users define the page length from the printer options menu in each "Print a report" format (<Open_Apple>-O) of the database document that contains the label text.

1. Choose the data base document you want to print.

2. Press <Open_Apple>-P, choose a label report format, and then press <Open_Apple>-O. You are now in the Printer Options Menu.
a. Type PL (Paper length). Enter a value equal to the vertical length, in inches, of a single form. Many labels are 1.0, 1.5, or 3.5 inches high; AppleWorks accepts all these values as paper lengths.
b. Set the options PH (Print Header) and OM (Omit Line) to NO by typing the two letter code until the option reads NO.

With word processor documents, however, there are a few additional parameters you must control in order to produce acceptable results when printing continuous forms:
(l) automatic top and bottom margins, and
(2) form feeds.
Unless you take care to control these two parameters properly, the printer will usually produce documents that are either badly printed or altogether blank.

To avoid these problems, do the following:

1. Choose the word processor document you want to print.

2. Press the <Open_Apple>-O. This gets you to the Printer Options Menu.
a. Type PL (Paper length). Type a single form's vertical length in inches. Many labels are 1.0, 1.5, or 3.5 inches high; AppleWorks accepts these values as page lengths.
b. Make sure the Top and Bottom Margins are zero.

3. From the main menu, select item number 5, "Other Activities". This selection will display a menu with 7 items.

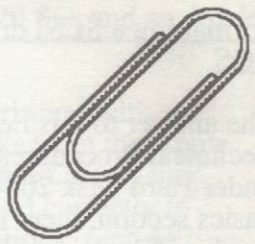
4. Select item number 7, "Specify information about your printer(s)". This displays a menu entitled

"Printer Information".

5. Under the heading "Change printer specifications" you will find one or two printer names. Select the name of the printer you want to use.

6. Change item number 2 ("Accepts top-of-page commands") to NO. AppleWorks will now print using the page length you defined in the printer options menu.

More next month...



continued from page 7

1. Keep your software masters locked away and use back-ups so that if an infection does occur, you will have an uninfected master to fall back on.

2. When booting from a floppy, keep the disk write protected so that if your system is infected, the infection can not spread itself to your floppy.

3. If at all possible, do not run applications from servers. This prevents the applications on the servers from being infected and then infecting other machines.

4. If you do have applications on the server, keep them in read only folders. This will not work if the application writes scratch files in the folder it resides in, however.

5. Check new application disks with a virus searching utility before use. If you don't know where the software came from, be very careful.

6. In mission-critical environments, institute a policy of no public domain or unchecked software.

7. Think of periodic virus checks as important as periodic back-ups.

8. Keep Vaccine, or another similar program that alerts you to a potential infection about to occur active at all times.

9. Back up - but do so after you have checked your system for an infection - you don't want to

APPLE IIGS PUBLIC DOMAIN/SHAREWARE

Les Humphrey

Here is more Public Domain/ Shareware for the IIGS library. They, along with all of our existing stock, are available for $8.00 per disk.

GS49 Photonix is a very fast disk copier that includes mass copy, copy parameters saved in battery-RAM, fast format, virus detection and more. This is the fastest copying program that I have seen. The documentation is included as a text file.

GS50 Newton's Apple Educational Series comes back to your screen! Quizzes are presented using superb colour graphics along with animation. Topics include tooth decay and its prevention, the dangers of cocaine, how neon lights work, and the physical forces of tension and compression.

GS51 There are five games on this disk. One Arm Battle is a fruit machine game where up to four players can compete to a predetermined level - its infectious. Rush Hour GS is a version of Frogger (that is, you try to cross a busy street against psychopathic drivers). MageMaze is a classic maze game. Euchre is worth the price of the disk by itself. If it wasn't for the fact that I had to write this article I would still be playing! Chess Master 2100 is a chess game designed for users with a hard disk.

GS52 This is another games disk with five games. Escape the Moonbase before the self-destruct mechanism activates in the text adventure game Moonbase Death. Plus TacTic4, CarRace, Arrow Dodge (joystick). Crossword can generate layout or you have the option of laying it out.

GS53 Apple IIGS Print Shop colour graphics! This disk has an educational theme and has graphics of geography, flags, science, maths and history.

GS54 Explore the history of the United States using this well designed, researched, and implemented stack. Six critical time periods in US history are studied:- the Revolutionary War, the Louisiana Purchase, Manifest Destiny, the Civil War, the closing Frontier, and World War II. A full colour map is displayed, complete with legend, as well as a concise listing of the key events of each era. HyperStudio is required to use this disk. Also included are Eye, Geography, Vocabulary and, fun, Shark Attack stacks.

LUCKY DOOR PRIZE

Bob Hibberd

The lucky door prize for the August General Meeting was an Approved Systems mouse mat. Thanks to Approved Systems for their support of the A.C.T. Apple User Group Inc.

Using our normal procedure, we drew five membership numbers being; 797, 417, 499, 162 and 447. As no one with these numbers was present the closest to the last number received the prize. Edward Scharrer (member 408) is the lucky owner of the Approved Systems mousemat.

Congratulations Edward and commiserations to those whose numbers were drawn or who had closer numbers but were not present at the meeting. See you there next time!

GRAPHICS SPECIAL INTEREST GROUP (SIG)

by Roger Bernau

As I mentioned in the President's Desktop there is a move afoot to create a special interest within ***A.C.T.Apple*** to cater to the graphics and arts fraternity. Christine Runneger is looking to stir up interest, not only among current ***A.C.T. Apple*** members, but also among various graphics art firms around town. She has now joined the Committee as Graphics Sig Convenor.

First things first. If you are interested you need to raise your hand and express your needs and prefences. Expressions of interest can be given to any Committee member or Christine herself. She will be at the next meeting and you can leave her messages on the telephone answering machine. She has no modem yet.

In the meantime, even if you are not the artistic type, perhaps you know someone who is. Please pass on the word - especially to non members.

Please copy this item and the relevant part of the Desktop and **spread the word!**

MemberShip

Bob Hibberd

New Members	8
Renewing	15
Not Renewing	20
Total financial	294
Macs	187
Apple //s	111
No system	3

OLD HAT

Gordon White.

I am a high school Industrial Arts and Computing teacher. I teach computing on IBM compatibles and Apple //e's. I own an Apple //e at home.
Everybody else keeps telling me that Apple //e's are "old technology" and that schools and individuals should buy IBM if they are just starting out or if they want to "keep up". This article is about why I think this opinion is an ignorant one.

The usual arguments are: cost, power, speed, technology, hard disk.

The cost argument is an interesting one. Yes, you can buy IBM compatible, an Amiga, an Amstrad, an Adnauseum for less money "when you consider what you get for your money", as they say. BUT, then you have to pay much more for software, and there is much less non-business (i.e. educational and leisure) software available. Your basic IBM compatible comes very cheap. I know 'cos my school bought 20 very cheap clones only a few months ago, and now we are beginning to pay for that choice. 3 have needed repair work so far, and they need to go to the Melbourne based company for service. On the other hand, if you prefer to buy a compatible with BACK-UP, then it won't be a cheap computer. You see, buying a computer is not like buying a television because, unlike a television, computers need to be adapted to the user's requirements. So one buys the basic machine, and then adds the relevant accessories - the particular software, or a colour screen, a mouse, or more memory, maybe a different sort of storage medium, and so on according to the perceived needs.

Apple prices it's products according to what they believe the market will support. For the lower end of the market at least, they must now revise this policy and sell at the lowest profitable price or be excluded from that market because aggressive IBM clone marketing and advertising is making Apple's prices appear to be poor value.

Apple is advertising that people, 'like using the MAC'. This, apparently is despite the fact that they are not as powerful. 'MIPS, RAM, Mega Hertz, Y'know?' Apple is stating, in effect, that the power of the machine is in the hands of the user. It has little to do with the machine's statistics. It is my observation that programs which are more powerful require much more learning in the first place and require more advanced hardware to make use of them, and that it is only the people who are using these programs in a full-time vocational application who ever recoup the investment in time and money spent. Apple computers in general, are easy to use. I have just revised the program we use at our school to place students in their sport of choice. We have 600 students who, 4 times a year make 3 preferential choices from among 25 - 35 sports that we offer them. The older students receive priority. This sort of thing is easy to do with our Apple //e's. The program interfaces with Appleworks, so we can take our list of 600 names directly from the school database, which is maintained by Appleworks. The point is, my Apple //e has more memory than most IBM's, runs faster, is mouse driven, and so on. If you NEED this stuff you can add it to an Apple //e easily and fairly cheaply. But a lot of software written for IBM's (and MAC's) is pretty lame without adding more memory to what they already have - and that costs BIG bucks, because add-ons for "bigger" computers are expensive. I reckon that most people use about 10% of their computer's ability anyway, so why they want more power, I can't figure out. No IBM or MAC can do more with my 9-pin dot matrix printer than my "little" Apple //e can .... So much for power!

How fast can you type? Do you think you can type faster than 1 MgHz? Hmmm. Yes, I know that computers are used for more than just typing. Some programs which redraw graphics over and over again like Publish It!!, or recalculate lengthy spreadsheets are painfully slow on a 1MgHz Apple // e, but I suspect that not so many people actually DO these things very often, and if they do then they can easily buy a faster chip, or co-processor. No problem. To give you an example: the "SPORT.SORT" program (see above) takes 4 1/2 minutes to read in the information, sort it, and write it back to disk, on a standard Apple //e. I agree that's slow. But I only need to do a thing like that 4 times a year! Yes it is slow by computer standards, but how long would it take to do manually? I think 4 1/2 minutes is fast! And if you were using Publish It!! all the time, then I would recommend you buy the faster chip.

I spoke with a (senior) visitor from the Education Department the other day who suggested that we should give our Apple //e's to the neighbourhood Primary Schools and lease IBM laptops. He used arguments like those above. Should I send him this little diatribe? Perhaps he'll read it, he sure didn't want to listen to it!

not enough RAM available for your applications. It pays to only keep those INITs you actually need in your System folder and to check any new INIT thoroughly before trusting it with real work.
There are a number of INITs which allow you to control the loading of other INITs. This can be a simpler way of turning INITs on an off than moving them in and out of the System folder. **Aask, INIT** and **INITPicker** are examples of INIT management INITs.
Some INITs, such as **Boomerang**, can turn themselves off when you run a specific application and others, such as **Pyro**, allow you to turn them off from the Control Panel.

Some INITs need to be loaded in a particular order, for example **SAM** needs to load first to be able to work properly and **ATM** needs to be the last INIT loaded. Normally the Macintosh loads INITs in the order they appear in a by name view of the System folder (ie alphabetically). Renaming INITs will change the order in which the Macintosh loads them. **INITPicker** allows you to specify an order for loading INITs without needing to rename them.
If you run into conflict problems, the INITs **INITInfo** and **TattleTale** can be very useful in tracking down exactly which INITs are causing the problems.

The final thing you can do to make your Mac unique is to design your own startup screen. If you are tired of looking at "Welcome to Macintosh" you can use a paint program to design your own. **SuperPaint** can save a drawing as a startup screen and the utility **ScreenMaker** can convert a **MacPaint** drawing into a startup screen. Place the startup screen file in your System folder and from now on when you start your Mac you will be greeted with your drawing.
You don't need to spend lots of money to personalize your Mac. The Mac PD library and BBS are good sources of public domain DAs, fonts and INITs. Of course the quality varies, but by-and-large most are very good. Some of my favourites are: **ArtThief, Basetool, Boomerang, DiskTop, INIT CDEV, MacSink, Message, Moire, NotePad 2, Quote, Soundmaster, SuperClock** and **Talking Moose.**

The extent you can go to personalizing your Mac is really quite amazing. INITs, in particular, can fundamentally alter the way your Mac operates. By carefully selecting the DAs, fonts and INITs you use, customizing menus and icons with **ResEdit** and designing your own startup screen you can make your Mac work hard for you and be fun to use. It can develop its own personality - formal and polite, loopy and fun, or downright rude (not recommended) to match what you want. So don't continue with an ordinary Mac, personalize it and turn it into YOUR Mac!

APPLE II ZIPS

Brian Mattick

Apple // users have an exciting choice of accelerators for the old workhorse.

Applied Engineering were the first to introduce an accelerator for the Apple //, called the Transwarp. This one was on a card and worked by adding an extra 128K of fast memory to your computer. It did not accelerate any extra memory you might have and largely ignored the 64K that came with the machine. Recently, to meet the new competition, AE has discontinued manufacture of the Transwarp, which ran at 4 MHz, and instead are now offering the Transwarp II, which runs at 7 MHz, for about the same price as the old board, ie about $US 150.

The first accelerator chip was manufactured by Zip Technologies and called the Zip chip. This chip simply replaced the CPU and it accelerated all operations of your computer that could be accelerated without causing problems. For instance, disk drives must communicate at 1 MHz so these operations cannot be accelerated. The original Zip chip ran at 4 MHz and cost about $US 125, more recently an 8 MHz model has been introduced for about $US 190.

The Rocket chip from Bits and Pieces is a late arrival. Like the Zip chip it plugs straight into your CPU and has a maximum speed of 10 MHz. It's price is about $US 200.

Meanwhile Zip Technology has finally released an 8 MHz accelerator for the GS for $US 245. I think this one is also on a card. No doubt AE's price will fall to match the competition.

Footnote: My Zip chip, the 3rd one, has actually performed solidly for two months. That twice as long as previous chips. Maybe Zip has finally got it right.

Now that the Transwarp is old stock, and as Transwarp II has a similar price tag to its parent there may be some opportunities to pick up a Transwarp at a discounted price.

THE AUTOMATIC LABELLER

by Bill Currie
courtesy AUSOM March 1990

I didn't like the commercial labelling programs that I had, as they were WYSAWYG (what you see ain't what you get). I thought of buying the company, but opted for writing my own program instead. Or what I should say is that I picked the features I wanted out of the commercial programs and condensed them into Automatic Labeller.

Automatic Labeller, here-after referred to as AL, was written on an Apple//e clone and works with a BMC-80 printer and either a Micro-Buffer II card or a Grappler + card. AL is designed for the Unilabel 387600, 102 x 36MM or (4" x 1 7/16") pressure sensitive roll labels. If your set-up is different to this or your printer card is not in slot 1 you may have to alter the program to suit.

AL allows you to print labels with up to 8 lines of 38 chars and will automatically centre the text. It will calculate the number of times across you can print each address and give you the choice of changing the label to suit. Being of Scots extraction, I find this feature ideal, as I can print 3 copies of my address per label and then get a wee lend of a pair of scissors. You can even print blank labels for letters you don't wish to send, to save a bit of postage. (I think there was some Irish blood in my family too).

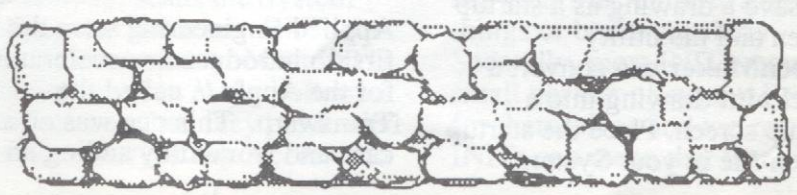
The address is contained in an array in lines 1 to 8 which correspond to the 8 lines on the label. Change these lines to the address required. For blank lines just enter 1: or 8: etc., which will keep the edit display intact.

To edit the text, hit <ESC>. This will quit the program and you will be presented with a listing of lines 1 - 8 which you can then edit with <ESC> and the arrow keys if you wish.

Once you have set up for a particular label you can save the program to disk under the name required i.e. Fifi, Lulu etc.

The number of possible addresses per label is shown on the screen (0-3) etc. Just hit the number you want and the new format will be displayed. For blank labels hit 0. To print the labels hit the P key. You will be prompted for the number you require. If you want the program to start off with more than one address across, change N=1 in line 9. To start partway thru' an address type RUN 3 or RUN 4 etc. You can then borrow a ball-point and save a mite on printer ribbons! Have fun with AL (or Fifi and Lulu)!

```
0 REM AL The Automatic Labeller
1 :
2 A$(2) = "Your Name"
3 A$(3) = "No.& Street"
4 A$(4) = "City"
5 A$(5) = "State A P .C"
6 A$(6) = "COUNTRY"
7 :
8 :
9 N = 1: REM Start with 1 across
10 D$ = CHR$ (4): J = 1
20 FOR A = 1 TO 8: L = LEN (A$ (A) )
30 L = L + (K - L) * (K > L)
40 K = L: NEXT A
50 P = INT (40 / (L + 2) ): IF P > 9 THEN P = 9
60 TEXT: HOME
70 IF Z THEN VTAB 12: PRINT "No . "Y" ("M + Z") ": VTAB 1
80 PRINT D$ "PR#"Z
90 FOR A = 1 TO 8: PRINT
100 FOR B = 1 TO N
110 HTAB B * 40 / N - L - (40 / N - L) / 2 + 1
120 PRINT A$ (A * J);: NEXT B, A
130 PRINT: PRINT D$"PR#0"
140 FOR H = 2 TO 39
150 FOR V = 1 TO 10 STEP 9
160 VTAB V: HTAB H
170 PRINT "-": NEXT V,H
180 FOR V = 2 To 9
190 FOR H = 1 TO 40 STEP 39
200 VTAB V: HTAB H
210 PRINT "|": NEXT H, V
220 IF Z THEN M = M + 1: PRINT
230 IF Z THEN IF PEEK (49152) < 128 AND M < T THEN 60
240 VTAB 12: PRINT "(P)rint    <ESC>Quit    No.across? "
250 PRINT "<0-"P"> ";N * J; CHRS (8);
260 GET Z$: PRINT :R = N:M = 0:Z = 0
270 Z = Z$ = "P" OR Z$ = "p"
280 IF Z THEN VTAB 12: CALL - 868: INPUT "No.? ";Y$
290 IF Z THEN Y = VAL (Y$): IF Y > 0 THEN T = Y: GOTO 60
300 IF Z AND NOT Y THEN CALL - 198: GOTO 240
310 N = VAL (Z$): IF N > 0 AND N < = P THEN J = 1: GOTO 60
320 IF Z$ = "0" THEN J = 0: R = 1: N = 1: GOTO 60
330 IF Z$ = CHRS (27) THEN 350
340 CALL -198: N = R: GOTO 220
350 VTAB 24: HTAB 10: PRINT "<- USE ESC & ARROWS TO EDIT";
360 VTAB 12: HTAB 1: PRINT "No. across ------
>.3.><..2..><...1....>";
370 LIST 1 - 8: VTAB 23: END
380 REM W.Currie Dec/89
```



I'VE GOT A VIRUS & I LIKE IT

Peter J. Carter (Applesauce)

Computer viruses have been getting a very bad press of late, and rightly so. But one kind of computer virus is worth exploring.

Logo excels in self-reference, recursion and all that, and here's perhaps the ultimate example:

```
TO Virus.0 :generation
PR SE [This is] WORD
  "Virus.:generation
POTS
DEFINE WORD
  "Virus.:generation + 1
  TEXT WORD
  "Virus.:generation
ER WORD
  "Virus.:generation
RUN LIST WORD
  "Virus.:generation +1
  :generation + 1
END
```

Have it self starting with the STARTUP variable, and yes, they're zeros: MAKE "STARTUP [Virus.0 0]

If you like, omit the ER WORD... line. It works because self modifying and self generating code is easy in Logo. Any procedure is simply a list, and the list manipulators can work on it.

How does this procedure resemble real viruses, invading cells and subverting their operations to make more viruses? (As with real viruses, your Logo system will eventually feel ill.) How about an antibody?

What is really doing the work, the procedure itself, or the Logo interpreter acting on some data? There is a real issue here. What is it that is replicating? Surely the procedure, a few lines of code, cannot be making new copies of itself can it?

To go a bit further, would it be possible to make a machine that could build new copies of itself, in other words, is self-replication possible for machines? (Some would argue that plants and animals, including ourselves, are (biological) machines, and that that would answer the question. (Does that mean we are simply (genetic) information processing machines?))

IIGS Public Domain and Shareware Software

The first of the IIGS Public Domain and Shareware software has arrived and is currently being evaluated.

Of the 17 disks received, so far, ten are demonstration disks of commercially available software, six contain various utilities and the gem of the lot is the new System Disk V3.2. This version of the system was only released to developers in the U.S. in mid-July!

I hope, in the next issue of the Newsletter, to include a catalog and brief description of each disk. By the way, these disks will be available at the same price as the Mac Public Domain disks of $5.00.

Why are we in the Software Release Backwoods?

(Subtitled:- The Mystery of the Availability of Software.)

The reason that this article is being written (9 Sept 88) is that I attempted to get the current availability and prices, within Australia, of some software updates. See the article elsewhere in the Newsletter called "TimeOut Update".

When finalising the article "TimeOut Update" I thought that it would round off the article by including the local prices and availability. On enquiry at the ever helpful ACT Office Equipment I was told that they would check with the Australian distributor, Imagineering (read Questor, their software arm). Shortly after I received a call back from ACT Office Equipment advising the following from Imagineering:-

a. It is improbable that Beagle Bros have released an update to SuperFonts as we won't be receiving it (the original) until mid September. My source of the availiblility of the two updates, SuperFonts and Graph, was received in June 88 from Beagle Bros in the form of their Bulletin - Summer/Fall 88.

b. They had heard of a TimeOut communications release but no further information was known. Fine.

c. Beagle Bros do not write accounting programs and therefore TimeOut Accountant. My source was Call A.P.P.L.E. - the world's largest Apple User Group magazine, June 88.

Why is there such a breakdown in communications between the supplier (Beagle Bros), the distributor (Imagineering) and the customer (us)? Is it that Beagle Bros don't advise their wholesalers of what is coming from the production line? Is it that Beagle Bros don't supply overseas wholesalers for some considerable time after release? Or is it that Imagineering are not keeping up with what is happening with one of the major suppliers of quality software?

I wish I knew the answers, but in the short term, I will continue to order and receive software, within three weeks, direct from Beagle Bros.

- *Les Humphrey*

FOR SALE

Thomson Amber Screen monitor $200 ono
Vision 80 card for Apple II+ original with manuals $150 ono
Amust 80DT 80 col parallel printer $250 ono
Ed Simon 86 1913

WANTED

Apple //e or IIGS computer, (not a clone) preferably with a printer and disk drives.
Please phone Toby Phipps on 51 4481, after 4pm.

MAC DESKTOP
Outer Limits

Macintosh Technical Note #210
Written by: Cameron Birse
August 1, 1988

There is a limit to the number of applications/files that the Finder can "see" on a single volume. This limitation is imposed by the Desktop file. The Desktop file is a resource file that the Finder uses to keep track of information about files and applications, including Finder file comments (Get Info comments), and how these files and applications relate to each other.

Because the Desktop file is a resource file, the maximum number of resources it may contain is currently 2727 (refer to Technical Note #141). To illustrate these limitation of the Desktop file, here are some example applications and how their entries currently affect the Desktop file.

- The Finder puts a single resource into the Desktop file (the Finder is not on the disk).
- MacWrite puts 10 resources into the Desktop file.
- MacPaint puts 9 resources into the Desktop file.
- MacDraw puts 8 resources into the Desktop file.
- MacWrite and MacPaint together put 20 resources into the Desktop file.
- MacWrite and MacDraw together put 19 resources into the Desktop file.
- A generic application (no BNDL resource) or a file without any Finder file comments does not put any resources into the Desktop file.
- Finder file comments put a single resource into the Desktop file.

Note: Both the maximum number of resources in a file, including the Desktop file, as well as the number of resources the above examples put into the Desktop file could change in the future.

As you can see, it is difficult to accurately predict how many applications/files will fit on any single volume. Clearly, the more information an application or file carries with it, the larger its "entry" in the Desktop file. This is normally not a problem, but with the advent of very large capacity media, it is possible to reach this limitation by creating a single volume with too many applications/files.

Apple IIGS
Software Library

GS1 The Graphic Writer V2 is a demo disk of a word processor, containing most of the usual w/p features with the added bonus of color printing if you are using an Imagewriter //.
GS2 Deluxe Paint //. Contains several predrawn pictures which can be manipulated in many ways. Although a dealers demo program most of the functions are available for use, but you require 1 Meg of RAM.
GS3 If you like listening to music the way the GS interprets it then this demo of Music Construction Set is just the disk for you. It contains several pieces for your enjoyment.
GS4 A number of utilities which include a display of the 16 colors that comprise the GS screen, an animation routine and several other programs such as BOXER.
GS5 Notes n Files V1.0 is a demo database and text editor, using life-like graphics and mouse movements to organise, manipulate and cross-reference data.
GS6 On this disk there are several useful utilities as follows:- ECP 16 a shareware shell with line commands similar to UNIX or MS-DOS, SHRCONVERT for converting picture files from Mac, Amiga, Atari ST and Apple double hi-res to super hi-res, ASQ, AUSQ - squeezing and unsqueezing for fast file transfer. The main items on this disk are three offerings from Diversi, namely copy, cache and key and these are really worth-while utilities.
GS7 This contains a set of programs put together by Apple to demonstrate the desktop environment and the 16 bit mode of the GS. They include:- DEMO 16 launches other demos and games on the disk, PAINT A 320/640 bit resolution resolution paint program with some working features, BRICK and DALEKS two old standards, HODGE PODGE for displaying super hi-res graphics and last DQ SAMPLER - an example of QuickDraw capabilities.
GS8 Some of the programs on this disk are :- FREDWRITER A simple but useful word processor, FREETERM GS is a comms program utilising the mouse and the hi-res screen. Only built-in ports supported. UTILITIES contains a routine for converting sections of Macpaint files to SHR format. MACTRANS GS will copy files from a 400K Mac disk onto a proDOS disk. PICS FOLDER contains several digitalised pictures.
GS9 This comes from Washington Apple Pi as a slide show disk incorporating some interesting pictures. As all these pictures are type $C1 which can be used in programs such as Paintworks Plus, Deluxe Paint //, 816 and GS Paint.
GS10 This demo disk contains a most addictive game, called SHANGAI. Although there is a //e version, the only thing they have in common is their name. The GS version with its brilliant color and its ease of play will guarantee hours of enjoyment trying to solve this tile game.
GS11 This is a demo disk of the GS version of Fantavision. Complete with sound.
GS12 A demo from Activision showing the use of and interaction between "Writer's Choice Elite V2", "Paintworks Plus" and "Draw Plus".
GS13 This a disk from Apple Aust. The graphics on this disk are a mixture of drawings and digitalised photos and can be used in GS Paint, PaintWorks Plus, Deluxe Paint and 816/Paint.
GS14 ProDOS Systems Disk. It has a number of advantages over the old ProDOS 8 System disk
GS15 816/Paint demo disk. A Prerelease delta demo V1.0b 6.
GS16 Music Studio demo.
GS17 Color Draw demo.
GS18 New display of Finder icons.
GS19 CONNECT demo program - a Comms program for the GS designed in Australia.
GS20 Systems disk for the IIGS - V3.2. This was only released to developers in the US about mid-July this year.

VIRUS NEWS - ProDOS 8

A virus has been identified by 'Open-Apple' (August 1988, Vol 4 No 7) that attacks ProDOS 8 system files. The virus proclaims itself 'CyberAIDS'.

CyberAIDS tries to replicate itself inside all of the online SYS files that are not in root directories. It does not look in subdirectories and can't corrupt write protected disks or locked SYS files.

When a SYS file with CyberAIDS virus is executed the disk drive will turn off and then back on again. Don't worry if this happens as there are programs available to recover the directories.

The following program from Open-Apple can identify SYS files that have been contaminated by Cyber-AIDS:-

```
10 HOME : PRINT "CyberAIDS Detection Program"
20 PRINT
30 PRINT "Enter the name of the next SYS file to be checked."
40 INPUT F$ : IF LEN(F$) = 0 THEN END
50 PRINT CHR$(4) ; "BLOAD";F$;"A$2000,L3,B3,TSYS "
60 DETECT = 1
70 FOR ADR = 8192 TO 8194
80 IF PEEK(ADR) <> 19 THEN DETECT = 0
90 NEXT
100 IF DETECT THEN PRINT "This SYS file appears infected."
110 IF NOT DETECT THEN PRINT 'This SYS file appears to be OK."
120 GOTO 20
```

If you find a SYS file that has been infected, simply delete it and replace with an uncontaminated backup. You may also like to change the last byte of the first block in the root directory (block 2), which is normally unused, back to zero.

- Les Humphrey

APPLE II TECHNICAL NOTES

The following subjects are covered in the latest issue of Apple II Technical Notes -

ProDOS

• File Auxiliary Type Assignment - Assigning file and/or auxiliary types.
• Mirrored Devices and Smartport - How ProDOS reacts when more than two SmartPort devices are connected, how applications using direct device access should behave, and related issues.

APPLE //e HARDWARE

• Switch Input Changes - Three changes made to switch circuitry (shift and open and closed apple keys) of Apple //e Rev.C and later motherboards.

SMARTPORT

• SmartPort Calls - Description of the different calls and results (error codes) for the SmartPort interface as a result of revisions in May 1988
• SmartPort Device Types - Additional Device Types not listed in current technical reference manuals recognised by SmartPort software.
• SCSI SmartPort Call Changes - SmartPort control call changes with the new Rev C Apple SCSI Interface Card ROM.

UNIDISK

• Architectural Difference Between 3.5" Drives - Information you may require if you are preparing low-level software for the UniDisk and Apple 3.5 Drives.

APPLE II MISCELLANEOUS

• Apple II Family Identification - An update on the list of ROM identification bytes in the Apple II family.
• Apple II Firmware WAIT Routine - An expansion on the Apple // Technical Reference Manuals description of the firmware WAIT routine.

APPLE IIGS

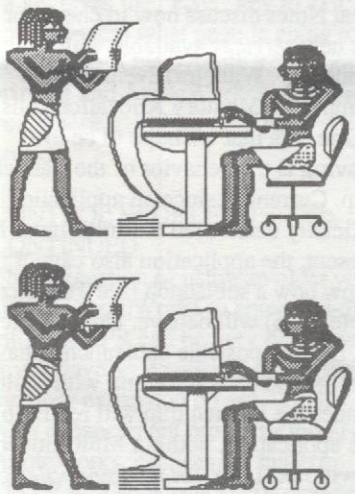
• Window Information Bar Use - How to implement information bars.
• /INH line Anomaly - A hardware anomaly that affects the use of the /INH line on the Apple IIGS.
• APW ERRORDEATH Macro - A short APW macro that can be invoked by an assembly language program to handle fatal error conditions.
• Low-Level QuickDraw II Routines - Low-level routines used by QuickDraw II to do much of the work in standard calls, as well as mechanisms for calling these routines and accessing their data.
• Printer Driver Specifications - The routines and internal structures needed to design a printer driver for the IIGS system; to be used in conjunction with the Apple IIGS Toolbox Reference Manuals (the "Print Manager" chapter in particular).

cont on page 14...

Spot the differences

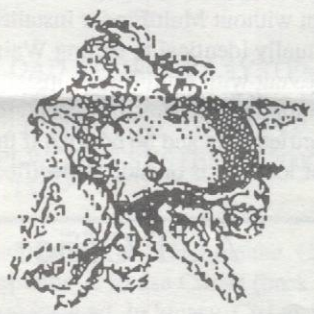
There are 7 differences in the pictures below, can you find them?

Answers to last month:
1. Button missing
2. Mouth different
3. Cuflink missing
4. Apple further away
5. Hair different
6. Apple different
7. L/H table corner different



Identify This

The picture below is part of something. See if you can identify it.
Last month:Mona Lisa.



duced by 50%. If the double size font is not available, the ImageWriter will scale whatever size is avaialble to the required size, however the result is nowhere near as good as when the double size font is available. Thus you should ensure that you have the double font sizes for the font sizes you have used installed in your system.

Sometimes it is useful to work at double the size of the final output and print using the 50% reduced option. For example, you may need a smaller font size than 9 point, so by working with a 12 point font size and using the 50% reduced option you end up with the equivalent of a 6 point font size.

Photocopying the output from the ImageWriter will often produce a copy that looks better than the original because the photocopier bleeds the dots together and smooths the edges of characters.

Conclusion

I hope this has given you a few ideas about how to use MacDraw, Microsoft File and other similar applications for desktop publishing. Many applications have features which make them useful for tasks their designers never foresaw, so when you have a job to do EXPECT your Mac to help and apply some lateral thinking to the features available in the applications on hand and you will be surprised at how often an application can be used in a novel way to get the job done.

APPLE II FAMILY IDENTIFICATION

Here's an interesting fact:

System	Main ID $FBB3	Sub ID1 $FBC0	Sub ID2 $FBBF
Apple][	$38	$60	$2F
Apple][+	$EA	$EA	$EA
Apple //e	$06	$EA	$C1
Apple //e *	$06	$E0	$00
Apple IIgs	$06	$E0	$00
Apple //c	$06	$00	$FF
Apple //c *	$06	$00	$00

* = enhanced/upgraded version To distinguish between the IIgs and the //e the following routine is recommended :

```
SEC          ;c = 1 as a starting point
JSR $FE1F    ;RTS for all Apple ][']s
               prior to the IIgs
BCS App2e    ;if c = 1 (carry set) the
               it's an Apple //e
BCC App2gs   ;if c = 0(carry clear) it's
               an Apple IIgs
```

[NOTE: if the machine is a GS then the A,X and Y registers return various bit s ettings that indicate hardware/ firmware settings, etc.]

There are numerous different file types now available, and here are the sub types I've been able to look up.

abbrev	filetype	auxtype	
TXT	04	0000	
for sequential file or record length for random access files.			
BIN	06		
BLOAD address.			
ADB	19		
AppleWorks uses aux-type as a bit mask			
AWP	1A		
for file names. Bit set means lower			
ASP	1B		
case, bit clear means upper case.			
	C0	0000	
Paintworks Plus SHR graphic.			
	C0	0001	
Eagle format SHR graphic (not supported).			
	C0	0002	
Apple format compressed SHR graphic.			
BAS	FC	0801	Always.

O.K. - so what - well, when you get into ProDOS, you will need to know that a whole lot of other file types exist. The next thing you will need to know is how to swap between each type, and in next month's Newsletter I will give you a short program that will allow you to change the type of file from one to another .

WANTED

A SAM card for an
Apple //e
Ph. 542108 (h)

TIMEOUT UPDATE

Les Humphrey

As promised in the August edition of the Newsletter here is some further information on the TimeOut series that operate within AppleWorks 2.0 or later.

First of all is the news that SuperFonts and Graph now have the capabilities for creating hi-res and double hi-res graphics. This allows changes to existing pictures and graphics - and create original drawings - right in Appleworks. To update your old SuperFonts or Graph disk send US$20 and your original disk to Beagle Bros. (See the accompanying item headed "Why are we in the software release backwoods").

Two additions to the series have also been announced, but I have not seen them to do a critique. They were scheduled for release in the US during July and are TimeOut Accountant and a Timeout communications package. Prices and release dates in Australia are, as yet, unknown.

FLASH: There was another TimeOut program released during the Applefest held in the US during September 1988. It is called TimeOut SpreadTools. It is available direct from Beagle Bros for US$59.95, plus postage. I believe it includes about six modules for use within the spreadsheet and includes some of the features of Visicalc that AppleWorks does not have. I hope to publish a review of the package before the end of the year.

FOR SALE

Wombat Apple II+ clone
(48k RAM board + 16k expansion card) total 64k.
Vision 80 column text card,
2 disk drives (Super 5 and Atlas 8)
+ Disk drive interface card,
one set of game paddles.
Excellent condition.
$900ono
Please phone Toby Phipps on
51 4481 after 4pm

Desktop Publishing From Your Apple][

By Marc Apfelstadt
Courtesy Call-A.P.P.L.E.

Desktop Publishing has become a hot buzzword in the computer industry over the last couple of years. It is not a surprise to many of us. We've been doing it for a lot longer than that! In some ways, Desktop Publishing (DTP) is a bit of a vague concept. Rather than pin a precise set of credentials on what it constitutes, lets consider it in this light - if it is for visible public consumption and/or distribution, it is DTP!

The basic elements include mixed text and graphics, columnar output, optional full-justification, and multiple fonts/typefaces. One of the hardest elements to achieve from a dot-matrix printer is decent looking headline fonts. Clip art libraries and graphic drawing tools should be available for use, along with the ability to import pictures. It is important to match your DTP program with the art tools at your disposal, since information isn't always transferable, especially between Hi-Res, Double Hi-Res, and Super Hi-Res graphics images. All of the packages examined here allow you to import text into the document, but few allow export of information. This is something I'd like to see considered by publishers, so that a file could externally checked for spelling, or perhaps for syntax with something like Sensible Grammar.

It is sometimes valuable to examine the cost effectiveness of doing every step of the process on the computer. I save bundles of time, when layouts are simple, by doing a physical cut and paste of graphic images into short documents. 3M Post-it Correction & Cover-up Tape, available in 1/6, 1/3, and 1 inch widths, do a marvelous job of covering edges of illustrations. When the final page is photocopied on a top quality machine, the "seam-line" doesn't pick up at all. Not only does this give me a top quality product in less time, but it allows use of graphics beyond the available clip libraries.

I had a "Consultant" call recently illustrating this point. A member in San Francisco wanted to use NewsRoom Clip Art in Publish-It!, from Timeworks. It can be done, but only through a very lengthy process. The image must first be saved under Newsroom as a Photo file. That image is loaded into the Clip-Capture graphics program (a utility for Newsroom, Printshop, and Hi-Res image portability) and saved in the program's proprietary format. Clip-Capture is then used to reload the graphic region, convert it into an inverted image (flipped black pixels for white), and saved again as a full Hi-Res screen. Transfer that file to ProDOS, load it into Publish-It!, and select the small portion of the screen you needed to use in the first place. As a solution, I suggested to the caller that the picture be printed, measured, and a corresponding blank graphic region be left in the DTP document. With on-screen rulers as part of the software, physical paste-up is the fastest solution.

As a minor point, it is worth keeping a few new printer ribbons on hand, since the quality of your output can be directly affected by an old ribbon. I also try to use a top grade of bond paper for the final copy, since a whiter background will give better contrast when duplicating.

There are a surprising number of options available for //e and IIc owners - far more than available six months ago. The original product which helped to define the market, Newsroom, is still in catalogs and going strong. Clip art availability and ease of use mark the strengths of the program. The two drawbacks I see are font resolution (blocky at best, especially headlines) and page construction. In Newsroom, each section of the page (roughly 1/8 of an 8 1/2 by 11 sheet) is constructed as a separate "panel". The panels are then placed in page locations on a mock page before the document is printed. This format limits the user to two columns, and makes continuation of text from one panel into the next very awkward. Editing one panel can mean moving text in each following panel, in order to create room for new text or to fill a gap. Whatever the quirks of NewsRoom, the program is still faster than the new market entries, and supports a host of standard printers.

Another option, which has already been obliquely approached in the past through the Word Processing Series (Call-A.P.P.L.E. Feb.'87, March '87, June '87, and Feb. '88) , involves using a word processor in combination with a utility program allowing graphics output. AppleWorks & PinPoint (double Hi-Res graphics), AppleWorks & TimeOut SuperFonts (double Hi-Res graphics), and AppleWorks & Printrix (single Hi-Res graphics) all pose viable options, along with the pairing of MultiScribe //e and Picture Manager from StyleWare.

Rather than dwell on combinations that have been given coverage, I'll focus on the new entries and try to lay out strengths and weaknesses, along with system and printer compatibilities. We'll begin with programs that run on the 128K //e and IIc, and then cover the GS specific products.

Personal Newsletter

The first package is Personal Newsletter from Softsync. The current version, 1.3, has been modified to allow correct use from a hard disk (yea!), is not copy-protected, and supports mouse and keyboard for graphics manipulation. Open-Apple and Solid-Apple keys trigger command menus at the bottom of the screen - not the usual

PERSONAL NEWSLETTER, from SoftSync, imports graphics in NewsRoom and Print Shop formats, in addition to the PN style graphics disks.

The Open-Apple and Solid-Apple keys (Option on the GS) trigger command lists on the bottom of the screen.

Multiple fonts are available, but only one can be used in a given document. [this is SYSTEM.FONT]

Figure 1

Mac interface, but quite workable. The program uses a proprietary font format (non-portable), and contains a "flow" option to pass extra text from one window to the next. A full-page view is used to define and edit "regions", while a partial view is used for detailed work. Figure 1 shows a sample printout from Personal Newsletter.

I find this program fairly easy to use, and faster than the other non-GS products. There is a limit of one font per document (probably resulting in some of the increase in operating speed), though style can be altered. The font definition for headline fonts is blocky - headlines are done as graphic expansions of smaller character matrices. It is possible, although time consuming, to edit the expanded image and smooth out the characters. It would be nice to see an option to do a double-pass printout on an update at some point - the printout is relatively light, even with a brand new ribbon. There is a one page document limit in the current version, a feature worth noting if you plan large projects.

The program contains a powerful set of graphic tools, and can import clip art from Personal Newsletter (of course), as well as Print Shop and NewsRoom images. In order to use to use NewsRoom Clip Art, you must have the NewsRoom program disk to save the image as a Photo file. The art disk itself is copy protected and inaccessible to Personal Newsletter (not SoftSync's doing, but not clear in the manual, either!).

File handling in the program is vastly improved over the first release, but there is still room for improvement. When importing a graphic image, it is now possible to see a catalog - but all files show, not just the ones with a single suffix or file type. When d Personal Newsletter graphic file is selected, the arrow keys scroll through the library one at a time, until the one you want appears on the screen.

On the whole, I would rate this program high for speed and graphics flexibility, though perhaps lower on printout quality and file handling. There are a lot of printers supported (Apple DMP, IW II, ProWriter 8510, Epson FX, Gemini, Okidata, and compatibles), avoiding the "own an ImageWriter" trap. The price is reasonable, and it is a good place to start if you want to explore the possibilities without a large financial investment.

Publish It !
TEST NEWS

Publish-IT!, from TimeWorks, can access single and double Hi-Res full screen graphics in 'NORMAL' Apple format. The screen is presented, and you can clip out a portion for display in your document.

Handling NEWSROOM clip art takes unusual treatment, but it is possible.

Importing CLIP ART calls for the creation of 'graphics regions' where you want the picture to occur. In 'full-sized' mode, graphics appear as objects.

In other screen display modes, the graphics appear as shaded box regions.

Fonts can be mixed on the page. Large fonts look blocky on screen, but are 'true definitions' at printout time.

Figure 2

Publish-It!

Publish-It!, a non-protected product from Timeworks, uses a screen display much closer to the Macintosh design. This program also supports an expanded printer listing (Apple IW II, Epson FX, RX, MX, Gemini 10X, 15X, Okida 192), and a variety of interface cards. The large font printing for this program is the best of the //e programs examines here, as Figure 2 shows.

The program goes beyond the import of simple ASCII text files and allows direct reading of AppleWorks and Bank Street Writer files - a real plus! Documentation is also a strong point with this program. The manual is very readable, well-indexed, and clearly organized.

What are the drawbacks? Memory limitations, for one. As a program designed for the 128K machine, 2 - 4 pages is about what you would expect to achieve as a maximum length. Personally, I'd rather work in smaller segments anyway - it's safer in the event of problems. In any case, don't expect to do War and Peace in any of these environments! Publish-It uses a lot of disk access as memory is swapped for new functions. It may be a safe assumption that every time a DTP product gains features, the user can expect to lose some speed!

Graphic images can be imported from Publish-It Graphics Library (of course), from single and double Hi-Res screens, or they can be created with the built-in drawing tools. The "handles" (boundary markers) on graphic images are very small, and sometimes difficult to grab for manipulation - when trying to change a window size, it is easy to move the window by mistake.

There are LaserWriter drivers in preparation, but I haven't seen them yet. The one reference I have seen (from (Tom Weishaar in the March issue of Open-Apple) documents them as using dot-addressable graphic output, rather than PostScript. If that is true, then the ImageWriter resolution would probably be more acceptable in most cases.

The program has a double-strike print option for ImageWriter output, helping it produce a higher contrast on the final page output. On the whole, Publish-It! would seem to have the edge in quality output for //e programs at this point. Operating speed is the only minor wrinkle, and even that is bearable.

Springboard Publisher

Springboard Publisher was only available in Beta disk form at the time I wrote this article. The disk I have has about the expected amount of bugs for "mid-level beta" (nothing that shouldn't be caught before release). Documentation for the program does a first class job of explaining all the powerful tools available - including many not in any other program. Import of graphics, flow of text around images, and file handling are all smoothly implemented in the user interface, while graphics drawing tools have a major boost in power. Springboard Publisher even contains Scale, Perspective, and Mirror options usually found only in dedicated graphics programs.

At this point, the power of this pro-

gram is also part of its downfall. In adopting the broad base of editing tools, document storage is on disk in "virtual memory" (meaning that it is retrieved in small sections as needed for display). In addition, use of multiple columns (easy to set up) means that altering text, rewrites the entire screen and recalculates the document from disk. Running on the "optimum system" (800K RAM disk, on a GS in fast mode), it took 14 seconds to change a word to bold on screen, redraw the entire video image, and return control to me. If the process were occurring on a disk instead of using RAM (on a 3.5 disk on a non-accelerated //e, for example) that time would lengthen considerably. To get from page to text mode, again on the "fast" GS-RAMDISK combination, took 20 seconds.

I spoke with Springboard at length about the speed issue, They are working on modifications for version 1.1, implementing several speed-up options. Manually switchable screen refresh (sort of like a visual "manual spreadsheet recalculation") is one possibility, along with some checks to see what doesn't need redrawing. At this point, I would recommend that you have a 1 Meg RAM expansion card in a //e, a speed-up processor, and perhaps a 3.5 disk if you wish to get maximum satisfaction from the program.

There is only three fonts available in Springboard Publisher, with lots of style options. Figure 3 shows representative text from the program.

The printed output is satisfactory, and the graphics and text tools available are unparalleled. Version 1.0 is scheduled for release in a copy-protected format in the near future. With a significant increase in operating speed, this program could pose healthy competition to the other programs available.

GEOS

GEOS, from Berkley Softworks, offers yet another option to //e and IIc users. The name for the product line is extracted from "Graphic Environment Operating System". All programs operate under a GEOS shell, which has the feel of the GS Finder or the Apple II Desktop program. Because the product is an "operating system", there are some interesting (and pleasant) differences.

First of all, definition of printers, mice, disk drives, etc., are stored as part of the system information. This means that each GEOS application that you run automatically comes up configured for your hardware - individual steps are not needed for each program. GEOS is provided on three double sided floppies, and will run on 128K systems without much fuss. GEOWRITE, GEOSPELL, and GEOPAINT form the core of initial applications offered, augmented by some desk accessories and utility programs. Expanding to a ProDOS compatible RAM drive, 3.5 drive, or a hard disk is relatively simple, and increases flexibility.

GEOWRITE, the word processor for application series, uses many of the concepts of graphic word processing (fonts, rulers, etc.), but the terminology and screen cues differ from the Apple norm - expect to spend some time adapting to a slightly different look and feel. Printed output from the program looks to be almost up to the quality of MultiScribe //e - not the resolution of the GS type font scrunch drivers like TimeOut SuperFonts, but perfectly acceptable.

My one concern about the product is that it is copy protected through a key disk scheme - you must boot from an original disk, and then switch to your operating backups. Normally, this is satisfactory, but in this case, you must modify the key disk in order to create your custom hardware setup. One of my key disks (backup supplied, thank goodness!) became unbootable after I deleted some configuration files to make room and moved some others onto the disk. I went through the process with crossed fingers when I set up the backup - which worked without a hitch.

The copy protection also plays a larger role from the standpoint of data compatibility and integrity. GEOS allows you, the licensed user (whose name appears in lights every time the system boots!) to use ProDOS hard drives, after going through an installation procedure. In order to identify GEOS files in the system, the file information is written in a non-standard but Pro-DOS readable format. The documentation warns that GEOS files should be deleted only from GEOS, not ProDOS. To do otherwise risks imperfect deletions and potential garbage on the disk. As a correlated "feature", you must un-install GEOS to remove it from a hard disk, since accidentally deleting one of the critical System files from ProDOS may make the entire disk a candidate for hard (non-recoverable) reformatting.

I don't really have a problem with encoding the licensed operator's name into the software (actually, that is a neat touch!), but I do feel insecure about an environment writing critical secret information to my hard disk. Personally, I feel the product would gain a great deal more possibilities without the protection. After all, Berkley SoftWorks hopes that users will make this integrated environment their "prime use", and they have done a good job supporting printer drivers, alternate RAM cards, etc. Why create the potential insecurity for the user? (End of sermon... available on K-Tel records & Tapes.)

That issue aside, the environment is very cleverly implemented. There are utilities to import ProDOS data, most-

TEST NEWS

Springboard Publisher

Springboard Publisher was available as a BETA level product, showing a lot of potential and a few bugs (not unexpected). Screen flexibility is a strong point, while operating speed is a major drawback. The system uses disk space or a RAM disk as virtual memory to hold the document, causing a lot of disk access if you are working from a floppy or 3.5 drive. An 800K RAMDISK is the recommended setup. The graphic shown here was imported from a **NEWSROOM** disk.

Figure 3

ly in the form of text files. Personally, I would like to see file Export as an option, especially since Modem Communications programs are not yet available.

GEOWRITE is capable of importing art clips from GEOPAINT. In that sense, a limited Desk Top Publishing capability is in place, though multiple column output is not supported. Later this summer, look for GEOPUBLISH to implement a full DTP environment. If the speed and flexibility of new releases continues to match the quality of the current applications, they will be a strong contender for the DTP marketplace!

GS Specific Products

MultiScribe GS isn't really a full-fledged desktop publishing environment, but it offers a lot of power to GS users who need mostly font-text, some object graphics, and a lesser amount of clip art. You can now access unlimited font families through the Choose Font option - but I would suggest trying your choices and selecting favorites for inclusion on the boot disk.

When ProDOS 16 loads an application, the Font directory information is read into memory as part of the boot process - so a larger font directory means a longer boot time. I am also in the process of working through the Co-op Font Disks and checking for compitability (not a MultiScribe GS problem), since not all converted Mac fonts work equally well with all programs and/or printer drivers. Some display handsomely on the screen, but print as garbage, etc. Presumably, the header information or image code isn't what the application is expecting.

MultiScribe GS offers a lot if you don't need multiple columns for newspaper style output. For overheads, documents in full-page format with clipped GS graphics, etc., the print resolution is about the best available - the LaserWriter is supported for top quality output. Here's a neat trick from StyleWare tech support too, that will work with any program (i.e. AppleWorks) to give fully justified multiple columns. Calculate where the margins of the columns should be set to avoid overwriting each other. Do each column as a separate page divided with new page commands, and containing the new ruler or margin settings right after the page command.

By stopping there, you have the layout for a neat cut and paste project. Carrying the concept one step further, take several sheets of formfeed paper and tape the ends together to make a continuous loop! When printed in "pause each page mode" or "sheet feed mode", you can deselect the printer, hit 'form feed' a couple of times, and end up at the top of the page again, perfectly aligned. No more guessing about the vertical alignment when you roll the paper back, either! The MultiScribe example, Figure 4, was done as a "physical paste-up", just to document that the technique works. It could have been done through the paper loop method just as easily.

If you recall my personal "user profile" from last month's Consultant's Corner, most of my work involves recording words and then moving them around - either in Text or Font style output. MultiScribe GS meets my font-text needs to the greatest degree at this point in time.

GraphicWriter 2.0

Though GraphicWriter from DataPak has been examined before as a "font-based word processor", now we can look at the program for what it is - a full-featured desktop publishing environment with support for GS quality graphics, LaserWriter output, and flexible windowing. If you have a GS and want to do DTP, this program is the most viable option on the market.

Drawbacks are really few, and most can be worked around. There isn't a Chosen Font option, so all of the Public Domain Fonts you so laboriously loaded onto the font subdirectory are inaccessible, unless they head the list. The program supports a high degree of tools and graphic object manipulation, but in shorter documents - 2-3 pages would be a working guide. In some ways, that approach makes sense, anyway. Who wants to wait while 60 pages reformats in memory? Besides, from the standpoint of limiting losses from power problems and the like, keeping several smaller documents for separate printing makes a lot of sense,

Figure 5 shows columnar text output from GraphicWriter. It was printed using DataPak's custom high quality print driver, and shows the difference GS implementation can make.

How do you decide between the two available GS options? At this point in time, I would personally recommend MultiScribe GS if you need longer documents, greater font flexibility, and spell checking. GraphicWriter offers many more page design functions at your fingertips, allowing more format flexibility in a shorter document.

That about covers the dedicated (and not so dedicated!) products currently available. There are also other programs, hardware options, and reference tools that will enhance your work with any or all of the products reviewed.

The ThunderScan unit, from Thunderware, is a video scanning device which plugs into the ImageWriter printer family. When you roll an image through the printer, it is scanned by the moving mechanism, and appears on screen in the video format you select. I have accumulated quite a library of scanned images, which form a welcome addition to my DTP options. While you give up a slight bit of resolution going from a true image to a digitized one, you gain the chance to

TEST NEWS

MultiScribe GS

MultiScribe GS allows single column format only (unless you want to TAB for every second column and manually handle corrections), but print quality is far superior to many of the 'dedicated publishing products'. Because of the enhanced image and faster editing, it is worth doing two 'narrow pages', then a physical paste-up to join them. Here is one below :

Narrow text from MultiScribe GS, with a pasted second column, actually has better results because the program isn't trying to do as much. Graphics can be imported and sized, but watch out for translation of color tables... StyleWare offers blank templates on disk for common GS paint programs.

Figure 4

edit the picture for color shading, sizing, perspective, etc., through the many drawing packages available.

I was a bit skeptical at the small size of the manual included with Thunderscan - surely it has to be more difficult to use. Well, it isn't! Simply remove the ribbon cartridge from your printer, replace it with the ThunderScan unit, and plug a single cable into the "joystick" port (all with the computer and printer turned off, of course!). Boot the software, and walk through about a three step process to record an image.

There are a few little twists to watch for. First, the instructions tell you to remove the cable from the computer before the exiting the software. Failure to do so leaves the computer thinking that a mouse or joystick button is being pressed when a new program starts. In my case, the system thinks that ProSel (Glen Brendon's program selector) has detected a mouse button, and the first application on the menu list (Appleworks) runs automatically!

The software supports ProDOS disks, but doesn't have the option to peruse subdirectory levels. It can be run from a hard disk, but should be near or in the Root directory level because of a path problem. I understand that a new revision of the software is in the works, so this will no doubt be addressed.

For incorporating external images without having to draw them in, the ThunderScan unit is tops. My favourite scan mode is UltraRes GS, using four shades for SuperRes. From that image, it is relatively simple to import into Desktop Publishing applications without having to spend 20 minutes adjusting color sliders and looking at the results.

Another option for enhancement is paint-style programs for art design. PaintWorks Gold is now out for the GS, and will be covered in detail in a coming review. I made the switch from PaintWorks Plus with ease, and haven't looked back except to load in pictures for further enhancement. There is an upgrade path for owners of PaintWorks Plus, so current users should consider checking with Activision about updating to the new product. The only caveat to be aware of... it requires a 1 meg RAM card, or a 1.25 meg system (!) in order to run. The Graphics Studio, from Acolade, has entered the paint program arena as well. In addition to the standard drawing tools, the program offers color cycling and a slide show program, and will also be included in a future column.

There is an interesting "hybrid" program for the GS from Broderbund, called ShowOff. The software is built around single screen design, with a library of clip art images included. There is also a Slide Show option, complete with interactive keyboard control - you can ask a question, then skip to the slide show with the appropriate response. There is also a "quick and dirty" graphing program, which allows you to enter a limited set of data (12 entries) and create instant Bar, Pie and Line graphs.

If you need fancy output for overheads, this program might just bypass the old process of making a master, photocopying, and producing the overhead from the copy. When I spoke to Broderbund technical support I found out that there is a Scotch-3M transparency film which can go directly through the printer to receive an image, and that it should be treated with a fixative (available from art supply stores) to bind the colors in place. With the combination of features included, ShowOff should be a real hit in the "polished presentation graphics with little effort" market. I certainly plan to make a lot of use of it! Last, but not least, there is a new publication available as a resource. The Desktop Publishing Newsletter is now available from Sage Productions, producers of The AppleWorks Journal. The newsletter covers reviews of new products (including many covered in this article), as well as conceptual issues in page layout and production, and sections on hints, techniques, and time savers. I read it from cover to cover as soon as it arrives, and find it fascinating. The Glossary of Desktop Publishing Terms appearing with this article is reprinted courtesy of Sage Productions.

This covers the scope of the released and about to be released software available for the Apple][family. I hope this information generates enough enthusiasm to get you started using your][for yet another valuable and rewarding purpose.

Call-A.P.P.L.E. can be subscribed to by writing to :-
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- Port Driver Specs - How to write your own drivers for IIGS ports.
- Free-Form Synthesiser Tips - Help for those unfamiliar with the IIGS Sound Tool Set to use the Free-Form Synthesiser.
- List Controls in Dialog Boxes - How to include a list control in a dialog box. Sample C source code included.
- Mega II Video Counters - The Mega II video registers can be used by applications to get info about where the beam is on the IIGS display.
- VBL signal - Smooth animation can be accomplished.
- Font Family Numbers - List of IIGS font family names and numbers.

If you want copies of any of the above papers, copies of previous releases or an index to same, please give me call or see me at the meeting.

Logan Brill
Hardware Loans

TEST NEWS

GraphicWriter 2.0

Graphic Writer 2.0 offers a good mix of 'GS resolution' printer output and drawing tools. The only limitation is one of document size, imposed by the amount of memory needed for the object drawing tools. Columns can occur automatically or through separate REGION (window) definitions.

Figure 5

FUTURE OF SOFTWARE

BILL GATES

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HYPERCARD Special Interest Group (SIG)

The next meeting of the Hyper-Card SIG will be held at Apple Computer, 31 Thesiger Court, Deakin, at 7:30pm on Tuesday 17th October. Peter Thomas will again lead this session which will deal with XCMD's etc.

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Colour monitor, 3.5" disk drive, Mouse, 4.0 System software update
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IIGS PUBLIC DOMAIN LIBRARY

Additional disks are now available in the IIGS library:-

GS30 A utility disk for manipulating and changing fonts. Re-read the article in the September 89 issue called GS Fonts - this is the disk that is talked about.

GS31 This is a program called Utility Works V0.5. It is under development at present but a number of features are available. It is an integrated set of Apple IIGS utilities which gives the user, within a single program, all of the most frequently used utilities. Full use is made of pull-down menus and multiple windows. Included are three games.

GS32 This is JumpStart V2.1, which is designed to be the "control centre" for easily and efficiently operating your Apple IIGS. It includes a few utilities and ,again, three games.

GS33 This contains Squirt 16 and SHRConvert. Squirt 16 is an alternate ProDOS 8/16 & GS/OS program selector. It is not as colourful, nor does it have the extras to be found in UtilityWorks GS and Jumpstart, but it is fast. SHRConvert can convert a number of different graphics into a format that can be easily loaded into GS paint programs, draw and desktop publishing packages. This program is a must for anyone interested in graphics!

Les Humphrey

ZIP CHIP UPDATE

Zip technology is still experiencing problems with supplying the new Zip chip and in reliability of their product. Fortunately they offer a life time guarantee so if the company survives they will always exchange.
So far I have returned the chip twice. The first time a new one arrived in one month. The second time though.....still waiting four months later. I rang Zip technology the other day to find out what was going on and got the usual reply that they expect to ship in two weeks. At least I now know that they have received my mail!

The other news is that they expect to release an 8 MHz chip by Christmas. It will be more expensive than the 4 MHz chip and you can upgrade from the 4 MHz chip for US$100.

At present I get about one months solid use before the chip breaks down so will probably consider upgrading at the next failure. Sounds crazy doesn't it, fancy spending more money on something that breaks down all the time, but speed is addictive.

Brian Mattick

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1. Epsom LX 400 (formally LX800)	380.00
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APPLE II HINTS Continued from last Month FINAL BIT

AppleWorks 2.0 lets you Merge Database Records with Word Processor Documents

To create mail merge documents using a new print option which can be imbedded in a word processor file.

1. From the database, create a table style report.

2. The records appear on the clipboard in the order of the last sort in the table style report. Open your word processor document.

3. In your word processor document, place the cursor where the mail merge category should go. Select "MM" from the <Open_Apple>-O printer options. A list of Mail Merge categories appears.

4. Select a database category. Answer the question regarding whether a line should be deleted if the category is blank.

5. Repeat steps 3 and 4 until all the categories you want are placed in the document.

Mail Merge places the database category in the document with a provision for appending one space at the end of the merged entry. A caret also appears in front of the category name. AppleWorks marks this caret as a mail merge printing option; place the cursor on this caret and the prompt line reads "Mail Merge".

6. Press <Open_Apple>-P to print the word processor document.

7. If there is mail merge data in the document, AppleWorks will ask you if you want to print the document with the categories merged, or un-merged (as you see it on the screen.)

8. If there isn't mail merge data on the clipboard, AppleWorks tells you. Be further aware that only during printing does AppleWorks report an error if the word processor document has a category name that AppleWorks cannot find on the clipboard.

Creating Superscript in AppleWorks on ImageWriter I

Q. I have set my ImageWriter I to work with AppleWorks on my Apple IIGS. Since I want to use the subscript as the backspace command (CTRL-H), I installed my printer as a custom printer within AppleWorks. My problem is that I cannot use the superscript. When I enter the standard ESC x and ESC y in superscript, the superscript number prints at the standard line level. The codes I used:

Superscript Begin: ESC 11 ESC r ESC T20 CONT-J

Superscript End: ESC s CONT-J ESC T20 ESC c

Under the standard ImageWriter driver in AppleWorks, the superscript works fine. I checked the serial number of my ImageWriter to see if it was below 250000 - the serial number is 520729. I tried it with two other ImageWriters with the same result.

A. You are using the correct code for Superscript Begin; however, the Superscript End code is incorrect. The correct codes are:

Superscript Begin: ESC 11 ESC r ESC T20 CONT-J
Superscript End: ESC f CONT-J ESC T24 (66 lines per page)
Superscript End: ESC f CONT-J ESC T18 (72 lines per page)

An ESC c should not be used in the Superscript End code string. The ESC c generates a carriage return that forces all text following the Superscript End to be printed over the first part of the same line or on a new line.

Also, when giving the Superscript Begin code, the ESC T value may be adjusted to a greater or lesser number depending on the desired height of the superscript. For 66 lines per page, an ESC T20 is almost a full character above the current text line; where as, an ESC T12 is about 1/2 character above the current text line.

AppleWorks 1.3 & 2.0: Won't Correctly Skip Pages When Printing

In AppleWorks' word processor, there are occasional printing problems when there is a page break in the middle of an indented paragraph. If you use the options menu (<Open_Apple>-O) to specify a paragraph indent of more than nine characters, AppleWorks may fail to skip to a new page when it should.

Two workarounds:

For paragraph indents greater than nine characters, insert nine spaces instead of using the Indent command in the Options menu.

Insert a carriage return on the line before the desired page break, creating two paragraphs, one before and one after the page break. (Indent the first line of the new second paragraph so it will line up with the rest of the text.)

Settings and Codes for Star Dot Matrix Printer

Do not change the default settings of the Custom printer except for Platen Width, which should be changed to 13.2 inches in case the printer has a wide carriage.

MenuItemValueEntry

1. Chars per inch 5[ESC]B [CTRL-A] [ESC]W[CTRL-A]^
1. Chars per inch 6[ESC]B [CTRL-B] [ESC]W[CTRL-A]^

1. Chars per inch 10[ESC]B [CTRL-A] [ESC]W[CTRL@]^
1. Chars per inch 12[ESC]B [CTRL-B] [ESC]W[CTRL@]^
1. Chars per inch 17[ESC]B [CTRL-C] [ESC]W[CTRL@]^

2. Lines per inch 6[ESC]2^
2. Lines per inch 8[ESC]O^
3. Boldfacebegin[ESC]G^
3. Boldfaceend[ESC]H^
3. Subscriptbegin[ESC]S [CTRL-A]^
3. Subscriptend[ESC]T^
3. Superscriptbegin[ESC]S [CTRL-@]^
3. Superscriptend[ESC]T^
4. Underliningbegin[ESC]- [CTRL-A]^
4. Underliningend[ESC]- [CTRL-@]^

Apple IIGS: Composite and analog video

The Apple IIGS has two video ports: an RCA phono jack and a 15-pin D-Type connector. An EIA-standard composite video signal (2.0V white, 0.75V black, O.OV sync., 75-ohm impedance) is available from both connectors. This composite signal drives many monitors such as the AppleColor Composite Monitor, the Apple Monochrome Monitor, and a TV unit with an RF modulator. While composite video monitors can be used with the Apple IIGS, they don't fully render the 320 x 200 and 640 x 200-pixel colour graphics potential of the new system.

The 15-pin connector analog RGB signals provide full colour graphics display capability. Note that the Apple IIGS outputs analog, not digital, RGB signals. The designers preferred the unrestricted character of an analog signal for the ability of the Apple IIGS to support 4,096 colours. Apple offers a new platinum Apple Colour RGB Monitor for the Apple IIGS. Other analog RGB monitors known to work with the Apple IIGS include several models by Hitachi, Panasonic, Sanyo, Mitsubishi, Conrac, and Commodore.

To check if your monitor is analog RGB, consult the manual. Check the pinouts before connecting the monitor to an Apple IIGS to make sure your monitor is compatible with pins 7 and 8. The Apple IIGS's 15-pin RGB video signals are as follows:

Pin Signal

1 Signal ground (Red)
2 Analog RED with sync
3 Composite sync
4 No connection
5 Analog GREEN with sync
6 Signal ground (Green)
7 -5 volts DC
8 +12 volts DC
9 Analog BLUE with sync
10 No connection
11 Sound 1V peak-to-peak
12 NTSC/composite colour video out
13 Signal ground (Blue)
14 No connection
15 No connection
Shield System ground

There's no simple, straight forward way to invert sync or to separate horizontal and vertical sync on the composite signal for incompatible monitors, but it could be done as an interface product.

Some types and makes of monitors won't work at all. Digital RGB monitors either won't work at all or will work with unpredictable results. Digital RGB monitors with these problems are Apple's older Colour Monitor 100 and IBM RGB monitors (Note - IBM's RGB monitors need inverted sync in addition to TTL video signals.). Apple's Flat Panel Display has incompatible signals.

Do NOT assume that a DB-15 connector on your colour monitor means it's analog RGB.

WARNING: THIS INFORMATION IS PROVIDED FOR YOUR INTEREST ONLY!
ANY WIRING TO YOUR COMPUTER SHOULD BE CARRIED OUT BY AUTHORISED APPLE PERSONNEL, TO AVOID BREACHING WARRANTY.

LOADING PROGRAMS TO A RAM DISC

Brian Mattick

With a 128k //e or //c, ProDOS formats the auxillary 64k as a RAM disc having the volume name /RAM. The RAM disc is in fact a very fast disc drive because there are no moving parts.

It can be used to temporarily store values during the running of a program if there are "out of memory" problems, for instance. A convenient technique for large matrix operations is to open random access files for each matrix and simply load in the row or column needed for the current operation, then save the result in another random access file. Another application is to load a suite of programs into RAM. The CHAIN between programs or RUNning a new program is very rapid.

In fact RAM is ideal for temporary program storage and this is probably the main application for the BASIC programmer.

Loading a program from disc to RAM is not that straight forward. As soon as you load a program it clobbers the running program and everything stops. Here are some methods of loading a program into RAM.

The first method I call the running program method. It looks like this;

i) the last line executed in the STARTUP program is;

```
xxxx PRINT CHR$(4)"RUN
PROGRAM.1"
```

ii) the first lines of PROGRAM.1 are;

```
10 PRINT CHR$(4)
"SAVE/RAM/PROGRAM.1"
20 PRINT CHR$(4)
    "RUN PROGRAM.2"
30 END
40 REM program.1 starts here
```

the first lines of PROGRAM.2 are similar to PROGRAM.1 etc

iii) the last program loaded is the first program to run by leaving out line 30

iv) to access a program from RAM the syntax is;

```
xxxx PRINT CHR$(4) "RUN
/RAM/PROGRAM.1 @ 40"
```

this syntax causes program execution to start on line 40. The second method is the EXEC file method. It looks like this;

i) first create a text file called LOADER containing the following commands;

```
LOAD PROGRAM.1
SAVE/RAM/PROGRAM.1
LOAD PROGRAM.2
SAVE/RAM/PROG.2 etc
RUN/RAM/PROGRAM.1
```

The text file can be created with a word processor in which case each command must be on a separate line and separated by a carriage return. Alternatively the text file can be created with a short program like;

```
10 D$=CHR$(4)
20 PRINT D$"OPEN
LOADER"
30 PRINT D$"CLOSE
LOADER"
40 PRINT D$"DELETE
LOADER"
50 PRINT D$"OPEN
LOADER"
60 PRINT D$"WRITE
LOADER"
70 PRINT "LOAD
PROGRAM.1"
80 PRINT
"SAVE/RAM/PROGRAM.1"
90 PRINT "LOAD
PROGRAM.2"
100 PRINT "SAVE
/RAM/PROGRAM.2" etc
150 PRINT
"RUN/RAM/PROGRAM.1"
160 PRINT D$"CLOSE"
170 END
```

ii) the last executed line of the STARTUP program is;

```
xxxx PRINT CHR$(4)"EXEC
LOADER"
```

When the EXEC command is operating the "]" prompt apperas on the screen because the command treats the text file as if it had been typed at the keyboard. I have always thought the "]" looked a bit amateurish and the way to overcome this is to switch to a graphic screen. Better still use MOUSEPAINT or similar program to design a neat graphic and display this while all the disc whirring is taking place.

The previous methods only work with programs, either Applesoft or binary. The methods cannot handle other types of files such as text or user specified file types. The third method, which I call the COPY command method can handle any type of file and is by far the most elegant way to load data to RAM. The COPY command is actually a machine language program which adds a new command to ProDOS. The program is beyond me to design but fortunately NIBBLE have published two versions to my knowledge and the references are;

1. 'ProDOS Copy Command' by Ken Manly, Vol 6 Number 12, December 1985.

2. 'Sparse Files' by Sandy Mossberg, Vol 8 Number 6, June 1987.

The only disadvantage, and a minor one at that, is that COPY requires about two pages of memory ($200). So far I haven't figured out how to

A.C.T. APPLE USERS GROUP INCORPORATED
ORDER FORM
PUBLIC DOMAIN AND SHAREWARE SOFTWARE
APPLE II - MACINTOSH - APPLE IIGS
(Apple II SS $3.00, DS $4.00, Mac&IIGS $8.00)

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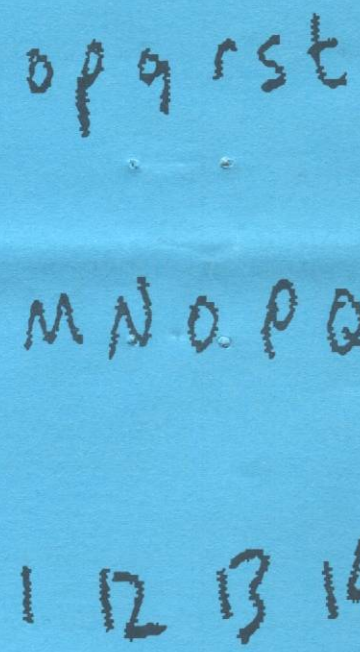
Disk category and number		Disk category and number	
	$		$
	$		$
	$		$
	$		$
	$		$

TOTAL.....$ _____

disconnect COPY and recover the two pages without turning the computer off. Any suggestions?

A variation to the COPY method is to write a machine language program to load the named programs to RAM. You will recall the problem with trying to use a basic program was that it would be clobbered. However we can write a machine language program and place it anywhere, for instance at $300 or protected by HIMEM. The important point is that the machine language program is not placed near LOMEM as this is where the basic program is loaded. I haven't tried this method but conceptually the ML code appears to be fairly straight forward.



Newsletter Info.

This is the magazine of the A.C.T. Apple Users Group Incorporated. It is produced monthly and distributed to all financial members and Apple User Groups at no cost.

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Articles in this Newsletter may be reprinted by non-profit organisations provided that credit is given to the source.

Advertising: Financial members may supply small advertisements for publishing at no cost at the discretion of the editor. Commercial organisations will be billed for advertising. Corporate members will receive a 10% discount. Advertising will be accepted with the same deadlines. Cost quarter page: $40, half page: $60, full page: $100.

General meetings of the club are on the second Thursday of the month at the O'Connell Education Centre, Stuart St, Griffith, 7.15 to 9:45pm. A workshop meeting is at the same venue the following Tuesday. The executive meets on the 4th Thursday of the month.

MemberShip: Joining fee: Full member = $10. Junior member = $5. Organisation = $20. Annual fee: Full member = $25. Junior member = $15. Organisation = $50.

Phone numbers are published for the use of members between the hours of 6pm and 9.00pm only. The recorded answering service number is available 24 hours per day.

Warnings The Club does not condone copying of software at meetings except for the distribution of Apple upgrades and Club software disks. All members are expected to display a high standard of behavior to guarantee our continued use of the venue.

Layout and Design of the Newsletter is done using ReadySetGo 4, and printed on a Laserwriter.

APPLE II TIPS

courtesy AppleSauce

APPLEWORKS - Won't Load, Won't Save - Won't Upload What do I do?

by Sue Goodin, East Coast Technical Support

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Three of the most commonly asked questions about AppleWorks deal with files not loading, saving, or uploading properly to an electronic mail/ message base. In many instances, the solution is a relatively simple one. Before panicking, try the following solutions:

File Won't Load - File Not Found

If the file name appears on the directory, but AppleWorks is unable to access it, the file or the subdirectory may be damaged. To logically isolate the problem, use a copy utility (System Utilities 2.1.1 or the GS System Utilities 1.1) and move the suspect file to another directory and attempt to load it from there. If it will not load from the new directory, then the file itself is corrupted and the data is lost, unless it has been backed up.

If the file is moved to a subdirectory, and it loads correctly, the original subdirectory is damaged. Copy all files in the subdirectory to another area, then delete the subdirectory.

If you are using a floppy drive, check the disk and make sure it is not damaged: It is far more cost effective to toss a disk and use a new one, than to continue losing data! If you are using a hard disk, and you discover a problem, you will want to backup the drive and then reformat it.

You may be trying to open more files than AppleWorks will allow. AppleWorks allows 12 files on the desktop at any one time.

File Won't Save - Disk is Full

The most common reason for a file not saving is the tendency to overfill subdirectories. While ProDOS allows 51 files on the Root Directory, and an unlimited number in subdirectories, AppleWorks permits only 130 files in a directory. Veteran AppleWorks experts limit subdirectory entries to 30 or less. While this is not a major problem for 5.25" drive users, it can become a problem with large capacity drives.

Make sure that you are not saving all your files in one area. Subdirectories can be used effectively to organize and catalog your files.

My AppleWorks Text File Won't Upload - What Am I Doing Wrong?

Some systems, such as CompuServe(tm) require both a Carriage Return AND a Linefeed at the end of each line to in order to upload files correctly.

In AppleWorks, Version 1.3 or earlier, writing an AppleWorks document out as text (ASCII) file, or using the AppleWorks option of "Printing to a Text (ASCII) File" will result in:

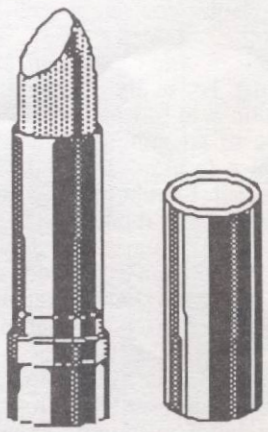
a carriage return in the text file wherever there is a Carriage Return in a word processor document.
a carriage return following each entry in a data base report.
A carriage return following each cell when working with a spreadsheet document.

To obtain that elusive Line Feed, the work-around is to configure a Custom Printer using the "Add a Printer" option in AppleWorks. Name it "Upload" or some other appropriate name that will remind you of its purpose. Choose the Silent Type printer. Change the specifications to add a Line Feed after each RETURN, [1. Needs line feed after each RETURN], and save this printer configuration to disk.

To convert an AppleWorks file to an ASCII file with the required Carriage Return/Line Feed line termination, simply print your document to "Upload." The resulting file will then upload properly.

AppleWorks 2.0 AUTOMATICALLY adds Carriage Returns at the end of each line, but you will still have to add Line Feeds with the above procedure.

Remember the three rules that will keep you out of trouble: Backup your files frequently, Backup your files FREQUENTLY, and most important: BACKUP YOUR FILES FREQUENTLY.



MNEMONIC MEANINGS ?

AAC Alter All Commands
AAR Alter at Random
AB Add Backwards
AFVC Add Finagle's Variable Constant
AIB Attack Innocent Bystander
AWTT Assemble with Tinker Toys
BAC Branch to Alpha Centauri
BAF Blow all Fuses
BAFL Branch and Flush
BBT Branch on Binary Tree
BBW Branch Both Ways
BCIL Branch Creating Infinite Loop
BDC Break Down and Cry
BDT Burn Data Tree
BEW Branch Either Way
BF Belch Fire
BH Branch and Hang
BMR Branch Multiple Registers
BOB Branch on Bug
BOD Beat on the Disk
BOI Byte Operator Immediately
BPDI Be Polite, Don't Interrupt
BPO Branch on Power Off
BRSS Branch on Sunspot
BST Backspace and Stretch Tape
BW Branch on Whim
CBNC Close, but no Cigar
CDC Close Disk Cover
CH Create Havoc
CLBR Clobber Register
CLBRI Clobber Register Immediately
CM Circulate Memory
CMD Compare Meaningless Data
CML Compute Meaning of Life
CNB Cause Nervous Breakdown
COLB Crash for Operator's Lunch Break
CPPR Crumple Printer Paper and Rip
CRB Crash and Burn
CRN Convert to Roman Numerals
CS Crash System
CSL Curse and Swear Loudly
CU Convert to Unary
CVG Convert to Garbage
CWOM Complement Write-only Memory
CZZC Convert Zone to Zip Code
DBTP Drop Back Ten and Punt
DBZ Divide by Zero
DC Divide and Conquer
DDC Dally During Calculations
DLN Don't Look Now...
DMNS Do What I Mean, Not What I Say
DMPE Decide to Major in Phys. Ed.
DMPK Destroy Memory Protect Key
DNPG Do Not Pass Go
DO Divide and Overflow
DOC Drive Operator Crazy
DPR Destroy Program
DTC Destroy This Command
DTE Decrement Telephone Extension
DTVFL Destroy Third Variable From Left
DW Destroy World
EBB Edit and Blank Buffer
ECO Electrocute Computer Operator
EFD Emulate Frisbee Using Disk Pack
EIAO Execute In Any Order
EIOC Execute Invalid Op-code
EMPC Emulate Pocket Calculator
EMSE Edit and Mark Something Else
ENF Emit Noxious Fumes
EP Execute Programmer
EPI Execute Programmer Immediately
EROS Erase Read-only Storage
EXOP Execute Operator
EXPP Execute Political Prisoner
FLI Flash Lights Impressively
FSM Fold, Spindle and Mutilate
FSRA Forms Skip and Run Away
GCAR Get Correct Answer Regardless
GDP Grin Defiantly at Programmer
GFD Go Forth and Divide
GFM Go Forth and Multiply
HCF Halt and Catch Fire
HCP Hide Central Processor
IAE Ignore All Exceptions
IBP Insert Bug and Proceed
IIB Ignore Inquiry and Branch
ISC Insert Sarcastic Comments
JTZ Jump to Twilight Zone
LAP Laugh At Programmer
LCC Load and Clear Core
LPA Lead Programmer Astray
MAZ Multiply Answer by Zero
MBR Multiply and be Fruitful
MLR Move and Lose Record
MW Malfunction Whenever
MWAG Make Wild-Assed Guess
MWT Malfunction Without Telling
OML Obey Murphy's Laws
P$*! Punch Obscenity
PBC Print and Break Chain
PD Play Dead
PDSK Punch Disk
PEHC Punch Extra Holes in Cards
PFD Punt on Fourth Down
PI Punch Invalid
PNRP Print Nasty Replies to Programmer
POCL Punch Out Console Lights
POPI Punch Operator Immediately
PVLC Punch Variable Length Card
RA Randomize Answer
RASC Read and Shred Card
RCB Read Command Backwards
RD Reverse Directions
RDA Refuse to Disclose Answer
RDB Run Disk Backwards
RDS Read Sideways
RIRG Read Inter-record Gap
RLI Rotate Left Indefinitely
ROC Randomize Op Codes
ROO Rub Out Operator
RPB Read Print and Blush
RPM Read Programmer's Mind
RSD On Read Error Self-Destruct
RSTOM Read From Store-only Memory
RTS Return To Sender
RWCR Rewind Card Reader
SAI Skip All Instructions
SAS Sit And Spin
SCCA Short Circuit on Correct Answer
SFH Set Flags to Half-mast
SFT Stall For Time
SHAB Shift a Bit
SHABM Shift a Bit More
SLP Sharpen Light Pen
SMR Skip on Meaningless Result
SOS Sign off, Stupid
SOT Sit on a Tack
SPS Set Panel Switches
SPSW Scramble Program Status Word
SRDR Shift Right Double Ridiculous
SRSD Seek Record and Scar Disk

2 MEG MICROWAVE? OR ROAST FLOPPY?

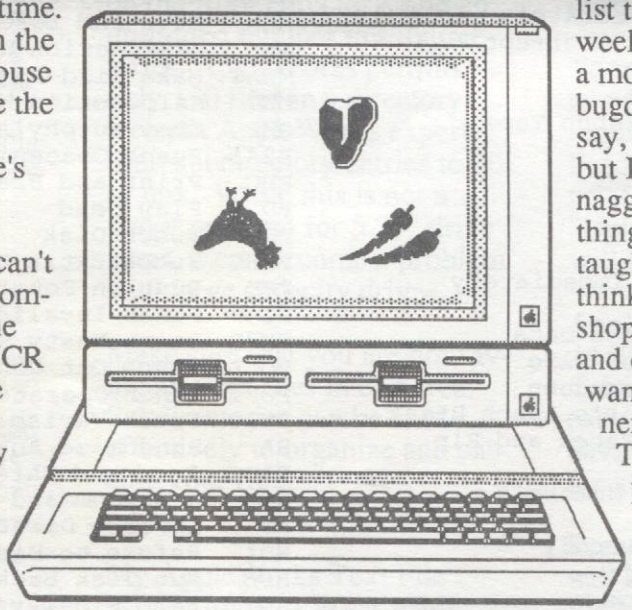
Gordon White

I bought a video cassette recorder soon after they became "affordable". I also bought a microwave oven soon after I had gathered enough opinion on what to look for from people who had been brave enough (or yuppy enough) to have one of the early ones. Why? 'Cos they are both good things to have, if you learn to use them. My father is a chef and resisted buying a microwave oven for some time. But a couple of years down the track, I'm sure that if the house were on fire, he would take the oven outside first and then check on everyone else. He's even talked about getting another one! He refuses to touch the VCR though. "I can't work that thing ... it's too complicated". My mother on the other hand, has neither a VCR nor a microwave oven. I've been trying to tell her she should have both for nearly 10 years, now. She steadfastly refuses. My mother-in-law does her washing in a twin-tub washing machine! But she has a VCR and microwave.

We really are a strange mob, each with our own little idiosyncrasies, but you already know this, so why am I telling you this convoluted tale about my typical family in the APPLE USERS' GROUP NEWSLETTER? ... Obviously, it's because I have some pretty weird hang-ups. Many of my peers recognise this and say things behind my back like, "Yeah..., but he's such a computer nut, what do you expect?" Nevertheless, it's true I AM the only soldier who IS in step. Everybody else is wrong! Sometimes people without computers make me feel like I ought to keep my enthusiasm to myself.....

Still with me? Good, 'cos I'm about to get to the point.

The point is; I have a home computer, but that's not weird because I use it for useful, and serious activities. And that's what I'm going to tell you about. I won't be trying to get you to buy one, but you should, by the end of this article, be able to relate to others, and feel good about yourself and your computer. Cheap psychological therapy is what you'll find below.



Like many others, I first bought a computer with not much experience or knowledge to go on. Almost right away I realised that my microwave oven (I mean my computer) could replace my typewriter. I gave the typewriter to my mother. I wouldn't use a typewriter now unless there was a gun to my head, (or I had to use an IBM). That's still the main thing our computer is used for; all kinds of letters, reports, documents, and so on, but the percentage of these is decreasing, compared to other uses. At first my wife saw the computer as my way of avoiding her. At least that's the way she made it sound. I used to say things like, "You're watching one screen, I'm watching another. At least I've something to show for my time spent, afterwards!" ... Nasty, wasn't I? But, you see, I was converted. Gradually Susan, who now uses the microwave, (and always saw the value of the VCR), also uses the computer. In fact, we may have to get another one soon 'cos I can't just "play" with it anymore. "I have important work stuff to do, so you can play games later", has become an all too frequent saying in our study.

Besides word processing, we print a "check-off" shopping list to stick on the 'fridge weekly. The 'fridge also wears a monthly calendar, and a bills/bugdet planner. Now you may say, "I don't need that stuff", but I actually used to get nagged to put these sorts of things on the 'fridge until I taught Susan how to do it... I think I created a monster! The shopping list is personalised and caters both to what we want and what we need for the next week - automatically. The calendar automatically prints everybody's birthdays, holidays, events, etcetera. We don't have to write them in, they print out automatically. I put in the info' over five years ago and the program faithfully and faultlessly prints out a monthly A4 planner. I haven't forgotten an anniversary for years! What else? Well, we increasingly use desktop publishing programs for work and home, I lodged my tax return electronically this year, and had my cheque back in under a week. Our finances are simply and effectively managed with a basic accountancy system, and we produce our own artwork for greeting cards, awards, invitatons, and other fun items. Our data-base of friends and relly's is set up in such a way that at Christmas time I just tell Appleworks, "Xmas" and I get

the names and addresses of only the people we send cards to. When I tell Appleworks, "Phone", the same data-base gives us just the names and 'phone numbers in big print of the people we often call.

Yes, home computers can be more than just expensive video games machines. The way I look at it is that the games are just a bonus for those who enjoy them. So what programs does a VCR freak - I mean dedicated home computist recommend? Well, I've had the opportunity to see and use dozens of programs because my interest has become partly my vocation as well. I began my career as an Industrial Arts teacher, but now I teach computing as well. So I get to view and use heaps of software ... Yes, finally here is the point....

APPLEWORKS - 99 points the only program you NEED
I've been learning it for years, but even beginners can use it immediately (nearly).
It does everything!

SOFTDISK - 65 points
an "electronic magazine". Sub scribe and receive games, templates graphics, lessons, etc, monthly

COPY][PLUS - 55 points
for all disk utilities

PUBLISH IT!! - 50 points
for excellent desktop publishing quality, (mouse reqd) esp with more memory and an accelerator.
Or PERSONAL NEWSLETTER

MULTI-SCRIBE - 45 points
(now Beagle Write) for easy "flashy" letters.

PRINT SHOP - 40 points
for fun "kids stuff", cards, signs, banners, etc

HOME ACCOUNTANT - (or DOLLARS & SENSE) - 30 points

We also use a Nibble magazine "type-in"

CARMEN SANDIEGO -30 points
the game for everyone.

These are my favourite and most used programs, but I estimate that I have several hundred (maybe thousands) of programs now that I have collected from magazines, Public Domain libraries, friends, and so on.

SELL MY APPLE //e? ... Not until electricity becomes as expensive as crude oil. ... Sorry, gotta go, my coffee has boiled over in the computer.

XYBER PRICE LIST - 19 July 1990

Product	Price Incl Tax	RRP
Int Hard Disk Mac SE		
Xpress 20SE	791.00	930.00
40SE	1063.00	1250.00
80SE	1624.00	1910.00
100SE	1882.00	2214.00
Int Hard Disk Mac II		
Xpress 20/2	791.00	930.00
40/2	1063.00	1250.00
80/2	1624.00	1910.00
100/2	1882.00	2214.00
Int Hard Disk MacPlus or 512e		
Xpress 20Plus	1053.00	1239.00
40Plus	1299.00	1528.00
80Plus	1892.00	2226.00
100Plus	2081.00	2448.00
Ext Hard Disk Mac or IIGS		
Xpress III-20	1053.00	1239.00
III-40	1299.00	1528.00
III-80	1892.00	2226.00
III-100	2081.00	2448.00
140	2608.00	3068.00
Xactor H14	1012.00	1191.00
Xactor V15	1403.00	1650.00
SCSI Port	204.00	240.00
X/MIDI	167.00	196.00
MacPlus Quiet Fan	62.00	68.00
SE Quiet Fan	62.00	68.00
SCSI Cable 50/50	58.00	68.00
SCSI Cable 25/50	58.00	68.00
Memory Products		
Xcalibur 512 (128-512K)	306.00	340.00
Xcalibur 1meg (0.5-1Mb)	421.00	495.00
Xcalibur 2meg (1-2Mb)	328.00	386.00
1meg SIMM (Low prof)	POA	POA
1meg SIMM (Low prof 10's)	POA	POA

Note
1. All prices are CIF Sydney.
2. The prices for hard disks are reduced by 5% for prepaid or COD transactions.
3. Further details are available from Les Humphrey.
4. Prices are subject to change without notice.

PAGEMAKER TIP

Sam Mattes

Getting the spacing consistent between several repetitive elements, such as photos and their captions, throughout a multipage publication can be a real chore — but not if you use this PageMaker trick:

1. When setting the style for a caption or other repeating text element, go to the Rules dialog box, which you access by selecting Paragraph on the Type menu. Check Rule Above Paragraph, and set Line Style to None on the pull-down menu (this gives you an invisible rule above the text).

2. Next go to Options, and type the desired number in the Top box for the amount of spacing you want between the text and the invisible rule. For example, if you're working in 12-point type, an 18-point space gives you 6 points between the text block and the rule— which translates to the bottom of the graphic element.

3. When you drag the text block to position it, the invisible rule above the text will enlarge the textbox (shown as a dotted line),according to the amount of space you entered. Line up the top edge of the text box with the bottom edge of the graphic. This will give you consistent spacing between all captions and related graphics.
This trick also works if the invisible rule is set below the text block (which lets you place the text above the graphic) or if the text block is rotated (for example, for a photo credit on the side of a photo).

TRAINING TAPES

The ACTApple user group has been supplied some Apple Audio Training Cassettes with books and disks. We have training packs for MS Works 1.0, MS Word 3.0. Each contains 4 lessons.

These are now available for loan of up to 1 month to members, but members must be able to demonstrate that they have an original copy of the software.

Paul Burgess

MINES OF TITAN

Robert Brown

Requirements
- An Apple //e with atleast 128K ram, //c or //GS.
- One 5 1/4 inch drive.

Options
- Joystick
- Colour Monitor

It's taken a long while. Two years of cryogenic suspension. When you wake up from it, it seems like someone kicked you in the head. Two hours ago, sensors picked up the nearing of your destination, Titan, a small satellite of Saturn. As you started your final entry, a small rock flings from one of Saturn's rings and punctures your fuel tanks. Normally the hole would be plugged by sealant, but on final entry, the outer pipes are closed. Your fuel is spilling out into deep space. You think quick. Mining equipment, it would be insured. You jettison the equipment and save your life. Unfortunately, the 'Paramount Mining Company' didn't think that saving a life was worth more than saving mining equipment. You have to sell your ship in order to pay for their equipment. You're stranded on Titan. There is no work for astronauts. The only work available is mining or bounty hunting. You choose to be a bounty hunter thinking that is easy work, until you are given your assignment.
'Mines Of Titan' is a role playing adventure set in the 22nd century. As a bounty hunter, you must create and control a party of characters to explore the satellite. You must improve yours and your party's skills before entering the vast deserts on your mission. You must earn credits which are needed for training and buying special weapons. And what about this mission? The 'Paramount Mining Company' has lost a city. It was the newest city built on Titan and now, all telecommunications have been lost. The mission you are sent on involves seeking out the lost city and destroying anything that stands in your way. You must be aware of Titan's natural beings such as Crushers, Dust Worms, Sand Loins, Scorads, Thrashers, and Urchins. Each are deadly in their own different way.

Options of combat allow full computer control or full player control. Each city you visit is a labyrinth of computer terminals, Armory Shops, Bars, Gambling places and Police stations. One important fact to remember is in this game, the Police are your friends.
Most adventure games now have menu driven interfaces containing the commands needed to play the game. 'Mines Of Titan' is no exception. Screen layout is in the form of graphic windows displaying commands, aerial view and ground view of your present situation and your life statistics.
The game comes on one 5 1/4 inch disk, and is not copy protected.
It is a difficult game to master and there are a lot of frustrating moments. Be prepared to spend atleast 10 full hours in playing it. It is a fairly strange game to get into. It tends to get a bit boring in places and as mentioned before, frustrating. I wouldn't recommend it for anyone just getting into adventure games.

MUSIC WRITER

James Zappia

That timeless mnemonic, uttered over the years through the lips of many a young student of Music, takes on new meaning in our highly technological age, especially with the latest crop of computer hardware and software. Yes, "Every Good Boy Deserves Fruit". In our case, the fruit is, of course, our favourite computer, the Apple //. And, these days, the Apple is playing a big part in bringing musical creativity to fruition.
Pyware Music Writer for the Apple //GS is at the forefront of state-of-the-art music software. This is a superb music-notation program packed with all the features you're likely to need to produce quality hardcopy of the music you create, and, because it is designed for the GS, Music Writer naturally uses the GS's Ensoniq sound chip to enable you to immediately hear your creations as well as see them on the screen.
The strength of Music Writer lies in its ability to produce good quality printouts of music. However, although it does have sequencing capabilities, I would hesitate to recommend it if all you really want is a MIDI sequencer. There are some minor weaknesses which make it less suited to that purpose.
The program comes in three levels. The differences between them are the number of staves (also called tracks) that can be worked on simultaneously and printed out as a score. There is Level 1 (Limited Edition) with 3 staves, Level 2 (Special Edition) with 6 staves, and Level 3 (Professional Edition), which I used for this review, which allows up to 32 staves. They are priced at $155.21, $365.81 and $724.79 respectively. While the Professional Edition may be priced out of the range of ordinary home use, the lower priced editions certainly present viable alternatives.
Music Writer is very easy to use. The work screen provides a WYSIWYG environment, similar in layout to typical paint and word processing applications, with the familiar menu bar across the top, and a palette down the left hand side for the specialised music symbols. Your compositions can be put together directly on the screen using the keyboard and mouse, but you get even greater flexibility by connecting a MIDI synthesiser for both input and output. The program supports the Apple External MIDI Box, the Passport MIDI Interface, and the Audio Animator. I tried two of these - the Apple MIDI Box and the Audio Animator. Both worked equally well for MIDI connection. The Audio Animator has the added feature of allowing you to hook the GS up to your HiFi system for playback in true stereo.
Let's now look at Music Writer in terms of these four elements of the creative process: WRITING, EDITING, PLAYING and PRINTING.
I set out to write an arrangement of "O Pretty Woman" by Roy Orbison. The final product was a five-part arrangement for Vocal (lyric sheet), Piano, Bass, Guitar and Drums. Since the Piano part requires two staves (treble and bass), the overall number of staves was six.

WRITING:
When you first load Music Writer, the main screen displays two blank staves. Your first task would ordinarily be to add a clef, a key signature and a time signature before going ahead and entering music either from the keyboard or via MIDI. You'll find the necessary symbols in one of the eight "symbols palettes". There is a full range of symbols to cover the various clefs, key signatures and time signatures as well as the note values from whole note to sixtyforth note, accidentals, articulation markings, dynamics, ornaments and performance markings such as crescendo, tie and slur.
If you use the computer keyboard for input, as you continue to add music, you can manually add bar lines or use the Auto Bar feature which calculates the bars according to the chosen time signature. Other features include special facilities for placing text and lyrics in the work. Music Writer makes adding lyrics even easier by automatically matching each syllable to a note on the staff.

MIDI Input:
There are two types of MIDI input available - STEP record and REAL TIME record. In Step record, you select a note value from the symbol palette and press keys on the MIDI instrument to give the pitch. On the other hand, Real Time record involves actually playing the MIDI instrument in the normal way. In both cases, the program stores the recording in the Clipboard. It can then be pasted or merged anywhere in the file.
Real Time record has two particularly handy features. One, called Quantisation, automatically compensates for minute discrepancies of tempo in your playing - after all, no-one plays perfectly in time! Another feature is the ability to record on both the treble and bass clefs of a grand staff simultaneously. However, I found that to use this feature effectively, your playing has to be deadly accurate (which mine wasn't).
Memory seems to be a critical factor in the overall performance of the program. The minimum requirement to run Music Writer is 768K. However, this will only allow you to enter very short phrases with MIDI, and work on very small files. The recommended memory configuration is 1.25M

EDITING:
As you'd expect, Music Writer comes with a full range of editing features. Horizontal and vertical scroll bars let you find your way around the file quickly, but you can also place rehearsal markers throughout the composition and use the "Jump to" function.

Present are the usual wordprocessor-type functions such as Insert, Delete, Copy, Cut and Paste. Then there are the specialised music editing functions that allow you to perform such tasks as changing the stem direction of notes, increasing or reducing note values, beaming, and transposing or shifting the pitch. In each case, you select the music to be edited by highlighting a range of notes. Selection can be narrowed right down to a particular voice on one staff. This ability to narrow or extend the selection range is useful for putting together composite instrumental parts on the one staff, eg. two trumpet or flute parts or even a drum part, each with its own notational style, stem direction and beaming. You can add or remove staves as necessary. Each staff can be given a label to identify the instrument for which it is written. The format also includes the song title as well as a header and footer. Any GS system font may be used for text, lyrics, titles and footers. Once you have established a format that suits you, it can be saved for later use with other songs.

PLAYING:

The real plus in Music Writer is the fact that you don't need to own a MIDI keyboard to hear the music you create. The program directly accesses the Ensoniq sound chip in the GS. You can control the tempo and select any range of music to be played. An instrument library lets you assign different timbres (sounds) to each track. There is a separate program by Pyware, called "Instrument Designer", that enables you to create your own collection of timbres. This program may even be a necessity because the instrument library that comes with Music Writer doesn't really offer the best sounds that the GS is capable of producing. In fact, when I first tried the program, I pulled out my old copy of The Music Studio, hoping to use its sound libraries with Music Writer. Unfortunately, they are not compatible.

MIDI Output:

A unique feature of MIDI, in general, is the ability to use different channels to send MIDI data along the connecting lines. In this way, one MIDI instrument can control a number of other MIDI instruments. There are usually 16 channels available to a MIDI system. By assigning it a different channel number, each instrument can be set to play a specific track with a specific timbre. Music Writer lets you assign any channel, 1-16, to any track in your composition, enabling you to send the output to any MIDI instrument. Actually, I found the playback function of Music Writer a little disappointing, considering the wide-ranging scope of the program. For example, there is a minor, but curious, problem when playing back with MIDI. The very first note is somehow skipped, and playing starts from the second note in a song. I got over this by placing a dummy note (which must be a pitched note, not a rest) at the beginning of the composition. This can overcome the problem, as long as you remember to delete the note when you go to print out. Another problem was that, when the song was finished, I could not get it to simultaneously play all the tracks right through. Playback would continue until a certain spot in the music, and then just die out. I had the recommended 1.25M of memory, but, since the problem did appear to be memory-related, I expected to rectify it by installing a borrowed 2M card. However, I got exactly the same result - the playback stopped at the same point as before. It would appear that Music Writer does not make effective use of all available memory, and suggests that, as more and more staves are added, this would increasingly limit the overall length of a composition (my arrangement of "O Pretty Woman" was about 80 bars long).

PRINTING:

Printing music is what Music Writer is all about. The program supports both the LaserWriter and ImageWriter printers. The quality of the printout that I got from my ImageWriter // was excellent, and certainly good enough to give to musician to read and play. By selecting the desired range of music, you can print anything from a few bars to the full score plus the individual parts of the composition.

Printing can be in draft or better text mode, with two sizes, normal and condensed (condensed is probably the more useful). The program formats pages automatically, but one very important function that is missing is the ability to manually force a new page when you want it. Just a word of warning! Don't expect to be able to load up Music Writer, whip up an arrangement, feed it through the printer in a flash and, hey presto, start handing out the charts. Give yourself a lot of time to produce your hardcopy. Using condensed size and better text mode, the 4-page Piano part alone for "O Pretty Woman" took one hour to print. Each of the other 2-page, single-staff parts took half an hour. That all added up to 3 hours of printing at an average of 15 minutes per page!!

Music Writer has many capabilities that are not immediately apparent, and to really appreciate the power of the program you have to spend time simply toying with it. The user manual does not give much away except to list the various functions and features and point out how to select them. Music Writer Level 1 comes with a basic music theory guide, but what would really be useful for all the editions is some kind of tutorial on actually using the program. On the whole, Music Writer's flexible environment, in-built sound capabilities and its ability to produce top-quality printed output make it a "must have" for both the professional and amateur musician.

APPLE II DESKTOP TOOLKIT

Brian Mattick

Boy, beta versions are tough going! I've just finished reading the beta handbook for the Apple II Desktop Toolkit - ProDOS. Why would a hobbyist want to read a tomb like this? Read on.

Years ago I read an article (written in 1985) about mouse programming which finished by describing a beta set of routines, then called the Mousetext Toolkit, that Apple were due to release. These routines provided the Mac interface, ie pull down menus, windows etc on an Apple II using mousetext and/or double Hi-Res graphics (DHR).

I've been chewing over a program where a Mac interface on the DHR screen would be a good user interface to attempt. First step, ring Apple and see if the Mousetext Toolkit was ever released. The first time the receptionist claimed it did not exist and suggested I contact Cupertino. Not to be put off I rang again and this time transferred to someone who looked in the Apple Programmers and Developers Association catalogue (APDA). And there it was - although the name had changed to Desktop Toolkit. Would you believe it's still a beta version six years later!

Australian APDA said I could have it for $58 for a member or $108 if not a member (the extra $50 was the annual membership). By this stage I had a copy of their catalogue and decided that $50 was a lot to pay for membership of an association that doesn't do much for the Apple II. I estimated the catalogue was 80% Mac, 10% GS and 10% Apple II products.

Maybe someone in the club is a member and could buy it for me, I thought. In fact ACTAPPLE is a member and Steve Nielsen had all the details. (Note - in finding this out Les Humphrey told me that APDA in the States does not require membership to purchase their software; this little detail apparently hasn't filtered down to Australian APDA yet.)

For $58 you receive four disks and a 336 page manual. The manual has three volumes, Mousetext Toolkit, Mouse Graphics Toolkit and Graphics Primitives (their spelling!) handbook.

My interest is BASIC programming (at the hobbyist level) and I was particularly interested in how these routines could be added to BASIC. The following discussion refers to their use within the BASIC language although the manual and disks contain information for the machine language programmer and the Pascal programmer. The Pascal programmer needs to buy a different package (The manual is the same but the disks are different)

First the good things.

The Mousetext Toolkit consists of a ML program and a ampersand interface that adds 49 new commands to BASIC for use in the 40 or 80 column text environment. These commands are really good and quite fast but the programming effort to use them in your program is large. There are occasionally long parameter lists to be specified after the ampersand and command name. How's this; & STMNU (N%,M%,MI%,NA$,OB%,KC%); it sets up the menu.

The routines give all the features you would expect in an equivalent Mac program, in addition to pull down menus and windows you have scroll bars, grow boxes, drag boxes and multiple overlapping windows with the ability to bring any window to the top of the pile by clicking inside the window. Sound familiar? Naturally intended for use with a mouse, the keyboard can be used in some situations (I'm still sorting that out). Fortunately one of the disk's has a BASIC demo. The easiest way to include these routines in your program is to alter the demo program and add the special abilities of your program as subroutines or separate programs.

The Mouse Graphics Toolkit does not include a BASIC interface and no explanation is given for this omission. A major disappointment. It provides the same interface as the Mousetext Toolkit but, naturally, on the graphic screen.

The Graphics Primitives consists of a ML program and a ampersand interface that adds 32 new commands to BASIC for use in DHR. These commands consist of a number of groups of routines such as pen commands for setting pen width and pattern, drawing commands for lines, rectangles and polygons including filling these shapes, text commands for putting text on the DHR screen and utility commands. Also very good stuff and a BASIC demo shows how these new DHR commands can be used. Once again the programming effort to include them in your program is large with parameter lists to be specified.

Second the not so good things.

This is the first beta manual I have ever seen. It's not for the faint hearted. For a company that has led the charge for user friendly everything this manual is very poor. Admittedly the first page clearly states that it is a draft and has not been edited but I believe the author could do with a course in clear technical writing. The manual is loose leaf and looks like a poor photocopy; some pages are particularly hard to read.

A few programming examples would help greatly. Stating the syntax only is about as useful as using a dictionary to

learn another language. In many cases it is not clear if parameters are inputs or outputs and in some cases the purpose of particular parameters and the range of acceptable values is not stated. Presumably the user has to find that out by trial and error.

Nowhere is it stated what the programs on the disk do, where they are loaded or moved, what they do to protect themselves etc etc. There is no information on avoiding conflicts between BASIC variable space and the memory buffers set aside by these routines. Something that is sorely needed.

Using the Mousetext Toolkit or the Graphics Primitives requires lots of memory. The Mousetext Toolkit and ampersand interface need 27K while the Graphics Primitives need 15K. A BASIC programmer only has about 36K for program and variables so there really is not much room and I suspect this is the reason why a BASIC version of the graphic interface was not developed. Assuming the graphic interface would be a similar size to the Mousetext interface, then take out a further 8K for the graphic screen and a similar amount for a buffer (In fact more would be needed) there is no room left for a BASIC program.

Allowing this memory problem to occur really was short sighted. In 1985 all Apple II's had 128K just like the first Mac's (although in the Mac these routines were in ROM). The routines should have been designed to load and run from auxiliary memory. Furthermore all the buffer space required for the windows and the graphics environment should have been in auxiliary memory as well. A BASIC programmer is always squeezed for space. The routines are powerful and the demos magic but the reality is that they are not very useful for the BASIC programmer because they are so greedy for memory.

Apple missed an opportunity to encourage a Mac like interface for the II with these routines. Maybe they didn't want to. The file card interface as used by AppleWorks is still the best for the text environment on the II but I do like the Mac interface for the graphic screen.

I was looking for a Mac type interface that would run in Hi-Res or DHR and be accessible from BASIC. This package does not provide what I want. The fact that it is still a beta version after six years and given Apples current love affair with the Mac it is unlikely these routines will ever be written to run in auxiliary memory where they belong. This software purchase was an expensive mistake on my part.

STREET SPORTS SOCCER

Apple II Review
By Grant Kwai

The local bunch of kids are out and its time for that long awaited soccer match! Choose your team from a group of 8 players. All have there own special characteristics; some are top goal shooters, others are good goal keepers. There are 5 male and 3 female players and any combination can win.

This fast moving arcade style game can be played by you matching your wits and skills against the computer, or against a friend in a 2 player match. For first time players, there is a beginners level, and intermediate and finally, the difficult level.

You have a team of three players. You can either choose a preset team, create your own teams or let the computer pick 2 teams at random. You are then faced with the option of which field you want to play on. Do you want to play on the streets or on the park field? Beware of all the obstacles on the street though!

You control one of the players with either the joystick or the keyboard controls. The player you have control of appears with a white shirt on to distinguish it from the other players. Like in real soccer, you can pass, dribble, take shots at goal, steal the ball and even do headers. You can allow your goalie to run as well to create a 3 on 2 encounter but beware, if the opposition gain possession of the ball, they you have an open goal!

The double hires graphics are excellent and provide a free flowing game. The manual is only a few pages. It provides information about the controls, a statistics file on each of the eight players, techniques of play and also the rules. The package includes 1 program disk, 1 manual, 1 warranty form (Mine was for the US though), and a quick reference card.

It takes a long time to load up since it is copy protected. No back up is provided, nor an option in receiving a back-up copy. While loading, it makes the disk drive 'whirl' due to all the protection. Which makes me wonder how long my disk will last, especially with no back up.

Overall, this is a fantastic arcade game which will keep you peering into the screen for hours on end. There is little sound except for when you kick the ball and when you score a goal.

GRAPHICS:	9
SOUND:	5
PLAYABILITY:	8
VALUE:	8
OVERALL:	8

EFFECTIVE WRITTEN COMMUNICATION

By Chris Birch
Sydney AUG

What sets your correspondence apart from the typical business letters you receive? For a start your letters are probably not as well written or designed. It's a question of skills that no amount of powerful word processing software can compensate for.

The ability to adjust a grey scale splash screen in increasing left to right intensity or the built-in power of your Personal LaserWriter SC is not much use if you cannot politely request payment, tactfully reject an application or softly sell your product. A well stocked book store will have volumes of publications to choose from. They generally fall into two categories. One covering the basic wordsmithing skills and the other desktop publishing design techniques. Those attempting to cover all the necessary skills generally provide inadequate treatment of the basic letter writing and report writing skills. The sample documents generally emphasise placement at the expense of content.

My library includes "Contemporary Business Letters with Apple Writer II". Its 1984 vintage means its not likely to cover the use of multiple fonts, business logos or the incorporation of clip art yet its coverage of letter writing fundamentals is relatively timeless. Punctuation, salutations, addresses, beginnings and endings are covered in sufficient detail for every day use.

It's this attention to detail that's so important when conducting business or when tackling a government department. If you communicate regularly with the armed services, the diplomatic corps or members of parliament then a book of protocols and procedures might also be a good investment. Or you could do as I do. Get the recipient's secretary to do the addressing and salutations for you! Any book should include sample letters for typical situations such as collection, rejection, goodwill, announcement and request letters. They need to be thoughtfully designed and adaptable with the rationale behind the use of certain words and paragraphs fully explained. "Contemporary Business Letters" also includes alternative wordings to assist you in fine tuning your intentions. There is nothing more distracting than receiving an important letter that does not follow the generally understood communication procedures. If you cared to examine the letter closely it may have been printed on a laser printer. For the sake of an outlay under $50 the writer has crueled any chances of creating a positive reception. Yet the letter was printed on a computer system costing in excess of 100 times that amount. It is probably because "Contemporary Business Letters" preceded the Macintosh and laser printer boom that the authors have not lost sight of what really constitutes effective written communication. The emphasis on supporting a rudimentary monospaced 9 pin dot matrix reinforces this point. A book such as this would also be found in a second hand book store for around $10.

With the fundamentals of letter construction out of the way you are now ready to extract the best from your computer. Whether you are running Quark XPress on a Mac II or AppleWorks on an Apple II a small additional investment is still required if you wish to realise the potential of your system. What you require now is a DTP design skills book that caters for your present and future printing requirements, computer and software.

I decided to get a book that concentrates entirely on design skills. There are many publications catering specifically to utilising the power of a certain printer or software. I recently spent an hour or two comparing DTP handbooks. I found the most thorough and useful treatment was one not offering machine or application specificity. At $39.95 the "Make-Over Book" was one of the cheapest. It's only deficiency is the absence of colour. This could be an important consideration to Apple II or Mac II owners with colour monitors and an ImageWriter. If you need application specificity then I would suggest a tutorial publication is a better investment. There are many Word, AppleWorks, etc.

Handbooks to choose from. "The Make-Over Book" is categorised into typical projects such as newsletters, business correspondence, reports and resumes. I cannot over emphasise the wealth of design tips contained in any of these sections. All the common traps are ingloriously included as "before" samples. With the application of appropriate design techniques the "after" sample then appears along side.

Simplicity of design is the general theme with this book. There is no attempt to turn out a graphic artist. Just effective communication of your ideas. Some examples include oblique rotations or molded headings which are only capable on the most expensive Mac DTP packages. Almost without exception there is no recourse to font styles beyond bold or italicisation. The font families are all standard with Helvetica relied upon.

You could be forgiven for thinking your grey scales and shadowed fonts are there to be used. They are so convenient to pull in from your Mac or Apple IIgs menu bar. I couldn't find one example of a shadowed font in one of the "after" samples. Time and again the "after" sample would use fewer

A Report On The 4th Annual Apple Users Group Convention

By Michael Hickey, Act Apple Users Group Delegate

The 4th Annual Apple Users Group Convention was held at the Newport Mirage on the banks of the Hawkesbury River just north of Sydney. We 50 delegates were welcomed to the Convention by Apple Marketing Services Director, Sarah Hatcher, who gave us a rather evangelical chat on just how good Apple was going to be for the world, if only they would see the light and "Just Say No! to MS-DOS". A lot like preaching to the converted.

What followed was an open panel discussion of several Apple people; Rob Caplan, Pene Slade, Peter Sandys, Matt Nelligan and Godfrey Gamble. At this point several (about 25% of the delegates) Apple II and Apple IIgs delegates promptly got stuck into the panel over Apple's apparent lack of support for the Apple II line. This led into an open admission by Apple that, barring a miracle, the Apple II line (now whittled down to just the Apple IIe and Apple IIgs) would be left to die a "natural" death by non-promotion. Peter Sandys estimated that the Apple II would be pronounced dead around 1995 in the US. I suspect that Australian Apple II supply will be terminated sometime before that date.

I was left with the overwhelming impression that if it weren't for the Apple II emulation card for the MAC LC, the Apple IIe could already be written off. Apple only produces hardware for the Apple IIe by default, in that slot-based hardware produced for the Apple IIgs will run on it (or is it the other way around). Apple will continue to support the Apple IIgs and the Apple IIe with System software and add-on hardware items like the Ethernet card and the Superdrive controller. What we will never see is a new Apple II machine.

It seems that Apples products fall under a "Continuing Engineering" group, which handles all post-release product issues. This includes handling bug reports, manufacturing difficulties, distribution difficulties, etc. The Apple II "Continuing Engineering" group, as time allows, plan some new work which is restricted to things like System Software enhancements, but nothing at all in the way of a Major (i.e. System 7.0) update.

System 6.0 for the Apple IIgs is likely to be the last major update of system software for the Apple II line. What is planned, are some new features, improved compatibility with 3rd party products and some enhancements for both the 8-bit and 16-bit systems. More on this later.

The fury imparted by the Apple II delegates left the panel spent and in disarray. Before they could recover completely the Mac delegates assaulted the panel with a variety of gripes and complaints, many of which, focussed on Apple's apparent reticence in getting timely information to Apple User's Groups. Apple lamely informed us that we could use AppleLink to download all the information we like. Many delegates who came from small regional User Groups (smaller than us!) explained to Apple that it was expensive to use AppleLink. Apple then parried, recovered and touchéd with the remark that the smaller User Groups should cultivate their local Apple reseller who would joyously greet you and let you use their facilities (presumably free of charge).

Morning Tea followed. The panel was surrounded by unconvinced delegates and were considered lucky to get one cup of lukewarm coffee before the end of the break.

Ian Clarke from the Victoria Mac User's Group then gave a 45 minute talk on organising and running a User's Group. His talk centered on the concepts of identifying user's needs and tailoring the group to meet them. Interestingly, he did not tackle the problem of finding out what those needs are, since our members don't even complete our survey forms. I was left with the impression that we could treble our size if we start serving our members every need. Unfortunately, in the ACT Apple User's Group this apparently means a select few putting heart and soul into the group for scant reward. Basically, all groups need more participation from general members in the meetings rather than members relying on the committee to serve them.

Next up was Ian Cooper from Apple Computer who presented us with the future of Apple computing, the Newton Technology-based machines (I have to have one!) , which you must have seen on Beyond 2000 and the new 68030 based machines. Basically all Macintoshes will have the 68030 as the base processor and machines will be equipped with more powerful processors from there. The new RISC-based machines will really knock your socks off! Save your pennies, the cutting edge of Mac computing could get very expensive! Thankfully, Apple are finally convinced that cheap colour Macs are important in its philosophy, so the lower end will still be available to all for a reasonable price.

A lunchtime cruise on Pittwater

was enjoyed by all.

The early afternoon session was a presentation from Allan Bell of Apple who talked about the new software technologies Apple are using. This currently incorporates Easy Access, a type of user defined "menu" limiting access to files, the finder and applications for juvenile or other risky users, Quicktime and the new Macintosh PC Exchange. These Apple System extensions are deemed to be the future for Apple system software enhancements. Strangely Allan did not go into Newton-technology philosophy. Perhaps we'll hear more about that later.

The late afternoon session was dominated by Chris Nelligan from AAPDA who held Apple II owners spellbound with his account of the action at KansasFest '92 (aka A2 CENTRAL SUMMER CONFERENCE 1992). This year celebrates the fifteenth year of Apple Computers so KansasFest featured an interview with the "mother" of the Apple, Steve Wozniak who reminisced about his background in digital electronics and the start of the Apple II. The word on many people's lips was on the imminent death of the Apple II line and wonder of who will take it up once Apple drops it. Much talk was made of a former Apple engineer who is designing an Apple IIgs "clone" currently known as the Avatar, the machine is rumoured to

Lots more noise was being made about Apple's extensions to Apple IIgs System 6.0 software. This press release covers the topic well.

"A2 CENTRAL SUMMER CONFERENCE 1992 ("KansasFest"), KANSAS CITY, MO., U.S.A., 1992 JUL 23 (A2 ON GENIE) -- Apple publicly announced today that they are working on an MS-DOS File System Translator (FST) for the Apple IIgs. Currently the FST is read-only, and writing ability is being worked on. It is not expected that the writing ability will be ready in time for its initial release. The MS-DOS FST is expected to ship with Apple IIGS System Software version 6.0.1.

Apple IIGS System Software 6.0.1 is a maintenance release made necessary by the Apple II Ethernet Card. When the Apple II Ethernet Card ships, expected by the end of the year, System 6.0.1 will be made available. Besides bug fixes to System 6.0, the only other major change announced in System 6.0.1 is the addition of keyboard navigation to the Apple IIGS Finder.

The MS-DOS FST will work on any MS-DOS volume that can be accessed by the Apple IIgs. Currently, the access of MS-DOS 3.5" disks is limited to 720K and 1.44M MS-DOS 3.5" disks read via an Apple SuperDrive or equivalent, connected to the Apple II SuperDrive Card (formerly known as the Apple II 3.5 Drive Card). Other known methods to access MS-DOS data on an Apple IIgs include MS-DOS formatted Syquest cartridges and MS-DOS 5.25" floppy disks read via an Applied Engineering Transdrive, connected to an Applied Engineering PC Transporter card. "

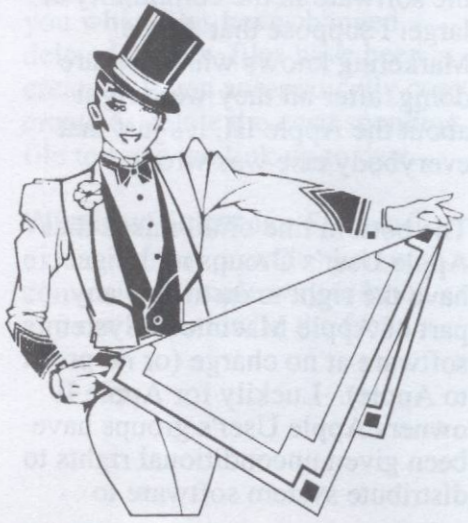
Hot news for Apple IIgs owners. Sadly it will not be as valuable as the Macintosh PC Exchange since applications on MS-DOS machines are not duplicated on the Apple IIgs, limiting data exchange to ASCII files, DIF files, GIF pictures and the like. Also rumoured was the promise of a published description of File System Translators (FSTs) which paves the way for Apple IIgs owners to use Amiga and Atari ST format disks in their machines. Imagine all those MOD tunes and GIF pics you could get at with this!

Another new announcement was of the release of UltraMacros 4.0 . UltraMacros 4.0's main claim to fame is its support of labels in the source code, making it possible to write far more readable code. A second significant new feature is AppleWorks INITS. New commands can be installed simply by copying the command file into a given subdirectory and rebooting.

This should lead to availability of many new commands from JEM and from others. BASIC-like FOR-NEXT loops have also been implemented. The number of labels is limited only by the maximum line limit in AppleWorks 3.0 WP documents, that is, over 16,000. About 40 dot commands have been defined, with a limit of 511 possible dot commands.

IMPORTANT: because Ultra Macros 3.1 is still on sale, UltraMacros 4.0 is available ONLY as an upgrade. It won't install unless you have Macros 3.1 already. Attendees at KansasFest predicted that the dealers will soon bundle the two products. UltraMacros 4.0 requires AppleWorks 3.0, and at least an enhanced //e.

UltraMacros 4.0 and UltraMacros 3.1 can be installed on the same machine, so you can run old macros even if you lack the source code to recompile under 4.0.



Sadly, UltraMacros 4.0 requires at least 192K to operate reliably. It will load in 128K machines and seems to work, but it is rumoured to crash at inopportune times.

The early morning was occupied by Apple revealing it's new modular software design philosophy for System 7.0 (Tuneup version) and beyond. No longer will you have to pay for the whole system if you only want a subset of the total features available. These System Extensions are published by Apple (not Claris) at extra cost, reflecting Apple's new attitude to System software. Apple believe that by "giving away" system upgrades to Mac owners they have subverted the perceived value of that software. Apple owners traditionally have been able to treat free system upgrades from User Groups as a "right" rather than as a result of Apple's largess. Apple marketing experts have decided that the Apple Macintosh can become more valued by charging for everything from Quicktime extensions to full System upgrades.

Of course we have already been charged when we bought new System software complete with the manuals but Apple marketers have decried the practice saying that it really meant "free" software with every manual sold. By no longer "giving away" the software through User Groups, Apple; 1) makes lots more money and, 2) increases the perceived value of the software in the community at large. I suppose that Apple Marketing knows what they are doing, after all they were right about the Apple III, it's just that everybody else was wrong.

The bottom line of all this is that Apple User's Groups no longer have the right to distribute any part of Apple Macintosh System software at no charge (or no profit to Apple). Luckily for Apple II owners Apple User's groups have been given unconditional rights to distribute system software to members for as long as Apple produces software upgrades.

The Open Forum saw many Apple Users Groups take Apple to task (again) over the apparent lack of communication from Apple to Users Groups and Apple's unwillingness to promote User Group cohesiveness, given Apple's attitude that User Groups still represent the "future" for Apple. Apple reps, merely replied that User Groups should be more active in communicating amongst themselves to share information and to share ideas. After all, didn't Apple sponsor this nifty User Group Convention?

My overall impression is that Apple is leaving behind its "roots" in the computer using community. Once Apple was content to bring out products which were innovative, useful and beautifully engineered. Now Apple is concerned about "merchandising" and "marketing" than user support. After all, nobody ever made money out of user support. It's as if Apple Marketing has risen to control the company rather than Apple Engineering (or Apple Computer)! Still, it is an evolutionary step for a small, friendly company to turn into a giant, market grubbing enterprise. I'm sure that even IBM started life in a garage somewhere in 1888.

One thing that got my goat was that Apple reminded the delegates that they were in the business of making money, and that, despite the support given to Apple by loyal users over the years, we had no right to expect that Apple would bend over backwards to make life any easier for any User Group. Assistance is always forthcoming from the more service-oriented employees of Apple, but it seems to be grudgingly given by the management. Apple is becoming another IBM or Commodore where the target is flogging boxes and making money rather than serving customers.

NEW PIMs for Word

Norman Braidwood

Word 5.0's modularity has started to pay off, and Microsoft has made new Grammar and Spelling plug-in modules (PIMs - and you thought PIM stood for personal information manager). The grammar checker had a nasty habit of crashing when running under System 7 on a 68000-based Mac, and the Spelling PIM slowed to an incredible crawl if you added more than a few hundred words to a custom dictionary. Both of those bugs are now fixed, and the Spelling PIM has been generally improved. There is also a Movie PIM for using QuickTime movies in Word. You can get the new PIMs off the Bulletin Board or, if you wait a few weeks, Microsoft may supply them to you on request.

sented by 0 or 1. See also **Binary**.

Nybble
Half a **byte**.

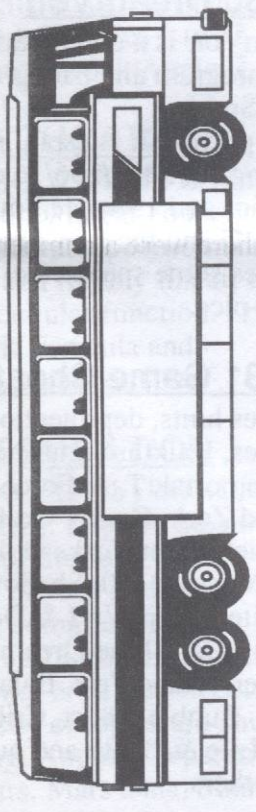
Byte
A collection of **bits**. Older computers have only 8 bits per byte, but most computers designed since 1984 have 16 or more bits. 24 and 32 bit based computers are now common.

Kilobyte(Kb or K)
1024 **bytes**. Early computers had only 2K of **RAM**.

Megabyte(Mb)
1024 **Kilobytes**. Megabytes are the main unit used for measuring **RAM** sizes and disk space. Many modern computers have 10Mb or more of **RAM**.

Gigabyte(Gb)
1024 Megabytes. This is a lot. There are **hard disks** available containing more than a Gigabyte of disk space.

To be Continued...



Introducing EXPRESS for the Apple IIgs

Express is a "printer spooler" that lets you use your IIGS while the printer is working! No more waiting until your printer finishes before you get control. Multiple files can be spooled, printed more than once, and deleted from the spool list.

Express actually "prints" your document to the hard disk, which captures the document much faster than any printer could print and then releases it to the printer at the printers leisure. The actual printing time, from request for a printout until the final page is ejected, is increased, but you get control of your computer much faster than before.

The longer and more complex the document, the more time is saved from waiting for the printer to finish. Field test results have shown anywhere from 20-70% time saved in getting back control of your GS.

Express works with GS/OS compatible software like AppleWorks GS, GraphicWriter III, Platinum Paint, and others. It works with ANY printer that is directly connected to the GS (it does NOT work with a networked printer).

Express requires an Apple IIGS and a hard disk. Suggested retail price is $49.95. Partner price will be $34.95 + $5.00 p&h from Michael Hickey, ACT Apple's Seven Hills Partner. Call him on 231 3787.

See ACT Apple's April 1992 magazine for more information on other Apple IIgs software from Seven Hills.

Express Tips and Bugs

TIP: If the Express CDEV does not show up in the Control Panel after installing it and restarting the computer, open the *:System: CDevs folder and delete the "CDev.Data" file. {This tip applies to any CDEV that does not show up after installation; sometimes the CDev.Data file gets out of sync with what's really in the CDevs folder.}

TIP: You can temporarily inactivate Express by checking the "Express inactive" checkbox in the "Options" dialog box. This turns Express off and when you print no spooling occurs (if using a direct-connect printer, the file is printed just as if Express were not present).

BUG: You are supposed to be able to switch freely between direct-connect and network printers, but for some reason you cannot print to any networked printer when Express is installed (even inactivating Express does not work). The only interim solution is to not install Express if you must print to a networked printer.

BUG: Some ImageWriter-type printer drivers (e.g. ImageWriter CL) fail to support color printing and don't work correctly with Express. The only interim solution is to use Apple's "ImageWriter" printer driver.

A new version is under development that will fix these problems.

New Apple IIgs PD Disks

GS112 Milestones 2000

Based on an old French card game, this game combines excellent graphics with digitized sound in a game of strategy. You play "cards" to advance your car whale attempting to stall the computer opponents. This addictive game gives hours of pleasure and entertainment.

GS113 Star Trek Classic

An exemplary remake of one of the earliest computer games ever written. But don't let that put you off, this disk is completely different to the old games. It has super colour graphics and quality digitized sounds from the original TV series to lend suspense and a sense of adventure as you defend the Federation from invading Klingon and Romulan warships. Requires 1.5 mb and Tool 52. If you are half a "Trekkie" you will love this disk.

GS114 Sensei*****

A great Karate-style game by the best arcade game programmers to date - the FTA. Boot this disk and use a joystick to fight your way through the tournament into a black belt.

GS115 Space Clusters

A colourful arcade came from France. Boot the disk and use a joystick to defeat these winged alien invaders.

GS116 Bouncing 'Ferno

Another quality FTA game. Bounce your way through a maze of ramps and elevated terraces. An infuriatingly addictive game.

GS117 State-Of-The-Art Games****

PlasmaLab2, CrossPurpose, Blackjack Tutor, FTA Plotting, From Beyond, ExplorerGS and Game Maker will entertain you.

GS118 Delta Demo****

Boot this disk to view the latest rolling 3D demo from the FTA.

GS119 Middle East Stack

A stand-alone educational stack which delves into the history of the Persian Gulf countries and explores the conflicts and politics leading into the Gulf War.

GS120 Way Cool GS Utilities***

Jazz up your GS with this collection of special INITs, CDAs and NDAs. Complete instructions on using the programs are included.

GS121 Simple Animation Program***

SAP lets you create your own computer animations for fun and profit. Includes documentation and sample animations.

GS122 ANIMAGA***

Best from the FTA: A collection of the best FTA animations.

GS123 System 6.0 Special Effects***

Smarten up your Apple IIgs System 6 with these utilities.

GS124 TrueType Fonts Disk #1 ***

20 NEW Truetype fonts for use with Pointless type manager.

GS125 TrueType Fonts Disk #2***

23 Truetype fonts for use with Pointless type manager.

GS126 TrueType Fonts Disk #3***

26 Truetype fonts for use with Pointless type manager.

GS127 TrueType Fonts Disk #4***

25 Truetype fonts for use with Pointless type manager.

GS128 Space Arrow****

Space Arrow is an Apple IIGS game allowing two players to battle each other, via remote piloted spacecraft armed with torpedoes. The game play is simultaneous and fast paced. The computer can also join the action by loading in artificial intelligence routines, which are completely programmable. Separate-channel sound effects allow warning and alert sounds to be heard over that player's designated stereo channel (stereo card is recommended). Requires Apple IIGS with 1.25 megabytes of RAM and GS/OS v5.0.4 or later.

GS129 Blue Helmet****

The long-awaited Formula 1 car racing game from FTA. The sound and graphics from this not-quite finished game rivals the best from Nintendo . The 10 minute qualifying heat ends abruptly, but if you are a programmer, you can make your own ending from the source code. Requires a joystick.

GS130 DreamVoir****

DreamVoir is a combination slide show program and background SoundSmith
music player. It is useful for showing off 3200/256/16 colour Graphics and 15 voice Sounds that put the G and the S in Apple IIGS. Includes some spectacular 3200 colour pics.

GS131 Game Cheats****

Features hints, deprotection schemes, walkthroughs etc. for The Immortal, Task Force, Qix, Beyond Zork, Gnarly Golf, Keef the Thief, PaintWorks Gold, ChessMaster 2100, Shadowgate, Uninvited, Deja Vu I & Deja Vu II, Zany Golf, Pipe Dream, Thexder, Grand Prix, Balance of Power, Bubble Ghost, Cribbage King, Life & Death and quite possibly others.

GS132 GS rSound Disk

This utility converts sounds in "raw data" format to a format known as an rSound Sample. While this disk will probably be MOST useful to people with System 6, it is also useful to people with previous system versions using Hypercard GS. This program not only converts sounds into files by themselves, it will also add a new sound resource onto EXISTING files. This is useful for putting a large number of sounds into one big file. This disk also includes a bonus program "soniqTRACKER" a new music playback program for the Apple IIgs.

New Apple II PD Disks

#308 EDUCATION

Learn Basic Math with 23 levels of drill and practice that begin with simple arithmetic and progress up to advanced multiplication, division, number sequences and missing numbers of up to three digits, tracking your score at each level. For ages 6 to 12. Works on any 64k Apple II.

#309 EDUCATION

ALGEBRA TUTOR. Learn to add and multiply linear equations, to factor quadratic polynomials, to plot a graph for any linear, quadratic or circular function. Learn the Quadratic Formula and Completing the Square.

#310 EDUCATION

ADVANCED ASTRONOMY for the amateur. Explore the outer reaches of the solar system with the help of your computer. This disk is a compilation of programs that are useful for the amateur astronomer or astronomy student. A diversity of topics are covered including, Angular Separation Of Two Stars, Mars Data, Sunrise/Sunset times, Moon position for any date, Phases of the Moon, Galilean Satellite Positions and more.

#311 EDUCATION

ADVANCED MATH. Tired of grinding out complex statistical, trigonometric or calculus programs by hand? Here is a collection of the most commonly used solutions for those complex class assignments. Find sample mean, variance and standard deviation. Watch the Pythagorean theorem in action. Get permutations of any number of things, at any rate. Compute minimum investment for a constant withdrawal. Plus many other programs including some for business.

#312 EDUCATION

TRIGONOMETRY, Students, solve problems by graphing the function. Learn problem solving by using the Scientific Method.

#313 GRAPHIC TOOLS

JOYPAINT. This disk contains a fully-functional paint program which uses a joystick to control the painting action. Paints in the eight hires colors, eight fill patterns, a pen, paintbrush, airbrush, oval tool and font tool. Requires an Apple IIe with 128k (or Apple IIc) and a joystick or Koala pad.

#314 AppleWorks UTILITIES

Computer Dictionary. A comprehensive dictionary of Apple II specific computer terms for use with AppleWorks. Compile your own computer glossaries or simply check your spelling this should be a useful add-on to your custom dictionary. Requires AppleWorks.

#315 UTILITIES

ProDOS Macros. This disk eliminates the tedious typing of repetitive commands. It comes with some commands, but you can modify them or add your own with the command editor.

#316 GAMES

AWACS. Scramble your fighters to intercept the enemy. You command a flight of fighters which you must use to defend your home base. In REAL TIME LANDER, you must try to land your Lunar Module before you run out of fuel and gravity takes its toll. Also includes WALL, TREASURE HUNT, WIZARDS CASTLE, SUBSCAN, DIVE BOMBER, BLACK FRIDAY and DUNGEONS AND DRAGONS MAGIC ITEMS.

#317 GAMES

COLUMNS IIe. You have heard of TETRIS, no doubt, well this has got to be the best Tetris-clone for the 128k Apple IIe /IIc. Columns of three colours fall into a pit and gradually fill the pit. Your job is to rotate the columns as they fall so that you can get at least three matching colours in a row. When this happens the colours disappear and you get awarded the points. Slow, at first, this game builds into fast, colourful action as you advance through the levels. Not for the II+.

#318 UTILITIES

SoftDAC 128k. This program is a software-based Digital to Analog converter, similar to the ones found in Compact Disk players. SoftDAC converts digital sound files, like those on the Apple IIgs or Mac, into analog sounds which you can playback, on command from the Apple II! Includes AppleSoft BASIC and Assembler routines so that you can use these high quality digitized sounds in your own programs. Requires 128k Apple IIe /IIc.

#319 Astronomy

Hubble Space Telescope. Learn about one of NASA's greatest challenges in the field of telescope technology. See what it can do and learn about its potential as the greatest telescope ever built.

TREASURERS REPORT

Period from 8/9/88 to 11/10/88

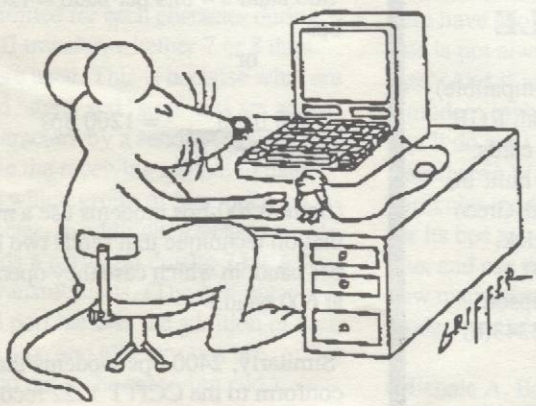
Receipts	
Joining fees	$ 85.00
Membership fees	$ 360.00
Disk sales	$ 484.00
Ribbon inking	$ 30.00
P.D. Disk sales	$ 235.00
Equipment sales	$ 0.00
Misc (interest etc)	$ 85.27
Total	$ 1279.27
Payments	
Printing	$ 221.00
Postage	$ 63.00
Disk purchases	$ 0.00
Telephone accounts	$ 0.00
Taxes and charges	$ 4.15
Hardware purchases	$ 0.00
Software purchases	$ 41.48
Misc	$ 20.50
Total	$ 350.13
Current cheque account balance:	$ 667.80
Current investment account balance:	$ 2633.23

T.R. Blacksell
Treasurer

FOR SALE

P.S.S. Access (comms package) + manuals $50
Original Newsroom + manual $50
Extending AppleWorks manual $30
Mac Inker (new) $70

Call Trevor on
910709 (h)
573699 (w)



DATA COMPRESSION

The attraction, for some, of the PC field over that of Apple is that there is a large number of readily available and extremely useful public domain and share-ware utilities. The particular genus of utilities that I have found very useful on the PC are the archive and data compression tools. I have been disappointed that similar packages are not readily available for the Apple.

In retrospect, it appears that there have been one or two such utilities lurking behind the scenes. However, at last I have seen one and am able to report that there is an effective archiving utility doing the rounds locally. It comes under the dubious title of DISK DISINTERGRATER DELUXE V 4.2 and was written by Louis Roy of Logix Innovations of Canada.

The single ProDOS disk contains the main program, setup and configuration modules and several text files of documentation. Disk Disintergrater Deluxe (DDD) will -
- run on Apple IIs from the II+ to the IIGS,
- operate on ProDOS 1.3 or later, and
- work on 5.25, 3.5 (both 800K and 1600K), hard disks that support ProDOS (eg SCSI, Profile, Sider, etc) and RAM disks.

What will DDD do for you? Via a simple menu driven user interface, DDD will pack/compress the data or unpack/decompress the data on a ProDOS storage device.DDD also includes an option to optimise a ProDOS storage volume. This function is particularly handy in the management of mass storage devices.
DDD -
- supports a ProDOS clock
- dates and titles archives
- has a built in text editor
- can handle up to 14 storage devices connected to your Apple
- supports all ProDOS commands from the program
- has full error trapping
- packs and unpacks with one or more devices
- allows duplicate volumes on-line.

To test the performance of DDD I filled three 5.25 disks with AppleWorks files and then ran them through DDD. The results were a follows -

Disk No	Data Type	Amount of Data	Time to Pack	Packed Size	Time to Unpack
1	AWP	278 blks	100sec	183blks	untested
2	ADB	277 blks	150sec	219blks	100secs
3	ASP	268 blks	120sec	180blks	untested

The unpacking function restored the files exactly as they were before they were packed.

Logan Brill

Apple // View Pictures
- courtesy of Applesauce

ARTIFICIAL STUPIDITY ?

Exerpt from APC - Bryan Baker

The preview copy of a new software system, Cacophony, has arrived and all my peripherals are tingling with excitement. It's creators say it's 'the most important advance in information technology since notched sticks'. They're too modest: Cacophony is the most important advance since fingers and toes.

Wordherder

The most conventional part of Cacophony is its word massage module, Wordherder. This does all the usual editing tricks, and features WYGIWYG (What You Get IS What You Get). Need to know exactly how your document will look when printed? Just print it and look at it! Naturally, Wordherder can handle those pesky typos. Spellmeister, the strictest spelling checker available outside the Iron Curtain, won't let you enter a misspelled word. It you try to enter the same misspelling twice, Spellmeister delivers a mild electric shock. The word whipping package also features Slangbang, the subroutine that seeks out and destroys vulgar usages.

Some of today's advanced word processors include a style checker, which can locate well known, time honoured hackneyed phrases and replaces them with a variety of ultranew computer generated alternatives. With these, you can have tomorrow's cliches today.Worherder has something more useful, Tritewrite, which takes complicated and subtle metaphores and reduces them to easily understood cliches.

Yesman/Yesbut

Potentially the most useful spin-off of Artificial Stupidity is Yesman, a Cacophony program that takes your concepts and renders them indistinguishable from your boss's. In file update mode, Yesman will automatically search previous concepts and delete any evidence that you ever disagreed.

(- more another time... Ed.)

DOUBLE HI-RES ON THE APPLE //e, //c and IIgs

by Pam Doughty,
AUSOM August 1988

If you own an Apple //e with a revision B, or later, motherboard and an extende d 80 column card (or 128K or more of memory), or an Apple //c, you can display d ouble hi-res graphics. Examples of this display are seen if you use Multiscribe or have played some of the newer games such as Destroyer, California Games or Ki ng's Quest. Most of the software I have found that uses the double hi-res featur es hide the "how to do this" deep within machine language routines. After asking many questions via bulletin boards, I eventually figured out a simple way to ca pture double hi-res pictures and then re-display them when I wanted.

In double hi-res, the picture is produced by taking a byte from auxiliary memor y and the corresponding byte from main memory and showing them together. (Or $20 00-$3FFF from auxiliary memory interleaved with $2000-$3FFF from main memory).

If you have some disks with double hi-res picture files on them, examine these carefully. Sometimes the files are twice the size of a standard hi-res picture f ile and sometimes they are in two parts (often called filename.AUX and filename) .

The method I have used is to SAVE and re-LOAD the picture in two parts. If a pr ogram uses the "double length" for storing the file then it possible loads the f ile into main memory then moves the upper half into auxiliary memory, or uses so me other trick to "split" the data when loading it. Another confusing aspect of examining file lengths is that ProDOS files may appear, at first glance, to be a bout half the size of the equivalent DOS file. It is easy to confuse blocks and sectors when trying to unravel the maze of double hi-res pictures.

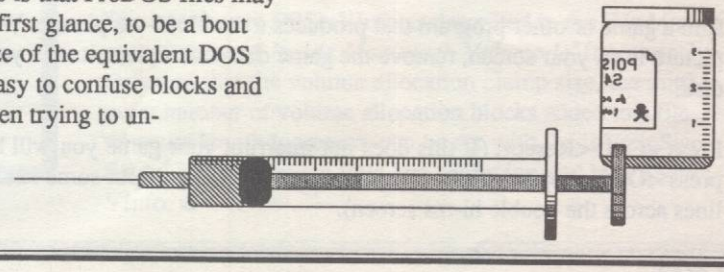
I have used DOS for my files and programs as the trick I have used to capture a double hi-res picture will not work under ProDOS.

The BASIC programs The "complicated" part is in lines 100 and 110 of each of the following program s. It is not essential to understand these POKES in order to use these routines. In fact, if you can understand them you probably already know that they do the following:

```
POKE 49154,0 RAMRD off
POKE 49156,0 RAMWRT off
POKE 49153,0 80STORE on
POKE 49239,0 HIRES on
POKE 49160,0 ALTZP off
POKE 49246,0 AN3 on
POKE 49232,0 TEXT off
POKE 49165,0 80 COL on
```

The final "trick" is then to be able to write to, or read from, either main mem ory or auxiliary memory. Once you have performed all the POKEs above, POKE 49237 ,0 allows access to auxiliary memory and POKE 49236,0 switches back to main memo ry.

```
10 REM ==============
20 REM DOUBLE.CLEAR
30 REM WHICH CLEARS THE DOUBLE
   HI-RES SCREEN
40 REM ==============
50 REM
60 PRINT CHR$ (4);"PR#3":
   PRINT CHR$ (12)
70 REM
80 REM DOUBLE HI-RES
   INITIALISATION
90 REM
100 POKE 49154,0: POKE 49156,0:
    POKE 49153,0: POKE 49239,0
110 POKE 49160,0: POKE 49246,0:
    POKE 49232,0: POKE 49165,0
120 REM
130 REM CLEAR "DOUBLE HI-RES
    SCREEN"
140 REM
150 HGR
160 POKE 49237,0
```



```
170 CALL 62450
10 REM ====================================
20 REM DOUBLE.SAVE
30 REM WHICH SAVES A DOUBLE HI-RES PICTURE
40 REM ====================================
50 REM
60 PRINT "ENTER FILE NAME TO SAVE ";: INPUT P$
70 PRINT CHR$ (4);"PR#3":PRINT CHR$(12)
80 REM
90 REM DOUBLE HI-RES INITIALISATION
100 REM
110 POKE 49154,0: POKE 49156,0: POKE 49153,0: POKE 49239,0
120 POKE 49160,0: POKE 49246,0: POKE 49232,0: POKE 49165,0
130 REM
140 REM SAVE THE GRAPHICS FROM MAIN MEMORY
150 REM
160 POKE - 16302,0
170 PRINT CHR$ (4);"BSAVE";P$;",A$2000,L$1FFF"
180 REM
190 REM SAVE THE GRAPHICS FROM AUXILIARY MEMORY
200 REM
210 POKE 49237,0
220 PRINT CHR$ (4);"BSAVE";P$;".AUX,A$2000,L$1FFF"
230 REM
240 REM WAIT FOR A KEY PRESS TO END
250 REM
260 GET A$: TEXT : HOME : END
```

```
10 REM ====================================
20 REM DOUBLE.LOAD
30 REM TO LOAD A DOUBLE HI-RES PICTURE
40 REM ====================================
50 REM
60 PRINT "ENTER FILE NAME TO LOAD ";: INPUT P$
70 PRINT CHR$ (4);"PR#3": PRINT CHR$ (12)
80 REM
90 REM DOUBLE HI-RES INTIALISATION
100 REM
110 POKE 49154,0: POKE 49156,0: POKE 49153,0: POKE 49239,0
120 POKE 49160,0: POKE 49246,0: POKE 49232,0: POKE 49165,0
130 REM
140 REM LOAD THE GRAPHICS TO MAIN MEMORY
150 REM
160 POKE - 16302,0
170 PRINT CHR$ (4);"BLOAD";P$;",A$2000"
180 REM
190 REM LOAD THE GRAPHICS TO AUXILIARY MEMORY
200 REM
210 POKE 49237,0
220 PRINT CHR$ (4);"BLOAD";P$;".AUX,A$2000"
230 REM
240 REM WAIT FOR A KEY PRESS TO END
250 REM
260 GET A$: TEXT : HOME : END
```

Capturing your Double Hi-res Picture

In order to make use of the above routines you need to have a double hi-res pic ture in your computer's memory. To do this, carry out the following steps. (Assu ming you have entered the above routines and saved them on a DOS slave disk - I called them DOUBLE.CLEAR, DOUBLE.SAVE and DOUBLE.LOAD).

Run a game or other program that produces a double hi-res picture. When the picture is on your screen, remove the game disk and replace it with your program disk.

Press <Crtl><Reset>. (If this does not interrupt your game you will have to press <Open Apple><Ctrl><Reset>, however this will put some short broken lines across the double hi-res screen).

Once DOS has been loaded from your program disk you can "RUN DOUBLE.SAVE". This should show your double hi-res picture on the screen before saving it your disk. You will provide the file name and the program will add the extension.AUX to one of the files.

Some Additional Notes This capture method relies on the fact that when DOS is loaded from a slave disk it does not overwrite the graphics page in main memory (or in auxiliary memory). This will not work with ProDOS as it is initially loaded at $2000. In order to preserve the contents of say $2000 - $3FFF, I have moved it to auxiliary memory, then loaded ProDOS, then moved it back into main memory. It is awkward but not impossible.

Once you are happy with the procedures being carried out in the above BASIC programs you may like to try HPLOTing some points onto the Double Hi-res screen. You could do this by extending the DOUBLE.CLEAR program to include - POKE 49236,0:HPLOT something: POKE 49237,0 HPLOT again POKE 49236,0: etc ie flipping between main memory and auxiliary memory between HPLOTs

Have fun experimenting.

WANTED

LISA's
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contact Chris Rowney
57 3042 (w)
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The following program will allow viewing of a standard Hi-Res picture.

```
10  ON ERR GOTO 30
20  PRINT CHR$ (4);"PR#3"
30  TEXT : INPUT "Enter name of picture file
     (\ to quit): ";N$
40  IF N$ = "" THEN PRINT CHR$ (4);
    "catalog,tbin": GOTO 30
50  IF N$ = "\" THEN END
60  PRINT CHR$ (4);"bload ";n$;",a$2000"
70  POKE 49234,0: POKE 49239,0: POKE
     49236,0: POKE 49232,0
80  GET A$: GOTO 30
```

The following will allow viewing of Double Hi-Res pictures, on computers equipped to do so.

```
10  ON ERR GOTO 65
15  PRINT CHR$ (4);"PR#3"
20  POKE 49233,0 : INPUT "Enter name of
     picture file (\ to quit): ";N$
25  IF N$ = "" THEN PRINT CHR$ (4);
      "catalog,tbin": GOTO 20
30  IF N$ = "\" THEN END
35  PRINT CHR$(4);"bload ";n$;".aux,a$2000"
40  PRINT CHR$(4);"bsave /ram
     temp,a$2000,l$2000"
45  PRINT CHR$ (4);"bload ";n$;",a$2000"
50  POKE 49153,0: POKE 49165,0:POKE 49232,0
55  POKE 49234,0: POKE 49239,0:POKE 49246,0
60  GET A$: POKE 49247,0: GOTO 20
65  E=PEEK (222): IF E=6 OR E=16 THEN 75
70  GOTO 20
75  PRINT : PRINT "An error has occurred
     while readingthis file."
80  PRINT "The file may be in the incorrect
    format. Please try again."
85  PRINT : GOTO 30
```


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Applied Engineering RamKeeper
for Apple IIGS. Complete.
$390. (RRP $460)
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Apple IIGS 256K
Memory Expansion Card $220.
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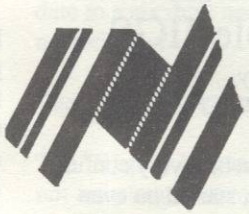


HFS Tidbits

Macintosh Technical Notes #204:

See also: The File Manager
Technical Note #77–HFS Ruminations
Technical Note #102–HFS Elucidations

Written by: Dave Burnard
August 1, 1988

This Technical Note describes two poorly documented features of the File Manager.

Always Set ioFVersNum to Zero

When making a File Manager call which uses a CInfoPBRec, or the fileParam or ioParam portion of either a ParamBlockRec or an HParamBlockRec, you should set the ioFVersNum field to zero. File version numbers are an artifact of MFS and are not supported on HFS volumes or by the Resource Manager or Standard File Package. In fact, the ioFVersNum field is ignored when accessing an HFS volume. Unfortunately, when accessing an MFS volume, the version number is still used, and should be set to zero.

A little known fact that can lead to difficulties, is that many of PBHxxxx File Manager calls "fall through" to their PBxxxx counterparts when accessing MFS volumes. For example, although the interface to PBHOpen in *Inside Macintosh Volume IV* does not indicate that the ioFVersNum field is used, when opening a file on an MFS volume, PBHOpen falls through to PBOpen which will use the version number. Unless ioFVersNum is explicitly zeroed this can lead to unexpected "file not found" errors.

Incorrect PBSetVInfo description

The interface to PBSetVInfo as described in the File Manager chapter of *Inside Macintosh Volume IV* **incorrectly** indicates that the volume allocation clump size, the minimum number of volume allocation blocks added to a file when its length increases, can be set with the ioVClpSize field. The ioVClpSize field is actually ignored by PBSetVInfo.

Getting started with the Apple IIGS

By Wesley R. Felty,
by courtesy of Call-A.P.P.L.E.

The Apple IIGS can be a very confusing computer to get started on even for people that have been using Apple computers for some time. This hybrid cross between the Apple //e and the Macintosh computers works a bit like each of them. So unless you are quite knowledgeable about the //e and the Mac you are probably going to run into some confusion setting up and using the Apple IIGS. And, even if you are familiar with both systems, the IIGS introduces ProDOS 16 which is very new to everyone. This article will try to dispel some of the confusion about configuring the GS, how ProDOS 16 boots, setting up disks to operate more efficiently (some of which can boot in five seconds), and how to use the desktop, icons, etc.

Setting up the control panel

The control panel is a very interesting addition to the IIGS. This option allows you to make quick and easy changes to many things that on earlier computers would have involved rebuilding part of the computer or its circuitry. Now with the IIGS' Control panel, it is so easy to make changes that you can just "try it and see what happens" whenever you are curious about what a particular Control Panel setting does. Unfortunately, some of the changes are too subtle to see immediate changes. To enter the Control Panel, press Open-Apple, Control and Esc at the same time.

This should switch the screen display to one showing the "Desk Accessories". Don't worry about this switch to the new screen display. When you leave the desk accessories, you will return to your main program. The only problem here is that some programs do not allow you to use desk accessories. This should only happen with some heavily protected software, you won't run into this problem if you are also using software programs, like Roger Wagner's SoftSwitch or configured by desk accessories.

Enter the desk accessories area by pressing the Open-Apple-Ctrl-Esc keys at the same time and notice the Control Panel option. Use the up and down arrows to move the cursor bar to the Control Panel option. The mouse, as well as the left and right cursor arrows, will not position the cursor. Remember, with menus when you move down past the bottom jumps the cursor all the way to the top. And in desk accessories or Control Panel menus, press the "Esc" key to jump to "Quit" option at the bottom of the selections whenever it is displayed. Now, press the Return key to select the Control Panel.

Setting the Display Options

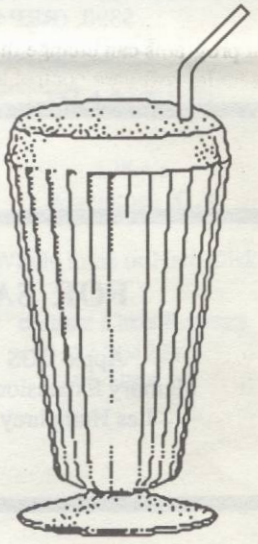
Press the down cursor once to move the cursor bar to "Display". Press the Return key to pick this option. In the display option you will probably see the first entry saying "Type:Color" with a check mark against it. A check mark before an option shows that it is the "default" or normal option. Pressing the right or left cursor keys toggles the options for that entry through whatever range of options are allowed. Pressing the up or down cursor key allows you to select other "Display" options. When all of the options are set within this menu, pressing the Return key makes them permanent (until you return to the Control Panel to change them again). Or, you may press the "Esc" key to abort the whole process with no changes having been made.

The Color Vs Monochrome Option

This option is probably the most misunderstood option in the IIGS. According to my technical manuals, the Color/Monochrome option only changes the output to a color composite monitor. Therefore, this setting should have no effect at all on a IIGS set up with a RGB monitor.

I've seen quite a number of IIGS owners go into this option change it to monochrome, and be surprised to return to a color display on their RGB monitors. Whatever you set this option to, a program can still change the display to Color or Monochrome. And , if you are using a monochrome monitor, you should leave this set to "Color". Setting this to monochrome will eliminate some colors from displaying at all when a color graphic is viewed, but setting this to color will cause some color graphics to still be viewable on a monochrome screen.

Strangely enough, when using a RGB color monitor, this option should be set to monochrome. Since this option is not supposed to affect the RGB monitor, it doesn't affect normal color displays. But when you return to Double Hi-Res text display, such as the desktop screen, if this option is set to color, you will find a bad color bleeding problem making the text unreadable. Therefore, for use with the IIGS RGB monitor, set the Display Color option to Monochrome. For use with a composite color monitor, set it to color. For a composite monochrome monitor, try it both ways. It appears from my own testing of the color option that the Control Panel should have been labelled as RGB and Composite instead of Monochrome and Color. In general, set this option to Monochrome for use with a RGB monitor and Color for use with a Composite monitor. But especially with text, if a monochrome text display is hard to read, try changing the Control Panel Display option both ways. That is the beauty of the IIGS



Control Panel System. You can interrupt a running program, go into the Control Panel, reset the options, and return to the interrupted program. But unfortunately, some other options like the RAM disk option, needs the computer to be cold-booted to be activated.

There is one other color problem to be dealt with here, the pink screen problem. The early IIGS's had at least one obnoxious bug in them. The desktop showed up in pink with gray lines instead of all-gray. Apple has solved this problem.

Screen Colors and Width

The display Columns and Colors options are strictly a case of user's preference. They determine the boot-up conditions. Many programs will automatically reset the screen colors and column widths to whatever they want or need, so these settings do not lock you into any set condition. I, myself, prefer 40 column display with white text on a dark blue background surrounded by a light blue border, but then that is strictly my own preference. The Control Panel shows you each color change as you make it so you can immediately see the results. The column width option doesn't change until you leave the Control Panel.

The Sound Option

The Control Panel's Sound option is a nice touch, allowing you to set the "bells" pitch and volume. Again, individual programs can change these options under software control to whatever values they want. Hopefully, they return the values that were originally set when they finish. If not, you may have to cold-boot the computer to get them back.

The Apple IIGS Four Finger Salute

It isn't usually necessary to turn the Apple IIGS off in order to re-boot it. Apple users should be familiar with the "three finger salute", the process of "warm-booting" by holding down the Control, Open-Apple, and Reset keys at the same time. The IIGS has the same key sequence available, plus a "four finger salute". To simulate a complete power down, press the Control, Shift, Open-Apple, and Reset keys simultaneously. This works most of the time, but there are still occasions when nothing will replace just turning the computer off, waiting a minute, and turning it back on. This brings up a very important change in the IIGS. It retains a charge in its circuits much longer than the //e and most other computers, so you need to leave it turned off for a longer time. This is especially important when pulling out or installing peripheral cards. The IIGS is much slower in discharging itself and can be damaged by switching cards too soon. (This feature was built into the IIGS on purpose to help remain stable through short-term power loss).

The System Speed Option

The System Speed option is another feature that is often misused. Some users have the idea that their Apple //e software somehow has to be used in a //e or emulation mode on the Apple IIGS. This is generally not true. Most DOS 3.3 and ProDOS programs will run as well on a IIGS. The system speed can be a problem with games, like MsPacMan that simply runs too fast, or the "bell" gets too high pitched. And some programs possibly won't run at all on the Fast (normal for IIGS) speed. So, don't worry about the system speed setting, just try changing as the need arises.

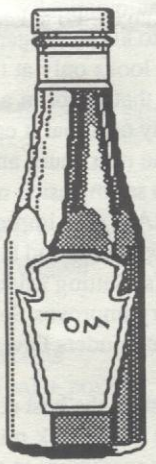
The Clock Option

The clock option is another feature that you will probably need to only set once and forget from then on. There are some interesting options beyond just setting the correct time and date. You may set the time in 12 hour AM/PM format or 24 hour time. You may also set the date in month/day/year format. The month/day/year is in most common use in this country. The day/month/year format is common in Europe, especially with the month being spelled out instead of being written as a number. And finally, the year/month/day format is common in computer applications, since it makes it very simple to convert the date to a six digit number for sorting numerically.

The "Option" Options

The "Display language" option does not translate whatever you type into the foreign language. It merely replaces on the screen seven or eight special characters ([,], {, }, \, |, #, and ~) with special symbols used in the alterable language, letters with umlauts and accent marks. These special symbols only print on the screen and not to the printer. If you have a printer that will print foreign languages, you can set the dip switches or send the control codes for a foreign language and then view on the screen the same special characters that will be printed.

The keyboard buffering is a powerful feature that can get you into trouble if you are not careful. This feature allows you to enter up to 256 characters while the computer is busy and can't deal with them, (i.e., when the disk drive is running, the printer is printing, or the program is doing some slow job). You are typing blind while using the buffer and may set up some action that you don't really want to do. Some programs that are a little slow may cause you to do more than you actually wanted to do. For example, if you were holding down the delete key and the program couldn't delete as fast as it receives deletes from



the computer, when you release the key, the deletes that you stored in it, erasing more text than you planned. So use the keyboard buffer with caution or turn it off so you don't need to worry about it.

The other "Option" options are discussed quite well in the Apple IIGS Owners's guide so I won't bother going in to them except to say that if your mouse doesn't seem to be responsive, or if you are confined to a small area, then you will probably want to set the "High Speed Mouse" to yes. This doubles the distance that the cursor moves relative to the motion of the mouse.

Setting aside a RAM disk

The bottom Control Panel option allows you to set aside some of the IIGS' additional memory as RAM disk and allows you to determine haw many Ks of available memory to use for it.

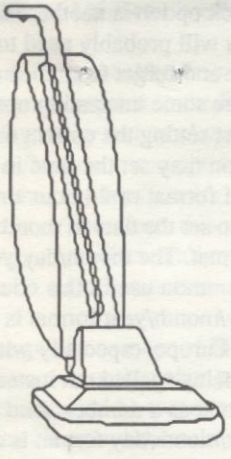
You may set aside the Minimum RAM Disk size and the Maximum RAM Disk Size with the Control Panel, showing you the limits of the values that you don't use. The Control Panel won't allow you to do something "illegal" like setting the maximum value lower than the minimum. There are two mutually exclusive factors to consider when setting the RAM disk size. Some programs look for additional memory that is not configured into a RAM disk for its additional use. For example DSR's Diversi-cache looks for RAM disk space to use and automatically uses any that it finds up to 800K. Roger Wagner's SoftSwitch looks only at the additional memory that is not in a RAM disk and uses any of it that it can find up to 400K, the maximum amount that it needs. So setting aside more memory for the RAM disk improves Diversi-Cache's operation and hinders SoftSwitch's. Setting aside less RAM disk memory improves SoftSwitch's operation but hinders Diversi-Cache's.

What I consider the best compromise is to set the RAM disk minimum to zero and the maximum to the maximum allowable. Then, being careful about what order I load different programs in, I let them divide up the space between them. Good programs like Diversi-Cache add an entry to the desk accessories that allows their memory allocation to be reconfigured. Of course, a program like Appleworks 2.0 should always be loaded last since it automatically gobbles up all available memory.

A number of sources caution against this last approach of zero minimum and full maximum values set aside for RAM disk. Some programs appear to get confused if the minimum and maximum values for the RAM disk are not set to the same value. So, you may end up needing to return to the Control Panel and setting both limits to the same value. I, myself, have not experienced any difficulty with my settings, and will leave them configured this way until a problem develops (keeping in mind the solution I've given in case a problem arises).

Where's the RAM?

The "Slots" option is also explained pretty well in the owner's guide except for two points. Where is the RAM disk memory allocated (if RAM memory has been configured)? If you are configuring a program, like Roger Wagner's "MouseWrite", you can set it up to move all the program's segments, spelling checker, dictionaries, etc. into the extra RAM disk memory. But, you have to tell the program where the memory is located. Previous Apple II and][e owners will probably have no trouble with this question, it is Slot 0. Wrong! On the Apple IIGS, it is in slot 5. In fact, if you have a RAM disk set up at all, it is called RAM5 and thinks that it is a disk drive in Slot 5, drive number 2.



This "phantom" slot position becomes more interesting once a second 3.5 inch drive is introduced. If no RAM memory has been set aside, the second 3.5 inch drive is located at Slot 5, Drive 2. So if you have used the Control Panel to set up the RAM disk, then RAM5 is located "in" Slot 5, Drive 2. So if you have two 3.5 inch drives and a RAM disk set up, the first drive is in Slot 5, Drive 1, and the second is not in Slot 5, Drive 2, but in Slot 2, Drive 1. Please don't expect me to give a logical explanation about this, I would like to hear one myself.

Setting up disks to use with the Apple IIGS

Nothing special needs to be done with DOS 3.3 to use on the IIGS, but of course some of its programs won't work due to the difference between the IIGS and the Apple][+ or //e. One major problem with using DOS 3.3 on the IIGS is that it isn't designed to work on the 3.5 inch disks. Most IIGS users are finding that about the only good use for the 5.25 inch drives is to load older programs into the computer from 5.25 inch disks one last time so that they can be saved onto 3.5 inch disks.

Fortunately, there is a solution to the problem. Some creative programmers have worked out patches or modified versions of DOS 3.3 to be used on 3.5 inch disks. Since a 3.5 inch disk can normally hold only 143K, a lot of space would be wasted on a 3.5 inch. Therefore, these special DOS disks usually have 50 tracks instead of 16. Some contain more than one Volume on the same disk. Some of the 3.5 inch modified DOS 3.3 disk systems that are available:

UNIDOS 3.3 Plus
MicroSPARC Inc. US$29.95
45 Winthrop Street
CONCORD, MA 01742

Gives two 400K volumes per disk. Support for up to two UniDisk 3.5 drives (1.6 Megabytes of storage) per slot. Up to 434 files per disk.

AMDOS
Gary Little US$20
131 Water Street, #210
VANCOUVER, BC V6B
(604) 681-3371

I don't have any details on this DOS but knowing Gary Little, I expect it to be good.

DOS 3.3.5
Ray Sutcliffe
Call-A.P.P.L.E. July 1987

An article from Call-A.P.P.L.E. magazine telling you how to patch DOS 3.3 to work on a 3.5 inch drive. Update included on page 45 of September 1987.

ProSEL (Including Uni.DOS)
Glen Bredon US$40
521 State Road
PRINCETON, NJ 08540

ProSEL is one of the best utilities for hard disks and 3.5 inch disks with its own PROgram SELector and many other utilities, including a utility to format a 3.5 inch disk with 75% (600K) ProDOS and 25% (200K) DOS 3.3.

Two Types of ProDOS Disks

It is well worth our time to set up two different types of disks to use with ProDOS on the Apple IIGS, 8 bit disks and 16 bit disks. 8 bit disks refer to applications that use the older ProDOS/8 (ProDOS 1.0 through ProDOS 1.1.1 and ProDOS 1.2 through 1.4) and could run on the older Apple II's as well as the Apple IIGS. 16 bit disks refer to disks like the Apple IIGS "SYSTEM.DISK" that use the newer ProDOS/16 and /or ProDOS/8 files. By sticking with ProDOS/16 disks you can get along with only one type of disk that will work with the old ProDOS/8 and the new ProDOS/16, but then you always have to wait for an 80 second boot.

The 16 Bit Boot

Why does the IIGS "SYSTEM.DISK" take so long to boot? Do we really need to use BASIC? Can we take any shortcuts and not have to wait for the 80 second boot that loads many tools that often aren't needed? To answer these questions we have to understand the IIGS's ProDOS boot sequence.

The ProDOS Boot Process

The file called "PRODOS" in the root directory is not really ProDOS but a shell program or "ProDOS Loader" that first determines if it is booting on an 8 bit or 16 bit computer. After an 8 bit machine, like the //e is found, then the "ProDOS Loader" runs "P8" (ProDOS/8, a SYS or type $FF file) from the "SYSTEM" folder (subdirectory) which activates the first "SYSTEM" type file in the root directory just as ProDOS did before on the IIGS.

If a 16 bit machine, like the IIGS is found, then the "ProDOS Loader" does the following:

A. Relocates the "PQUIT" code to its final location B. Loads "P16" (ProDOS/16), a type $F9 file) from the SYSTEM folder C. Loads the ProDOS Loader D. Executes any needed set-up routines from the SYSTEM.SETUP folder E. And finds a file to execute 1. First it looks for a file named "START" (type $SB3) in the SYSTEM folder. This is usually the Program Launcher or Finder (desktop) 2. If no "START" is found it looks for the first ".SYSTEM" (type $FF) or ".SYS16" (type $SB3) a. If a .SYSTEM file is found, P8 from the SYSTEM folder is activated b. If a .SYSTEM file is found but P8 isn't present, then a .SYS16 file is sought c. If a .SYS file is found, then the PQUIT code is activated to load and run the .SYS16 program.

Booting Directly to the Desktop (Finder)

If you, like me, prefer to boot into the Desktop Finder rather than the Program Launcher, then you can use the description in the flowchart (Figure 1) to figure out how to easily do it. If no START program is found in the SYSTEM folder, then the ProDOS Loader looks for the first system type file in the root directory. So, to make a disk boot directly from the Desktop, Delete or Rename the file called START from the SYSTEM folder and move "Desktop.Sys16" to the root directory making sure that it is the first system file in the directory. More details are given later on copying files and rearranging files within a directory.

In the next issue the article will continue on subjects realting to the System.Disk and ProDOS.

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THE APPLE II PROFESSIONAL DISK OPERATING SYSTEM

by William Chang
courtesy AUSOM Sept. 89

In the late 1970s, when Apple introduced the Disk II 5.25 inch 140K disk-drive for the Apple II together with its accompanying drive-card, the disk-drive was regarded a complex peripheral. The CPU had not been programmed in ROM to use it, so such Disk Operating routines was kept in software for ease of improvement. The drive-card and ROMs merely gave instructions to start loading the Disk Operating System. The DOS that Apple first released evolved into DOS 3.3, before ProDOS came on the scene.

DOS 3.3 was written to handle only a maximum of 140K of disk storage space. When larger disk-drives and hard-disks appeared, Apple rewrote DOS, and the new ProDOS (now called ProDOS8) carried a limit of 32 megabytes of disk-space. So much for the history of ProDOS. Today, we have ProDOS16 for the 16-bit Apple IIGS, and GS/OS as well as ProDOS8, Pascal and DOS 3.3 and its variations. We shall only be discussing ProDOS8 in this article.

When any DOS saves information to a disk, it is in the form of a file. DOS 3.3 merely wrote files in just as they were saved. When a catalog was requested of all files on disk, the disk gave an inventory in the order of "First file saved at the Top". Apple devised a better system for ProDOS.

ProDOS files are of two types: Directory or Standard. Directory files have pointers as to where files that are not shown on the Catalog are on the disk. Standard files are the normal files that contain the program or data. ProDOS disks are called Volumes, and Volumes have a name and work just like a directory file. Directories are usually empty until you put things in them.

Before a new (Fresh from the factory) disk can be used for storing data or programs (generically called files) it has to be formatted. Formatting is the magnetic equivalent of erecting sign-posts on the disk, so the read/write heads of the drive know where they are, and ProDOS knows where it can direct them to read from. ProDOS disks can only be formatted through a utility program (eg: Apple's System disk).

A formatted disk does not boot up (unlike DOS 3.3) as it does not have the space consuming ProDOS file on it. After loading this file, the disk drive will look for a Program file, usually one with a ".SYSTEM" ending to its filename. For Applesoft Basic (Apple's version of Beginner's All purpose Symbolic Instruction Code) programming purposes, this SYSTEM file would be BASIC.SYSTEM. When these two files are copied onto a formatted disk, the computer will now boot into Basic. The two files can be found on any Apple System Disk supplied with the computer.

Simplistic DOS 3.3 usually ran the topmost file in its catalog. For a Basic program written in ProDOS, it will be run on boot-up if it is called "STARTUP" and put in the same directory as BASIC.SYSTEM. Other non-Basic programs will usually startup if they are the first file with a ".SYSTEM" ending for their filename. To access a file within a directory (or directories), ProDOS uses a pathname system, whereby the address of a file might look like "/Country/State/ Suburb/House.Name" if it was your home address. The "Country" could be the Volume name, and "House.Name" be the filename. The directory "Suburb" (which contains the file) resides within the directory "State" which is in the Volume. This organization is necessary since ProDOS allows only up to 52 filenames per directory. An unlimited number of files can so be put on a disk if it can hold so much, although you'll probably need a mini-supercomputer to remember all those pathnames . However, with the 1 40K disks, you will not even need a Sub (inner)-directory as the disk would not have enough space to hold 52 programs.

In all, don't let ProDOS daunt you with all its pathnames, with practice and some memory (yours), pathnames can organize your files neatly. And with the onset of mouse operated Desktop programs, typing pathnames may soon give way to opening folders for files.

Apple IIGS Owners Note: ProDOS 16 does not arrange its files like that of ProDOS 8, and will not work as described above. Disks formatted within ProDOS 16 is identical to those done in ProDOS 8. GS/OS (2:1 interleave) formatted disks still work with both ProDOS's, with a sacrifice in speed when used with ProDOS 16. IIGS owners using a UniDisk 3.5 should not format their disks with the 2:1 interleave with GS/OS as there is no speed advantage when using this drive. BASIC.SYSTEM can be found on the IIGS System Disk, but ProDOS 8 is named P8 in the SYSTEM folder.

AUTOMATIC RAM DISK REBUILD FOR IIGS

by Linda Van Zee
courtesy Applecations Oct '89

Ted Meyer has written some WAP Journal articles on using the RAM disk with the IIGS (April 1988 and June 1988, in which he explains how to boot a stripped-down version of Finder from a RAM disk). In this article, I will demonstrate how you can automatically rebuild the programs and files in a RAM disk when you first boot the computer.

There are two things you will need in order to automatically rebuild a RAM disk:
1. Enough memory on the IIGS so that you can afford to have a RAM disk and still retain enough memory to adequately run programs. 768K would be the minimum total memory, and more would be better. A stripped-down version of Finder takes about 400K. If Finder is the only program you put on the RAM disk, you will have about 368K to run programs if the total memory is 768K. (See June 1988 WAP article by Ted Meyer for essential Finder file listings.)

2. The program ProSel by Glen Bredon. I had read and heard so much about this program that curiosity got the best of me and I ordered one. Chuck Ward wrote a review of ProSel on the IIGS in the August issue of the WAP Journal and there seems to be a periodic debate on the WAP telecommunications system about the positive and negative points of ProSel vs Finder. You too can be one of the "in" group by ordering ProSel from Glen Bredon at 521 State Road, Princeton, NJ 08540, for $40.

I first read about the technique for automatic RAM disk rebuild in the article on the System Disk 3.1 by Tom Weishaar on pages 3.90 - 3.92 of the January 1988 issue of Open-Apple (another one of those items that everyone was talking about and I couldn't stand the curiosity). There are also instructions in the ProSel manual on "Automatic Booting and Loading of RAM Volume," but I found the instructions difficult to follow and assumed a higher technical understanding than I have. I am going to elaborate on the steps to clarify them and describe some options so you can tailor the RAM disk to your needs.

The generic instructions are as follows:

1. From the control panel of the IIGS, set the RAM disk size. Maximum RAM disk size is 768K because you will be backing up the RAM disk onto a single 800K, 3.5" disk, and you need room for two more files.

2. Turn the computer off, wait a few seconds, and turn it back on to activate the RAM disk setting.

3. Using your favourite utility:
a. format the RAM disk.
b. name the RAM disk /RAMS, or whatever you want.
c. format a 3.5" disk.
d. name the 3.5" disk /RAMREBUILD or something like that.

4. Copy the programs and files you want to /RAM5 (the RAM disk).

5. Re-insert /RAMREBUILD (or whatever you named the 3.5" disk in step 3c above.
a. copy the file P8 from the IIGS system disk to RAMREBUILD.
b. rename P8 to PRODOS.

c. copy the file RESTORE from ProSel to RAMREBUILD.
d. rename RESTORE to RESTORE.SYSTEM.

6. Run the ProSel program BACKUP.
a. Re-insert /RAMREBUILD into the 3.5" drive.
b. when the program asks for the slot and drive of the original, enter the slot and drive the IIGS uses as a reference for the RAM dick. If you have one 3.5" disk drive, the RAM disk is in slot 5, drive 2. If you have two 3.5" disk drives, the RAM disk is still in slot 5, drive 2, and the second 3.5" drive becomes slot 2, drive 1. An explanation of RAM disk slot and drive references can be found on page 117 of the System Disk User's Guide. At this time, you are not booting from the RAM disk, so it would not be slot 5, drive 1.
c. slot of destination disk = 0. This is so you can put the contents of the RAM disk into a file on the 3.5" disk.
d. filename=/RAMREBUILD/RAM.IMAGE. The contents of /RAM5 will be copied into the file RAM.IMAGE on the disk RAMREBUILD.

7. Run the ProSel program BLOCK.WARDEN.
a. make sure /RAMREBUILD is in the 3.5" drive.
b. enter P for prefix and /RAMREBUILD.
c. enter F for file and RESTORE.SYSTEM.
d. enter E for edit.
e. use arrow keys to move cursor to byte 6. A window will appear.
f. enter name of file RAM disk backup is in: RAM.IMAGE.
g. go to byte 49. Hit TAB key (to edit in ASCII instead of hex).
h. enter name of program to run when Restore is finished: /RAM5/PRODOS.
i. hit TAB key again (back to editing in hex).
j. go to byte 48, enter length of

continues on page 9

USING A HARD DISK WITH AN APPLE //e

By Ian Wright, AUSOM News August 1989

It seems like everyone is talking about hard disks in the computer world these days. What are these things and do they have any relevance in the world of the humble Apple II? The following comments are based on my experience of an old Apple ProFile 10 meg hard disk and a modern Western Digital Preference 20 meg hard disk, both used on a IIe.

What is a Hard Disk?

A hard disk is a magnetic storage medium which performs a similar function to your humble floppy. That is, it stores your programs and data in a permanent form.

What makes a hard disk different from your floppy drive is that your data is stored on magnetic disks (platters) inside a vacuum sealed housing. While you can remove the magnetic disks from your floppy drive, the disks inside a hard drive are not removable. When the hard drive is operating, the disks inside spin at very high speeds, so there is no delay while the disks come up to speed when you perform a read or write operation. For this reason, combined with the fact that the read/write heads skim the surface at great speed, they are very much faster that floppies in use. The other major advantage of the hard disk is that by sealing the mechanism it is possible to operate it to extremely fine mechanical tolerances and magnetic densities, leading to enormous storage capacity. This translates into vast amounts of storage in a very small physical package. As I write this article, a 20 megabyte hard disk sits on top of my computer next to a Disk II 5.25" drive, Although they are about the same size, the Disk II has a capacity of 140 kilobytes, the hard disk a capacity of 140 times that or around 20,000 kilobytes.

So what does this mean in real life? There are two distinct benefits to using a hard disk. The first is to do with speed and the second to do with convenience.

Speed

The big advantage of a hard disk is the speed with which programs load and files are written to disk. A program loading from a hard disk does so in a fraction of the time it takes when loading from floppies. This not only gets you up and running more quickly but makes moving from one program to another very much quicker. Because software for the Apple II is usually written to fit into 128K as system memory, programs tend to be small and efficient, also helping quick loading.

Also, with programs such as AppleWorks or Publish It! which need to continually go back to the program disk to load program overlays, it all happens so fast with a hard disk as to be virtually indistinguishable from full memory resident operation. These benefits mean you spend less time waiting and more time doing productive things.

Convenience

Imagine having all your programs and files on one disk. Well, that's life with a hard disk. With a menu program installed on your hard disk, you can move from one program to another without swapping disks or turning the computer off and on. In my case I put the hard disk in my briefcase and take it home at night. I have all the programs I use and all my files are available in one little box - that's convenient!

Cost

This is where the whole thing falls in a bit of a heap. Unfortunately, hard disks for Apple II's (and Mac's) tend to be quite expensive. For a 20 meg drive (with SCSI interface card) you would be looking at $1200 upwards locally. It is possible to import a similar drive from the US for around $800 upwards or to assemble your own here for about the same. All I can say is that having used a hard drive for a couple of months now the productivity of ny IIe has increases substantially and can happily hold its own against the onslaught of IBM clones.

Comments

Here are a few comments around hard drives based on my experience:

- Don't overestimate your storage needs. (Yes I know that the history of microcomputerdom is littered with such statements!) I have 15 major programs, including AppleWorks 1.3 and 2.0 with 20 odd TimeOut enhancements, Publish It! 2.0, plus numerous utilities and all my work documents on my hard disk and it has only used 12,000 sectors out of the 38,000 available. If you seriously use your computer and don't just collect software, I would be surprised if you would need more that 20 meg. Most documents and files you create don't need to stay on

your hard disk once finished and are safer stored on floppies anyway.

- Get yourself a good hard disk management program. I use ProSel-8 which is superb and has some invaluable maintenance utilities for managing and fixing hard disks. "Mr. Fixit" is a life saver! It is shareware and costs $US45 from Glen Bredon, 521 State Rd., Princeton, NJ 08540, U.S.A.. (ProSel for GS/AS is $65.)

- Give plenty of thought to the layout (in terms of partitioning and subdirectories) of your hard disk. This will facilitate backing files up later.

- Back up your hard disk regularly. All that great convenience I mentioned earlier can turn to massive inconvenience with one little disk crash.

- Don't use Copy II Plus to delete files from your hard disk. It uses a non-standard method of deleting files and can cause problems.

- If you buy a standard SCSI drive it is almost certainly usable on a Mac or GS if you upgrade at a later stage.

continued from page 5

string (in hex) begun at byte 49 in step 7h above: OC. (Length of "/RAM5/PRODOS" = 12 = OC (zero C)).
k. press ESC to leave edit mode.
l. press W to write changes to disk.
m. press Q to quit.

There! You have it. Now when you boot the computer with RAMREBUILD in the drive, the programs and files you copied to the RAM disk in step 4 above will automatically be restored to the RAM disk. The PRODOS file in the RAM disk will automatically run, putting you directly into the first program on the RAM disk. One little hitch - when RAMREBUILD boots the message "Wrong volume name, do it anyway? (Y/N): Y (blinking)" comes on the screen right at first. Remember that you named the RAM disk RAM5 when formatting and copying files to it in steps 3 and 4. It no longer has this name since you turned off the computer. Just press return (to accept Y) and on it goes.

The above steps may look a little complicated, especially if you are not familiar with ProSel. Let me assure all of the non-techie types (of which I am definitely one) that it is not difficult. After figuring out what the ProSel manual was trying to say and filling in the holes, I got it on the first try. I hope this article has filled in the holes for you too and encouraged you to try making an automatic RAM rebuild disk.

The reason it is worth having programs in the RAM disk is the ready access and the speed with which they run. Because the programs are memory resident, they run faster than a hard disk. A 768K RAM disk can be restored and Finder up in 1 minute 52 seconds. Thereafter, Finder boots in 10 seconds.

Now, what kind of programs and files would be appropriate for an automatic RAM rebuild? Files that change, such as data or word processing files would not be appropriate because you would need to backup the file on disk and copy it back to the RAM disk next boot, or backup the whole RAM disk into /RAM. IMAGE again before turning the computer off.

One logical first choice is a program selector and utilities such as Finder or ProSel, then favourite programs for as much memory as you have left in the RAM disk. I have 1.5 meg on my IIGS, 768K on the RAM disk and 768K for running programs. I have 3 different RAMREBUILD disks to boot depending on my mood that day. One disk has Finder, AppleWorks with Quickspell (including the dictionary), and Instant Pascal (which I was using for a class). Another disk has ProSel, AppleWorks, and The Bard's Tail. The third disk has Finder with nearly 400K of font files. I run MultiScribe GS with this RAM disk because all the fonts are memory resident which makes font changes much faster. With fewer font files, MultiScribe GS could be put on the RAM disk.

The only problems I have had with this setup is running copy-protected software and getting back to the RAM disk. I try to avoid this by not letting my kids run their programs until I'm completely through with the computer, but I often don't succeed.

Try it and see what you think.

CHOOSING THE RIGHT APPLE II

By Willaim Chang, AUSOM
October 1989

Right. You want a computer. One that will do your taxes or paperwork. Write letters. Blast a few aliens maybe. You have the choice of many personal computers on the Australian market. There are those Amigas and Commodores that appear in supermarkets. The IBM-compatibles that appear in every shape, price and configuration. Then there's the Apple.

You want an Apple. (Just ask anyone at an Ausom meet why you should choose an Apple over the rest, if you're unsure.) Although the cost may be a little high, quality comes with a price. You still have to choose between an Apple Macintosh or the trusted, cheaper Apple II series.

You wonder why Apple IIs are so popular, even when Apple tries to support its Macintosh more. It must be their easy programmability, colour or even price. Every Apple II has colour capability, while the Mac gives you colour only with the Mac II family. And Apple IIs are used in most schools. Your son (or daughter) could well make use of it as well. So now, you make your way into the Apple dealership and proclaim "I want an Apple II!"

Life is one big decision. You have yet another ponder before you fork out the cash. Let me introduce you to the Apple II family. To the casual onlooker, a computer is a computer. When you get hooked, these boxes of electronics even have individual personalities. When you feel this way, the computer bug has caught you.

IIs have been the standard of computing - otherwise why does it run at 1mHz (megahertz) if not for the human need for comparison. Megahertz is the unit of processor speed, and equals one million cycles per second. Newer computers usually run faster, but I can't understand why Apple IIs still work faster than a 4mHz IBM...

Apple IIe

There is the trusty Apple IIe. This work-horse is now seven years old, and has been enhanced once in its life. Apple IIs have used the 6502 micro-processor right from the days of the Apple II and II Plus. The Apple IIe uses a 65C02. Most IIes these days are Enhanced, and have a standard 128K. Apple IIes have a set of slots inside where you can plug in peripheral cards that extend your Apple's capabilities, such as increasing memory, add disk drives or MIDI instruments. 80-column screen display is built in.

Apple IIc

Then there is the Apple IIc, the smaller brother of the IIe. This is a portable version of the IIe, and is much more compact but has no slots for cards. Nevertheless, cards are not needed as they are built in, and printers, disk-drives and modems can be easily connected to the ports on the rear. There is a new Apple IIc Plus with a faster processor, but this is not available in Australia.

Apple IIGS

We now reach the top of the range - the Apple IIGS. This can be seen as two computers in one. Apple has built all the circuitry of the IIe onto one chip called the Mega II chip. Together with the 2.8mHz 65C816 processor, the IIGS brings Amiga-eater capability to the Apple II line, without sacrificing compatibility with Apple IIs.

The Apple IIGS has only been on the market since 1987. Although cheaper than the bottom-end Macintoshes, some people have been using them as Macs, with the latest desktop publishing software and WYSIWYG (What You See Is What You Get). Others think of it as a powerful IIe, running AppleWorks and such. The IIGS's capabilities are great and many. Its possible 4096 colours and 15 voice sound are now exploited by new IIGS specific (which cannot run on IIcs or IIes) software.

Software that suit your needs have the uncanny ability to appear when you need it, usually for an Apple II. The Apple has collected many different and diverse applications for its programs. Even if you can't find suitable programs, someone will, so ask around.

This only scratches the surface of computing for the novices. You first move should be to consult an Apple dealer. The second should be the excuse to placate your spouse on why you should spend dollars and hours on a dump machine and treat it like a friend. The third (and never ending) task would be to pry away children or any other person using your computer between the intervals that you spend at Ausom meets and buying hardware and software, and marvelling at the exciting colours on the screen.

Beware - because some computer owners can do so much in so little time, they may tend to waste the "saved" time trying to perfect what they have done. The result is usually more time spent that the job would have taken if done manually. Some people have been reported to spend a minute typing a 10 word letter, and using the next hour trying out fonts, point sizes, indentation, etc.

A HARD DISK FOR THE APPLE IIe and IIGS

by Mike Atkinson
courtesy AUSOM Sept. 1989

Have you been thinking about buying a hard disk for your apple but found your bank balance wanting? The price of $1200+ for a SCSI hard disk plus $200+ for a SCSI card deterred me for quite some time from purchasing for myself the computer power and convenience that comes with a hard disk. Then I spotted an advertisement for Inner Drive, in a magazine.

The Inner Drive

The Inner Drive comes in two versions 20 or 40 MByte and is available for the Apple IIe and Apple IIgs. As the name implies, the Inner Drive is an internal hard disk drive and more. Apparently, Apple once said that an internal hard disk for the Apple II series was impossible. However, Applied Ingenuity have been very ingenious by actually supplying the hard disk as a combination power supply/fan/hard disk which actually replaces the Apple power supply. Sounds a bit dicey? Well, at first I was a little sceptical too. So I wrote to AI and two weeks later received back several pages of information on the Inner Drive.

Information

The information provided answered most of my questions. The inner drive is not a SCSI device, it will operate from the Australian (and just about any other) power supply without modification, it does support GSOS and ProDOS and it can be partitioned but does not support different operating systems from these partitions. It is available for the Apple IIe and Apple IIgs.

This was enough to convince me (along with a fifteen day trial period) that Inner Drive was worth a try. I rang Al in California, placed my order and was told that there would be a fourteen day wait, before my drive would be in stock and ready to be sent! Exactly fourteen days later I received my drive. Now in my experience a fourteen day delivery period for overseas goods, which are currently in stock, would be very good service but this seemed too good to be true.

Installation

Installation, in my IIgs, was a very simple matter. Pull out the power cord. Remove the molex socket from the motherboard. Press on the plastic latch at the front of the power supply and remove it. Installation of the new power supply/hard disk is simply the reverse of the aforementioned method plus plugging the controller board into a slot. I used slot 7. But would it work? I switched on.

After about 18 seconds the Finder appeared showing two hard disk icons and a 3.5" disk icon. GSOS was alive and well. The disk had been preformatted with ProDOS and included a set of AI disk utilities. These were for formatting, partitioning, bad block checking and hard disk backup. Documentation is only one double sided photocopied sheet, but the installation and startup are so easy that nothing more is required.

Speed

What about disk speed? Well, this seems to be very competitive with other drives. Some examples are:

power on to finder 18 secs
restart to finder 16 secs
start AWGS 20 secs

Well, the performance seems to be good but what about the price? The Inner Drive weighs in at US$499 for 20 MB and US$650 for 40 MB plus US$50 for postage. At an exchange rate of AUD$0.75 to US$1.00, this adds up to an approximate overall cost of AUD$908 for 20 MB and AUD$1160 for 40 MB tax and duty paid. This represents a considerable saving over some locally available hard disk drives, especially when the cost of an interface card is taken into consideration.

Noisy fan

My only disappointment with the Inner Drive is the fan. It is the only thing about this product which reminds me of a genuine Apple peripheral. It is noisy, roughly as noisy as the fan used in the MacIntosh. Otherwise, this unit appears compact, well built, efficient and virtually transparent in use.

After taking performance and price into consideration, I highly recommend Inner Drive. Inner Drive is available from:

Applied Ingenuity, Inc.,
(818) 960-1485
14922 Ramona Blvd.,
Baldwin Park,
CA 91706 USA

In addition, I have just received a letter from Applied Ingenuity offering an upgrade to Inner Drive. This indicates a speed increase of 33% to 85%, ability to partition up to 8 Prodos volumes and a 50 page owners manual for US$49.95. How can I resist?

FOR YOUR EVES ONLY

by Glenn Richardson
courtesy AUSOM, Sept 1989

This program stores phone numbers on disk, in a code which I believe is UNBREAKABLE. Although a little slow, it is perfect to store name/address/phone numbers that only you need to know.

If any member can break the system, which I am sure cannot be done, I would be interested to hear from them.

Installation instructions are in the program.

```
0    GOTO 5: REM
1    REM TO INSTALL YOUR
PHONE DIRECTORY
2    REM DELETE TEXT FILE
NAMED SEC
3    REM THEN TYPE: RUN
5000
4    REM WARNING ALL
STORED INFO WILL BE LOST
5    CLEAR : SPEED=255:
DIM A$(255),K$(255),A
(11),B$(24),W$(24):PRINT
10   HOME : PRINT : HTAB
12: PRINT "PHONE
/ADDRESS": VTAB 4: PRINT "
NEW NAME (1)": PRINT :
PRINT " GET NAME (2)":
PRINT : PRINT " DEL NAME
(3)": PRINT : PRINT "NEW
CODE (4)": PRINT : PRINT "
> ";:GET U$
12   IF U$ = "1" OR U$="2"
OR U$="3" THEN 520
15   IF U$="4" THEN 6500
17   HTAB 6: PRINT "MAIN
MENU": PRINT CHR$
(4);"RUNG.INDEX"
20   IF MID$ (B$(1),116,4)
= M$ THEN 23
22   HOME : FOR T = 1 TO
10: CALL -1052: NEXT: VTAB
2: HTAB 3: SPEED=20: FLASH
: PRINT "INCORRECT
CODE":NORMAL:
SPEED=255:FOR T = 1 TO
4000: NEXT : PRINT CHR$
(4);"CLOSE":GOT05
23   HOME :XS = "": VTAB
3: PRINT " NAME >";: INPUT
NA$
24   IF LEN (NA$) > 27
THEN HOME : VTAB 3:PRINT "
NAME'S TO LONG": GOSUB
6000: GOTO 23
25   VTAB 5: PRINT "
ADDRESS > ";: INPUT AD$
27   IF LEN (AD$) > 37
THEN FOR T = 1 TO 3:VTAB T
+ 4: CALL -868: NEXT :
VTAB 5:PRINT " ADDRESS TO
LONG": GOSUB 6000: VTAB 5:
CALL -868: GOTO 25
30   VTAB 8: PRINT "
P/CODE > ";: INPUT PC$
32   IF LEN (PC$) > 4 THEN
VTAB 8: PRINT "POST CODE
INVALID": GOSUB 6000: VTAB
7:CALL -868: GOTO 30
35   VTAB 11: PRINT "
PHONE > ";: INPUT PH$
37   IF LEN (PH$) > 12
THEN VTAB 11: CALL -868:
PRINT " NUMBER TO LONG":
GOSUB 6COO:VTAB 11: CALL -
868: GOTO 35
40   IF LEN (NA$) < 40
THEN NA$ = NA$ + "#":GOT0
40
41   IF LEN (AD$) < 40
THEN AD$--AD$ + "#":GOT0
41
42   PC$ = PC$ +
"########" + PH$ +
"########"
43   IF LEN (PC$) < 35
THEN PC$--PC$ + "#":GOT0
43
45   PC$ = PC$ + M$ + "##"
50   Z$ = NA$ + AD$ + PC$
90   FOR T = 1 TO LEN
(Z$):A$(T)= " "~ MIDS
(Z$,T,1):NEXT
110  FOR T = 1 TO LEN
(Z$): IF A$(T) = " " THEN
A$(T) = "#"
111  IF A$(T) = "*" THEN
A$(T) = "#"
150  X$=X$ + A$(T): NEXT
160  F = F + 1:B$(F) = X$
210  SPEED= 255: PRINT :
PRINT CHR$
(4);"CLOSE":PRINT CHR$
(4);"QPENSEC":PRINT CHR$
(4);"WRITE SEC": HOME
230  Z$
="ABCDEFGHIJKLMNOPQRSTUVWX
YZ1234567890----#####"
270  FOR T = 1 TO START
290  PRINT MID$ (Z$, INT (
RND (1) * 45) +1,1): NEXT
: GOTO 315
310  PRINT MID$ (Z$, INT (
RND (1) * 45) +1,1):
RETURN
315  U = 1:Q = 1:X$ = B$
(U): GOSUB 322: GOTO 330
320  U = U + 1:Q = 1: IF U
> F THEN 465
321  X$ = B$(U)
322  IF U$ = "3" THEN X$ =
K$(U)
325  IF U$ = "3" AND K$(U)
= "" THEN 320
327  RETURN
330  FOR T = 1 TO 11
370  FOR B = 1 TO A(T)
390  GOSUB 310: NEXT
410  PRINT MID$ (X$,Q,1):Q
= Q + 1: IF Q > 119 THEN
GOSUB 320
430  NEXT T
450  GOTO 330
465  FOR T = 1 TO START:
GOSUB 310: NEXT :PRINT"*"
470  PRINT "END": PRINT
CHR$ (4);"CLOSE"
490  GOTO 5
520  HOME : FOR T = 1 TO
11: VTAB 2: HTAB 14 +T:
PRINT "_": NEXT : FOR T =
1 TO 4: VTAB 4: HTAB 14 +
T: PRINT "_": NEXT
525  P = O:MS = "": VTAB
2: PRINT " ENTER CODE >":
FOR T = 1 TO 11: VTAB 2:
HTAB 14 + T:GET A(T): NEXT
: HTAB 1: VTAB 4:.PRINT
"ENTER WORD > ": FOR T = 1
TO 4: VTAB 4:HTAB 14 + T:
GET NS:MS = MS + NS: NEXT
:HOME
530  : PRINT : PRINT "
DECODING": PRINT
540  PRINT CHRS (4);"OPEN
SEC": PRINT CHRS
(4);"READSEC"
560  START = A(1) * A(5) *
A(9): FOR W = 1 TO START:
INPUT XS: NEXT
580  FOR T = 1 TO 11
600  FOR X = 1 TO A(T)
620  INPUT X$: GOSUB 5500
625  IF X$ = "*" THEN 580
630  IF X$ = "END" THEN
820
635  IF LEN (A$) > 118
THEN 810
640  NEXT X
680  INPUT X$: IF U$--"1"
THEN 685
681  W$ = W$ + X$
682  IF X$ = "#" THEN A$ =
A$ + " ": GOTO 740
685  IF X$ = "*" THEN 580
690  IF X$ = "END" THEN
820
700  A$ = A$ + X$
740  NEXT T: GOTO 580
810  F = F + 1:B$(F) =
A$:K$(F) = W$:A$ =
"":W$=""
812  IF MID$ (B$(F),116,4)
= M$ THEN 640
813  GOTO 22
820  IF U$ = "1" THEN
PRINT CHR$
(4);"CLOSE":GOT0 20
825  IF U$ = "3" THEN 100
827  IF U$ = "4" THEN
PRINT GOT0 6520 CHR$
(4);"CLOSE":
830  PRINT CHR$
(4);"CLOSE": SPEED= 190:
HOME : HTAB 12: PRINT
"PHONE / ADDRESS": PRINT :
FOR T = 1 TO F
835  S = S + 1: IF S > 5
THEN S = 0: PRINT " > MORE
<": CALL -998: HTAB 5:
CALL -756: HOME
```

```
840  PRINT LEFT$ (B$
(T),115): PRINT : NEXT
900  PRINT " END OF
FILE'S": CALL -998: HTAB
2: CALL -756: GOTO 5
1000 HTAB 12: PRINT
"DELETE FILE'S": PRINT
1010 PRINT CHR$
(4);"CLOSE": SPEED= 190:
HOME: HTAB 12: PRINT
"DELETE FILE": PRINT :FOR
T = 1 TO F
1020 S = S + 1: IF S > 5
THEN S = 0: PRINT " > MORE
<": CALL -998: HTAB 5:
CALL -756: HOME
1030 PRINT LEFT$ (B$
(T),115): PRINT : NEXT
1040 PRINT : PRINT " ENTER
NAME OF FILE > ";: INPUT
M$: HOME
1050 FOR T = 1 TO F: IF
LEFT$ (B$(T), LEN (M$)) =
M$ THEN PRINT LEFT$ (B$
(T),115): GOT01060
1055 NEXT : PRINT " NAME
NOT MATCHED": CALL -1059:
CALL -998: HTAB 1: CALL
-756:GOTO 5
1060 PRINT : PRINT "
DELETE THIS FILE Y/N ";:
GET A$: IF A$ = "Y" THEN
1100
1080 HOME : GOTO 1055
1100 PRINT : PRTNT " ARE
YOU SURE > Y/N";:GET A$:
IF A$ = "Y" THEN 1120
1110 GOTO 5
1120 B$(T) = "":K$(T) =
"": GOTO 210
5000 SPEED= 90: HOME :
PRINT : PRINT "READ THIS
CAREFULLY....":PRINT :
PRINT
5002 PRINT " YOU WILL NEED
TO ENTER A"
5004 PRINT " (11) DIGET
CODE": PRINT
5006 PRINT " TELEPHONE NUM
+ AGE etc": PRINT " what
ever you wish"
5008 PRINT : PRINT " THEN
YOU MUST ENTER A"
5010 PRINT " 4 LETTER
WORD": PRINT
5012 PRINT " WRITE IT DOWN
AND HIDE IT": PRINT
5014 PRINT " IF YOU
FORGET, THAT CODE": PRINT
" THEN YOU WILL NEVER SEE
YOUR": PRINT " PHONE
NUMBERS AGAIN": PRINT
5015 PRINT " THIS HAS TO
BE DONE TO SET UP":PRINT "
YOUR CODE SYSTEM": PRINT
5016 PRINT : PRINT "ANY
KEY TO PROCCED": CALL
-998: CALL -756: SPEED=
255
5018 CLEAR : SPEED= 255:
DIM A$(255),K$ (255),A
(11), B$(24), W$(24):PRINT
5020 HOME :P = O:M$ = "":
VTAB 2: PRINT "ENTER CODE
> ": FOR T = 1 TO 11: VTAB
2:HTAB 14 + T: GET A(T):
NEXT : HTAB 1: VTAB 4:
PRINT " ENTER WORD > ":
FOR T = 1 TO 4:VTAB 4:
HTAB 14 + T: GET N$:M$ =
M$ + N$:NEXT : HOME
5025 START = A(1) * A(5) *
A(9): GOTO 23
5500 NN = NN + 1: IF NN =
1 THEN VTAB 1: HTAB 5:
PRINT "////": VTAB 3: HTAB
5: PRINT "----": RETURN
5505 IF NN = 2 THEN VTAB
1: HTAB 5: PRINT "----"
VTAB 3: HTAB 5: PRINT
"\\\\":RETURN
5510 IF NN = 3 THEN VTAB
1: HTAB 5: PRINT "\\\\":
VTAB 3: HTAB 5: PRINT
"////":NN =0: RETURN
6000 PRINT CHR$ (7): FOR T
= 1 TO 2200: NEXT: RETURN
6500 HOME :P = O:M$ = "":
VTAB 2: PRINT "ENTER
ORIGINAL CODE > ": FOR T =
1 TO 11:VTAB 2: HTAB 23 +
T: GET A(T): PRINT A
(T):NEXT
6505 HTAB 1: VTAB 4: PRINT
" ENTER ORIGINAL WORD > ":
FOR T = 1 TO 4: VTAB 4:
HTAB 23 + T: GET N$: PRINT
N$:M$ = M$ + N$: NEXT
6510 HOME : GOTO 530
6520 HOME :P = O:M$ = "":
VTAB 2: PRINT "ENTER NEW
CODE > ": FOR T = 1 TO 11:
VTAB 2: HTAB 18 + T: GET
A(T): PRINT A(T): NEXT
6525 HTAB 1: VTAB 4: PRINT
" ENTER NEW WORD >": FOR T
= 1 TO 4: VTAB 4: HTAB 18
+ T:GET N$: PRINT N$:M$ =
M$ + N$: NEXT
6527 PRINT : PRINT " HAPPY
WITH THIS CODE > Y/N ";:
GET T$: IF TS = "Y" THEN
6530
6528 GOTO 5
6530 START = A(1) * A(5) *
A(9):US =11311: FOR T= 1
TO F:NS = LEFT$ (KS
(T),115):NS = NS +MS:KS(T)
= N$: NEXT GOTO 210
```

APPLE II TECH NOTE

Developer Technical Support

ProDOS 8

#24: BASIC.SYSTEM Revisions

Written by: Matt Deatherage
July 1989

This technical Note documents the change history of BASIC.SYSTEM through V1.3, which ships System Software 5.0. V1.O, the initial release, is not documented in this Note, and V1.1 is described in BASIC Programming with ProDOS.

V1.1

. Fixed a bug in variable packing (used by CHAIN, STORE, and RESTORE).

. Changed the interpreter to use the ProDOS startup convention of a JMP instruction followed by two $EE bytes and a startup pathname buffer.

. Removed a bad buffer address in the FIELD parameter of the READ routine.

. Fixed a bug in APPEND so calls to OPEN and READ from a random-access file would not cause the next call to APPEND to any file to use the record length of the random-access file.

. Added the BYE command to allow ProDOS QUIT calls from BASIC.

. Removed the limited support for run-time capabilities which had been present.

V1.2

. Changed the CATALOG command to ignore the number of entries in a directory when

continues on page 15

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_____	$	_____	$
_____	$	_____	$
_____	$	_____	$
_____	$	_____	$

TOTAL.....$ _____

continued from page 13

listing it so AppleShare volumes could be cataloged properly (this number can change on the fly on an AppleShare volume).

. Fixed another bug in CATALOG so pressing an unexpected key when a catalog listing was paused with a Control-S would no longer abort the catalog.

V1.3
. Changed BSAVE so it now truncates the length of the saved file when the B parameter is not used. To replace the first part of a file without truncation, use the B parameter with a value of zero. This behaviour with the B parameter is how V1.1 and V1.2 worked without the B parameter.

. Fixed a bug in CHAIN and STORE where they expected one branch to go two ways at the same time.

. Added the MTR command for easier access to the Monitor from BASIC.

. Made internal changes to the assembly process for easier project management. These changes do not affect the code image.

Further Reference
. BASIC Programming with ProDOS
. ProDOS 8 Technical Reference Manual

Newsletter Info.

This is the magazine of the A.C.T. Apple Users Group Incorporated. It is produced monthly and distributed to all financial members and Apple User Groups at no cost.
The views expressed in this magazine are the views of the authors and not necessarily that of the members.
The Apple Logo, and the words "Apple", "Macintosh" and "Mac" are trademarks of Apple Computer, Inc.
All contributions should be sent to The Editor, A.C.T.Apple Users Group incorporated, GPO Box 1231, Canberra, ACT, 2601, preferably on a Mac disk. The deadline for articles is the Committee meeting.
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General meetings of the club are on the second Thursday of the month at the O'Connell Education Centre, Stuart St, Griffith, 7.15 to 9:45pm. A workshop meeting is at the same venue the following Tuesday. The executive meets on the 4th Thursday of the month.
MemberShip: Joining fee: Full member = $10. Junior member = $5. Organisation = $20. Annual fee: Full member = $25. Junior member = $15. Organisation = $50.
Phone numbers are published for the use of members between the hours of 6pm and 9.00pm only. The recorded answering service number is available 24 hours per day.
Warnings The Club does not condone copying of software at meetings except for the distribution of Apple upgrades and Club software disks. All members are expected to display a high standard of behavior to guarantee our continued use of the venue.
Layout and Design of the Newsletter is done using ReadySetGo 4, and printed on a Laserwriter.

ACT APPLE USERS GROUP INCORPORATED

NEWSLETTER

An Independent Publication for users of Apple Computers

GPO BOX 1231 CANBERRA ACT 2601 CIRCULATION 330 Number 96 November 1990

TELEPHONE 295 8818
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Vice President, Meeting Coordinator	
MICHAEL THOMSON	**231 6417**
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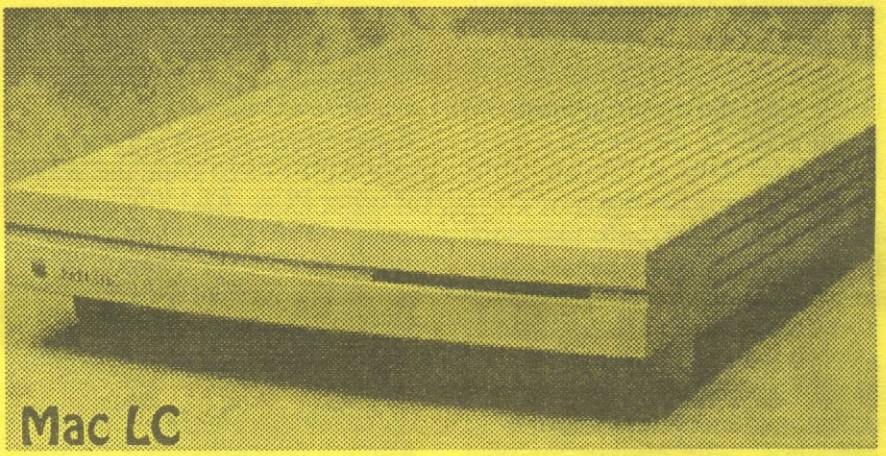


EDITORIAL

Time has come again for me to put pen to paper, (well, electron to CRT) and produce another newsletter. It seems that recently I've had Macs coming out of my ears. A couple of days ago I was at the Macworld Expo, and two days before that I was at the official launch of Apple's new Macintoshes. The launch was OK - very sales pitch orientated, but I guess that was to be expected. Of course Macworld was great, I mean how could someone like me not go to, and enjoy Macworld. This year there wasn't really anything mindboggelingly new, except for the new Macs of course, but nevertheless a good opportunity to ask questions and generally find out more. Surprisingly I didn't buy anything this year either. I was tempted to buy some memory at $69 a megabyte, but decided I didn't really need it. I'll wait till next year when it's $30 a MB, and then get 16MB. For your own chance to see the new Macs, come to our meeting on Thursday!

CONTENTS

2. Presidents Desktop
Membership Report
3. Mentors wanted
Hypercard SIG
Lucky Door
4. Graphics Design SIG
October at Lynham
5. Stolen Mac
6. Drawing on your computer
Identify This
7. Johnny Delicious
8. Boston PD-ROM
9. The Apple and School
10. High Density floppies
12. New Macintoshes
13. "
14. No Hard Disk?
15. Newsletter / Club info.
16. Meeting info.

PRESIDENT'S DESKTOP

Well, we now know the full story on the big Apple new product announcements. It was about more than new machines however. It also told us something about Apple's strategic directions for the next few years.

For a start, the Apple][e and][gs are still in the model lineup and there is also an Apple][e card for the Macintosh LC. Apple seems to be doing two things here. First it is declaring continuing support for the][series and acknowledging the huge user base. Second, it is creating a path for][users to convert to Macintosh without the pain of leaving the well loved][world.

Keeping in mind the use of the][s in schools, the latter new path offers schools the ability to convert over a period of time (even years) from having only][s to having both][s and Macs to having only Macs. Up until now basing an educational program on two different machines was not too practical.

On the Mac side the old SE is now the Classic, the bottom level machine. The coming System 7 and its hardware requirements would be the cause of the dropping of the lower level machines. The Classic and the SE/30 are the only two machines with the original Mac shape and apart from the Portable the rest of the Macs are of the modular variety - a box for the CPU and a separate monitor and keyboard. The range now spans a wide power band and, according to Apple, each machine offers a price advantage over comparably powered MS-DOS machines (the quality ones that is, not including the really cheap clones).

It wasn't so long ago that Mac users lusted after every new Mac release and in many cases almost automatically traded up or upgraded their machine to the new specifications. In fact, the official upgrade path was always part of new announcements. Now things have changed. Mac users now have to be more critical in evaluating their needs and buying the machine to match these (and their bank accounts). In this way Apple have gone the way of other PCs. And this makes sense. With the advances at the top end of the range not many can afford or justify over $20,000 for a home machine for wordprocessing and games.

Probably the biggest news in Apple's new directions for private users, especially those of us with limited disposable income to put towards computing, is its revised pricing structure. The][s have been reduced in price to a bottom of the line figure of around $1,200 (plus extra for colour, second drive etc), the basic Mac Classic comes in at $1,695 (plus a grand for hard drive etc) and the colour Mac LC is around $5,000 (plus $300 for the][e card). Isn't competition wonderful?

Keep up the good work Apple!

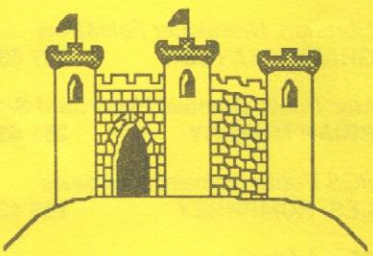
For a first hand look at the new machines and a chance to ask all of your questions, make sure you come to the November meeting.

You will see elsewhere in this Newsletter an article from Bob Hibberd on a possible mentor system for new members. Please give this a serious think.. We are going to try to do more for beginners, and this is one approach. We are also looking at running special beginner sessions as options for our meeting nights. If you think this is a good idea please tell me or one of the Committee members so that we can assess the demand.

On the helping subject don't forget that every meeting night Steve Neilsen mans the HELP DESK just inside the main room. Some times he looks a bit lonely with no customers even there is a room full of members and each one probably needing help with something. Steve is not just there to direct people around the room to the various services. He is able to give direct help on some subjects and, importantly, has a good idea of the expertise on most subjects available within the membership. He can put you on to someone else who should be able to help you. Don't be shy, roll on up.

More news next time

Roger Bernau
PRESIDENT



MEMBERSHIP REPORT FOR OCTOBER 1990

NEW MEMBERS	10
RENEWALS	4
NOT RENEWING	15
TOTAL FINANCIAL	28
Comprising:	
Mac's	187
][']s	106
No system	3

R.Hibberd
Membership Secretary

OCTOBER AT LYNHAM

The October general meeting held at Lyneham High School was an informative success. After an introduction and a background to the Lyneham High computer program the meeting split 4 ways.

Gordon White took a group in the Apple][lab for an introduction to Apple Basic. There were requests for a follow-up to this which Gordon and the committee will try to arrange. Christine Runneger led the initial meeting of the Graphic Design SIG. About 25 people shared ideas about the directions that the SIG could take, giving Christine a variety of suggestions to follow up, some of which will form the program of the next Graphic Design SIG meeting.
Mike Thomson had an interested audience in the Macintosh Lab. With the discussion mainly about the networking of the Macs he gave demonstrations and answered questions until well after the meeting closed.

David Wentworth-Perry intrigued the 4th group with a demonstration of the Apple][gs video overlay system. The group was so absorbed that they were not even aware of their photo being taken! Over-all the evening was a great success, with the only complaint being that members wished they could have been in all the rooms at once.

Ric Lamond.

WANTED

Printer - let us know how much you would charge for 330 copies of this Newsletter!

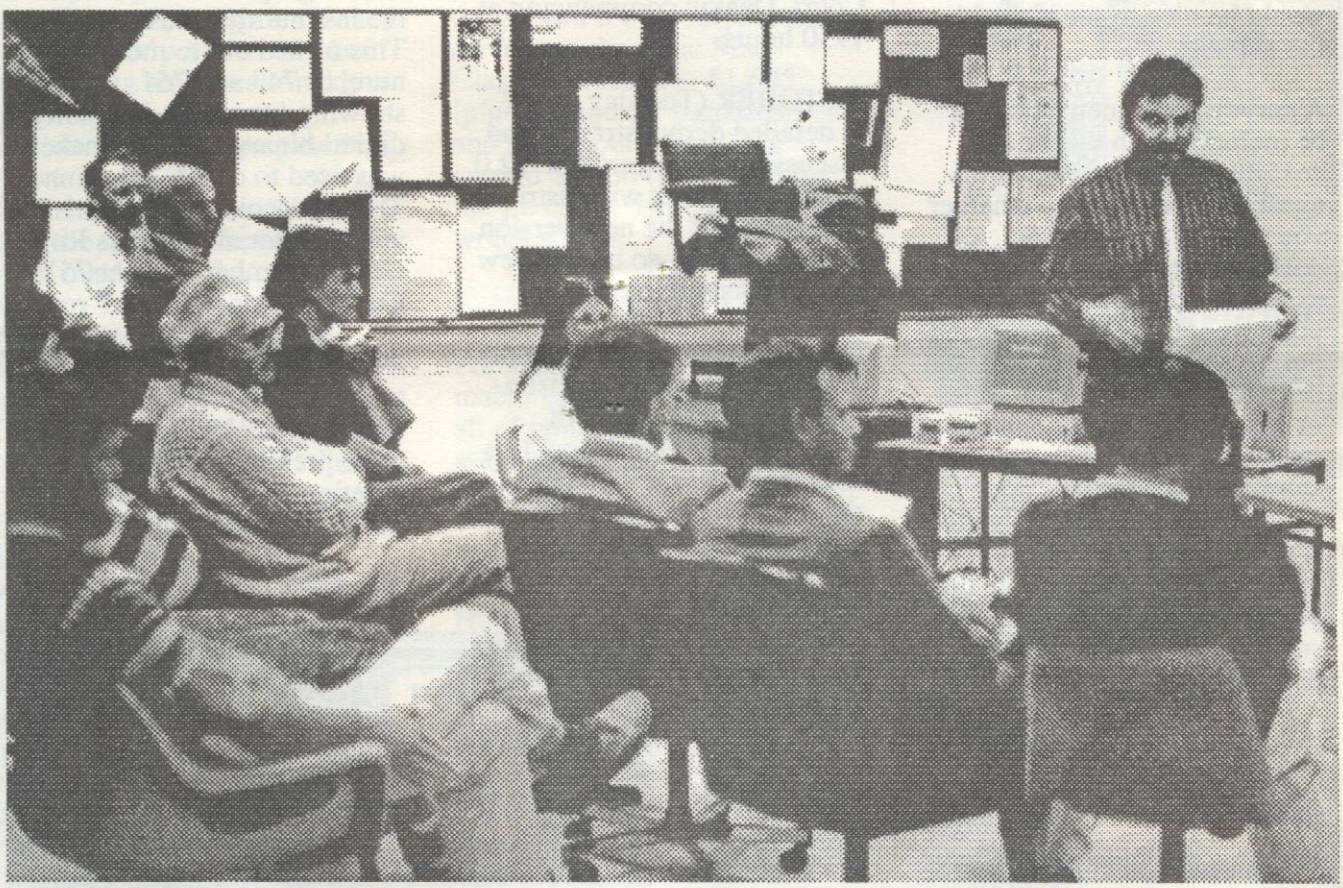
GRAPHIC DESIGN SIG

Christine Runnegar

Our next meeting will be held on the 13th of November at 7.30 pm at Apple Computer, 31 Thesiger Court Deakin. The first part of the meeting will consist of a brief members question and answer session followed by some short presentations of different types of graphic work on the Macintosh. During the second half we will be looking at the area of fonts. An oppertunity to look at the outline font technology of System 7.0 will also be given. Thanks to all of you who came to our first meeting in October.

Please find inside this Newsletter a questionaire for you to fill out.

Please return it to:
Christine Runnegar
John XXIII College
GPO BOX 417
Canberra, ACT 2601



David Wentworth-Perry demonstrates the video overlay system on the Apple][gs.

BOSTON COMPUTER SOCIETY MACINTOSH PD-ROM VERSION 6

It was recently reported that we had joined the Boston Computer Society (BCS) Macintosh User Group. We have just received a copy of the latest version (Version 6.0) of the highly acclaimed BCS PD-ROM (Public Domain - Read Only Memory). This compact disk contains over 500 megabytes of good quality, well-tested public domain and shareware software which will be available on order to all ACT Apple Users Group Inc. Mac users from the November meeting at the current rate of $8 per disk.
The contents of the BCS PD-ROM are divided into the following categories :

- General Library
- HyperCard Library
- Technical Library
- Healthcare Library
- Bonus Files
- *PD-CD Catalog (Text)
- About BCS
- Mac (HyperCard stack)
- Freedom Trail (")
- PD Navigator (")

The General Library is sub-divided into 14 categories, with the number of disks (800K) in each category being shown in brackets as follows : Anti-Virus (2), Art (14), Business (7), CDev/INIT (5), Colour (10), Communications (4), Developer (4), Education (6), FKey/DA (6), Font (8), Games (18), Graphics (6), Music (11) and Utilities (12).

The HyperCard Library is similarly sub-divided into 5 categories, with the number of disks in each category again being shown in brackets as follows : Developer (24), Education (7), Entertainment (4), General Information (6) and Personal Productivity (2).

Space limitations in this newsletter do not permit an expansion of the Technical and Healthcare Libraries nor the Bonus Files.

We have also received a supplementary hard copy catalogue of the contents of the BCS PD-ROM and at least two copies will be available for inspection at the November meeting. This highly detailed catalogue is extremely well laid out and includes font samples, pictorial summaries of the Art disks, software descriptions/user insructions and, last but not least, ratings of all software in terms of ease of use and overall quality.

The PD Navigator (HyperCard stack) is an excellent catalogue of all software on the BCS PD-ROM and it is hoped that it will be available for order as a 2 disk (800K disks) set at the November meeting. This disk set, for which the price has still to be determined, will also include the *PD-CD Catalogue (Text) for those not interested in HyperCard.

Order forms will be available at this meeting - or use the one inside the back cover of this newsletter.

Please note that, unless special arrangements are made, disks will only be available in 800K format. Also, it will NOT be possible to copy individual items from the BCS PD-ROM - if you want a particular item you will have to purchase the disk upon which that item resides.

We will still continue to sell the "Best of....." series of disks as we have been doing for some time now.

Brian Murphy
Mac Public Domain Librarian

THE APPLE AND SCHOOL

Kevin Noonan

In a recent edition of the ABC television program 'Four Corners' much was made of the 'poor' state of education in Australia. No criticisms were made of schools or teachers but of a system in which students were using 'old technology'.

I was moved to write this article as an attempt to answer critics and to reassure parents that things are not as painted!

The main thrust of the criticisms were that the students were being made to 'get by' with Apple // computers instead of new technologies (which I assume meant Mac and IBM). Much was said of disadvantaging our young people and Australia's future by this 'ten year old equipment'.

We saw film of students using AppleWorks (spreadsheet module) to perform mathematical modelling as part of this demonstration of 'old equipment'.

I am a secondary school

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teacher and have been employed in a variety of State High Schools. I have, over the years, taught a variety of subjects in the Science, Mathematics, Computing, Humanities, and Commerce and Business areas. I have used computers on many occasions in teaching that wide range of subjects. This use has ranged from simple recall of facts and games to word processing; from computer programming to mathematical modelling in Physics. Varied uses. I have also contributed to the design of, and used, commercial products and written my own. My background is, I feel, broad enough for me to make comment.

I have seen an enormous amount of literature over the years that has tried to get me (or more accurately my school) to buy Brand X computer just because it is more up-to-date. Why? Because it sells machines, it makes profits. What it does NOT do is make our students more competent.

When I use computers in the classroom, I use them for one or both of the following reasons. Firstly, I aim to give students some knowledge of the general principles of computer use, rather than any machine-dependent detail. And secondly, I use the computer in the same way I use chalk, or an overhead projector or a video ... as another tool to help achieve an end. What I want is good and appropriate software for the range of subjects—not just for the training of a potential office worker.

If I am teaching the BASIC or LOGO computer languages then what I want is enough machines to give every student access to a keyboard. It does not matter if I am using a 128k Apple //e or a 4Mb Mac llfx.

It is the software that matters—not the machine

If I am teaching a history class then I want to use software that helps me to reinforce what I a teaching. Again it does not matter what machine I use, it is the software that is available that really matters.

But does it really?
In a sense, yes. As a teacher I see many different companies claims about their software and how it will make my classroom a more varied (and better) learning environment. I have tried a lot of software for a variety of machines. Some is good, some great, much is mediocre and the majority downright abysmal! Which machine has the greatest range of CURRENTLY AVAILABLE 'curriculum' software (not possible future products dependent on how noneducational economic decisions turn out)—why the Apple 11 of course!

So why buy Macs or IBM?

The people who make the purchase choices are not necessarily the 'right' people. I have seen a school principal decide to buy a room full of Macs purely because one member of teaching staff arranged for said Principal to see himself on the Mac screen, courtesy of a TV camera attached to the Mac. It did not matter that the school in question had a room of Apple // e computers and that purchasing Macs would mean having to buy an entire new suite of software —very little of which was of more than limited curriculum use.

The purchases are made by school councils, whose members are not expert in the curriculum use of computers. Teachers have rights (as do others) to make representations and recommendations but the final decision is made by people looking at accounting detail.

WP and the office

If a school (or a family) is interested in nothing more than some sort of sausage machine model of education— press the button and out churn another prospective worker—then fine, teach WP and do it on a machine used in the workplace. But be aware of the worry about which machine is currently the office fashion!

I have the (silly?) view that I have a duty to do what I can to help young people grow to be valued members of the community and not just churn out another piece of product.

The family

All of the preceding really applies to families as well. Parents, do not feel that little Mary or Johnny is being disadvantaged if you do not have the latest piece of computer equipment. New machines are nice. I am guilty of upgrading for little reason other than that the technology had improved, but schools and families cannot afford to do so and, as I hope I have shown, have little reason to do so.

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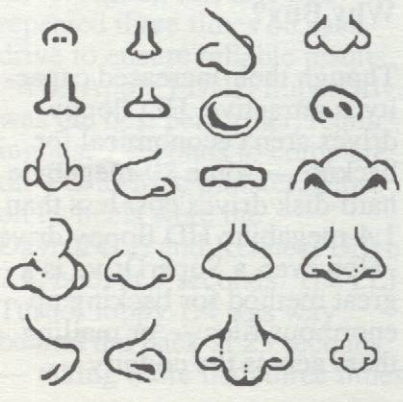
AUSOM NEWS
October 1990



as long as the Apple FDHD SuperDrive.

Dueling backups. Our third and final test reveals how these drives handle backups. After all, even if you buy the drive primarily for its PC-transfer capability, why not use its high capacity to make backups less painful? We timed how long it took the Finder to copy version 1.2.1 of the HyperCard application (389K) from a hard drive to each HD-floppy drive. Once again, the Apple FDHD SuperDrive lived up to its name, beating the others to the finish line with a time of 24 seconds. The PLI TurboFloppy 1.4 was next with 34 seconds. The DaynaFILE and Kennect Drive 2.4 took almost twice as long as the Apple FDHD SuperDrive, with times of 44 and 48 seconds, respectively. By way of comparison, copying the same file to a DD disk in an 800K drive takes 42 seconds.

Irreconcilable Differences

These test results aside, what is it like to actually *use* these drives? If you think there isn't much difference between the drives, you're dead wrong.

The Apple FDHD SuperDrive is by far the most solid and cleanly designed. It's the only drive that automatically "injects" disks that are partially inserted into the slot. With the other drives, you must push the disk all the way in. The Apple FDHD SuperDrive and Kennect Drive 2.4 are also capable of automatically ejecting disks via software. That is, if you drag a disk's icon to the Trash, the disk is immediately kicked out of the drive. With the DaynaFILE and PLI TurboFloppy 1.4, you must drag the icon to the Trash and then manually press an eject button on the drive — a needless complication. Both the Apple and Kennect drives have manual eject mechanisms for extracting disks when something goes wrong.

One area in which the Apple FDHD SuperDrive stumbles is in dealing with PC disks. If you stick a PC disk into a SuperDrive, the Finder explains that it isn't a Mac disk and gives you the option of initializing or ejecting it. Be careful: You could easily wipe out an entire disk with one errant mouse click. You need to eject the disk, launch AFE, and *then* insert the PC disk. With the Kennect Drive 2.4 and PLI TurboFloppy 1.4, you are protected from making catastrophic mistakes because the Finder identifies PC disks as such and explicitly tells you to use AFE.

Best of all in this respect is the DaynaFILE, which recognizes PC disks and mounts them on the desktop as if they were Mac volumes. PC files appear as documents, and directories look like folders. You can perform standard file/ volume maintenance directly from the Finder instead of by launching AFE.

Dayna Communications offers an utility called DOS Mounter that gives owners of the Apple FDHD SuperDrive and Kennect Drive 2.4 the ability to mount PC disks on the desktop, just as they do the DaynaFILE. The need for this may be short-lived, however. System 7.0 will probably expand on the existing External File System, which lets you access other disk-operating-system files — such as IBM or Apple II documents on a Mac AppleShare server — without having to launch a separate translation application such as AFE. The Apple IIGS currently uses similar File System Translators (FSTs) to access both High Sierra CD-ROMs and ProDOS volumes under its native GS/OS operating system.

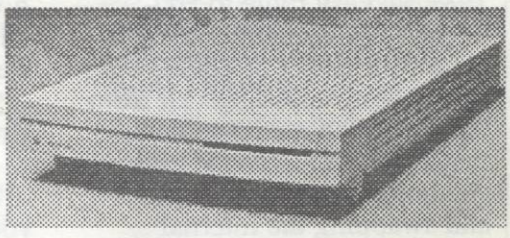
THE NEW MACS... - MY FIRST IMPRESSIONS

Thomas Schulze

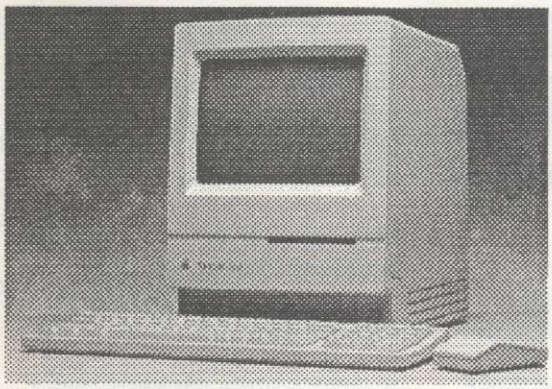
I have now had a fairly good look at the new Macs. Both at the official launch in Australia on the 16th October, and at the Macworld Expo on the 19th of October. All in all I like the new Macs, and think they do a good job of addressing lower costs, something potential customers have been waiting for, for a quite a while.

The Macintosh Classic is replacing the Mac Plus and the Mac SE. Essentially it looks similar to, and has the same functionally as a Mac SE, but at almost half the price. It comes with either 1 or 2 megs, and has an optional internal 40 meg hard disk. It will cost less than A$1700 (inc. tax), or somewhere around the $1100 mark for schools - tax exempt.

The Macintosh LC has a new shape in the Mac line, more like a pizza box than anything else. It requires an external monitor which can be colour or black & white. Apple has released a new low cost colour monitor which fits snuggly on top. The LC has colour built in, so no extra card is required. It also has a built in Microphone jack, which allows recording of sound, similar to the capabilities of a MacRecorder. Apple will release Apple IIe emulation as an option for this Mac. The



Macintosh LC



Macintosh Classic

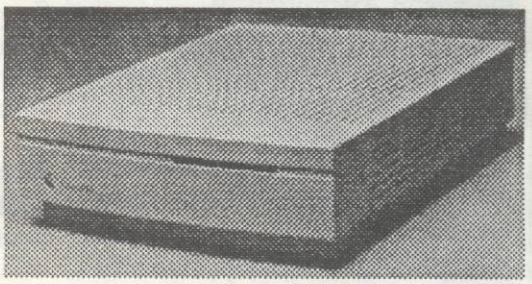
Mac LC will not be available until early next year, and I'm not sure about the prices, but have heard that a Mac LC with 40 meg hard disk, and a colour monitor will cost less than $5000 including tax. I hear you say - "but I can get an IBM clone with that for about $3000". Well - just remember you get built in colour, built in sound output, built in sound input, built in networking all of which would require 4 plug in cards on a PC, and cost you about $2000. On top of that you get Apple quality, not some now you see it, now you don't Taiwanese clone importer. But above all you get a friendly machine which is easy to use.

The Macintosh IIsi is now the cheapest Mac in the Mac II range. It has about the same power as the Mac SE/30, with 1 slot which can be either a NuBus, or 030 Direct Slot. It also has built in colour, and no colour board is required, unless you want more than 256 colours. The IIsi also has a built in Microphone jack, for sound input.

Any dislikes? - Not really, just little things I guess.– I don't like the line in the *middle* of the Mac Classic (where the disk drive is) - I liked it better lower like on the SE/30, but I guess that's personal preference. I thought it would be nice if Apple included a 68030 in the Mac LC - surely it couldn't have cost much more. But I guess that's marketing. Finally, I'm not keen about the new 12" colour monitor's chunkier 64 dpi instead of the standard 72 dpi.

Anyway, take a look at the new machines for yourself, and I think you'll agree, it's a step in the right direction.

Macintosh IIsi



Macintosh Models being Phased out

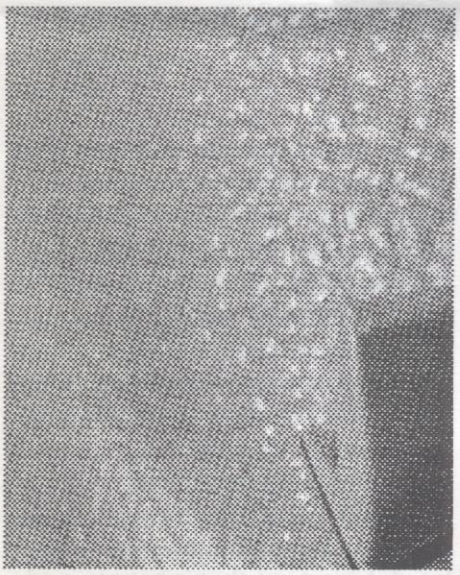
Mac	CPU	MHz	Maths coprocessor	RAM	ROM	Hard Disk	Sound Out / In	Slots	Built-in video
128K	68000	8	none	128-512K	64K	none	mono/none	0	b&w
512K	68000	8	none	512K	64K	none	mono/none	0	b&w
512Ke	68000	8	none	512K	128K	optional	mono/none	0	b&w
Plus	68000	8	none	1-4 MB	128K	opt. external	mono/none	0	b&w
SE	68000	8	none	1-4 MB	256K	opt. internal	mono/none	1	b&w
Mac II	68020	16	68881	1-8 MB	256K	opt. internal	stereo/none	6	no
Mac IIx	68030	16	68882	1-32 MB	256K	internal	stereo/none	6	no
Mac IIcx	68030	16	68882	1-32 MB	256K	internal	stereo/none	3	no

Current Macintosh Product Line

Mac	CPU	MHz	Maths coprocessor	RAM	ROM	Hard Disk	Sound Out / In	Slots	Built-in video
Classic	68000	8	none	1-4 MB	512K	opt. int. 40MB	mono/none	0	b&w
Mac LC	68020	16	none	2-10 MB	512K	opt. int. 40MB	mono/yes	1	16/256 colour
Portable	68000	16	none	2-9 MB	256K	internal	stereo/none	cust.	b&w
Mac IIsi	68030	16	optional	2-17 MB	512K	int. 40/80 MB	stereo/yes	1	256 colour
SE/30	68030	16	68882	2-32 MB	256K	int. 40/80 MB	stereo/none	1	b&w
Mac IIci	68030	25	68882	2-64 MB	512K	internal	stereo/no	3	256 colour
Mac IIfx	68030	40	68882	2-64 MB	512K	int. 80/160 MB	stereo/no	6	no
Mac IIzx	68040	66	(in 68040)	8MB-1GB	1024K	int. 560 MB	stereo/stereo	6	32 bit

Notes:

The MacLC internal video shows 16 colours on Apple Hi-res monitor, or 256 Colours on smaller Lo-res monitor.
The Mac SE/30 ROM supports 8 bit (256) colour, and can display 16.6 million colours using 32bit Quickdraw and an external monitor.
The Mac IIzx is a figment of my imagination.



IDENTIFY THIS

The two pictures above are a part of two separate things which have nothing in common. See if you can guess what they are.

Remember to get you answers to me by the end of the month to be in running for the competition. This is the second last set of pictures, but judging by the answers submitted so far, there's still plenty of chance to win.

Answers last issue:

A barb from a barb wire fence,
A cow pat.

THE MAN WHO MADE APPLE FLY

It is always interesting to look back into old magazines and dig out an interesting article or two. Here's an article from ACTApple Newsletter dated June 1982 which I thought might be of interest to current ACTApple members. Notice in particular the last paragraph, where Jobs predicts a book sized computer between 1985 and 1990. With the launch of 3 notebook computers by Apple the other day, he wasn't far out.

...

Steve Jobs began in a garage in 1976. Honest. "That stuff's all true," he told me emphatically. Now Steve's company, Apple Computers, is shipping over 20 000 computers a month, and is set to take $350 million in sales this year. Jobs was recently in Britain because Apple is swallowing its British distributor, Microsense. Very young, and very personable, Jobs chatted about Apple's past, present and future.

"Our philosophy is that we want to build the least expensive personal computer and provide the greatest value to customers." His emphasis in on "useful". For instance, Jobs does not think a computer is useful unless it can store programs and data on floppy disks. Many schools,he said, bought machines that could not handle floppy disks, only to switch to Apples.

Job's computers also have to be easy to use. "It does take over 20 hours to learn to use an Apple now, and we've got to reduce that to 20 minutes, so we're spending a significant amount of R&D to do that." How much? "We're spending in excess on 30 million bucks in the next year."

The early success of Apple attracted programmers who knew that the huge number of Apples (300 000 installed so far) assured them of a ready market. The result, says Jobs, is "over 10 000 programs written for the Apple. We estimate about half a million man hours of software. More software than any other computer in history." He paused. "With the exception of the IBM 360 mainframe."

And making the Apple do new tasks creates new customers. "As each new application appears on the market it allows the computer to do something it couldn't do before, and therefore we sell more computers, to people that wouldn't have bought them before except to use this new application. The installed base is larger for the next, person, so it's like a snowball going downhill, and we've really got a sort of Volkswagen on our hands. I don't think anybody's going to be able to catch up with us."

There have been mistakes. The Apple III, "designed to be Apple II's big brother", was a disaster at first. Plug in extras are a large part of Apple's success, but some are not up to scratch. Apple is free with it's specifications, so anyone can market peripherals that turn out to be rubbish. Job's admits that a lot of products aimed at the Apple are junk, but "it's a free country".

And the future? "I'm really committed to putting a computer in a book. Book size. In five or six years. Sometime between 1985 and 1990 we'll do it." Why? "Because that's what we want for ourselves. Everybody that works at Apple wants one." I suspect that the people at Apple will get what they want.

PRESIDENT'S DESKTOP

Did anyone notice that there was no President's Desktop last month? I feel a little insulted that nobody seemed to, not one comment or complaint! It makes you wonder. Anyhow, you don't get away without one this time. Instead of the usual homily I would like to offer something different - a review of a hardware item. I recently reviewed a C/Mac/GS Grappler interface and cable. What is a C/Mac/GS Grappler interface and cable? Well to put it simply, its a gadget you connect between the serial printer port of an Apple][C, Macintosh or][GS and the parallel input of a printer. You send ImageWriter code out of the serial port and it turns into the right parallel code for a whole range of printers. Thats right, anyone updating from an Apple][to a Mac for example, can keep their parallel printer and not need to buy an ImageWriter. The gadget consists of a cable and adapter to fit the various Apple machines on one end and a box with a parallel connector on the other. The box has a block of dip switches on the top and a socket for the included 12 volt power adapter. To use the C/Mac/GS Grappler interface and cable is almost unbelievably simple. Set the dip switches for your printer, plug in the power, connect the computer and printer, turn them on and away you go. What's more, on my test it worked perfectly. I connected a Mac SE and Epson MX80 printer and text and graphics printed out without fuss. I didn't try varieties of print quality because of time constraints but was satisfied with my first choice. In summary, the interface does what it claims and offers an option in the choice of your printer. From the documentation, it seems that it also works equally well with the other Apple machines. Further, it provides a general serial to parallel conversion facility apart from the standard printer settings. I understand that the Grappler product may soon be sold under licence with an Epson brand on it and perhaps bundled with their printers. The big question - did I like it enough to buy it? Yes, and it is in regular use. The price is $295 or $265 without tax. There is another Grappler interface for 24 pin printers, including the Epson LQ series, and laser printers. I had a short test of this one and, although a little more involved in the setting up and installing of drivers etc, it also worked well. Both units were supplied by A.C.T. Office Equipment. More news next time,

Roger Bernau
PRESIDENT

MEMBERSHIP REPORT NOVEMBER 1988

NEW MEMBERS	9
RENEWALS	4
NOT RENEWING	7
TOTAL FINANCIAL	251
Comprising: 107 Mac's	
121][’s	
14 Clones (][’s)	
10 No system	

R.Hibberd
Membership Secretary
23 November 1988

DECEMBER MEETING

• MUSIC and MICROS

• *MULTIPLE* lucky door prizes!!!

REFRESHMENTS - a bit of Christmas cheer

ANNUAL TRASH & TREASURE
This is the time of the year to bring all those bits of hardware and software that you no longer use, to the meeting, and sell or trade them for that elusive bargain that has evaded you until now.

CHRISTMAS SPECIAL

5 PUBLC DOMAIN/ SHAREWARE LIBRARY DISKS FOR $35. ORDERS WITH PAYMENT WILL BE ACCEPTED ONLY AT THE DECEMBER MEETING

LUCKY DOOR PRIZE

The lucky door prize donated by ACT Office Equipment for last month was an Apple mug. This mug would have to be more highly prized by our members than the one held sacred by a certain San Diego club. A lot more useful too!

The random membership numbers drawn out this time were; 519, 377, 24, 216, 86 and 438. None of the numbers were those of members present except for ACT Office Equipment, member number 377, yet again ! (Yes Virginia, they really are randomly selected!) The nearest to the last number was Edward Scharrer, member number 408. There was even a consolation prize of a Mac World badge from the recent event in Sydney. This was won by the next nearest member, Ernie Glass, member number 546.

Congratulations to Edward and Ernie. Come and see if your number is drawn next time. Remember you must be present to win.

HARDWARE LOANS

I would like to bring to the attention of the members (four in particular) the conditions under which Hardware Loans operate.
The loan is for the four week period between meeting, unless individual borrowers are informed otherwise.

One could make several observations regarding overdue loans such as the introduction of deposits. I am not in favour of such measures. My answer is that if the service is abused it will be withdrawn.

For those that may be feeling a trifle guilty but are not sure why, I am awaiting the return of the following articles -

2 disk notchers
1 automatic ice modem manual
//e, //c joystick

Would you **please** return these items by the December meeting. Thankyou.

Logan Brill
Hardware Loans

TREASURERS REPORT

Period from 8/9/88 to 11/10/88

Receipts	
Joining fees	$ 80.00
Membership fees	$ 310.00
Disk sales	$ 880.00
Ribbon inking	$ 0.00
P.D. Disk sales	$ 70.00
Equipment sales	$ 150.00
Misc (interest etc)	$ 0.00
Total	$ 1490.00

Payments	
Printing	$ 221.00
Postage	$ 64.91
Disk purchases	$ 900.00
Telephone accounts	$ 75.52
Taxes and charges	$ 0.00
Hardware purchases	$ 621.60
Software purchases	$ 46.01
Misc	$ 75.80
Total	$ 2004.84

Cheque account balance:	$ 1197.34
Investment account bal:	$ 2633.23

T.R. Blacksell
Treasurer

MAC PUB DOMAIN & SHAREWARE LIBRARY

Copies of our Mac public domain / shareware library catalogue have been available since the October meeting. If you haven't got one, please see Brian Murphy at the December meeting. We have acquired another 16 disks from BMUG and these are titled as follows :

Pictures 5, Utility 2, Games 2, *Games 27, Games 30*, Hyper Education 20H, *Hyper Education 35 H and 36H, Hyper Sound 10H*, Hyper Graphics 7H and 8H and *Updates 15,17, 19-21 inclusive.*

The disks shown in italics have been issued by BMUG since our catalogue was produced and therefore aren't listed therein. A summary of the contents of these disk is given below. Please update your copy of the catalogue by side-lining the other 5 disks.

The following disk are on order from BMUG (24 Nov):

Games 5, DA 4, DA 5, Sounds 3, Paris 10 and 11, and Hyper Miscellaneous 3H.

Contents of Unlisted Disks
Games 27: Spacestation Pheta, Wyrm, World Class Demo, Rassling, Stratego and more
Games 30 : NetTrek, NetHack
Hyper Education 35H : OpCode, Benson
Hyper Education 36H : Bird Anatomy
Hyper Sounds 10H : Baby Delight, Baby Gurgle 1 and 2, Baby Gasp, Happy Baby, Camel, Hoot Owl, Fall, Crow, Chimpanzee, Hyena, Parrot, Sceam, Jungle Drums 1 and 2
Update 17 : Hot Air Balloon, Interferon V3.0, MacSink V5.0, RamDisk+ V2.08, ResEdit V1.2A1, SoundMaster V1.2, SCSI Parker, Easy Envelopes, Hierarchical DA's
Update 19 : Layout V1.7, DAFont V3.1, LockOUT V1.3, Quote Init V2.0, Stuffit V1.5.1, Test Pattern Generator, MacSink V6.2
Update 20 : System Error Table, DAfx V1.30, ScreenMaster, MenuClock, SuperClock, ResEdit V1.2B2.3
Update 21 : Biorythm II, Kiwi Envelopes V2.03, ΣEdit, Memoir, LaserLAB, Kermit V0.9, FreeTerm V3.0B3, Tattle Tale, MacPassword

PROGRESS IN THE SOFTWARE RELEASE SAGA

In the October 1988 issue of this Newsletter I wrote an article called "Why are we in the Software Release Backwoods?". It was about the availability in Australia of TimeOut programs.

Well, things have progressed and Questor is no longer the distributor of the TimeOut series, it is now handled by DataFlow. More importantly at least one local store has some of the modules in stock. The store in question is ACT Office Equipment Pty Ltd of Fyshwick.

WINDOWS FOR THE APPLE //

- Part 1

Windows are an extremely useful interfacing technique. They are in fact smaller text screens superimposed on the main screen. Use them to display additional information, offer a menu, provide a scratch pad etc. But how does a BASIC programmer (the language, not and the person) include windows in the program?

There are three ways;
1) purchase a utility
2) search through the magazines
3) read on

The problem in creating windows is saving that section of screen where the window will be and later restoring it back to the same place. Most utilities either;

1) move contents to a safe area
2) read contents into an array

Both techniques require clever maths to convert window co-ordinates into memory locations and will not be covered here. Instead the technique presented below could be called a no frills approach.

Initially the 40 column screen will be discussed and a later article will look at the 80 column screen.

The steps required to make a no frills window on the text screen are;

1) create a safe 1K area of memory
2) copy entire screen to safe area
3) set window
4) clear window& present message
5) restore old screen

STEP 1.
The text screen is located from memory address $400 to $7FF (1024-2047) and a basic program normally loads immediately above the text screen. The space from $801 to $9600 (2049-38400) is available for the BASIC program and all variables. Above $9600 is the operating system, monitor routines, BASIC language, etc. Below $400 are some important memory locations for the monitor and the input buffer. The memory loca-

tions LOMEM ($67-$68, 103-104) and HIMEM ($73-$74, 113-114) indicate the bottom and top of free variable space. With no program in memory these values are $801 and $9600 respectively, the default values. To protect an area of memory from erasure by a program or variables, either lower HIMEM or raise LOMEM by 4K. My preference is to raise LOMEM to $C00 and this should be the first executable line in the program.

STEP 2.
Copying the entire screen looks like a formidable task. The good news is that the monitor contains a subroutine that does just that. The routine is called MOVE (naturally) and the entry point is $FE2C (65068). The bad news is that we cannot call this routine directly from BASIC. Instead we use a back door approach. A CALL to $FE69 (65209) causes a jump to the address in $3A and $3B (58 & 59). So we load the low and high bytes for MOVE into $3A and $3B.

The set up procedure for MOVE is to specify the start and end address of the block of memory to be moved and the destination address. The relevant memory locations are;

$3C-$3D, 60-61 Low & high byte of start
$3E-$3F, 62-63 Low & high byte of end
$42-$43, 66-67 Low & high byte of destination

STEP 3.
Memory locations $20-$23 define the current text window;

$20, 32 Left side, allowable values 0 to 39
$21, 33 Width, allowable values 1 to 40
$22, 34 Top, allowable values 0 to 23
$23, 35 Bottom, allowable values 1 to 24

STEP 4.
If you don't know how to clear the screen and print a message you shouldn't be reading this article.

STEP 5.
The reverse of STEP 2 and STEP 3. The following BASIC program demonstrates the technique. Lines 200 to the end, the subroutines, could be replaced by a machine language subroutine which results in a significant speed increase. If anyone is interested see me.

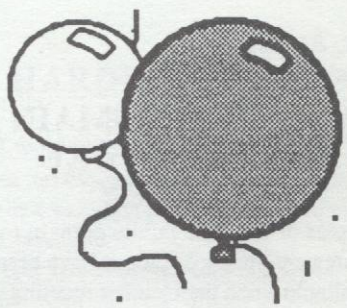
```
 10 REM  40 COLUMN WINDOW
 20 REM
 30 IF  PEEK (104) < > 12 THEN
    POKE 3072,0: POKE 103,1:
    POKE 104,12: PRINT  CHR$
    (4)"-WINDOWS.40": REM  set
    LOMEM to $C00
 40 TEXT : HOME
 50 FOR I = 1 TO 480: PRINT "-
    *";: NEXT
 60 GOSUB 200: REM  copy text
    screen
 70 POKE 32,10: POKE 33,20:
    REM  left, width
 80 POKE 34,8: POKE 35,18: REM
     top, bottom
 90 HOME : VTAB 11: HTAB 2:
    PRINT "This is the window!"
100 VTAB 15: HTAB 2: PRINT
    "Press ESC to Exit";
110 GET C$: IF  ASC (C$) < > 27
    THEN 110: REM  Esc to quit
120 PRINT : TEXT : REM  return
    to full screen
130 GOSUB 400: REM  restore
    screen
140 VTAB 24: HTAB 1: PRINT
    "press RETURN to exit";
150 GET C$: IF  ASC (C$) < > 27
    THEN  END
160 GOTO 40
170 REM
180 REM   MOVE SCREEN
190 REM
200 POKE 60,0: POKE 61,4: REM
     start
210 POKE 62,251: POKE 63,7:
    REM  end
220 POKE 66,0: POKE 67,8: REM
    destination
230 POKE 58,44: POKE 59,254
240 CALL 65209
250 RETURN
260 REM
 380REM  RESTORE SCREEN
390 REM
400 POKE 60,0: POKE 61,8: REM
    start
410 POKE 62,251: POKE 63,11:
    REM  end
420 POKE 66,0: POKE 67,4: REM
    destination
430 CALL 65209
440 RETURN
```

Save using the program name "WINDOWS.40".

LIMITATIONS
This technique allows only one window and is OK for help screens etc. If you start to carry out long operations within the window your program may hang or crash when you restore the main screen. The reason is that within the text screen memory block is a number of screen holes which the monitor uses to store important information. When you restore the screen you also restore the old values in the screen holes and this could cause problems. Experiment to find out how much you can get away with.

A later article will extend the no frills window to the 80 column screen.

Brian Mattick



INTERFERON 3.0
13-May-1988

Interferon is a program that detects and destroys digital viral infections. It currently recognises the modus operandi of several of the virus strains, and will be updated to recognise other strains as they appear.

If you have just received an updated version, please reread this document carefully.

How to use Interferon
Place the Interferon program on a new floppy diskette, along with fresh copies of the System folder and Finder. Use the latest System and Finder you have gotten from Apple or your dealer.

DOUBLE HI-RES ON THE //e, //c & //gs

Pam Doughty's article in the November newsletter mentioned the HPLOT technique for drawing on the double hi-res screen.

There are three BASIC hi-res plotting commands and only HPLOT x,y works in double hi-res because you (the programmer) switch between the main and auxiliary memory by POKE 49236,0 and then POKE 49237,0.

The other commands, HPLOT x,y TO x1,y1 and HPLOT TO x,y do not work in double hi-res. The alternative technique for drawing on the double hi-res screen is direct POKEing to the main and auxiliary memory.

If you really need double hi-res in you program the alternatives are learn machine language or purchase a utility such as Roger Warner's 'Chart N Graph' toolbox or 'Beagle Graphics' from Beagle Bros.

Brian Mattick

APPLE HAS MOVED

The Apple Office in Canberra has moved and can now be found at:

31 Thesiger Court
Deakin ACT 2600

Phone numbers unchanged.

SPOT THE DIFFERENCES

The Santas below contain 7 jolly differences, can you find all of them?

Last month:
1. Apple missing bite.
2. Different length disk slot.
3. Mouse further down.
4. Logo missing on 2nd pic.
5. Keyboard plugged in wrong.
6. Menu missing.
7. Shade patterns missing.

IDENTIFY THIS

The picture below is distorted somewhat. See if you can work out what it is!

Last month:
Man holding sword (negative.)

RESTORE FROM BACKUP

This is a new column which will be appearing now and again. It will contain snippets from old ACTAPPLE newsletters.
This months we go back to the December 81 eddition. (7 years ago to this day!) It was the clubs 4th newsletter and consisted of 4 pages. It mentioned that the club had 30 financial members, with membership and joining fees of $5. Meetings were held on the second thursday of the month at Computerland in Phillip. Ernie Kruck was already on the committee. The topic for the meeting was "How to have a mainframe in your lounge room!" For some reason, there were no Macintosh articles.

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TIES + LAPEL PIN + TIE STUD + KEYRING + POCKET KNIFE + UMBRELLA + GLASS APPLE + WATCHES + BEER GLASS + PUZZLE + MUGS + PENS + T-SHIRTS + BOMBER JACKET + POLO SHIRT + BATHROBE + OVERNIGHT BAG + SPORTS BAG + DELUX COMPUTER BAG + MOUSE HOUSE + SPEED PADS + STICKERS + LABELS + TRACK SUITS .....$5 - $500....

One Day Christmas Sale
9.00 am till 2.00 pm
Saturday December 10 1988

We have stocked up on heaps of Apple //, //gs and Macintosh Software and Hardware (inc Hard Drives) so you can SAVE heaps!

ACT Office Equipment Pty Ltd 37 Townsville St Fyshwick ph 804 912

Getting Started with the Apple IIGS

Part 2 By Wesley R. Felty, Courtesy of Call A.P.P.L.E.

This is the last part of the article "Getting Started with the Apple IIGS".

Why you should use the newest "SYSTEM.DISK"?

The latest "SYSTEM.DISK" (version 2.0, 18 May 87) <Editor's Note:- The latest version is 3.2, Jul 88.> is much fuller and slower than the early version I received with my IIGS> So, why should I use a slower version which is too full to add many files to? A simple explanation. The IIGS has provisions in its design enabling it to correct possible bugs inside the computer itself by loading files from a new version of a "SYSTEM.DISK".

The newest "SYSTEM.DISK" corrects a number of bugs in the system including faulty tools both in ROM and RAM. Therefore, if you are going to be using ProDOS/16 applications, then you should use the latest version of the "SYSTEM.DISK" that you can. Unfortunately, some of these updates also contain bugs, such as the "Show TEXT FILE" option from the Apple Menu. All the "SYSTEM.DISKs" after the first one have had a bug that produces a system error when finishing reading the file.

Some problems with the newest SYSTEM.DISK

I have run into a couple of problems using the newest "SYSTEMS.DISK" (dated 18 May 87). For one thing, older versions of Diversi-Cache tend to "hang". The author of Diversi-Cache, Bill Basham, has already fixed this problem and the latest versions of his program work well on the new system.

Another program, Roger Wagner's "SoftSwitch" has trouble getting installed on the new SYSTEM.DISK. This is not the fault of SoftSwitch, but comes from the fact that the SYSTEM.DISK is too full. It takes 26K of room on a disk to install the SoftSwitch program, so you may have to delete some programs on the "SYSTEMS.DISK" like "START" to make enough room for the installation.

What minimum files need to be on a ProDOS/16 disk?

To create the the smallest, most stripped down version of a ProDOS/16 BOOT disk is based on the 18 May 87 "SYSTEM.DISK", you need 267K of space and need to copy to a ProDOS formatted disk

A. In the root directory
1. "PRODOS" (The ProDOSLoader)
2. "BASIC.SYSTEM" for general BASIC programming work
3. The "SYSTEM" folder containing at least
   a. "P8" (ProDOS/8)
   b. "P16" (ProDOS/16)
   c. The "SYSTEM.SETUP" folder containing at least these files
      i. "TOOL,SETUP"
      ii. "ATINIT"
      iii. "ATLOAD.0"
      iv. "TOOL.SETUP.2"
   d. The "TOOLS" folder with its 12 or so tools

If you wish to have a minimum system that can run the Desktop Finder, then "BASIC.SYSTEM" can be replaced with "Desktop>Sys16" and the folder "Desktop" must be included in the root directory and it must contain "Desktop1" and "Desktop2" to run the Finder. You can have "BASIC.SYSTEM" and "Desktop.Sys16" both in the root directory; just be sure to have some type of file there and remember that the top system file in the folder will be the one that gets activated. This version of the "SYSTEM.DISK" will take up 378K. Of course, if you want the SELECTOR to work, you must also include in the "Desktop" folder, the files "Selector" and "SElector.List".

Is it possible to boot ProDOS/16 on a 5.25 inch floppy disk?

When we find that it takes at least 267K of room to hold the minimum ProDOS/16 system, we discover that it is impossible to get it on a 5.25 inch floppy which holds 143K. Even a 50 track floppy, which is most tracks possible under DOS 3.3, can hold only 200K, which is still far too little to hold the 18 May 87 version of PRODOS/16. It may be possible to install an earlier version of the "SYSTEM.DISK" if it had 40 tracks, the highest number that any known floppy disk drive can handle.

The old ProDOS 1.1.1 Vs ProDOS/8 & ProDOS/16

If you owned an Apple Computer before the IIGS, and used ProDOS, you probably have use for some ProDOS/8 disks. If you just continue to use the ProDOS/16 disks, which can handle ProDOS/8, ProDOS/16, and programs written for ProDOS 1.0 - 1.1.1, you will always have to wait 64 seconds for ProDOS/16 to boot. It loads tools that are just going to be thrown out, and then you wait while ProDOS/8 loads and the system discovers that you are trying to run a ProDOS/8 application in the first place. All programs written in ProDOS before the IIGS are compatible with a ProDOS/8 system and a ProDOS/8 disk can go from a boot to the Program Selector in five seconds, not 64. Due to the difference in the way that ProDOS/8 and the IIGS handles Interrupts, from the way that ProDOS 1.1.1 and the //e handle them, it is

FOR SALE

5 1/4" Drive $250
Monitor Stand $35
Joystick $35
//c Power supply $100
3 1/2" Drive controller $100
//c Mouse $120
Z80 Card $75
RF Modulator & cables $45

Reasonable offers accepted

P.Hazelhurst

813836

not a good idea to use ProDOS/8 on the //e or ProDOS 1.1.1 on the IIGS. ProDOS/16 won't even boot on the IIGS, so it won't cause any problems. You can usually identify if a IIGS program is ProDOS/8 or ProDOS/16 by watching the screen as it loads. If you are trying to use any IIGS ProDOS/8 programs on a //e, then you should copy them onto a disk that has ProDOS 1.1.1. If you are using any // e ProDOS programs on the IIGS, then you should copy them onto a ProDOS/8 or ProDOS/16 disk.

Creating a ProDOS/8 SYSTEM.DISK

If you have ProDOS files from before the IIGS and/or ProDOS programs entered from different magazines, you may want to put these on a 3.5 inch, ProDOS/8 disk. The specially prepared ProDOS/8 disk doesn't waste time loading systems and tools that it will discard later. It can cut the boot time from 64 seconds down varying amounts - all the way down to five seconds. First of all, to create the simplest, most stripped down ProDOS/8 disk, just:

A. Format a disk in ProDOS. B. Copy "P8" from the "SYSTEM" folder of the "SYSTEM.DISK" to the root directory of the newly formatted disk. C. Rename the file "P8" to "ProDOS" by entering "RENAME P8, PRODOS". D. Copy a system file, such as "BASIC.SYSTEM" to this disk. E. Include a startup program, called "STARTUP", if desired.

This version of the ProDOS/8 system takes about 7 seconds to boot through to the "STARTUP" program.

Two Program SElector Systems For Our ProDOS/8 Disks

Most program disks have many files that are not meant to be run, but which support other programs. So, rather than wade through all of these programs each time the disk is used, it is much nicer to use a Program Selector that allows you to select one of the programs from a list, ignoring all other files. This Program Selector should also be able to find and use the

correct ProDOS prefix, pathname, and startup path to execute each executable file, after being preset once.

ProSel a ProDOS PROgram SELector

One of the best of these Programs Selectors is ProSel by Glen Bredon. This set of programs, which was mentioned before with the 3.5 inch DOS 3.3's, includes a very good Program Selector that allows you to use the mouse or keyboard to select a program to run. This Selector goes from boot to Select in about seven seconds. When you quit an application, you are right back in ProSel in about 2.5 seconds. This disk.even includes a utility to repair the damage that may have been done to a disk's directory by some other brands of disk utilities. You won't find ProSel in stores, you'll have to order it directly from Glen Bredon at the address listed earlier in this article.

Using the "SYSTEM.DISK" Desktop Finder On a ProDOS/8 Disk

The "SYSTEM.DISK" itself has three different types of program selectors. The Program Launcher, a ProDOS/16 application; the Desktop Finder, a ProDOS/8 icon based application; and the Program Selector, a ProDOS/8 text based application. In fact, the Program Selector automatically runs the Finder if no files have been set up for selection or the Desktop is selected from the Selector menu.

These Programs are called "DESKTOP1" and "DESKTOP2" respectively are stored in the "Desktop" folder on the "SYSTEM.DISK". Two other programs that are associated with these two in the "Desktop" folder are "SELECTOR" and "SELECTOR.LIST". When "desktop1" is run, it checks the "Selector.List" to see if any programs have been loaded into the selector (more on how to do that below), then "DESKTOP2" is automatically run to activate the Desktop Finder Icon program.

Since "DESKTOP1" is a ProDOS/8 program, we can use it on a ProDOS/8 disk. It is a SYS type file so we can run it very simply. All we need to do this is:

A. Format a ProDOS disk.
B. Copy "P8" from a SYSTEM.DISK "SYSTEM" folder to our new ProDOS disk.
C. "RENAME P8, PRODOS".
D. Copy the "DESKTOP" folder with its "DESKTOP1", "DESKTOP2". and "SELECTOR.LIST" files to our ProDOS/8 disk.
E. Copy "BASIC.SYSTEM" to our ProDOS/8 disk, and
F. Create and SAVE the following program as "STARTUP" using the disk.name that you used to create the ProDOS/8 disk.

```
10 PRINT CHR$(4)"PREFIX
     disk.name/DESKTOP/"
20 PRINT CHR$(4) "-DESKTOP1"
```

(Substitute the name of your disk for "disk.name" in line 10)

This STARTUP program works from the normal ProDOS/8 BOOT proceed. When ProDOS/8 is booted, it activates the first ".SYSTEM" file that it finds, "BASIC.SYSTEM" in this case, and "BASIC.SYSTEM" runs a program called "STARTUP" if it finds one. The "STARTUP" program then runs the "DESKTOP1" program. If any programs are listed in the Program Selector, this ProDOS/8 disk

will go from boot to the Program Selector in 15 seconds.
Call A.P.P.L.E's "DESKTOP.SYSTEM"

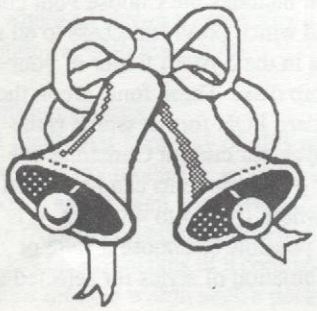
In the july 1987 issue of Call A.P.P.L.E., there is a program to speed up the booting of a disk into the Program Selector. ("Making the GS Desktop Easier to Reach" by Patrick Gormley). Using this program as the first ".SYSTEM" file on the ProDOS/8 disk results in a 12 second boot. The discussion that follows shows how to further reduce this boot time to five seconds.

Some Programs 3.5 inch Disk Drive Users will find invaluable:

Diversi-Copy $30
Diversi-Cache $35
Diversi-Key $45
Diversi-Hack free with Diversi-Cache and Diversi-Key.

Contact: Bill Basham, M.D., B.S.E.E. Diversified Software Research, Inc 34880 Bunker Hill Farmington, MI 48018-2728 800 835-2246 ext 127 (orders only) 313 553-9460 (tech support 3 - 5 PM EST)

There are a couple of programs by DSR that tremendously improve the operation of the IIGS. Diversi-Copy allows fast and easy disk copying for 3.5 and 5.25 inch disks. This program also uses any and all auxiliary memory that it finds up to 800K to reduce the number of disk swaps. With 800K of RAM Disk, Diversi-Copy can copy a whole 3.5 inch disk on a single disk drive in one pass. This program can also do mass production copying where the original disk is only read once and each disk drive is used alternating between each drive for fastest copying. If a disk is not full, Diversi-Copy copies only the blocks that are used, again saving time and effort. And, with Diversi-Cache, the program can read the original disk about three times as fast.



Diversi-Cache is another fine DSR program that uses extra RAM memory and likewise adds a lot to the GS. This program speeds up any 3.5 inch disk drive reading by reading whole tracks whenever a sector or block is called for, storing this track of information in a Cache (RAM disk memory), and when a sector or block is called which has already been read, it is read from the RAM disk at RAM speed. This speeds up disk reading about three times. Be sure to get the latest version of this program since some of the earlier versions won't work with the newest IIGS "SYSTEM.DISK". The latest version of Diversi-Cache allows you to install it onto the ProDOS file itself for automatic loading and greater speed on the original boot. This program works with ProDOS, Pascal, and DOS 3.3, but only speeds up the 3.5 inch drive. This program is actually the first step in my speed up programs for the programs above. For all of the previous times given for boot, cut them in half when using Diversi-Cache. So, using the ProDOS/8 disk as discussed earlier with the "DESKTOP.SYSTEM" program from Call A.P.P.L.E., and Diversi-Cache it only takes five seconds from boot to Program Selector.

Both of these programs are supplied as "shareware" meaning that the author encourages us to give everyone we know a copy of his programs. Anyone who decides to use the programs are then expected to send the purchase price to DSR within a couple of weeks, so there is a free trial period. This is very unusual marketing strategy, so please send the money to Bill Basham. It keeps him writing more and better programs. Bill is well known for his great customer support and frequent updates ($5). DSR also sells Diversi-DOS a faster and better DOS 3.3 (a real winner when combined with AmDOS from Gary Little to run DOS 3.3 on 3.5 inch disks), Diversi-Dial, the Diversified Accountant, and Bill is planning on writing some music software supporting the MDIdeas Supersonic Digitizer.

WANTED
Compilers and Development tools with manuals. "Inside Macintosh" books

Peter Myers
416143 (H)

DSR also sells Diversi-Key, a program that gives the IIGS programmable macro keys, not just for AppleWorks. A full set of Appleworks macros is included. Diversi-Key needs 512K minimum memory. With both Diversi-Key and Diversi-Cache, the program, "Diversi-Hack", is included free. This program allows you to investigate the IIGS's memory (if you can get to the Desk Accessories) and to do a 40 or 80 column text dump to your printer and then continue the program.

Setting Up the Program Selector

The Program Selector from the Desktop Finder is not too hard to set up since it lets you "walk" through the disk and "point" at the files that you need to use for the selection. Unfortunately, you need a good feel for ProDOS pathnames, and you have to know exactly what file to activate; but then you have to know what file to activate to run the selection from the Desktop Finder anyway. You will get the most out of this by following along with the description and entering a selection yourself. So, try this with the "SYSTEM.DISK" and see if you can get "BASIC.SYSTEM" into the selector.

Start by booting up the Desktop Finder and pulling down the menu called "Selector". If you have not entered any selections yet, then the only option that you will have in this menu is to "Add an Entry". Selecting this option will:

1. Open an "Add and Entry" box, 2. Read the disk drive, 3. Select one of the disk drives, 4. Write the volume

name from the disk in the active drive above the dialogue boxes after "Disk:", and 5. Enter the volume name of the active disk in the "Enter the full pathname of the run list file:" control box with the "/" marks around it as is needed in a ProDOS pathname.

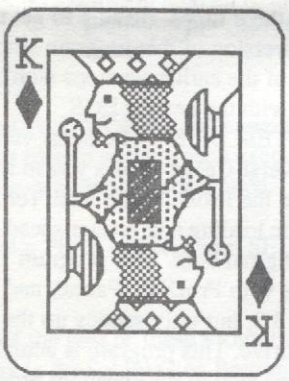
With my system, this always brings up the "disk" "/RAM5", since I have a RAM drive setup from the Control Panel. I suppose the program was written this way so you could easily select programs that you normally store on a RAM disk for fast running. But, usually, you will want to add to the selector list only programs that are actually on the same disk. Therefore, click the "Change Drive" box if "SYSTEM.DISK" is not the disk displayed. When the "BASIC.SYSTEM" disk is displayed, move the pointer over to "BASIC.SYSTEM" in the selection window. Files that are subdirectory folders have a folder icon to their left, so we can see that "BASIC.SYSTEM" is not one. Since "BASIC.SYSTEM' is a runnable program, we can select it by clicking "BASIC.SYSTEM" in the selection window. Notice that not only does the "BASIC.SYSTEM" file name turn dark in the window indicating that it has been selected, but the file name was also added to the pathname in the "Enter pathname" box along with the slashes needed. The complete pathname should now be "/System.Disk/Basic.System". Click the "OK" box or press the Return key to set this pathname.

Notice that the cursor has jumped down to the bottom "Enter Name" box and wrote the last added part of the pathname into it. You may either delete back over this name and re-enter whatever you want to show up on the Selector List or click "OK" or press Return to keep that name. From now on, whenever you boot the "BASIC.SYSTEM" disk, if it is set up for the Desktop instead of the Program Launcher, it will stop at the Program Selector, which is much faster, and display this and any other selections that you have set up.

Having the Selector List, But Using the Desktop Finder

If you like the idea of the Selector List, but would also like to always go to the Desktop Finder, you can have it both ways. If you open the "BASIC.SYSTEM" disk, open the "Desktop" folder, and then Delete or Rename the file named "SELECTOR", then the boot process will go all the way straight through to the Desktop Finder. By pulling down the "Selector" menu, you can still choose applications to run from the Selector List.

Don't miss the exciting conclusion to this article next issue.



A Preview of AppleWorks GS

This is a short preview, not a review, of the longed for AppleWorks GS which was originally going to be released by StyleWare as GSWorks. I obtained a Demonstration copy of this program from ACT Office Equipment Pty Ltd only four days before the deadline for articles for this magazine.

The package arrived with :-
- Getting Started with ApleWorksGS,
- AppleWorks GS Reference manual with Quick-Reference Card,
- AppleWorks GS User's Guide, and
- Three 3.5 inch disks -
  - AppleWorks GS System,
  - AppleWorks GS Program, and
  - AppleWorks GS Utilities.

The required equipment is :-
- Apple IIGS (minimum 1.25 megabytes memory),
- 3.5 inch disk drive (two recommended), and
- Monitor (RGB recommended).

The optional equipment is:-
- Apple Imagewrtr or LaserWriter,
- Hard disk or second disk drive, and
- Internal or external modem (required for using comms services).

There are six modules in AppleWorks GS and these are:-

Word Processor,
Page Layout,
Database,
Spreadsheet,
Graphics, and
Communications.

Word Processing

This is the heart of the integrated package and it is a good heart. When I first tried this Word Processor, I saw the screen was being rewritten when the cursor was moved more than about six lines. My heart began to sink. I thought, here was another slow graphic oriented screen which was going to take forever to refresh. Surprise, surprise, the screen was redrawn as fast as one could hope for.

Included in this module is an 80,000 word spell checker with a 470,000 synonym thesaurus and, of course, provision for your own custom dictionary.

Page Layout

This allows the merging of text and graphics for desktop publishing. Text flows automatically from column to column with the ability to customize margins and column guides. The graphics which may be imported are not restricted to one format. AppleWorks GS can import AppleWorks GS graphics, also files stored in PICT format, Apple Preferred Format (APF), or PNT format.

The Font menu allows you to select from the first fifteen fonts, or typefaces for elected text. In addition, the menu includes the Choose Font command which provides access to all the fonts in the System folder of your startup disk. These fonts are in the standard FON format which is the same as our current Christmas special! All these fonts can be resized anywhere from 4 to 48 point. It is also possible to choose a style or combination of styles for selected text

from Plain, Bold, Italic, Underline, Outline, Shadow, Superscript, or Subscript.

Database
The Database has a number of different types of fields which is a far cry from AppleWorks with only text or numeric fields. The fields are :-

Date, Text, Numeric, Static - stores text as though it were a graphic - cannot change the text in a static text field, and Picture - stores graphics. The number of records available for use is only limited by the amount of memory that you have available. Up to 256 fields may be used for each record with an unlimited number of custom report formats.

Spreadsheet
I am unable, at this stage, to find in the documentation, the maximum size of the spreadsheet. However, on my machine with 1.25 meg of memory the spreadsheet has 676 columns by 9,999 rows which contain 6,759,324 cells. This should keep even the most avid spreadsheet hacker happy. It appears to have many of the advanced features of the dedicated spreadsheets and then some. They include automatic bar, pie, scatter and line charts. Along with arithmetic, trigonmetric, statistical, logical and conditional functions.

Graphics
This module is a full blown graphics package with full colour bit-mapped paint graphics and object oriented draw tools. You can paint with a paintbrush, pencil, or spray can, or draw geometric objects such as squares, rectangles circles, ovals and so on. Click on any image to make an object, then move it to the front or back under the main menu's Arrange heading, or you can move an object anywhere on screen by selecting it and dragging it with the mouse.

Communications
Not much that I can say on this at present as my modem is an early In-Modem which even with new software from the manufacturer will not work. The advantages of a communications module within such a package as this is self evident. It is possible to send or receive data in the following forms:-

File - a single file,
Batch - one or more files in a single transfer,
Binary II - one of more files in the Binary file format, and
Capture or Send Text - files transmitted in an ASCII format.

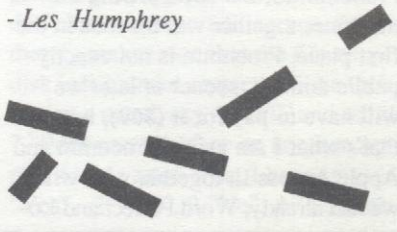
Summary
This is a 16-bit GS Operating System and it is truly a powerful package. In addition to its own document types, AppleWorks GS directly reads AppleWorks word processing, database, and spreadsheet documents. ASCII text documents; and MultiScribe GS word processing documents. The AppleWorks GS graphics application directly reads documents created with a variety of Apple IIGS graphics programs, including PaintWorks Plus, PaintWorks Gold, Deluxe Paint II, and TopDraw.

The manuals are comprehensive though I did see one error in the User's Guide on page 58 with text alignment and line spacing options reversed.

The only problem area that I have observed so far is in the final printing stage. It is so painfully slow. Printing in draft form is fast and is only restricted by the capacity of the printer.

The hard copy output can be printed either vertically or horizontally which for large spreadsheets is a must. In addition the options in fonts, sizes, and colour make for very presentable output. This is a product which all IIGS owners must have. The retail price of this package, when released in Australia, has not been decided as an Australian distributor has not yet been appointed.

- Les Humphrey



sniffer" that detects if common System folder files have been adulterated in this way. If you get a type 003 virus, please get in contact, you may have discovered a new strain.

Warnings
Interferon reports a warning when it finds a file that it knows a particular Virus is looking for. Nothing to worry about, but if you get one, we would like to know.

101 VULT/ERIC. This is a **Warning**. The SCORES virus is be looking for the string VULT or the string ERIC as a file creator or type. If you get this warning, please let me know the details.

Anomalies
Anomalies are unusual things that are legal for applications to do, but not commonplace. However, when a virus infects a program, it may trigger one of these anomalies. Because perfectly healthy applications can trigger anomalies, you should only turn anomaly reporting on if you suspect you have a new type of infection and you can use tools like Resedit to track it down.

If you suspect an infection and you are not a "power-user", go get help!

201 This is an **Anomaly**. It detects when CODE resource #0 jumps to the last CODE resource (call it resource #N) and CODE resource N-1 does not exist. This is a pattern exhibited by SCORES. There may be legitimate applications out there that also have this pattern, thus this is flagged as an anomaly that you should look at further.

202 This is an **Anomaly**. It detects when CODE resource #0 jumps to the last CODE resource. It is not as selective as #005, and so more legitimate applications may have this pattern. You should examine any application that triggers this anomaly carefully.

203 This is an **Anomaly**. It is set off when a CODE resource appears in a non-application or system file. Many legal programs can do this, especially MPW tools.

cont....

204 This is an **Anomaly**. It is set off when an INIT resource appears in a non-INIT, DRVR or system file. Again, this can be perfectly kosher and harmless.

205 Another **Anomaly**. Similar to 008, but looking for cdev's that are wandering far from home.

Version Notes

1.1 10-April-88. Second release. Many bug fixes, including more robust checking for damaged resource forks and less chance of stack-heap collision. Fixed error in type 0001 virus detection caused due to mistake in filename "Desktop ". Added ability to scan boot volume or internal floppy only. Added diagnostic on # of files searched.

1.1b 11-April-88. Corrects a stupid typo in my code that made checking of the resources unreliable. WARNING: previous versions might not detect some viruses - don't use them!

1.2 14-April-88. Changed the report so that you see the full pathname of files, one element (volume, file or folder) per level. Also, made a correction to the SCORES "sniffer" so that it detects when SCORES has infected the System file (A typo prevented it from detecting the virus correctly).

Interferon now attempts to unmount and eject all volumes that it searches, except the boot volume. It will succeed when it tries to eject a floppy diskette, which saves you a step and avoids a conflict with Multifinder. If you are running Multifinder with multiple hard disks, you will see the non-boot volume hard disks disappear from the desktop. Multifinder will remount them as soon as it gets some time, usually at the end of an Interferon scan.

1.3 20-April-88. Made some improvements to the type 002 VULT check. Type 004 checks are now better as well. Type 006 anomalies no longer trigger on Fullwrite. Added type 007-009 anomalies. Fixed a few minor bugs that were causing strangenesses on small memory machines.

cont page 14

THE ODD COUPLE

Hardwiring an IBM PC XT to an APPLE //e

by Melody Parker,
AUSOM August 1988

In neighbouring offices we keep two Apple //s with 384K on-board memory, and an IBM PC XT with a 10 Mb hard disk and a floppy drive, attached to a Qume LaserTen printer via a Hewlett-Packard LaserJet+ emulation module from the IBM's serial port. (That is we already have a 9 pin DE connector for the IBM serial port cabled to a DB-25 connector for plugging into the laser printer. Since the laser is in use much of the time, it happens to be easier to plug in and out of the 25 pin connector than to get behind the IBM to reach the 9 pin serial port. But the same approach should work for a DE-9 connector plugged straight into the IBM.) Below is a picture of the pin assignments taken from the Qume Technical Reference Manual.

Rudi de Wilde at central Logic Systems soldered together for us two RS232 DB-25 connectors ($5) and 10 metres 9-way round cable ($16) for $25 or so. You could also buy made-up RS-232C connector cables, M-M, F-F and M-F, at Dick Smith or Rod Irving Electronics and hitch them together; the M-M or F-F act as gender changers ($13; handy to have anyway). Another useful device is a breakout box ($16) which confers peace of mind while adjusting switch settings on the Apple's Super Serial Card.

To obtain a manual, since I'd never done this before, I bought a copy of Apple Access II ($94 ex tax). We have Kermit for both machines, courtesy of AUSOM, but I still can't figure out how it works ..... no documentation. Keal Ajayoglu gave us Procomm for the IBM; wiring the machines together was his idea in the first place. Procomm is not exactly public domain, sooner or later we will have to pay for it ($69), but that's what I am using, Procomm and Apple Access II, together with what we had already, Word Perfect and Lotus 123 on the IBM and AppleWorks on the Apple.

Total cost so far, approximately $450. Probably, if I had to do it over, I could get out of it more cheaply - the first time is always harder. The alternatives? PC Transporter for about $1000; new IBM clones for about $3000.

Setting the switches The next step was to set the switches on the Apple Super Serial Card. Between us, Kemal, Luis Torrez and I set Procomm on the IBM for 9600 bps, no parity, 8bits, 1 stop bit, terminal emulation VT-100, half duplex, default download path C:\WP\, transmit pacing 1 second CR translation none, LF translation none. All by myself I set the Apple Super Serial Card to:

Switch 1

1	OFF	down	9600 bps
2	OFF	down	
3	OFF	down	
4	ON	up	
5	ON	up	modem mode
6	ON	up	
7	ON	up	RS232

Switch 2

1	ON	up	1 stop bit
2	ON	up	8 data bits
3	ON	up	no parity
4	ON	up	
5	ON	up	generate LFs
6	OFF	down	no interrupts
7	OFF	down	RS232

Jumper Block

TERMINAL ----> MODEM

"Terminal" in this context apears to mean printer or plotter and naturally we had no modem so I found reading the manual extremely confusing. However, I was told by John van der Wyk, that what the jumper block did was to interchange lines 2 and 3, so I reasoned that that if the first setting didn't work I could fix it with the breakout box, and went ahead.

Another area of confusion lay in trying to decide just what we wanted, or

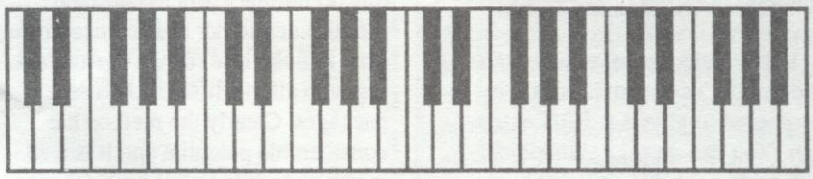
were best able, to do - communicate one, or both ways? with the IBM in "terminal" mode or otherwise, or it might be easier just to set up the Apple to run its files direct to the laser printer? On the Apple //e, the Super Serial Card for communications must be installed in slot 2; and Access expects to find its printer in slot 1. That is, unless you have two Super Serial Cards, which will lose you the use of the parallel 15" dot matrix printer, you can't alternate between communicating with the IBM and printing direct to the laser without having to pull the cards out of their Apple slots and interchange them, a most awkward chore.

After messing around for a bit, I decided to aim at communicating with the IBM.

Word Perfect, Lotus and even Dataflex all have the faclities for picking up ASCII transmitted documents which can then be directed to the laser printer. Since the machines are no distance apart, corrections to an Apple database say, would be easier to make straight on to the Apple, or a last minute preprint IBM version of it, sooner than correct it on the IBM and then go to the trouble of retransmitting it back to the Apple. Reconstituting the database is a hassle, with a lot to go wrong, either way. Even if the original database is carefully-planned and laid out, which is very desirable as editing facilities in text mode are limited, you wouldn't want to do it twice.

Ordinary letters pose fewer problems, and may if necessary be retransmitted. In this case, you loose any bolding or underlining as the letter goes through the wire. But it should be possible to get used to this, so that such frills are only put in at the last minute edit and proof reading before printout.

Instead of drafting letters in longhand for typing up by the secretary, proofing and resubmitting, the supervising dental officer can type up and alter and dot matrix print his own letters at will, on his Apple. That is prior to transmitting them for editing and laser printing and hard disk storage by his secretary. Bolding etc. can be indicated on the dot matrix printer.



Databases, graphs, etc. can be transmitted the same way and picked up by Word Perfect for incorporating and printing in the same report using the same format. In a way, AppleWorks offers the same facilities, but there isn't any point - what we want, mostly, is to use the hard disk and laser printer.

At the same time, the occasional databse that is too wide to fit easily on the laser printer can be handled by the Apple and printed on the 15" dot matrix printer.

Both Lotus 123 and Word Perfect expect to get a formatted ASCII text file. They don't seem to have any facility for turning a long column of cell entries back into rows and columns, like AppleWorks' Open Apple Zoom arrangement. In a way this is a good thing, as a long column of cell entries can be very slow to transmit. If you only want to print the database or spreadsheet to a report, this may be the end of the matter. Lotus handles it like long labels in the A-column, and Word Pefect treats it as a simple page of text. However, once Lotus gets its formattd ASCII files, you can use the /Data Parse facility to reconstitute the long labels into a true Lotus database. Step by step - 1. Set up AppleWorks to print a formatted ASCII file to disk. From AppleWorks (ver. 2.0) main menu, press 5 "Other activities", 7 "Printer information, 2 "Add a printer", 4 "Apple Silentype". You don't have to have a Silentype, this merely makes sure that the file on disk is formatted correctly. Give this device a name, say ASCIIF and tell it 7 "Print onto disk" or on another Apple. At this stage what I have is 1 "Yes", 2 "Yes", 3 "No", 4 "7.5 inches", 5 "None". This can stay in place permanently. 2. Edit your AppleWorks database report or spreadsheet to be the way you want it to look on the laser printer, not too wide remember. You should be able to see it all on screen. Print the result to a formatted exchange disk (I call mine /DIF/) using ASCIIF.

3. Pull out your AppleWorks disk, put in Apple Access II, and <Ctrl><Open Apple><Reset>. You lose your file in the process, that's why it has to be printed to disk, but there doesn't seem to be any other way to do it.

4. Get into to Procomm on the IBM and press <Alt><S> <2> to make sure you have entered a default download path (we use C:\WP\), to give Procomm somewhere to write this about-to-be-transmitted-file. Next look at 6, "ASCII download"; none and none works. Back into the main Procomm screen, press PgDn to receive a file. Conventionally, your computer is DOWN; you Upload to send. Choose 7, ASCII protocol) and give the new file with a .PRN extension. This is so Wordperfectand Lotus can retrieve it afterwards. If you forget, you can REName it using DOS.

5. Plug everything in and send your formatted ASCII file via 'Transmit a FILE' without Christensen protocol. I give it 10 and 10 milliseconds, but I am not sure if this is really necessary.

6. You can press Alt-F4 from Procomm to look at DIR C:\WP\(whatever) to see if your transfer was successful. Or you can exit Procomm altogether, Alt-X, take a look in DOS, then type "autoexec" and switch into Word Perfect to pick up your file for printing via Shift-F10; when it asks you what file, give it the full

pathname, C:\WP\filename.PRN for example.

7. Lotus picks up your database via / File Import Text, provided you remembered to give it a .PRN extension. You can arrange suitable column widths for this new database with /Worksheet Column Set-width either before or after you import. Probably easier after. Now comes the tricky bit, reconstituting a database. Insert an empty line at the top of the new file (because Lotus overwrites when it copies, unlike AppleWorks) and copy or write a fairly typical entry that defines the worksheet layout into the hole. I used the underlining row under the column headings, but you could use the headings too. With the cursor on Home, press /Data Parse Format-line Create, and it will, all by itself. Now go back to ready mode and take a look at your file. You need to know the number of the bottom row and bottom right-most cell, in order to tell /Data Parse what Input-column and Output-range. Once these are decided, you press Go and hey presto! (The format-line has to be part of the Input-column.) Once the parsing is done, you can /Worksheet Delete the top row you put in to create the format-line, and there you have a beautiful new Lotus file, which you can edit and change column widths freely before /File Saving it.

If all this sounds complicated, that's because it is, but undoubtedly things will rapidly become smoother and easier with practice. All these detailed instructions are just to get curious newcomers going. With care and patience the Translate facility in Lotus may be able to transmit a DIF file through Procomm to Access II to AppleWorks with reasonable speed and reliability. AppleWorks likes to receive data for a database as though it was being typed in Labels mode. In this case you would probably want to take the delays out of the Procomm setup. I am not sure what sort of result you would get - the first time I tried it it was incredibly slow and I got a set of extra interspersed columns filled with cryptic mystic code together with understandable database columns.

If I may, I'd like to send AUSOM this preliminary article, with the promise of another article once I have time to do a little more experimenting with all the different software packages. Clearly the method has considerable potential and it is well worth our while to tell each other as we solve each problem, in order to avoid duplication of effort.

Why can't manufacturers, teach their products how to speak; This verbal class destinction, By now should be antique ...
Well anyway, we'll outwit them yet, and many many thanks to all those who gave their time and energy to get us going!

RAM DISC VOLUME DIRECTORY

When ProDOS is loaded it formats the auxiliary memory as a RAM drive. This electronic disc is not quite the same as a regular disc drive as it is only 64K. Recognizing the smaller size of the RAM disc only one block is set aside by ProDOS for the volume directory instead of the usual four. This means only twelve files can be supported, not fifty one as on the regular disc drive. If more than twelve files are needed in RAM the solution, without patching ProDOS, is to create a subdirectory. Incidentially a bug in ProDOS prevents you from opening and reading the RAM directory file.

Brian Mattick

TIMEOUT UPDATE

The review of the Timeout program Spreadtools that I promised in the October 1988 issue of the newsletter has to be deferred until the next issue. Sorry about that but when AppleWorks GS arrived for preview (see elsewhere in this issue) it had to take precedence.

- Les Humphrey

2.0 24-April-88. Made many user interface improvements. Cut, Copy, Paste & Clear now supported. Allows user to pick which volumes get searched.

2.01 28-April-88. No longer incorrectly reports version 5.1 LaserWriter and LaserPrep files as infected. Apple changed the creator of this files in their latest upgrade in order to change the Icon (sneaky, sneaky...)

2.10 05-May-88. Fixed "false alarm" problem with Type 004 checker.

3.0 13-May-88. The Friday the 13th special. This version improves checking for type 002 "nVIR" viruses so that it catches infected applications as well as infected system files. Thanks to Apple for information on this Virus. I also renumbered the alerts, warnings and anomalies and made some minor improvements in some of the other checkers to make them slightly faster.

Known Problems and Limitations

Interferon directly loads the resource map of files with a resource fork. If it runs into a file with a damaged resource map, it **usually** can detect this and will display an error message. If it does not, it will crash as it chokes on the bad data, usually with an ID=02 message. The guilty file is displayed at the bottom of the screen. Remove it and try again. I think I have this whipped -- let me know if you run into it.

Inteferfon **cannot** scan MFS (non-HFS) volumes. If you attempt to scan a a MFS diskette Interferon will tell you that it cannot be scanned. My thanks to Raymond Lau for sending me the latest version of Stuffit on a MFS diskette -- you only caused me an hour of abject paranoia, Ray!

The Vision Fund

Inteferon is **FREE.** Although it is a copyrighted program (and **not** public-domain!), you have my permission to reproduce and distribute it as much as you want. In fact, spread it far and

ACT APPLE USERS GROUP
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	$		$
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wide - as far and wide as the plauge it is intended to cure.

However, if Interferon helps you kill viruses on your computers, please consider how much time the program saved you (killing infections by hand takes hours!). How much was that time worth to you? $10? $50? $100? Only you can judge. However, please consider writing a cheque for some fraction of that amount (whatever you think fair) and send it to:

The Vision Fund
c/o Sir-tech Development
10 Spruce Lane
Ithaca NY 14850

The Vision Fund was set up a few years back to take in "Shareware" donations for my shareware products (currently 3: Reversi, MandelColor and Interferon). All the proceeds go towards buying some special hardware for a visually impaired computerist. He is going into college this year and we hope to get him something really decent. Anything left over will go to one or more major charities.

Thankyou.

FOR SALE

Apple //e Professional system. 128K memory, 80 column card, Apple Duodrive diskdrives, Apple Monitor II green screen and a large library of software and documentation.
$1750

Apple Mouse II with interface card $120

Grappler Plus printer interface $45

Super Serial card $60

Taxan Vision III R.G.B. colour monitor $550
Taxan Model RGB-III R.G.B. Interface card $100

Radio Teletype (R.T.T.Y.) Decoder
(for those with a communications receiver) $25

Amust 80 printer with cable for Grappler card.
(The head has one pin in nine not working -
Good for draft printing or program listing) $125

Contact Keith Owen on 58-2250 (AH)

Newsletter Info.

This is the magazine of ACTApple (to be incorporated), the ACT Association of Apple Computer Users. It is produced monthly and distributed to all financial Club members and Apple User Groups at no cost.
The views expressed in this magazine are the views of the authors and not necessarily that of the members.
All contributions should be sent to The Editor, ACTApple, GPO Box 1231, Canberra, ACT, 2601, preferably on a Mac disk in text format. The deadline for articles is the Tuesday workshop meeting.
Advertising: Financial members may supply small advertisements for publishing at no cost at the discretion of the editor. Commercial organisations will be billed for advertising. Corporate members will receive a 10% discount. Advertising will be accepted with the same deadlines. Cost quarter page: $15, half page: $25, full page: $40. Artwork prepared for an extra $10.
General meetings of the club are on the second Thursday of the month at the O'Connell Education Centre, Stuart St, Griffith, 7.15pm to 9:45. A hands-on workshop meeting is at the same venue on the following Tuesday. The executive meets on the 4th Thursday of the month.
MemberShip: Joining fee: Full member = $10. Junior member = $5. Organisation = $20. Annual fee: Full member = $20. Junior member = $10. Organisation = $40.
Phone numbers are published on the front page of the magazine for the use of members between the hours of 6pm and 9.00pm only. The recorded answering service number at the top is available 24 hours per day.
Warnings The Club does not condone copying of any software at meetings except for the distribution of Apple upgrades and Club software disks. All members are expected to display a high standard of behaviour to guarantee our continued use of the current venue.
Layout and Design of the Newsletter is done using Ready Set Go 4 on a 512K Mac, and printed on an Apple Laserwriter.

MEMBERSHIP REPORT
NOVEMBER 1989

NEW MEMBERS	3
RENEWALS	10
NOT RENEWING	12
TOTAL FINANCIAL	294
Comprising:Mac's	163
][’s	137
No system	3

R.Hibberd
Membership Secretary

APPLE II DEVELOPERS CONFERENCE

Notes by Toby Phipps

On October 6 - 8, Apple Australia hosted the second annual "Apple II developers Conference", at the Manly Plaza Inn, Sydney.
A number of topics were covered, including sessions on the latest version of the GS/OS System Disk 5.02, device drivers, quickdraw, video overlay card, marketing of software, AAPDA and the GS toolbox.
Apple invited three delegates from Apple USA to host most of the sessions. These were: Matt Deatherage (of Apple Technical Notes fame), Ray Montagne (System Software Engineer) and Jonathon Fader (Apple Education and Multimedia Evangelist). They were joined by four well-known Sydney developers: Chris Nelligan, Chris Walmsley, Allan Bell and Richard Bennett.

System Disk 5.02
This new revision of the GS/OS system disk contains a number of error-fixes for problems involving the Basic.System, Start.GS.OS, GS.OS, FSTSs, and the Tool Set. Changes and bug-fixes are fully documented in Apple II Technical Note: GS/OS #1. The new system disk is now available through the GS public domain library.

Device Drivers
Ray Montagne held this session, detailing the support Apple is giving to developers who are interested in supplying drivers to run hardware they distribute.

Video Overlay Card
Frank Revill, Apple II Marketing Manager, is going all-out to promote this latest release from Apple. The overlay card allows Apple IIe and IIgs users to overlay graphics produced on the host computer onto running video images. The card turns the whole RGB screen of the IIgs, or the composite IIe monitor, into a screen on which video images supplied from either a VCR or laserdisk can be displayed behind the running program, which can then be taped by a second VCR without any loss of quality. This development will let Apple II users create "broadcast-quality" "Roger Rabbit" type videos using graphics and animation packages. It must be noted though, that the Video Overlay Card is NOT a graphics digitizer and is totally transparent to the running program. It has great potential for educational use, allowing the teacher to overlay questions onto a video to draw attention to certain points.
The PAL version for Australia should be released in January.

AAPDA
AAPDA, or Apple Australasian Programmers and Developers Association, is Apple's Developer support subsiduary. It offers technical support and documentation at a low cost for all members of the association. It is headed by Stephen Farmer, who has managed AAPDA since August 1988, and oversaw the move from Wollongong to Erskineville, Sydney.
AAPDA is the place to contact for Apple Technical Note copies, Technical Manuals, System Software, Languages and development tools, and a variety of third-party development products. It is ideal for Apple Enthusiasts writing software for commercial or non-commercial distribution, and for professional programmers and hardware developers.
Membership of AAPDA costs $30 per year, which includes a monthly newsletter "Toolbox", latest catalogue updates, and a quarterly journal. Write to:
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WHAT DO I DO WITH MY APPLE

Hans Halupka 883259

Besides playing games I also utilize my computer to find written information.

For quite some time I have been collecting articles from newspapers and magazines, which have been stored in all sorts of folders.

As it is not possible to index everything that I read, I only keep items influencing my own personal interests.

Publications are: Readers Digest 72- 88, National Geographic 73- 88, Geo, Australian 81- 86 & Newspaper articles 75- now.

The file has approximately 4000 records (137 K) each with 5 categories. There are 36 group numbers for easier sorting and finding of information. I have found that the greatest difficulty in getting information from a database is to know, or to remember what classification of subject matter heading the information is stored under. Sure it can be searched through "contains", but often unwanted information is printed on the screen. Group numbers tend also to be less error prone in regards of different spelling.

Another of my databases contains my personal disk index. It has around 1500 software titles (83 K) with 12 subgroups. Even so, I am more than certain that there may be a disk or programme which is not "selectable" any more, and is lost.

In use is also a collection of articles from various computer magazines. In particular Nibble, InCider, A+, Compute Apple, Applecation, ACT Apple user, all 86- now. This file consists of 1100 records (57 K) with 5 bits of info each. This information is Apple II orientated as that is what I mainly use.

The software I use is Appleworks with Pinpoint or TimeOut. I also like Jeeves because of the clock which is on the screen at all times, but the start up is not straight forward. For factual use Appleworks is good, but as I have been using it for only 2 years or so I still have a lot of learning to do.

By the way "Appleworks tips and techniques" by Robert Ericson is very recommendable. And in regards to books, the best I have read about general computing is by far "Computer wimp" by John Bear.

My hardware consists of an Apple //e 65c02, Grappler+ Timemaster, Extended Digicard, Mouse card, 3.5 and 5.25 diskcard, 1mb Apple memory card.

Some of my time is spent on printing and it's presentation.

Programmes I like are : Graphics Bank (over 200 pictures) because it is only Australian orientated and works with all other software. I use Mousepaint and Pritz for freedom of presentation with it, but G.B. can be used on it's own.

"Print Magic" which leaves "Print Shop" for dead,
"PublishIt", as it is better than the others,
"Zoom grafix" for printing the title screen of games so I remember them.

As for Games: Definitely, the best adventure game ever written for the AppleII would easily be the "Ultima" series, 1 (a&b), 2, 3, 4 &5

I have to call on my son Andrew who has solved all of them around 2 months after release ..(P.S.but he also knows Pascal and Excel) But for me I always liked "Ankh", "Lode runner" and "Arkanoid". All are very much under-rated but which will become classics as they have all 3 of the important ingredients for good games.

It would be nice to hear from other members as to what their Apples are being used for.

Wishing you all a contented Christmas and a peaceful New year, Hans.

ACT APPLE USER GROUP MODEM PURCHASE

The ACT Apple Users Group is buying a number of Modems, to obtain a quantity discount. The modems being purchased are the Maestro ZXR. These are equivelent to the Netcomm 1234 series modems. The price will be $360, but the **cut off date for purchase is the next meeting**. If you are interested in purchasing a modem, see Michael Thomson on or before the next meeting with your payment.

CHRISTMAS DISK SPECIAL OFFER

As a special offer the ACT apple user group is selling boxes of double sided 3.5" disks (Certified - lifetime guarantee - HMC) for $12 a box (in plastic box). This offer only available up to and including the meeting.

EASTER EGGS

It seems strange that just before the festive season hits us that an article appears entitled "Easter Eggs". However, as the name implies, they are surprises contained within some of the programs that you own which do not have any reference to them within the documentation.

Airborne - On Mac If you play this game on December 25 or with clock set at December 25 the cactus turns into a Christmas tree.

Alien Mind Activate the following by selecting items from the main menu in the order indicated - 1. Apple Mouse, Stereo Sound, Joystick, Mono Sound, Keyboard, Sound Off, About Authors 2. Sound Off, Keyboard, Mono Sound, Joystick, Stereo Sound, Apple Mouse, About Authors 3. Stereo Sound, Mono Sound, Sound Off, Joystick 4. Typing a lowercase "n" at any level sends you to the next level but it doesn't give you any idea of the password.

Apple IIc With Old ROMs Type in this - 10 PR#5: IN#5: INPUT A$: PRINT A$

Apple IIGS System Disk 4.0 - Finder V1.2 1. Go to New-Desk-Accessory (NDA) menu and select "About the Finder..." while holding down the Option key. 2. Set the volume setting in the Control Panel at its lowest level (OFF) and watch the screen border whenever the system beep is called for. To see it work with Finder 1.2, enter the Control Panel (Control-OA-Escape), choose Sound, turn the Volume Off, return to the Finder, choose "Help..." from the Apple NDA menu, and click anywhere outside the dialogue box. 3. When you boot the disk, you can miss the "thermometer" by pressing the space bar as the startup disk starts to spin. Press space bar again to continue loading.

Appleterm II Modem Utility Program Enter the command ET in the terminal mode and read the reply.

Bard's Tale IIGS When you boot the disk and get the introductory screen press Option-Open Apple Control-B.

Choplifter To extend your playing time by not having to worry about your men, start the game by landing beside some men on their right side but don't let them get in - when the men get as close as they can to the chopper take off and land about halfway across the screen. Repeat this process until you get at least one man to the base. Since this man didn't board the chopper the computer doesn't count him as having arrived at the base, which means there are only 63 men left, but the computer thinks there are 64. You can now play until all your choppers are used up.

Congo Bongo When the first full screen comes on, press Control-A.

Defender To make the egg appear you must reach 4,000 or so points. After the egg appears press any key to continue playing the game.

Defender of The Crown 1. Hold down Option key as the program loads and see what happens. 2. Hold down Shift-Option-Open Apple while firing the catapult - you'll never miss the wall. 3. Whenever the name of the princess is displayed, press Shift-Option-Open Apple and her name will change. 4. If you are checking on the lords of the various areas, press Shift-Option-Open Appple and the lord's name will be shown as Sir Ivan Manley (the Designer of the Program).

DOS 3.3 Type CALL 985 and your computer will moo like a cow sometimes!

GS/OS System 5.0 Select the Control Panel from the Apple Menu and then click on the version number at the bottom left hand corner of the window.

Gumball 1. Press Control-B several times while playing - interesting results? 2. If you can't complete Friday look at Track 1F, Sectors F and E.

Hacker II: The Doomsday Papers Enter the following at the start of the game when the program asks for logon - 1. TITLE H2SC - runs through the title sequence 2. COVER H2SC - displays the Rolling Stone picture 3. DEMO H2SC - causes first three screens of text to print fast and during play you have an unlimited number of MRU's.

Hard Hat Mack Press Control-^ or Control-1 during the game.

Karateka Insert back of disk and you can play the game with everything mirrored, top to bottom.

Mac Plus Look at Track 17 ($11), Sector for a secret message.

Print Shop Companion 1. On the front side of the disk, at the main menu, type STEVEN and then press the Escape key (Steven is the middle name of programmer Paul Gustaffson). 2. When you try to boot the back side of the disk you will get the message saying that it is not a bootable disk. Press Escape and then Control-Caret(^) and you will end up in a game called Driver.

Print Shop GS When you enter the command to leave Print Shop, hold down the Open Apple key. Move your mouse arrow over the faces and names will appear.

Skyfox When you get to the tactical display press Control-G.

Superprint Put the Clip Art disk in drive 2 and the program disk in drive 1. When you are at the Clip Art Menu press TAB. Presto! Three additional clip art files.

Tass Times In Tone Town GS 1. While you are inside the cabin type BURGER. 2. When booting the disk and you get the introductory screen and music, press Option-Open Apple-Control-B.

Tass Times In Tone Town IIe When you boot the disk and get the introductory music press Closed Apple-Open-Control-B.

- Les Humphrey

FOR SALE

1 Meg simm memory for Mac SE - Mac IIci
$80

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705649 (w)

PRODOS 8 CHANGES & MINUTIA

Apple II Technical notes.
Matt Deatherage July 1989

This technical Note documents the change history of ProDOS 8 through V1.8, and it supersedes the information on this topic in the ProDOS 8 Technical Reference Manual and the ProDOS 8 Update.

Reprinted from Apple Computer, Inc.

Changes? You're kidding. No. One of the side effects of evolving technology is that eventually little things (like the disk operating system) have to change to support the new technologies. Every time Apple changes ProDOS 8, the manuals can't be reprinted. For one thing, it takes a long time to turn out a manual, by which time there's often a new version done which the new manual doesn't cover. For another thing, programmers and developers don't tend to purchase revised manuals (our informal research shows that more people have up-to-date Apple /// RPS documentation than have up-to-date Apple IIc documentation - and this was done before the Apple IIc Plus was released...).

So this Note explains what has changed between ProDOS 8 Vl.O and the current release, V1.8, which began shipping with System Software 5.0. Table 1 shows what versions of ProDOS 8 existing documentation covers.

DocumentVersion Number
ProDOS 8 Technical Reference Manual1.1.1
ProDOS 8 Update1.4
AppleShare Programmer's Guide to the Apple IIGS1.5

ProDOS 1.0
- This was the first release of ProDOS, which was so unique it didn't even have to be called ProDOS 8 to distinguish it from ProDOS 16, which we're not talking about. If you have documentation that pre-dates ProDOS 1.0, you should seek professional help from AAPDA.

ProDOS 1.0.1
- Fixed a bug in the STATUS call which affected testing for the write-protected condition.

ProDOS 1.0.2
- Changed instructions used in interrupt entry routines on the global page so the accumulator would not be destroyed.
- Fixed a bug in the Disk II core routines so the motor would shut off after recalibration on an error.

ProDOS 1.1
- Changed the internal MLI layout for future expandability and maintenance.
- Modified machine ID routines to identify IIc and enhanced IIe ROMs.
- Removed code that allowed ProDOS to boot on 48K machines.
- Removed the check for the ProDOS version number from the OPEN routine.
- Incremented KVERSION (the ProDOS Kernel version) on the global page.
- Modified the loader routines to reflect the presence of any 80-column card following the established protocol (see ProDOS 8 Technical Note #15, How ProDOS 8 Treats Slot 3). Also, at this time, added code to allow slot 3 to be enabled on a IIe if an 80-column card following the protocol was found.
- Added code to turn off all disk motor phases prior to seeking a track in the Disk 11 driver.
- Fixed a bug to prevent accesses to /RAM after it had been removed from the device list.
- Reduced the size of the /RAM device by one block to protect interrupt vectors in the auxiliary language card. The correct vectors are installed at boot time.

ProDOS 1.1. 1
- Fixed a Disk 11 driver bug for mapping into drive 1.
- Modified machine ID routines to give precedence to identifiable 80-column cards in slot 3.

ProDOS 8 1.2
- Changed the name from ProDOS to ProDOS 8 to avoid confusion with ProDOS 16, which, again, this Note does not discuss.
- Introduced the clock driver for the Apple IIGS. The machine identification code was changed to indicate the presence of the clock on the IIGS.
- Added preliminary network support by adding the network call and preliminary network driver space.
- Fixed a bug in returning errors from calls to the RAM disk. Changed the RAM disk driver to return values of zero on reads and ignore writes on blocks zero, one, four, five, six, and seven, which are no accessible as storage in the driver's design.
- Added a new system error ($C) for errors when de-allocating blocks from a tree file.
- Modified the ProDOS 8 loader code to automatically install up to four drives in slot 5 if a SmartPort device is found. Removed code to always leave interrupts disabled, which leaves the state of the interrupt flag at boot time unchanged while ProDOS 8 loads.
- Changed the MLI entry to disable interrupts until after the MLIACTV flag is set and

other ProDOS parameters are initialized.
- Modified the QUIT code to allow the Delete key to function the same as the left arrow key. Also fixed a bug so screen holes would not be trashed in 80-column mode. Crunched code to allow soft switch accesses to force 40-column text mode. Fixed a bug so the dispatcher would not trash the screen when executed with a NIL prefix.
- Modified the ONLINE call so that it could be made to a device that had just been removed from the device list by the standard protocol. Previous to this change, a VCB for the removed device was left, reducing the number of online volumes by one for a each device. From this point on, removing a device should be followed by an ONLINE call to the device just removed. The call returns error $28 and de-allocates the VCB.
- Added a spurious interrupt handler to allow up to 255 unclaimed interrupts before system death.
- Removed the code which invoked low-resolution graphics on system death - it had not worked well and the space was needed. The system had previously had the ability to display "INSERT SYSTEM DISK AND RESTART" without also displaying "-ERR xx", which as removed at this point for space reasons since the system wasn't using it (and hopefully you weren't, either, since it wasn't documented).
- Changed MLIACTV to use an ASL instead of an LSR to turn "off" the flag.
- Changed the OPEN call to correctly return error $4B (Unsupported Storage Type) instead of error $4A (incompatible file format for this version) when attempting to open a file with an unrecognized storage type.
- Fixed an obscure bug involving READ in Newline mode. If the requested number of bytes was greater than $FF, and the number of bytes in the file after the newline character was read was a multiple of $100, then the number of bytes reported transferred by ProDOS was equal to the correct number of transferred bytes plus $100.
- Starting with V1.2 on an Apple IIGS, stopped switching slot 3 ROM space and left the determination of whether the slot or the port was enabled to the Control Panel; however, there was a bug in this implementation which was fixed in V1.7 and described in ProDOS Technical Note #15, How ProDOS 8 Treats Slot 3.
- Updated the slot-based clock driver's year table through 1991.
- Added a feature which allow ProDOS 8 to search for a file named ATINIT in the boot volume's root directory, to load and execute it, then to proceed normally with the boot process by loading the first .SYSTEM file. No error occurs if the ATINIT file is not found, but any other error condition (including the file existing and not having file type $E2) causes a fatal error.
- Changed loader code so ProDOS 8 could be loaded by ProDOS 16 without automatically executing the ATINIT and the first .SYSTEM file.
- Forced Super Hi-Res off on an Apple IIGS when a fatal error occurs. (Actually, this did not work, but it was fixed in V1.7).
- Inserted a patch to fix a bug in the first IIGS ROM that caused internal $CnOO ROM space to be left mapped in if SmartPort failed to boot.

ProDOS 8 1.3

Warning: This is not a stable version of ProDOS due to an illegal 65C02 instruction which was added. This version can damage disks if used with a 6502 processor.

- Changed the code that resets phase lines for Disk IIs so phase clearing is done with a load instead of a store, since stores to even numbered locations cause bus contention, which is major uncool. Changed the routine to force access to all eight even locations, which not only clears the phases, but also forces read mode, first drive, and motor off. DOS used to do this; ProDOS had not been doing it. If L7 had been left on when the Disk II driver was called and it checked write-protect with L6 high, write mode was enabled. Forcing read mode leaves less to chance.
- Changed de-allocation of index blocks so index blocks are not zeroed, allowing the use of recovery utilities. Instead, index blocks are "flipped" (the first 256 bytes are exchanged with the last 256 bytes).
- Since the UniDisk 3.5 interface card for the][+ and IIe does not set up its device chain unless a ProDOS call is made to it, ProDOS STATUS calls are now made to the device before SmartPort STATUS calls.

ProDOS 8 1.4

- Removed an illegal 65C02 instruction which was added in V1.3.
- Modified the Disk II driver so a routine that should only clear the phase lines only clears the phase lines. Also clear Q7 to prevent inadvertent writes.

ProDOS 8 1.5

- ProDOS 81.5 is the first version to include network support through the ProDOS Filing Interface (PFI) as part

of ProDOS 16 or on the Apple IIe Workstation Card. Made many changes to internal routines for PFI location and compatibility at this point. Crunched and moved code for PFI booting and accessibility.
- Changed some strings to all uppercase internally for string comparisons.
- Removed the generic $42 AppleTalk call which was introduced in V1.2, as PFI gets called through the global page.
- Changed the ASL to clear the MLIACTV flag back to an LSR. This doesn't make nested levels of busy states possible, but always clears the flag before calling interrupt handling routines that check MLIACTV as described in the ProDOS 8 Technical Reference Manual.
- If an Escape key is detected in the keyboard buffer on an Apple IIc, it is removed. This is friendly to the Apple IIc Plus, the ROM of which does not remove the Escape key it used to detect that system should be booted at normal speed.

ProDOS 8 1.6
- Set up a parallel pointer to correct a PFI misinterpretation of an internal MLI pointer.

ProDOS 8 1.7
- Made a change to ensure that ProDOS 8 counts the volume's bitmap before incrementing the number of free blocks. This fixed bug where an un-initialised location was being incremented and decremented, incorrectly reporting a Disk Full error where none should have occurred.
- Changed the handling of slot 3 ROM space to that described in ProDOS 8 Technical Note #15, How ProDOS 8 Treats Slot 3.
- Changed code to permit the invisible bit of the access byte (bit 2) to be set by applications.

ProDOS 8 1.8
- Fixed a bug introduced in V1.3. If an error occurs while calling DESTROY on a file, the file is not deleted but the index blocks are not swapped back to normal position. If a subsequent DESTROY of the same file succeeds, the volume's integrity is destroyed. Now ProDOS 8 marks the file as deleted, even if an error occurs, so any other errors will not cause a subsequent MLI call to trash the volume. Note that "un-delete" utilities attempting to un-delete such a file (one in which an error occurred during the DESTROY) probably will trash the volume.
- Fixed the ONLINE call to ignore the unused low nibble of the unit_num parameter when deciding how many bytes to zero in the application's buffer. This change fixes a bug which zeroed only the first 16 bytes of the caller's buffer before filling them if an ONLINE call was made with a unit_num of $0X, where X is non-zero.
- When loading on an Apple IIGS, ProDOS 8 now sets the video mode so the 80-column firmware is not active when the ProDOS 8 application gets control.
- Changed internal version checking between GS/OS and ProDOS 8. Note that GS/OS and ProDOS 8 are still tied to each other - versions that didn't come on the same disk can't be used together. The methods for checking versions were just altered.
- Made the backward compatibility check when opening subdirectories inactive. The test would always fail when opening a subdirectory with lowercase characters in the name (as assigned by the ProDOS FST under GS/OS), so the check was removed. Note that using earlier versions of ProDOS 8 with such disks will cause errors when trying to access files with such directories in the pathnames.
- Expanded the ProDOS 8 loader code to provide for more room for future compatibility.

Further Reference
- ProDOS 8 Technical Reference Manual
- ProDOS 8 Update
- AppleShare Programmer's

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PRESIDENT'S DESKTOP

Well did you make the November meeting? If not, you missed a great demonstration night involving four different Macintoshes, a HUGE screen monitor, an exposition on the Apple][card for the Macintosh LC, Quickmail, Hypercard 2, System 7, sound inputting and two very capable Apple representatives leading the presentations.

We were lucky to have with us Frank Reville from Apple in Sydney - he drove back there that night (in his car with its APPLE2 numberplates). Frank has been variously Apple's Apple][evangelist, user group coordinator, convenor of the annual user group conference and now Sales Manager for Small Business Systems.

We were also lucky to have as his co presenter, Stefan Schaefer from Apple in Canberra and also the Macintosh Special Interest Group (SIG) convenor on the ***A.C.T.Apple*** Committee.

I will not try to cover the whole night (because after all if you were there, you know, and if not, you missed it) but I will mention three points. Those new Macs are pretty darn good for the money; System 7 looks like yet another quantum leap in system software with lots of new or enhanced user desirable features; and best of all the new Mac LC really is Apple][e compatible.

According to Frank - and the current MacWorld - the new Apple][e card, to be released in February, works perfectly. A][e joystick and 5.25" drive plug in at the back and a second drive can be daisychained. The drives are recognised as Slot 6 Drives 1 and 2 and both ProDos and Dos 3.3 are supported. The internal Mac 3.5" drive is Slot 5 Drive 1.

The screen display is a Mac controlled double hi-res emulation. The Mac screen saver After Dark can work at the same time! The Mac mouse is even recognised as a][e mouse and the Mac rear ports are also usable for printing etc. And all for around $300.

Frank voiced only one disappointment - it doesn't look like Apple][applications can be run within Multifinder. I don't know about you but one of these on an LC looks like the perfect machine for home and schools from my point of view.

By the way I understand that ANUTECH is offering very good prices on the new machines to students and educators. How does a Classic for $1,361 sound? or $2,324 with hard disk?

The December meeting will have our customary December format. There will be a music theme for the presentation, a bit of drinks and nibblies and a trash and treasure opportunity for members to sell or swap their computing goodies. Don't miss it.

Finally don't forget that there is no January Newsletter or meeting. Back to business as usual in February.

More news next time,

Roger Bernau
PRESIDENT

DISK SPECIALS

Les Humphrey

I have a limited quantity of high quality unbranded disks for sale. They are DSDD disks in 3.5" and 5.25" size. The 3.5" are $11.00 per 10 and the 5.25" are $7.50.

They are the same disks that are under contract to the Government and the supplier has overstocked! They come in a plain white box and usually retail at twice this price with a maroon label.

GRAPHICS / DESIGN SIG

Firstly, thanks to Apple for the venue of the last meeting. The next meeting of the Graphics / Design SIG will be held on the 18th December at 7:30 pm. The topic is:

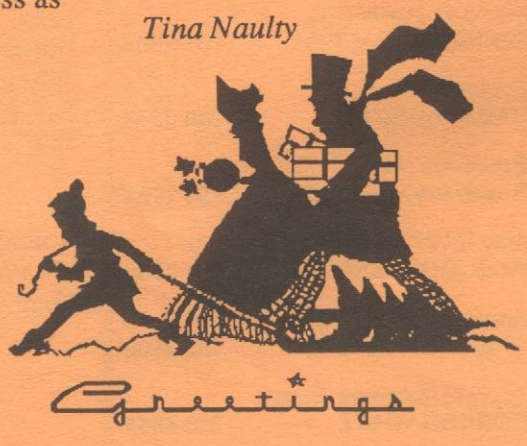
Illustrator vs FreeHand

It will be held at:

ABARE
MacArthur House
Cnr Northbourne Ave and
MacArthur Ave.
Lyneham

Please use the rear entrance, and please try to be there on time due to security arrangements. (If you are late, please ring the door-bell)

Tina Naulty



EXCHANGING DATA BETWEEN MACS & IIGS

Les Humphrey

In the July issue of the Newsletter I gave a summary of what I heard and saw at the National Apple Users Group Convention that was held during June.

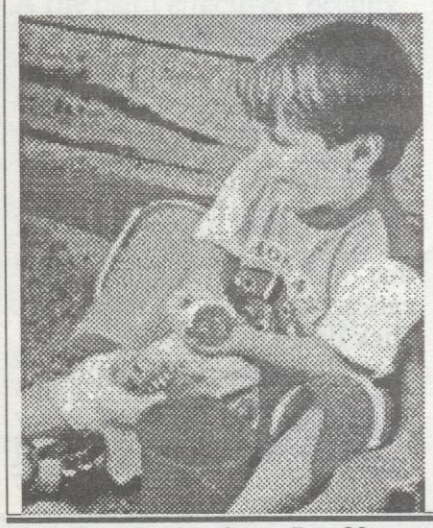
What I didn't report was the one item to which I was sworn to secrecy.

Frank Revell, of Apple Australia, demonstrated it at our October meeting - HyperCard for the Mac running on a IIGS ! What's more it was running in full GS colour - eat your heart out Mac owners.

It is expected the software will be released soon.

I believe the software will be free of charge but the manuals will cost about $45.00. The only difference between the Mac version and the GS is the inclusion of a chapter on the use of colour.

Hypercard stacks will be interchangeable between the Macs and the GS except those created or modified on the GS using colour.



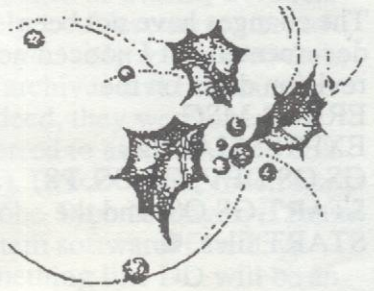
LUCKY DOOR PRIZE

Firstly a public apology, in addition to the private one that has already given, to ACT Office Equipment who donated the lucky door prize for the October General Meeting. It was incorrectly reported last month that the choice of either the Temple of Aspnai for the Mac or Loderunner for the][series was donated by Approved Systems. A belated thanks to ACT Office Equipment for their continued support of the A.C.T. Apple User Group Inc.

The Lucky Door Prize for the November General Meeting was an Approved Systems mug donated by Approved Systems; it is a bit hard to muck this one up! Thanks again to them for their support.

To pick the lucky membership numbers we used our normal hypercard stack on the Mac. The numbers drawn were 164, 222, 206, 700 and 90 . As no one with these membership numbers was present we too the closest to the last number. This turned out to be Ashley Gibbens, member number 56. Congratulations Ashley, can we look forward to an evaluation of the Temple of Aspnai in our newsletter?

Remember that as a financial member, all you have to do to be in the Lucky Door Prize is to be present at a general meeting.



• NOTES •

NEW SYSTEM VERSION FOR THE IIGS

Les Humphrey

Another product used by Frank Revell at our October meeting was the new version of the Operating System for the IIGS - Version 5.0.3.

As is the usual policy on updates for system software there is no charge for the program but distributors may charge a copying fee. It should be available real soon.

The changes have not been documented but I noticed new revision dates on the ERROR.MSG, EXPRESSLOAD, GS.OS.DEV, GS.OS, P8, START.GS.OS, and the START files.

MEMBERSHIP REPORT NOVEMBER 1990

NEW MEMBERS	10
RENEWALS	9
NOT RENEWING	8
TOTAL FINANCIAL	287
Comprising:	
Mac's	191
][‘s	105
No system	4

R.Hibberd
Membership Secretary

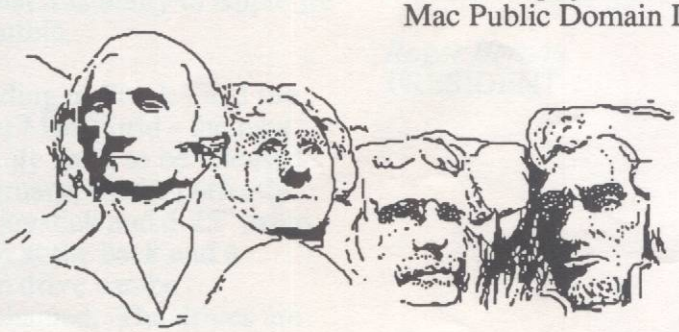
CHRISTMAS SPECIALS MAC PUBLIC DOMAIN/SHAREWARE LIBRARY

At the December general meeting there will be 2 special Christmas deals offered from the Mac public domain/ shareware library as follows :

1. The “Best of.....” series of disks, which we normally sell for $15, will be on sale for $8 each, or any selection of 4 for $25. Limited stocks of these disks will be available at the meeting (on a first in first served basis) and will include the recently produced 013 HyperCard Games, 014 Selected Graphics and Applications and Utilities and 015 The Best of Education.

2. The disks available from the Boston Computer Society (BCS) PD-ROM (see October newsletter), which normally sell for $8, will be available on order only on the night of the general meeting for $6 each, or any selection of 4 for $20. Disks ordered will NOT be available until the next general meeting (February 91) unless special arrangements are made with me. Payment is required in advance, please. At least two copies of the excellent BCS PD-ROM catalog will be available for inspection at the meeting.

Brian Murphy
Mac Public Domain Librarian



TO HALVE AND TO HALVE NOT

Tonio Loewald

Some observations concerning DiskDoubler™

The nice thing about **DiskDoubler™** is that it’s a fast and efficient compression utility which works so conveniently you can use it all the time for almost all, if not all, of your documents. Assuming you have a hard disk, anyway.

The problem with DiskDoubler is that you might decide to use it all the time for all your documents. Having tried this, I have discovered the following problems which aren’t overwhelming, but they have caused me to reduce my usage of this interesting utility.

Locate/Gofer/etc. no longer work

You can’t search through files for keywords (in their contents). Obvious, really, and you wouldn’t want to wait for DD to expand each file in turn. Or would you?

All your icons end up identical

Everything looks the same (well: folders look different…); even applications and documents are indistinguishable once compressed. This can make navigating through HFS both difficult and dreary. (So much for ColorFinder. Sigh.) There *is* a reason for this: DiskDoubler changes the creator type of compressed files to that of the DiskDoubler application; and when you double-click on a DiskDoubler document, it launches the application which decompresses the file and then launches *its* application. This is neat, but the side

TO HARD DISK or TO SOFTDISK?

...There really is no question!

Gordon White

Hard disks are very convenient. But "SOFTDISK"'s a must if you use an APPLE //. Softdisk is an electronic magazine. That is, it is full of general interest articles. Every issue contains a reader's forum, graphic images to use in other programs, a game or two, an educational program, programming utilities and tips, templates, tutorials, and so on. There are two Softdisks; one for //+, //c, //e owners, and another for the GS users. You can even get a discount if you own a GS and want both versions.

Every month I get a surprise in the letter-box when Softdisk arrives. I get the //+, //c, //e version on two 5.25" disks and am always amazed at how much they get onto two double sided disks, but then again they've been doing it since 1981. I started on issue #97 and when I subscribed I received a back-issue catalogue, (I've bought seven back-issues now), and an extra disk with over 200 hundred Print Shop graphics that I use with "Publish It", as a bonus!! If you subscribe you can also buy commercial software at BIG discounts.

This is not some crummy, cock-eyed public domain clearing house. The whole set-up, from presentation to delivery is very high quality. They give a money-back guarantee, too! Softdisk programs are not copy-protected and every edition even tells you precisely how to "pull it apart". How user friendly can you get?!!!

I can hear you saying, "What's the bottom line?" Well that depends on how long you are subscribing for and which edition(s) you want. At present, Softdisk is costing me around $9.00 (Australian) per month. It can be more or less, but you can get a money-back-if-not-satisfied three month trial subscription for around $35.00 (Australian). If you're interested check out the advertisement in "NIBBLE", "A+ (Incider)", or "APPLE // GS" magazines at your newsagent, or give me a call to see a sample.

No, I don't have shares in Softdisk ... but I wish I did. I'm just one of the 25,000 subscribers. And the reason I'm telling you about Softdisk is that as an APPLE // user, I reckon that this "magazine" is something special.

COLOUR RIBBON RE-INKING SERVICE

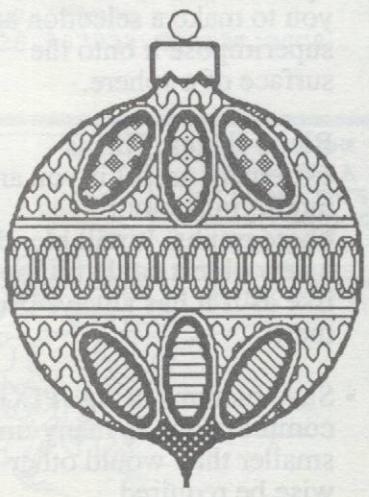
By Peter Dugard

The Group has just acquired an adapter for the re-inking machine which enables ImageWriter I & II colour ribbons to be re-inked. The adapter is an amazing device with four ink reservoirs (black, blue, red and yellow) connected to a manifold so that the four bands of the colour ribbon can be re-inked simultaneously. Bring your faded colour ribbons to the monthly meeting and leave them with me and I will have them re-inked for you at the next meeting. The cost is $5 per ribbon.

By the way Mac owners, you don't need a colour Mac to be able to print in colour. Quite a few of the newer applications have colour capabilities built in and although you only see black and white on the screen your print-outs can be in colour. Applications such as MacDraw II, MacWrite II, Excel, Word and Works support colour. There are even a few applications support colour but don't give any indication of it. The only way you find out is by getting a print-out with a colour ribbon installed!

As well as the colour ribbons, I can also re-ink black fabric ribbons for the ImageWriter I & II, ImageWriter LQ and most Epson, Brother and Star printers. I generally have a stock of ImageWriter I & II ribbons I can swap for your old one on the spot. The cost is $3 per ribbon.

Most ribbons can be re-inked many times especially if they are not allowed to fade too much. When a ribbon has faded, the fabric of the ribbon wears quickly because there is not much ink in the ribbon to cushion the impact of the print head. So if you don't want to buy new ribbons more than necessary, have your ribbons re-inked as soon as they start to fade rather than waiting till the print is so faint you can hardly see it.



MORE FONTS FOR SUPERFONTS

Mark Cummings

Courtesy of AppleSauce
May 1989

The TimeOut(tm) SUPER FONTS program is a very useful printing enhancement for AppleWorks. However, I have found that all of the fonts included are proportionally spaced. This is not a problem until you want to print out tables etc. within your word processor document. You end up with a ragged mess. It is possible to use any fonts with a FON file type, it is also possible to Publish-lt fonts ($F7 type). This gave me the idea of importing a couple of fonts from MultiScribe GS (although my machine is a //e). I used two fonts in particular ... COURIER.10 and COURIER.12. This solved the problem of tabulated data.

After some use I noticed that the SUPERFONTS program can output in three quality modes, High, Standard, & Draft. When using High, the program uses (if available) the font which is double height, to the one specified. This in combination with two pass printing gives superior quality print unequalled by any other Apple // program I have used (I have only heard of this trick on a Mac before). For example, say you specify GENEVA.10 in the top of your file, when you print it in high quality mode, SUPERFONTS loads GENEVA.20. If on the other hand I specify GENEVA.14, SUPERFONTS first tries to load GENEVA.28, but because there is no GENEVA.28, SUPERFONTS then uses GENEVA.14 and fattens it up for the resolution it will be printed at, the result while acceptable does look chunky next to high quality fonts. If I want to use tabulated data I might specify COURIER.10 now that I have imported it. The problem which I am leading up to might be obvious now. That is, if I use GENEVA.10 and COURIER.10 in the same file at high quality print mode, the difference is chalk and cheese, because there is a GENEVA.20 but no COURIER.20.

Another enhancement from the TimeOut series is the SIDESPREAD option, this gives the ability to print spread sheets sideways on smaller printers, using a range of fonts, including a large number of COURIER sizes. I madly scanned directories trying to find these in case they would work with the SUPERFONTS option. Well they weren't there as separate files, so they must have been included within the program. After using a program to view the TO.SIDESPREAD program and studying the data format of a FON file I was convinced that if I could hack sections of the file which contained the data and save them to disk as FON files there would be a more than 50% chance of it working.

How to get extra fonts for TO.SUPERFONTS ...from TO.SIDESPREAD

Boot a ProDOS BASIC disk and drop into BASIC, then type the following {except inside brackets or prompt chars] and *} ...

```
]new

]clear
```

{insert your TimeOut v1.2 modified Appleworks 2.0 disk}

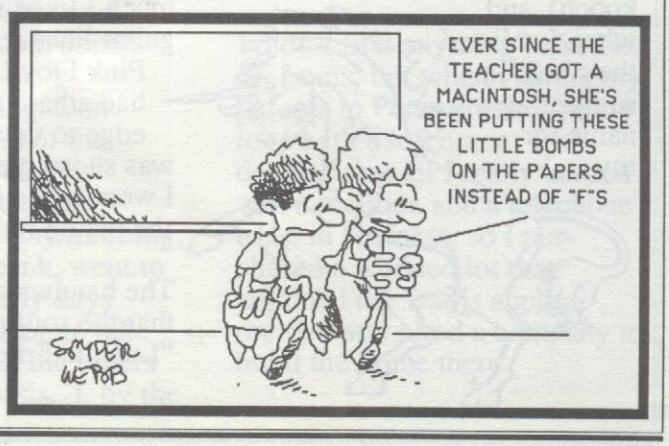
```
]prefix /works
]bload
to.sidespread,A$2000,B43825,L27201
```

{insert your fonts disk if necessary}

```
]prefix /works/fonts  {or name of the disk}
]call-151
*2000.201F
2000- 07 43 6F 75 72 69 65 72
2008- 06 00 16 00 00 00 09 00
```

{do not 90 any further if the above data was different}

```
*create courier.9,T$C8
*bsave courier.9,A$2000,E$29FF,T$C8
*create courier.10,T$C8
*bsave courier.10,A$2A00,E$31FF,T$C8
*create courier.12,T$C8
*bsave courier.12,A$3200,E$3DFF,T$C8
*create courier.14,T$C8
*bsave courier.14,A$3E00,E$4BFF,T$C8
*create courier.18,T$C8
*bsave courier.18,A$4C00,E$5DFF,T$C8
*create courier.20,T$C8
*bsave courier.20,A$5E00,E$6A07,T$C8
*create courier.24,T$C8
*bsave courier.24,AS6A08,E$7837,T$C8
*create courier.28,T$C8
*bsave courier.28,A$7838,E$8A3F,T$C8
*3d0g
```



Christmas Purchases For Apple IIs

Michael Hickey
Apple II and IIgs PD Librarian

So, here it is, the last ACT Apple Newsletter for 1992. As we hurtle toward Christmas 1992 many of you will be thinking of buying some type of computer-oriented gift for yourself, your partner, children, grandchildren or friend to run on their Apple II, II+, IIe, IIc, IIgs or Mac.

Some of you may even say you are dumping your Apple II for a Mac LC II, because there isn't enough hardware, software, memory, speed, screen resolution or colours (please pick one) on the venerable Apple II. Well the truth of the matter is that the Apple II line is still well supported with 3rd party (non-Apple) items which address all of these deficiencies (save screen resolution and colours) at surprisingly cheap prices.

For instance, in the hardware add-ons for real Apple IIs (not Mac LC) some of the best buys are:

- **Applied Engineering PC Transporter for the Apple II+, IIe, IIgs**

This is a full blown IBM "turbo" PC/XT (3.5 times faster than standard) on a card. Complete with 720k/360k disk drive controller, CGA colour graphics capability (4 colours @ 640 * 200), 640k RAM, a slot for a math co-processor, software to let you use your Apple Mouse as a MS Mouse, use your Imagewriter as an IBM Graphics Printer and any ProDOS storage device as an IBM-compatible "hard disk". When not being used as a PC/XT the PC Transporter acts as a 3.5" (800k) disk drive controller and a RAMWorks compatible 768k RAM expansion card. If you want to add only 1 item to your Apple II, this should receive serious consideration.

Cost
from
$US 229 for card only

$US 35/30 installation kit (GS/IIe)

$US 190 for 5 1/4" (360k) IBM Compatible disk drive

$US 89 for add-on 3 1/2" (720k) IBM/Apple disk drive

From Preferred Computing, Quality Computers, LRO etc.

****

- **Zip Technologies Zip Chip for Apple II+,e,c**

This chip replaces the processor you have in your Apple II with a processor which makes it run at 8 MHz, about 8 times faster than it normally does for a II+,e or about 3 1/2 times faster than a standard Apple IIgs. In combination with Publish It! 3 you can produce fantastic quality graphic output in a flash. You may not be able to play some games at this speed but you can vary the speed in 20 steps from 5% to 100% of the rated speed. The earliest version of this chip ran at "only" 4 Mhz but had some quality control problems so Zip dropped it in favour of the faster model. It is very simple to install and is 100% software compatible and 99% compatible with hardware add-ons.

Cost
from $US 140

From TMS Peripherals, Preferred Computing, Quality Computers, LRO etc.

****

- **Zip Technologies Zip Chip for Apple IIgs**

This card replaces the processor you have in your Apple IIgs with a processor which makes it run at 7, 8, 9, 10 or 14 MHz, or about 3 to 8 times faster than a stock standard Apple IIgs. With any of the superb Apple IIgs specific software like AppleWorks GS or GraphicWriter III and Pointless, you can produce fantastic quality graphic output to rival anything on the MS-DOS or MAC in a flash. Once again, you may not be able to play some games at this speed but you can vary the speed in 15 steps from 6.25% to 100% of the rated speed. This card is reliable and fits in slot 2 - 4 (best in slot 3), is very simple to install and is 100% software compatible and 99% compatible with hardware add-ons.

Cost
from $US 140 for 7 MHz with 8k cache (7/8)

$US 200 for 8 MHz with 16k cache (8/16)

From TMS Peripherals, Preferred Computing, Quality Computers, LRO etc.

****

- **Apple II 1 Mb RAM Expansion**

These cards let you add a full 1 megabyte (1024k) to your Apple IIe/c. So far as I know, only AppleWorks 3.0x and Publish It! 2 & 3 recognise any extra memory you may have in your Apple II so if you are not using these products you will probably never have use for the extra memory. Nevertheless, if you have either of these products you can drastically cut down on the time it takes when using the product since both these programs copy the whole program onto the card automatically, cutting down dramatically on disk swaps and giving you a huge desktop! There are other cards but none

as cheap as these and the Q-RAM IIe has a huge 5 year warranty.

Cost
from
$US 100 for the Q-RAM IIe

$US 75 for the EZ Meg IIe

$US 120 for the RAM IIc (late models only)

From
Q-RAM IIe only from Quality Computers
RAM IIc and EZ Meg IIe from TMS Peripherals or LRO

****

- **Sequential Systems RAM GS**

If you have an Apple IIgs you need more RAM! The Apple IIgs is almost as memory hungry as any other modern graphic-based computer like the IBM-compatible and Macintosh computers. If you do not have at least 2mb RAM you are not getting the best out of your Apple IIgs. Nearly every IIgs specific program benefits from any extra RAM you care to put at its disposal. The best programs refuse to work unless you have a minimum of 1mb RAM and the new System 6.01 only shows up its best features when you have at least 2 mb. A 4mb memory expansion card, may seem like an overkill but when you pay a pittance for it you will be amazed at the difference it makes to computing on the Apple IIgs.

Cost
$US 110 for 2mb
$US 140 for 4 mb (I can't believe it!)

From
TMS Peripherals or LRO Computer Sales

****

- **Hard Disk Drives**

If you have an Apple IIe or Apple IIc you probably don't need a hard disk but you should consider using the new Apple 3.5" disk drive controller and 1.44mb FDHD in the Apple IIe or the 800k Apple UniDisk 3.5 in the IIc. Both these drives are excellent value for money and give ample storage for even the biggest Apple II specific program. If you have an Apple IIgs you need a hard disk, no "if"s or "but"s. I recommend a minimum capacity of 52mb to store System 6.01, AppleWorks GS, Pointless (and a couple of hundred TrueType fonts) and every DA and utility you own is a MUST. A rule of thumb for hard disks is that no matter how big it is you will only have 3mb left, this lets you justify a monster hard disk! Truly, a hard disk is as vital to the Apple IIgs as RAM, but is not as cheap. Don't forget, you'll need a disk controller too!

Cost
from
$US 300 for 52mb external SCSI drive

$US 440 for 105 Mb

$US 500 for 120 Mb

from
$US 99 for Apple High-speed SCSI controller (with purchase)
$US 170 for RAMFast GS SCSI controller

FROM
LRO Computer Sales or TMS Peripherals

****

And many dozens more...

My Apple IIe has an ancient 5Mb hard disk and 1Mb of RAM but I usually drive an Apple IIgs with a PC Transporter, 105mb Hard Disk running from a RAMFast SCSI card, 4mb RAM and a Zip GSX (7/8). This combination gives me a useful machine but still leaves me lusting after a tape backup unit and a HP Deskjet 500 printer. Most of this hardware is now at rock bottom prices even at the disgusting exchange rates we are suffering from at the moment. If you want to see any of this equipment in operation, just talk to me in the foyer area during any general meeting.

All of these products were bought direct from some of the mail order vendors in the US. If you want to order any of these products or just to contact the vendors for a catalogue, call them ISD sometime between 3am and 11 am, Tuesday to Saturday. I usually set up a spreadsheet template which does my $US to $A conversion and determines any customs duty which may be payable as I talk on the phone. If you want, I can give you my "POSTAGE Template" for AppleWorks. Just ask me at any meeting.

One hint you may find useful is to insist on US Air Mail. If your package is insignificant enough the Customs people may miss it, letting you off the 25% sales tax payable on hardware. All software is tax exempt.

I have never had any trouble with ordering from these vendors, nor have I ever heard of anyone having difficulties with thee vendors, so you can be reasonably confident that your hard earned dollars won't go astray. If you don't want to buy from overseas, many of these same products can be ordered through Australian II Series Software in Austral, NSW, but the price quoted from them will include their markup of course.

If you are wondering where I get all my source information from, I subscribe to inCider/A+, an education-oriented, Apple II/Mac magazine from the US. It is produced by the International Data Group, the worlds largest publisher of computer-related magazines, the

same publishing group as ComputerWorld Australia, US Macworld, Australian Macworld and about 178 other publications worldwide. Your newsagent should be able to get hold of it if he doesn't have it already.

If your only source of computer information is this ACT Apple newsletter, you are getting next to no news at all. To subscribe, just write to them and quote your Mastercard number to them or send a cheque for $US 47.97 drawn on a US bank. If you want to see my copy, just ask me at the next meeting.

Australian II Series Software
P.O. Box 1, West Hoxton, NSW 2171
Voice 02-606-9343
Fax 02-606-9343

Accepts personal cheques, Bankcard/Mastercard/Visa

inCider/A+ magazine

P.O. Box 50358, Boulder, CO 80321-0358

LRO Computer Sales
665 W. Jackson St., Woodstock IL 60098
Voice 1-815-338-8658
Fax 1-815-338-4332

Preferred Computing
P.O. Box 815828, Dallas, TX 75381
Voice 1-214-484-5464
Fax 1-214-247-8151

Quality Computers
P.O. Box 665, St Clair Shores, MI 48080
Voice 1-313-774-7200

Fax 1-313-774-2698

TMS Peripherals
1120 Holland Dr., Suite 16, Boca Raton, FL 33487
Voice 1-407-998-9958
Fax 1-407-998-9983

Unless otherwise stated, these vendors accept Mastercard/Visa or US funds drawn on US Bank.

You can call me for assistance and/or advise at any reasonable hour on 231 3787. Happy shopping.

Michael Hickey

Apple II and IIgs Christmas Software Bargains

Michael Hickey

So you've noticed Christmas '92 making its sly approach and you're once again horrified by the condition of your bank account/credit card. Don't despair! You can satisfy the demand for gifts by choosing some low-cost quality software from our well stocked Public Domain Libraries.

The Apple II library has several hundred disks for only $2 a disk (single sided) and $3 (double sided). Most of these programs run on any Apple II but many of the best require a 128k Apple IIe or IIc and 1 disk drive. The latest Apple II Public Domain catalogue is free to members and includes a brief description of what you can find on the disk.

The Apple IIgs library is a little less voluminous with "only" 130+ disks at $8 per disk. The earlier disks will run on a basic 512K Apple IIgs, others need a minimum of 1 Mb, but the very best of them requires 1.5 Mb and 2 Mb is recommended for the latest system disk. If you have the resources you can build your GS into quite a sophisticated system from cheap public domain software. Once again, the Apple IIgs Public Domain catalogue is free to members and includes a brief description of what you can find on the disk. I have also spent some time rating each program from one to five stars to give you some idea of how good it is.

Just ask me for the latest software catalogue for your particular machine at any general meeting (I'm the hairy one with the Apple IIgs in the foyer). I'm not going away this Christmas so you are welcome to place an order for Apple II or Apple IIgs Public Domain disks anytime up to 22nd December, for collection 23rd December. Don't try Christmas Eve like someone did last year. All they got was a heartfelt HO! HO! HO! from my answering machine.

I recommend that you order by calling me on 231 3787 at any reasonable hour. You may get my answering machine, so just leave your name, membership number, telephone number and the disk numbers you want, remember to specify your type of computer to prevent confusion.

By the way, Apple IIe and Apple IIc computers are going for about $250 this summer so if you want to get an Apple II for the kids or your parents at bargain basement prices this is the best year yet!

Happy Computing and Happy Christmas

Michael Hickey

Foreword to - the full text of all four books in the Hitch Hiker trilogy on Computer.

by Douglas Adams

This is all rather confusing isn't it? When I wrote the fictional story of a sort of electronic book it didn't occur to me that within a few years it would actually be published on one. And what is particularly confusing is that the book I wrote was called The Hitchhiker's Guide to the Galaxy, but wasn't the Guide itself. It was about the Guide. On the other hand, the thing you are now reading it on (unless you are reading it on a desktop computer, in which case you are missing the whole point! Pull yourself together! Shape up! You're meant to be reading this in the bath!) is not entirely dissimilar to the Guide that I described but failed, in fact, to foresee. Is this making sense? People never read introductions, so it doesn't really matter.

I got it all wrong anyway. I described the Guide as being a bit like a large pocket calculator because that was all I could think of in 1977. I hadn't yet met Alan Kay (who had first proposed the idea of the Dynabook – the personal, or intimate computer), and I hadn't even remotely understood how powerful computers would become and that the single most interesting and important problem was how information would pass between computers and people – the interface. The description of Ford Prefect having to look up an entry in an index and then type in the page number to find it is so cumbersome and clunky it might almost have been dreamt up by a team at Microsoft.

When I actually met Alan, five years later, he explained to me that a real personal computer would not have lots of buttons and a little LCD screen but would be something almost invisible that you would have woven into your t-shirt. I was not comfortable with this particular notion. I quickly saw that it might work for Alan because he always wore the same t-shirt, but for me, who already had quite enough trouble finding clothes to fit without fretting about whether their on-board computers were pre-shrunk, the idea was worrisome. However, the idea startled me into seeing that the problem was a lot more interesting than I had ever begun to realise and also led to me having a large number of immensely long and mind-wrenching conversations with Alan in some of the world's most fabulous restaurants and having, as a consequence, even more trouble finding clothes that would fit.

There are three or four people in the world who have made me think till my brain hurt. One of them is Alan, and the machine you are holding in your hand, though it represents only one step in the continuing evolution towards the intimate computer, owes a very great deal to his vision. To have Hitchhiker published as one of the first titles in this new medium is really pretty exciting for me, and it also gives me lot of pleasure to see my work and Alan's converging in this small way. It somehow makes the effort of consuming all that extraordinarily good food worthwhile.

Yes - you can get the entire text of the four Hitchiker books on one floppy disk for about $40. - Ed.

HOW YOU CAN TELL IT WILL BE A REAL ROTTEN DAY

1. You wake face down on the footpath.
2. You call Suicide Prevention and they put you on hold.
3. You see a '60 Minutes' team waiting in your office.
4. Your birthday cake collapses from the weight of the candles.
5. You want to put on your clothes you wore home from the party, and there aren't any.
6. You put on the news, and they are showing emergency routes out of the city.
7. Your twin forgot your birthday.
8. Your can horn goes off accidentally, and remains stuck as you follow a group of Hell's Angels along the freeway.
9. The boss tells you not to bother taking off your coat.
10. The bird singing outside your window is a vulture.
11. You walk to work and then find your dress is stuck in the back of your pantyhose.
12. Your income tax cheque bounces.
13. You put both contact lenses in the same eye.
14. You pull your vital floppy disk off the fridge, from under the fridge magnet.