

August 1991 Edition
Volume 10/Number 8

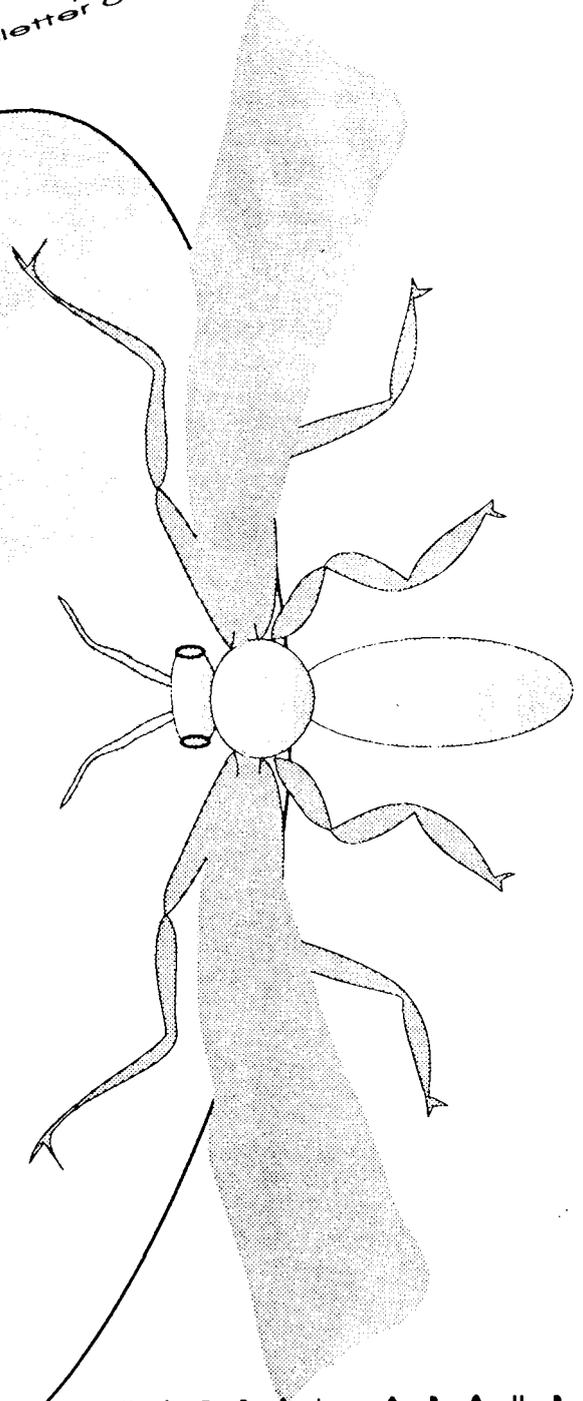
Apple Bug

the newsletter of Apple- Inc.

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Have you donated an article lately . . .



P.O. BOX 721, SOUTH BRISBANE, QUEENSLAND 4101

\$1.50

THE BRISBANE APPLE USERS' GROUP

Apple-Q Inc. Diary

This Meeting

Sunday
August 18th

General meeting: 11.00am - 4.30pm.
Demonstration: 2.00am start.
Committee meeting: 3.00pm start.

Next Meeting

Sunday
September 15th

Items for Auction: 10.00am - 11.30pm
Auction: 12.00am start.
Committee meeting: 3.00pm start.

August 18th

Demonstration

A demonstration by Dale on HyperCard GS and by Kelvin on HyperStudio, see for yourself the merits/pitfalls of each package.

Sept. 15th

A.O. Auction

Apple-Q's "End Of Year Auction". Bring along all your unwanted computer software etc., or come along for a bargain . . .

N o t e s . . .

Things to come..

The Committee tries to set up demonstrations and other events like the auction to cover the many and varied tastes of our members. We are always on the lookout for anyone who might like to help in this area to either run a demo or suggest ideas for future demonstrations or events.

It really does not take great computer skills and knowledge to present a demonstration, just a basic knowledge of the topic being presented. It could be a demonstration of software, for example an art program or music program, or on hardware like a scanner or a video card.

If you would like to present a Demonstration or like to see one, let us know. Feedback from club members aids us in planning future meetings.

Some Demonstrations / events Planned for 1991

Educational Software reviewed
The Macintosh LC
Music and the Apple
Scanners and OCR for the Apple II
Auctions.
Annual General Meeting.
Apple-Q Birthday Party.

New Members

Welcome:

#180 C. Lawler.
#182 D. Trevor.
#183 G. Findlay.
#184 D. Vogel.

Renewals

Thank You:

#087 J. Gray. #181 V. Crosdale.

Article of The Month Award

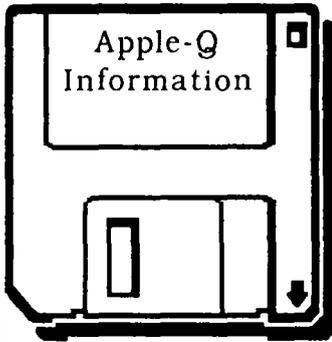
No "Member's Acticle" was nominated

Trading Table

Apple-Q Inc. has for sale to members blank disks & other items that we buy in bulk in order to save you money & generate funds for the club.

5.25	DDDS blank disks	{Box 10}	\$8.00
3.5	DDDS blank disks	{Box 10}	\$14.00
3.5	DDHD blank disks	{Box 10}	\$22.00
	Disk Satchells	{Pkt 50}	\$7.00

Note: Prices are subject to change without notice, but are correct at the time of printing.



Public Domain Software

Apple-Q Inc. has a wide selection of Public Domain, Shareware and Demonstration software available to members. We charge a copying fee so the group can obtain more software to expand the library. The copying fee for 5.25 inch disks is 50 cents a side with a minimum charge of \$2.00. For the 3.5 inch disks, the minimum fee is \$3.00 per disk, with "Disks of the Month" costing a little extra than the older software in the clubs library.

On the inside back page you will find a software order form. This form can be used if you wish to order by mail or you can order & pick it up at the meeting. For mail orders, remember to add \$2.00 for postage & packaging.

Meeting Format

- 11.00 am - 12.00 pm - Informal period**
Trading table open, Hard copy Library Open
Registration of members (new and renewals).
PD Software Library sales. Raffle Tickets sold.
Start of General Computer Time.
- 12.00 pm - 2.00 pm - Special Interest Groups**
New Users (Beginners) SIG
Apple //GS Computers SIG
Macintosh Computers SIG
Trading Table, Software Library continues . . .
General Computer Time Continues . . .
- 2.00 pm - 3.00 pm - Demonstration**
Invited speaker to give a demonstration.
followed by a question and answer session
relating to the demonstration.
Draw raffles etc . . .
- 3.00 pm - Start Committee Meeting**
SIGS, Trading Table, Libraries etc. close.
General computer time continues.
Committee meeting starts.
Members are welcome to attend committee meetings.
- 5.00 pm - (approx.) Open Day ends.**
End of the General and Committee meetings.

Meeting Venue

Hooper Education Centre
Kuran Street, Wavell Heights.

Vistors Welcome.

Membership Fees

Adults/Students:	\$25.00
Corporate Membership:	\$50.00
Associate Membership:	\$10.00 (BBS only)
Joining Fee:	\$10.00 (first year only)

At the discretion of the Executive Committee

Articles for Apple-Bug

If you would like to contribute to Apple-Bug, please send in your article (on disk if possible) to Apple-Q or bring it along to the meeting. The deadline for Apple-Bug is the Open Day meeting. Disks will be returned.

Executive Committee

Ann White	President	(07) 371-4067
John Finch	Vice-President	(07) 260-5218
Bob Godbehere	Secretary	(07) 808-3892
Bob Godbehere	Treasurer	(07) 808-3892
Graham Black	Registrar	(07) 883-1525
Kelvin Sagers	Editor	Modem / Mail
Jeff Sellers	Software Librarian	(07) 359-1339
Ian Millar	Hardcopy Librarian	(07) 343-4261

Assisting

Vince Crosdale	Immediate Past Pres	(07) 351-3090
Dale Rodgie	Misc/Disk of Month	(075) 91-2819
Graham Wobcke	Assisting Software Librarian	

Bulletin Board

Name:	Apple-Q Inc. BBS
Telephone:	(07) 851-1711 [24 hrs - B.B.S.] (07) 351-3090 [7-9 pm - Voice]
Baud Rates:	300, 1200/75, 1200 & 2400 (CCITT & Bell)
Data Specs:	8 Data bits, 1 Stop bit, No Parity, Full Duplex
Sysops:	Vince Crosdale, Graham Black

Production Information

The Apple-Bug was written with AppleWorks and AppleWorks GS. AppleWorks GS was used for the Page Layout. Apple-Bug is printed by the Hooper Education Centre. Thanks to Computer City for the use of the LaserWriter used to produce the original copy.

More Info

- The copying of Commercially produced software is not sanctioned by Apple-Q Inc. and members who do so risk expulsion from the group.
- No one is allowed behind the Trading Table counter except the Committee members and anyone appointed to work at the Trading Table.

Advertising

Classified advertising is Free to all Financial Members. For non-members, the charges are \$18.00 for a Half Page and \$30.00 for a Full Page. For more information, contact the Editor.

Help Line

Apple II General

Bob Godbehere (07) 808-3892 7-9 pm & W/E

Apple IIGs

Vince Crosdale (07) 351-3090 7-9 pm

Dale Rodgie (075) 91-2819 7-9 pm

Graham Black (07) 883-1525 1-6 pm

Apple Macintosh

John Finch (07) 260-5218 7-9 pm & W/E

AppleWorks

Sheryl Mann ~~(07)~~ 96-7401 7-9 pm & W/E

074

AppleWorks (education)

Ann White (07) 371-4067 7-9 pm & W/E

AppleWorks GS

Dale Rodgie (075) 91-2819 7-9 pm

Applesoft

Graham Black (07) 883-1525 1-6 pm

Vince Crosdale (07) 351-3090 7-9 pm

Beginners

Ann White (07) 371-4067 7-9 pm & W/E

Graham Black (07) 883-1525 1-6 pm

Communications

Vince Crosdale (07) 351-3090 7-9 pm

Kelvin Saggars (07) 800-4660 Modem only

Disk of the Month

Jeff Sellers (07) 359-1339 7-9 pm

Educational Programs

Ann White (07) 371-4067 7-9 pm & W/E

John Aspland (07) 368-2420 7-9 pm

Geoff Galt (07) 355-5161 School hours

Machine Language (IIe, gs)

Dale Rodgie (075) 91-2819 7-9 pm

Modems

Vince Crosdale (07) 351-3090 7-9 pm

Kelvin Saggars (07) 800-4660 Modem only

Software Library

Jeff Sellers (07) 359-1339 7-9 pm & W/E

Dale Rodgie (075) 91-2819 7-9 pm

If you are free to aid other members and would like your name added to the list, let us know.

Please only call between the times listed.
W/E stands for weekend.

Editorial

by Kelvin Saggars

Apple-Q Inc. has gone yellow . . . when you get your next copy of the Yellow Pages you will find Apple-Q listed {Bob tells me that in order to get the free ad we also had to become listed in the white pages also}. This ad, along with proposed ads in the Courier Mail's 'weekend shopper' - 'computer' section each month, will, we hope, let more Apple users know we exist. If you have any further ideas along these lines let us know, at present we rely mainly on word of mouth, computer dealers, and our newsletter, to spread the word.

A few days ago I attended the 3rd Annual Apple User Group Convention, along with Dale and Ann. First up, I would like to thank Apple {Frank, Pene, Liz, Godfrey, and all the rest} for giving us the opportunity to meet and talk with you, and other User Group members from all over Australia, and for all the effort you put into the Convention.

This issue contains an article on that conference, and because I have only a few days to go before the Apple-Bug is printed, I hope you will forgive any errors as it was thrown together in a hurry. There will be more to come.

One thing I did learn at the UGC, that I could have done without, was not to hook your hard drive up to a RamFast SCSI card if you ever wish to use it again as a boot drive on your Apple High speed SCSI card. Apple gave a demo on some software at the UGC, at one point during which an Apple //GS with a RamFast in it was used (the IIGS belonged to a UG member). Some problems developed and it looked like the demo was not to be, but as I had a card and a drive I offered it's use for the demo, to get the ball rolling again.

Using my drive as the first drive, and my Apple SCSI card, we were able to access the other hard drive again {I wish I had put 2 and 2 together at this point, but everything seem to point to a faulty Apple SCSI, not the RamFast}.

Anyway to cut a long story short my drive was connected up to the system with the RamFast in it, later that night to copy back some PD software that had been taken off Dales CD ROM disk for us. The next morning we found that both the Apple drives used in the Demo and my drive could not be booted from an Apple SCSI card.

When we got back to Brisbane we also found we could not format the drive either. At present my drive is in at Computer City being looked at {I hope it only requires a deep format}, and the BBS is off line whilst I borrow that drive to finish off the newsletter. Moral - Don't take a hard drive on a trip to Sydney and introduce it to foreign connections.

**Thank you Apple Australia,
Frank, Pene and the crew.
From Apple-Q
For all your time, and effort.**

Floppy Disks

By Ian Brimmer

This article was taken from the May 1991 issue of AUSOM Vol 12, #4, the Apple Users Society of Melbourne Newsletter.

Whilst the article is based on disk usage on Ibm systems (e.g. 720k on 3.5 disks as against 800k on Apple 3.5 disks) the concepts discussed also hold true for Apple floppy disk users.

The reason behind the article lies with the fact that some people see High Density disks as being the next level above Double Density disks . . . dearer therefore better. They see them as a better quality Double Density disks (after all High must be better than Double Density), and so purchase them to safe guard their software by using a better quality medium to store it on, this is of course not correct as you will see in the following article - Ed.

Physical Operation

The disk itself rotates at either 300 or 360 rpm; the faster mode is reserved for the high density controllers and drives {Apple drives operate differently to Ibm type drives in that the Apple drives vary the drive speed {listen to your 3.5 drive next time you format a disk} thus whilst Apple Drives could be made {by adjusting the software} to read standard Ibm disks the reverse would not be true - Ed}. With the disk spinning, the heads can move in and out approximately the distance of 1 inch, writing either 40 or 80 tracks. The heads record by using a tunnel erase procedure where a track is written to a specified width, and then the edges of the track are erased to prevent interference with any of the adjacent tracks. The tracks are recorded at different widths for different drives. Figure one shows the track widths in millimeters for each of the four types of floppy drives supported on various Ibm personal computer systems.

Drive Type	Number of Tracks	Track Width
5.25 360k	40 per side	0.330 mm
5.25 1.2M	80 per side	0.160 mm
3.5 720k	80 per side	0.115 mm
3.5 1.44M	80 per side	0.115 mm

Figure One - Track Chart

The differences in recorded track width can result in problems with data exchange between various drives. The 5 1/4-inch drives are affected because the double density drives record a track width of more than twice that of the high density drives. Thus, a real problem occurs if a high density drive is used to update a double density disk with previous recorded data on it. The high density drive, even in 360K mode, cannot completely overwrite the track left by the 40 track drive, which presents a problem when the disk is

returned to the person with the 360K drive; that drive will see the new data as "embedded" within the remains of the previous written track on the disk. The drive will not be able to distinguish either signal and so the information on the disk is 'lost'. This problem will not occur if a new disk (one that never has had data recorded on it) is formatted in a 1.2M drive with the /4 option, which formats the disk as a 360K disk. The 1.2M drive can be used to fill the disk to its 360K capacity, and every file will be readable on the 40 track 360K drive.

Media Composition

Another subtle problem with the way a disk drive physically works is that the recording volume varies depending on what type of format you are trying to apply to a disk. The high-density formats use special disks that require a much higher volume level for the recording than the double density disks do.

The high density disks are known as high coercivity disks because they require a magnetic field strength that is much higher than the density disks require. The double density disks require a field strength of 300 oersteds and the high density disks require a field strength of 600 oersteds. The compound used to coat double density disks is an iron-oxide based compound whereas the compound used for high density disks is usually a cobalt based compound.

The reasons for using the high coercivity disks are simple.

When designing the high density drives, engineers found that the density of the magnetic flux reversals became such that the adjacent flux reversals began to affect each other. They started to cancel each other out, or through attraction or repulsion, caused each other to migrate on the disk. Any data written at these high densities simply began to erase itself over time. This migration and clumping is eliminated by using a compound that is magnetically weaker, which is the reason that they need twice as much recording strength for the image to be stored.

If you use a low coercivity disk {Double Density disk} in place of a high coercivity disk {High Density disk} to store high density information the domains that store the information will be twice as strong as they should be, and will in the course of time interact with adjacent domains. You will experience mysterious data losses over the next few days, weeks, or months.

Safety

There are a number of hidden danger areas as far as a disk and its contents are concerned. These are colour televisions, some colour monitors, telephones, and the metal detectors at airports etc. (as distinct from the baggage X-ray machines).

Colour televisions, and some colour monitors have a coil around the picture tube to degauss the screen at "switch on", a disk placed on or near the TV will also be degaussed. The ringer in telephones is another source of high magnetic field

[not so much the newer electronic type - but remember other parts of the phone are also a danger e.g. the handset - Ed].

X-rays are a form of light and as such will not affect your disks or their contents, but the metal detector you walk through on your way to the aeroplane certainly will damage the information on your disks.

So the moral is simple - use the disks recommended for

the drive you are using, and don't swap them between drives unless you like to create problems.

Standard Apple 3.5 {800k} drives require Double Density Disks as do the 5.25 drives. Some Apple third party drives [eg the AE 1.4 meg drive] require High density disks as do some Mac drives [eg SuperDrive]. . . if in doubt ask your local dealer - Ed.

Disks of the Month

by Dale Rodgie

See Jeff or myself at the Software Library at the next meeting or order by mail. Order form appears on the inside back cover of this issue. The prices are as follows:

Disk Type	No Disk	With Disk
5.25 inch	\$4.00	\$5.00
3.5 inch	\$5.00	\$8.00

ProDOS Utility Disk #5

Block Work - Block Work is a sophisticated ProDOS block editor. Also known as a ZAP program. Although it is specifically designed to work with ProDOS, with certain considerations, Block Work can be used with DOS 3.3 and Pascal formatted disks as well. Block Work is also a flexible copy program.

Inventory Utility v1.0B - DIU is a ProDOS utility that will allow you to take an inventory of your ProDOS disks and create a TXT file which could be used by AppleWorks. It can also dump the information to the screen or a printer.

File Compare - File Compare is a utility for comparing files (Wow! No kiddin!). There are many reasons for comparing files, for example you might want to do it to see whether one file is simply a backup of another, or is a modified version.

Mass Production Filetype Changer - The Mass Production Filetype Changer (MPFC) changes the file type of files of any ProDOS type to any other type. It is directory-oriented in that it works on all or some of the files in any volume directory or subdirectory.

HFSLink vB.5 - HFS Convert, as of this writing, converts files from a Macintosh HFS volume into two ProDOS files: one for the data fork and one for the resource fork. Multiple file selection and directory conversion are supported. Requires an Enhanced Apple IIe (128k) or later.

SCSI Part v2.20 - SCSI Part maps any additional partitions/devices on an Apple SCSI card into the standard ProDOS 8 device list. This allows you to have more than two partitions on a hard drive and be able to access them from ProDOS 8. A must for owners of large hard drives.

SF Get - SF Get is an ampersand utility which brings a rough equivalent of the IIGs SFGetFile toolbox call to AppleSoft programmers. What this means is that when an AppleSoft program requires users to provide the ProDOS pathname of some file for some reason, there is now a simple AppleSoft command which allows them to do so. Rather than having to remember-and-type a file's pathname, SF Get

allows users to point-and-click the file from an on-screen list. **SCSI Tape Backup Utility v1.10** - SCSI Tape Backup Utility is a simple ProDOS 8 program which may be used to backup a SCSI hard drive on a 3M DC2000 tape. The program may also be used to restore the hard drive partition from the tape image, as well as format new tapes.

The Snail v1.00 - SCSI tape backup for ProDOS 8. The Snail will backup any disk onto a SCSI tape drive recognized by the Apple II High Speed SCSI card. Requires an Enhanced Apple //e or IIGs with an Apple II High Speed SCSI card, and a SCSI tape drive which the card will recognize.

The Best of GS Disk #1

Thousands of programs and files have been checked to find good quality public domain software that is included on the "Disk of the Month" disks each month. Some of these programs have that something extra that make them a must for any GS user. This is the first in a series of disks containing programs such as these. I use most of the programs on this disk and recommend them.

ShrinkIt IIGs v1.0.4 - This is the latest version of this excellent program. ShrinkIt compacts files for transmission via modem or for storage. It can also unpack many of the popular compacted file formats for the Apple II. It can also unpack StiffIt files from the Macintosh and ARC, ZOO & ZIP from the MS-Dos world.

One Arm Battle - The object of One Arm Battle is to win imaginary money by rolling winning combinations on a six-reel slot machine. Heaps of sound effects and good fun.

IconEd v1.3 - With IconEd, you can change the appearance of icons, change the names of their files, and tell the Finder where to find the application that created a particular document file. You can also add icons to and remove icons from existing icon files, as well as copy icons between files. In short, IconEd is a complete icon maintenance utility.

Font-DA Installer v2.0 - This NDA allows you to install NDA's, CDA's and fonts from within any application supporting NDA's. It can also remove NDA's and CDA's. Great with limited memory.

Disktimer GS - Disktimer GS is a "Benchmark" or performance rating program designed to measure how efficiently a hard disk drive will perform on an Apple IIGS.

Apple Rx GS - This program is "virus medicine" for your Apple //GS. It checks for and in some cases corrects Virus infections. Easy to use menu driven options.

Bounce It v1.0 - Based on the old Dos 3.3 game Brick Out. Bounce It takes full advantage of the of the colour and sound of the GS.

Accelerate Your TransWarp GS Card Part Three

By John Link

This article was taken from the May 1991 edition of the AppleWorks Forum, the newsletter of NAUG. The previous two articles can be found either in AppleWorks Forum (March and April 1991) or in Apple-Bug (June and July 1991).

This is the last of three articles that describe how to improve the performance of a TransWarp GS card by sixtyone percent. The author assumes you have read the previous articles in this series.

The Ultimate Upgrade . . .

The first two articles in this series described how to install a 32K cache upgrade in an Applied Engineering TransWarp GS (TWGS) accelerator card, and how to increase the card's processing speed to 9 megahertz. This month, I will describe the ultimate upgrade; one that lets you run your Apple IIGS system at 10 megahertz. Figure 1 on page 20 of the March issue of the AppleWorks Forum (June issue of Apple-Bug) includes a graph that depicts the system performance you can achieve with the 10 MHz and 32K cache upgrades. As you can see from that figure, you get the greatest benefit by installing both of these enhancements to your TransWarp card.

Although this is the most complex of the TWGS upgrades, I have installed it successfully on three randomly selected boards. None the less, you must realize that you are pushing the engineering-grade 65C816 to the very edge of its capabilities. These procedures are for users who are willing to experiment without a guarantee of success. Work carefully when you make these modifications; or you will void the warranty if you damage your board or install a chip incorrectly.

TWGS Limitations

The basic circuitry of the TWGS will work at speeds in excess of 10 MHz; I know of boards that run reliably at 12 and 13 MHz. However, most of the socketed parts on the TWGS are rated for 8 MHz operation, and Applied Engineering cannot warranty that the socketed components on the TWGS card will work at speeds faster than their 8 MHz rating. Fortunately, most manufacturers underrate the parts they supply to Applied, so many TWGS cards will work at 10 MHz with standard parts. If you want to use parts rated to work at speeds faster than 8 MHz, Applied will supply a set of the four most critical GALs (Generic Array

Logic chips) as a special order item. Applied Engineering can be contacted for information and prices at:

Applied Engineering,
Box 5100, Carrollton,
Texas. 75011. (214) 241-6060

All versions of the TWGS ROM from version 1.5 forward will work at 10 MHz. See the previous article for procedures that describe how to qualify and upgrade your ROM.

Overcoming the 10Mhz Barriers

Install a high speed processor and oscillator: Most 65C816 processors used on a TWGS will operate reliably up to 8 MHz; you need a high speed 65C816 CPU and 40 MHz oscillator to achieve 10 MHz operation. Last month's article describes these special components.

Use a fan: A fan dissipates some of the internal heat which builds up as you run the CPU faster. That adds to the reliability of your system. You will need a fan if you want to accelerate your TWGS to 10 MHz.

Increase system voltage: Initially, both the 65C816 engineering chips I tested ran reliably at 9 MHz with several standard IIGS power supplies. One of the processors began to develop problems after six weeks of reliable operation (See the side-bar "Burn-in and 9 MHz" for more details). Both chips were reliable at 10 MHz when I used an Applied Engineering heavy duty power supply that I adjusted to yield a 5.25 volt supply. After several months of intense use (averaging 12 hours per day) one became unreliable at 5.25 volts, and required 5.5 volts to run at 10 MHz.

The standard IIGS power supply, which provides a nominal 5.0 volts to the CPU on the TWGS, is not easily adjusted; you must remove and replace soldered parts to

Burn-in and 9 MHz

The life of a computer chip is completely down hill; the only question is how fast it declines, and how soon.

A chip is at its best when it is new. After 4 to 8 weeks of normal use, there is a noticeable decline in the maximum speed at which the chip can operate reliably.

A "good" chip stabilizes at a level consistent with its specified range of operation, and performs reliably for a long but indeterminate period of time. Such a stabilized chip is said to be "burned in". Eventually, rapid decline sets in once again, and the chip "burns-out" and fails.

A "bad" chip never stabilizes but instead continues to decline. That is why most bad chips usually show up during the first few weeks you own your new equipment. The remedy for a burned-in chip that will no longer run at a higher speed is to increase the voltage available for its operation. The special AE 5.25 volt power supply will resolve most of these problems, assuming the chip has not entered the final failure portion of the curve.

underrated, and because the higher voltage from the special AE power supply increases their maximum speed, many will work at 10 MHz (I found all the standard 45ns SRAMs I tested were reliable at 10 MHz.).

However, your chances of successful 10 MHz operation will increase substantially if you install the 32K cache upgrade which includes 35ns SRAMs. Some 10 MHz upgrades will require 25ns SRAMs. In that case, simply replace the socketed 35ns SRAMs on the back of the upgraded piggy back board with the faster SRAMs.

Bringing It All Together

To get 10 MHz speed, you must approach your TWGS and IIGS system as a totality. Every time you raise the maximum speed of any component on your TWGS, you make it easier for the CPU to perform reliably at a higher speed.

Thus, faster GALs and SRAMs allow greater latitude for the CPU to do its job. The increased voltage from the AE power supply increases the maximum reliable operating

Computer Efficiency

I once assumed that there was a linear relationship between processing speed and computer performance; that is, I expected each doubling of processor speed to result in a doubling of throughput.

However, my tests show that you gain somewhat less performance with each of the processor speed increase upgrades I installed. That is caused by the nature of caching accelerators and the speed limitations built into the IIGS motherboard, especially the 1.0 MHz limit for the video firmware.

When processing speed reaches 17-20 MHz, further acceleration might not yield a difference that is detectable in normal use.

speed of all components; it is a universal tonic for chips that cannot keep up. Likewise, a fan gives every component a greater range of operating speed by evacuating the heat which causes them to become unreliable.

Ten Megahertz Barriers

Western Design includes a "shmoo plot" (see Figure 1) that graphs the results of a test which they run on every engineering-grade 65C816. A table at the top of each plot (which I deleted from Figure 1) includes the data used by the operator for the test; you do not need to understand that data to interpret the plot. Likewise, the "LML" column on the plot refers to the "Lower Memory Location" where the test registered its first failure. The tester uses the LML and it has no bearing on using the chip with a TWGS.

The X's on the each line represent the number of nanoseconds it takes to execute one instructional cycle; the fewer the nanoseconds, the faster the processing time. To translate this figure into the more commonly understood "megahertz", divide 1000 by the time required to execute one instructional cycle. I performed this calculation for each major division in the plot, and then entered those values underneath the graph {Figure One} in an area I labelled "No loading". That tells you the number of instructional cycles the 65C816 chip can execute each second. Thus, a chip operating at 10 MHz is twice as fast as a chip operating at 5 MHz.

A processor chip's maximum speed is determined in great part by the voltage supplied for its operation and by the speed and current used by other components connected to its circuits. The vertical scale in the shmoo plot represents voltage from 1.0 to 6.0 volts. The first "X" on each line indicates the fastest speed at which the chip will process instructions reliably at that particular voltage if there is no interference from other factors.

The TWGS gets the voltage for its CPU from pin 25 of the edge card connector, which is nominally supplied with 5.0 volts (The standard 65C816 on the IIGS motherboard receives the same current found at pin 25 of the edge card connector.). As you can see from Figure 1, the higher the voltage available to the processor, the faster the 65C816 can operate reliably. The sample plot suggests that this processor can operate reliably at approximately 13 MHz if it is supplied with a 6.0 volt current { methinks our friend is getting his voltage and current muddled up - Ed}.

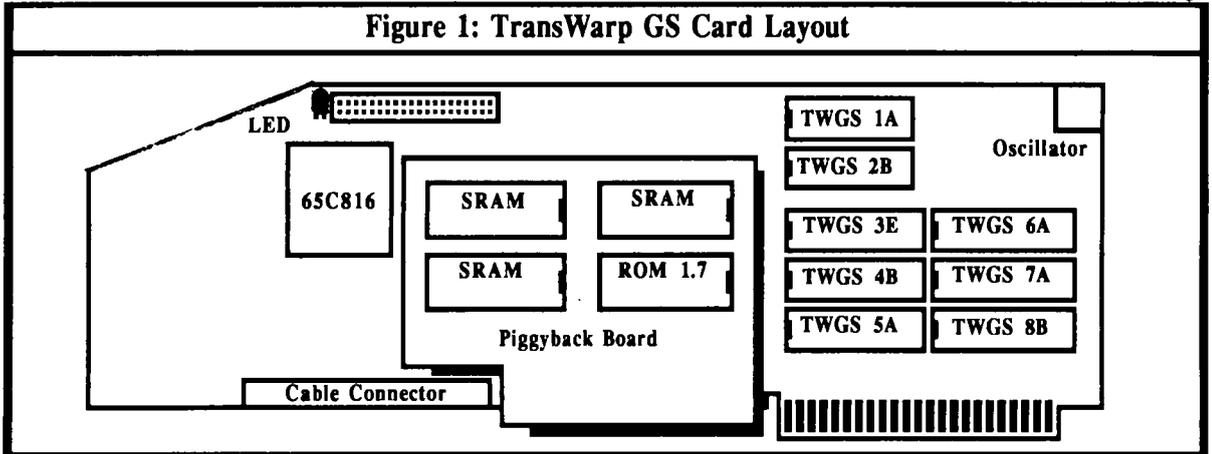
Western Design tests the engineering processors under optimal conditions by using the 65C816 in a circuit that places minimal current loads on the chip's pins. The TWGS connects the 65C816 to additional circuits that substantially increase this loading, and therefore increase the time it takes to process instructions reliably at any given voltage.

Further, the test does not consider the degradation of the chip's performance that inevitably occurs after a month or so of use (see the side-bar "Burn-In and 9 MHz"). As a rule of thumb, you can't expect a processor installed on a TWGS to perform reliably at 85% of its "No load" designated speed. Thus, I added the 85% loaded values to the shmoo plot in Figure One.

Once you make the adjustment for the loading, you can see that a typical engineering chip will not run reliably at 10 MHz when installed on a TWGS unless you increase the voltage beyond the standard 5 volts.

In addition, current 65C816 chips cannot execute certain instructions reliably when operating beyond 4 MHz; circuitry on the TWGS intercepts those instructions and allows extra time for their execution. However, when you reach 10 MHz, additional instructions do not execute reliably in 16-bit mode. The TWGS does not intercept these instructions unless you use a revision "E" or later TWGS 3 GAL.

Figure 1: TransWarp GS Card Layout



Performing the Upgrade

[1] Start by installing a 5.25 volt AE power supply, a system fan, and a TWGS 3E GAL chip if you need it.

[2] Then change the processor and install a 40MHz oscillator following the instructions for the 9 MHz upgrade I described last month. That article presents the necessary detailed instructions.

[3] Test your system by using the procedure I described last month for the "Simple Oscillator Swap". If your system fails, you should install the 32K cache upgrade I describe in the first article of this series. That upgrade enhances performance significantly and provides faster SRAMs that let the CPU operate more reliably at higher speeds.

[4] If your system fails after you install the cache upgrade, replace the #2, #3, #4, and #5 GALs with high performance versions.

[5] If neither procedure succeeds, replace the SRAMs on the 32K cache piggy backboard with either 25ns or 15ns versions.

You can also take your system to a qualified technician and raise the output from the Applied Engineering power supply to 5.5 volts. **That of course exceeds the range of recommended voltages for the Apple IIGS, and you make this change at your own risk.** However, I have operated my system at 5.5 volts without any apparent harm.

[6] The final practical solution is to replace the four remaining GALs (#1, #6, #7, and #8) with high speed versions.

Notes:

Beyond that, you must start to consider extreme measures (such as adding a cooling unit) which are beyond the scope of this article. Otherwise, you can wait for Western Design to offer better 65C816 processors.

Until then, replace your 40 MHz oscillator with a 36 MHz version and enjoy 9 MHz performance.

Final Thoughts

Reaching 10 MHz requires a new processor, a 40 MHz oscillator, possibly one or more new GALs, a new power supply, a fan, and possibly faster SRAMs. The total expense for these items is significantly greater than that required for a 9 MHz upgrade, and even then, successful 10 MHz performance is not guaranteed.

Nonetheless, upgrading to 10 MHz will appeal to users such as myself, who derive satisfaction from having the highest attainable performance from their Apple IIGS system.

In addition, the heavy duty power supply and fan required

Theoretical and Practical Limits

Theoretically, you can modify a TWGS to run at 12 or 13 MHz with currently available 65C816 chips. However, that involves adding a voltage regulator to the board and altering the circuitry so the CPU on the TWGS gets its Power from the 12 volt line stepped down to 5.75 volts.

Supplying 5.75 volts to the CPU causes it to generate internal heat that will significantly interfere with its reliability and will shorten its life. You can add delay cycles to the operations affected by the heat, but that would nullify most of the gains you achieve by increasing the processing speed.

A better alternative is to connect a cooling unit directly to the CPU, which also decreases the negative effects of loading the chip with additional current from other circuits on the TWGS. That costs about \$US150.00, but also occupies about two or three slots immediately adjacent to the TWGS, and further taxes the IIGS power supply.

A much better solution for performance beyond 10 MHz is to use a 65C816 chip that is engineered to run at the higher speeds. Western Design Center says it is working on such a chip, but was not able to furnish a prototype for this article. We can only hope that their goals are realized and that production models of faster chips become available for the Apple IIGS soon.

to achieve 10 MHz will add to the reliability and longevity of any system.

[John Link is an AppleWorks consultant and developer of SuperPatch and LockOut. The author and NAUG extend special thanks to Steven Malechek of Applied Engineering for his help preparing this article.

[NAUG members can buy the engineering-grade 65C816 processor directly from Western Design Center for \$US71.25 (List Price.. \$US95.00) plus shipping. Contact Deb Lamoree at Western Design (602) 962-4545 and identify yourself as a NAUG member to get the details of this offer.]

Australian Agents for Applied Engineering Products

Logical Connections - PO Box 503, Eltham,
Vic. 3095. Phone - (03) 439-6876

Two Series Software - PO Box 1, West Hoxton
NSW. 2171. Phone - (02) 606-9343

How to tell if your CPU is failing

Once you've upgraded your TWGS to 10 MHz, you should know how to tell if it starts to fail.

The 65C816 has its greatest difficulty while executing 16-bit instructions. Thus, the chip is most likely to fail when running 16-bit GS/OS applications such as AppleWorks GS & HyperCard IIGS (Note that AppleWorks uses 16-bit instructions when you boot the program on a Apple IIGS or run the spread sheet module on IIGS systems. Therefore, failures in those operations can also indicate deterioration of your high speed CPU.).

If these problems occur, then replace the fast oscillator with the original 28 MHz unit. If that cures the problem, you probably have a CPU that can no longer work at the higher speed at the current voltage. I suggest that you increase the system voltage or change the oscillator, and settle for slower operation.

Failures that occur regularly in both 8-bit and 16-bit programs suggest either a rapidly deteriorating CPU or the inability of some other component on the TWGS to work at the current voltage. SRAMs and GALs are the most likely culprits. The AE 5.25 volt power supply may help them as well.

Macintosh Mumblings

By John Finch.

System 7.0 continues to dominate the Apple Macintosh scene. Having been using it now for over one month I am becoming to enjoy its advantages more, whilst the deficiencies are less troublesome, as I get used to the slower pace of my machine.

For anyone contemplating a network System 7.0 is great, the built in networking software really works. An experiment linking three Macs - my ever-so humble "plus", a top of the line "fx" and a "si" worked. The result did slow down my plus somewhat, nevertheless it was still usable [just], whilst the "better" machines hardly noticed the networking. The point is, that all three machines continued to run and function, whilst files on any hard disk were accessible to all. The only cost involved would be the cost of the AppleTalk cables to link the machines.

The System 7.0 Book . . .

"Make an alias of the stationary pad and move it into the Apple menu folder; give the file a label for priority, and open a Sharing Setup to allow networking access".

If that sequence of commands is "old-hat" to you, then read no further; otherwise you probably fall into the large family of Macintosh users that are trying to come to terms with the new system seven. To help you overcome this problem is a new book.

"The System 7 Book" by Craig Danuloff contains 374 pages of information, not only about System 7, but about

systems in general. Craig Danuloff makes no assumptions about the expertise or otherwise of the reader, and his explanations are simple and easily understood.

The author of this book is shy about his qualifications, but he has written seven other books on computing. The book is published by Ventana press.

From the first chapter on "System Software Basics" Craig takes the reader through the basic ideas, then leads into the more advanced topics of managing your hard drive, to fonts, networking and file sharing, and by chapter 11 he is on to memory management. The final topics are detailed enough for the more advanced use, without getting into the realm of technical details.

The book is very easy to read and has a lot of screen dumps to illustrate the various points. It also contains some examples of fonts. One of the points that impressed me is the comprehensive index that covers 14 pages. The book also has a glossary of terms, although this is a bit limited, and an appendix on installing System 7.0 { with two free updates }.

Although the Macintosh software allows us to blindly find our way through various tasks by touch; nevertheless, System 7.0 contains a lot of new material and ideas. A little coaching from a friendly book will go a long way towards easing the transition into system seven, and from my brief contact with this book I feel it will not be allowed to collect dust on the clubs library shelf.

"The System 7 Book" by Craig Danuloff (\$49.95), has been donated to the club by "Woods Lane Pty Ltd.". (PO Box 935, Mona Vale NSW) . We have also recieved a catalogue and a price list of other books they sell. Both the book and catalogue will be available at club meetings.

HyperStudio

By Kelvin Sagers

A few simple truths . . .

With all the fanfare and hype that Apple has lavished upon its launch of HyperCard one would be forgiven in thinking that Apple //GS users had, up until then, been unable to indulge in the world of 'buttons', 'cards', and 'stacks' etc., before HyperCard came along.

The truth is that for some years HyperStudio has been proving to the world that the Apple //GS was a better Hypermedia machine {with its build in sound and colour} than the current Macintosh's where. For years now HyperStudio users have been able to obtain premade stacks, Xcmds, art, and sound effects, both in the commercial and Public Domain spheres, and have been able to subscribe to services like A2 Central's Stack Central {A2 are now starting up Script Central for HyperCard Users}.

HyperStudio does not require hard drives or excessive amounts of memory to run in, nor does it require the user to learn any new language {every thing is menu driven and accessible at the click of a mouse button}. HyperStudio also allows you to create your own **Stand Alone** disks so that people who do not own HyperStudio can still use your stacks {commercial uses require a licence from Robert Wagner Publishing Inc.}.

I have owned a copy of HyperStudio for well over a year now and I am still very happy with the package. It does have its shortcomings like most other complex packages, but it is both easy to use, and very flexible.

In the next few articles I will attempt to discuss some of the highlights and pitfalls of the various modules that make up the HyperStudio package. As I stated earlier my package is well over a year old now, so some of the comments that follow might no longer be relevant, but as far as I know, no major changes have been made to the package, so the comments should be fairly accurate as far as they go.

What you need to run HyperStudio . . .

HyperStudio can be run on an Apple //GS system with **only one 3.5 drive** {two would be better, and a hard drive does make life easier {with HyperCard you need a hard drive)}. HyperStudio also requires **only one megabyte of RAM** {not the two meg which is recommended by Apple for HyperCard}, needs GS/OS 5.02 or later, and is AppleShare compatible {this last item would be of more interest to schools than personal users}.

What you get . . .

HyperStudio comes in a rather large box, inside of which are manuals, four disks, a sound digitizer card, a microphone, and various offers on items like speakers, art disks, and subscriptions etc.

The four disks which come with the package are the HyperStudio disk, the Demo disk, the Sound effects disk,

and the Clip art disk. None of the disks are copy protected, and so making a working copy of each disk, and placing the originals in a safe place as suggested in the HyperStudio manual is the first order of the day. HyperStudio is also easy to install on a hard drive if you own one, with instructions given in the manual on how to do so, if you are not certain of the procedure. The disks also contain utilities to create your own sound effects, listen to them, install HyperStudio, add your own system beep, or start-up sound, and or, start-up picture etc.

The **Sound Digitizer Card** needs to be installed in the rear of the Apple //GS next to the power supply, but does not block any slots. This allows you to plug in the microphone {supplied} {or a tape deck etc.} via a standard mono socket {mounted on the card} on the rear of the //GS. I found it much easier to install the card by first removing the power supply, which simply clips out, and plugs back in place once the card is installed.

Again step by step instructions are given on how to install the card in the manual provided. The card also provides an auto switching function, in that if the microphone {or any other sound source} is plugged into the card it automatically disconnects any other sound input device {e.g. a SuperSonic card}, and becomes active. To deactivate the card and use another input source simply unplug the microphone from the card. The card does not effect the output of any device connected to it, so any stereo card will operate regardless of the microphone being on-line or not.

Ok now what . . .

The easiest way to understand HyperStudio, and see and hear what it can do, is to play around with the demonstration stacks provided. These range from examples of interfacing with CD players, external video sources, an address book, a family tree, a simple question and answer stack, how to use XCMDs, and many more. The demonstrations are also ready sources of information on how to construct your own stacks as none are locked and it is easy to step through them a 'card' at a time to see how the results are achieved.

How does it all work . . .

HyperStudio is a powerful package that consists of many modules. For example you can create your own sound effects, animation, and graphics from within HyperStudio's own environment. Once you boot up HyperStudio you are presented with the normal menu bar across the top of the screen, and various icons {buttons in some cases} on the normal workbench area of the screen.

The screen is in fact the '**home card**' {first card} of HyperStudio's '**home stack**'. The home card is always the first card you start from, regardless of whether you run the standard HyperStudio package, or your own group of stacks on a stand alone disk. The home card can be the standard HyperStudio home card, or one created for the topic on hand.

A '**card**' is probably best thought of as one screen of information, as you create more 'cards' you can step back and forth through the cards {screens}, and edit, view, and control them as you choose.

Groups of 'cards' are known as 'stacks', a stack can have as many cards as your memory, and disk space allows or as few as you wish. The information on any one card could be anything from graphics, to text, to animation, to live video, or even information from a CD ROM player, or a mixture of all, or a none of them, the choice is yours.

When you 'run' a stack the cards are accessed in the order that you have linked them, and the choices the user makes when using the stack, within the constraints programed by the linkages you have created between the cards. Much like parts of a BASIC program can be linked together via GOTO statements and the user controls the program flow via the menu choices made.

This 'linkage' in the case of cards are created via the use of 'Buttons' placed on the cards in a stack. Buttons can be either visible, or invisible, delayed or instantaneous, they can also be used to control things like animation, and sound effects etc., or used to link cards and even stacks together in whatever order you wish, and even for calling up Xcmds {Xcmds are used much like CALLs in BASIC}.

In programing terms think of a simple button as a switch and or a 'GOTO' or 'GOSUB' statement in BASIC. In visual terms a simple button can be thought of as a 'push button' that can be labeled and coloured whatever way you wish. A 'push button' that can be activated via your mouse, or by other means, and once activated, performs whatever function you have linked to it, be it switching on a sound effect, or jumping to another card or stack.

Buttons don't have to be visible nor do they have to be clicked upon to become active. They can for example become active after a time delay, or simply because you have accessed that particular card. An example of this would be if you wanted a card to viewed for only a short time and then control placed back to another card, e.g. a card that flashes the message "Error please try again" for a few seconds, would use an invisible, delayed button to time it's self out.

Still Confused . . .

If this is still confusing, then as the manual suggests, just think of a stack as a book, and the cards as the pages, and that with this book the pictures could be animated and have sound effects, and that touching a word might transport you to another section of the book relevant to the word you touched, or even to another book e.g., the word eagle if touched {clicked upon} could take you to a chapter {series of pages (cards)} on the bird elsewhere in the book {stack}. These pages might also provide a picture of the eagle flying {animation} complete with bird calls {sound effects}.

This is the essence of HyperMedia; and HyperStudio allows you to create all this and more via simple menu driven commands.

No scripts, no fuss, just easy mouse activated, pull down menu control over a complex programing environment that most users would otherwise find beyond their reach - simple control over areas like animation, sound, text, and graphic programing, via the mouse.

The Menus . . .

As stated previously, HyperStudio uses mouse driven pull down menu commands for creating cards, animation, and stacks etc. and probably the easiest way to review them is to do so, as they appear in the various menus available from the standard GS menu bar.

Apple Menu

Abouts - Tells you the version number of HyperStudio.

Preferences - The Preference settings are saved for each individual stack and can be altered and resaved as many times as you wish. Preferences allow you to control items like the stacks password, and locking the stack.

Password: This allows you allocate a password which is used to lock the current stack and the various preference settings you have made.

Advanced User: This option allow you to nominate if you wish to embed your data {eg sounds, graphics} in your stack on a disk, as a file. Embedded data has a quicker response time, but you must trade off time against memory, and effect. For example you would not save a sound like an explosion on disk to be retrieved later as the delay in retrieving the data would spoil the effect but a 'bird call', linked to a picture of a bird with explanatory text to read, on the card would be acceptable if retrieved from disk based data.

Auto-activate Buttons On: This allows you to turn auto activated buttons on and off so that you can edit the cards without them 'switching on'.

Automatic buttons are used for many things like turning on sounds and animations or jumping to other cards / stacks after a set delay.

Lock Stack: This allows you to lock your stack so that other users cannot {advertently, or inadvertently} edit them, and if used with the password option allows you to secure your stack against unwanted changes. This does not stop the stack from being used in the normal way.

Show Card Number in the Menu Bar: This places the number of the current card on the far right of the menu bar, when activated, and is helpful when editing the stack.

Erase Background on New Card: When active this erases the current background when the 'New Card' option is chosen. However this is normally deactivated as a common background saves memory because when a new card uses the same background.

It is also common for a stack to be created on a common theme so a common background is more the norm than the exception, besides you can paste clip art over the background to alter it's appearance.

Use Touch Window: When this is active it allows you to calibrate and use a touch window device on your screen.

Volume Control: A slider allows you to control the overall volume of the current stack.

File Menu

This menu relates to various file / disk related activities, all the HyperStudio file commands follow Apples Standard File Interface standards and so should present no surprises to the average Apple //GS User.

New Stack [Open-Apple N] - This option will erase the current stack and begin a new one, however if you have made changes to the current stack HyperStudio will ask if you wish to save them before creating the new stack.

Open Stack [Open-Apple O] - This is used to load {open} a stack that already exists on a disk. Again if you have a stack in memory you have changed you will be asked if you want to save the changes before the stack is loaded.

Save Stack [Open-Apple S] - This is used to save a copy of the current stack with the file name used the last time the stack was saved.

Save Stack As - Same as save but allows you to change the name and pathname of the file.

Load Background - HyperStudio thinks of each card as having a background graphic { a blank card has a white background graphic}. The background would normally be something the cards all share in common, for example a book background with empty pages could be used for a family tree or diary stack.

As stated before, a common background uses less memory than a new background for each card, as all duplicated backgrounds actually use the original graphic and therefor not actually duplicated.

However there is no reason you cannot have a different background for each card if you so wish to, but remember that you are using up your memory in doing so.

Backgrounds are loaded in as 640 mode, Super Hi-Res pictures onto the current card.

Save Screen - Allows you to save the current screen {card} as a 640 mode Super Hi-Res picture.

Add Clip-art - The HyperStudio.Art disk contains examples of useful graphic images that can be used for clip art to paste onto the current card.

Once activated this command presents you with a standard file selector box, and allows you to choose a 640 mode graphic file. The file chosen is then loaded onto your screen, and you are given four options:

Quit: drops you back into HyperStudio and the current stack with no changes.

Box Tool: Used to pick out square or rectangular items from the screen.

Lasso Tool: Used for irregular shaped graphics and copies only the graphic not the current background.

OK: click on this once you have outlined the section of clip art you wish to take to the stack.

Once you have clicked on OK you are returned to the current page where you can paste the clip art you have chosen where ever you wish, onto the background of the current card.

Choose Printer - This allows you to change the type of printer and port you wish to use. The dialog box and options will depend on the type of printer selected.

Page Setup - This allows you specify details on what you want printed and how it is to be set up. The dialog box and options will depend on the printer type selected.

Print [Open-Apple P] - This allows you to print out a card or group of cards either full size or half size, controlled by the settings specified in the printer and page layout options. Open Apple period will cancel the printing process.

Quit HyperStudio [Open-Apple Q] - Choosing this closes the current stack, and returns you from whatever you user to launch HyperStudio, e.g. the Finder, or ProSel.

Next Month . . .

Next Month in Part Two the remaining HyperStudio menus will be examined in detail, and a third and final article will attempt to help you create a few simple stacks using the commands and procedures talked about in the first two.

Constructive comments and questions are welcome - please contact the author via the Apple-Q Inc. Mail Box.

For Sale

**Apple One Megabyte Memory Board
For an Apple //GS
\$200 o.n.o.**

Gives ROM 1.0 {older GS} owners a total of 1.25Meg, and ROM 3.0 {newer GS} 2.28Meg of on board memory.

Contact: Kelvin Sagers via the Apple-Q mail box.

Also For Sale

**Apple 256K Memory Board
for an Apple //GS
\$50 o.n.o.**

Gives ROM 3.0 owners more room for Desk Accessories and Fonts etc.

Contact: Kelvin Sagers via the Apple-Q mail box

You Don't Get Nothin' For Nothin'

{ Good Will and Survival }

by Ian Jones

About 18 months ago I was preparing a firmware demonstration to present to the IIGS SIG at the Sydney Apple Users Group. New 16 bit software specifically for the IIGS version of the firmware had recently been released and I was chasing a copy for the demonstration. Someone suggested that I ring Jeff Schuurman at **II Series Software**. Jeff tracked down the publisher's Australian agent and gave me a telephone contact. "So what?", I hear you say. The fact is, before that day I had never spoken to Jeff Schuurman, there was nothing in it for him, yet he spent considerable time doing me a favour simply as **good will** to a fellow member of the Apple community. Others have since told me of similar experiences, so I decided to have a closer look at this rarity.

Australian II Series Software was conceived out of necessity. One Schuurman sibling is wheelchair-bound as the result of an accident many years ago, so early in 1988 the parents purchased a IIGS to help compensate for his loss of mobility. Unfortunately, as many of us will remember, the paucity of IIGS software in Australia in 1988 was infuriating, and the prices of the few programs that were available was fearful. Jeff and wife Julie figured that if they had to import Apple software for themselves they might as well import for others. It was not until the government dropped the whopping 40% sales tax on imported software in late 1988 that the concept became viable.

Such a venture is not without its difficulties. For example, unlike the USA, the Australian COPYRIGHT ACT gives software distribution rights only to publishers' agents, so most Australian software agencies have sole distribution agreements with foreign publishers. In other words, you cannot import at will simply to satisfy a demand, even to cater for a specialist market. You must first deal with the publisher's Australian agent if there is one. To complicate matters, publishers and license agreements change frequently, particularly in the States.

Perhaps a greater problem is software piracy which can decimate a market and send companies to the wall. It is on this point that I want to press the "good will" message. As most of us get a great deal of satisfaction from our computer interests, it is not unreasonable to expect that we put something back in to the businesses that support the computer industry. Force the software companies out of business, and the much talked about demise of the Apple II is assured. This is simple common sense.

If you want to see the Apple II survive, then buy your software needs, preferably locally, remember - **you don't get nothin' for nothin'.**

Australian II Series Software is one of a very few specialist Apple II businesses left. As the Schuurmans recently told me, they "*have no intentions of straying from this market*". After a few years hard work, they are still in business, still battling the odds, but are now the exclusive licensees "downunder" for Seven Hills Software Inc., including their upgrades and the recently introduced "Partner Program" where clubs obtain sizable discounts {Apple-Q is looking into joining such a scheme - Ed}. They deal direct with WestCode (InWords), Jem Software (AW 3.0 enhancement products, I.O.Silver), and Vitesse (Quickie, Renaissance, Guardian, etc.), and carry a wide range of Applied Engineering products. Their policy is, wherever possible, to provide software at \$10 above the recommended retail in the US. I have examined their hardware prices and regard them as most reasonable (e.g. 105 Meg Quantum Hard Drive for \$1095). When shopping around for something for your Apple II, consider a company that looks after its potential customers, give these Aussie battlers and Apple II lovers a call:

II Series Software
PO Box 1
WEST HOXTON NSW 2171
Phone/Fax (02) 6069343

By the way, I never did demonstrate that 16 bit software. The Australian agents would not lend me a copy. Perhaps they thought that I would "pirate" it! However, they were "*prepared, under the circumstances, to sell (me) a copy at cost price*". With that attitude they did not deserve any credit!

Australian II Series Software

I met and talked with Jeff Schuurman at the Apple User Group Convention, and was very impressed with his commitment to the Apple // market. I had intended writing a short article about Jeff and Julie Schuurman and their products, but found Ian had beaten me to the punch. All I can add, is that I totally agree with what Ian has said, and would also like to add my recommendation that you use **Australian Two Software** when you next look at an addition to your Apple's software or hardware.

Jeff has the clubs address, with a copy of our July newsletter {I also intend to send him a copy of this one}, and I have requested that he send any price lists, and catalogs he might have from time to time, so that we can keep you informed through the clubs newsletter.

I also have a copy of their latest price list (July '91), should anyone be interested, limited copies of it will be available at the next meeting (Ian also has a catalog).

- Kelvin

Apple's 3rd Annual User Group Convention

By Kelvin Sagers

A few days ago Dale, Ann, and I represented Apple-Q Inc at the Apple 3rd Annual User Group Convention. In the next few pages I will attempt to cover what we covered and uncovered for you.

We arrived at Sydney Airport late on Friday afternoon and the Sunny Brook Convention Centre at Warwick Farm just as the sun set. Apple, in the form of Pene, and Liz where there to greet us. We where soon allocated rooms, and given an agenda for the convention {along with a warm Apple Convention shirt}. The first item on the agenda being drinks and an evening meal as a prelude to the convention, and our first real chance to mingle with Apple personnel, and User Group delegates from all over Australia.

At dinner we where introduced to Ian Diery {President Apple Pacific}, Satjiv Chahil {Director of Marketing, Apple Pacific}, David Strong {Managing Director, Apple Australia} and of course Frank Revill, Pene, and the rest of the Apple Australia personnel, attending the convention. Ian confirmed newspaper reports that Apple and Ibm intend to create a separate company for developmental purposes {a short article on this topic will appear in the next newsletter}. Apple stressed that neither company has given up it's identity and will continue as competitors. David Strong reported on the Australian Apple market front, and that even in these tough times Apple's hold on the home market is expanding.

After filling the inner-man Dale and I headed for the aptly named Playroom, where Apple's from various Mac's to an Apple //gs where networked together {aside from the lone Apple //e}. Our mission was to fill the 40 megabyte hard drive I had taken down, with new PD software and software off of Dale's CD ROM disk.

Our first task was to copy the 25 meg of Shrunk PD software we had placed on the hard drive prior to the convention, onto a Mac file server so that anyone can access it. The next problem {aside from the fact that only one Apple //gs was available} was that the only available CD ROM player was tied up playing a Mac Adventure Game {Space Ship Warlock}. . . . This problem was soon solved by placing the 100 odd meg of game onto a hard drive, thus freeing up the player. It seemed that we had just got things rolling when the Playroom was locked up for the time being, and the computers turned off, {something about the fact that it was past one in the morning and time for all good computers to be put to sleep}. Thus ended day one.

Breakfast was at 6.30 the next morning, after which with our tanks filled we proceeded back to the Playroom, joined very shortly by Frank Revill who did a very good imitation of an ice cube whilst we waited for the Convention rooms to be unlocked { the convention rooms could only be reached by a short walk in the open}.

At 9.00 o'clock we had to leave the keyboard to cool down and make our way to the King Fisher Room which was

to be {aside from the Playroom {Kookaburra Room}} the room that most of the demonstrations and forums where to take place in.

The Convention was opened by Tony Fraser {Apple Australia's Marketing Director}, and again we where introduced to Apple personnel {Pene, Liz, Frank etc.} and Apple's broad based aims for the future, nothing really new was really presented that we had not heard the night before.

Apple is now more unit conscious, we where informed, and the days of high margins are behind them. To compete and expand Apple also intend to license select 'Key Partners' to use Apple software, but do not intend to enter a Clone war. Apple also intends to keep expanding it's peripherals base, {it would seem it is already the second largest manufacturer of hardware in the world already}. Support for redundant/dropped/discontinued {choose the one you like best} computer lines will continue for 7 years after the last machine is sold.

A quick coffee break at 10.30, also heralded the start the first of two Distributor Trade Shows, held in the Currawong Room {between the King Fisher and Kookaburra rooms}. The trade shows where definitely more Mac and education software orientated than Apple // {aside from Australian II series software}, and I am sure Ann will have somethings to report on in this area. I was impressed by a new version of Lotus 123 soon to be available for the Macintosh {I will report on this in more detail in next months issue}.

The two Trade Shows if nothing else allowed us to meet with and talk to various vendors of Apple software and hardware including Australian Two Series Software, Dataflow, Techflow, Edsoft, and AAPDA. I have various catalogs for the clubs Library as I am sure have Dale and Ann. I also handed out 50 newsletters to delegates, and most of the vendors, in the hopes of creating new contacts and sources of information for the club.

Once again any free time was devoted to obtaining software from Dales CD ROM disk onto my hard drive to obtain more Public Domain software for our library. Tÿ ROM player was allowed to rest when at 12.00 we where presented with a demonstration of a world wide data network called Compuserve.

Compuserve can be accessed by anyone with a modem and a terminal program. Compuserves phone number {a local call in each capital city around Australia}, in Brisbane is (07) 846-4437, and works much like Viatel in as much as you pay for your time on-line and can be charged for some items. Apple Australia would like to form a User Group node on Compuserve in order to pass information along to User Groups around Australia.

At present Compuserve costs around \$36.00 an hour to use, but if local groups selected a central BBS to first go onto Compuserve at selected times and then download the information to other User Group BBS's in the area. Then the cost of Compuserve could be shared by more than one group and the information shared via the cost of a local call {more on this in the next issue, and maybe a demonstration at one of the meetings}.

The next item on the agenda is lunch, again the food and drink are excellent, and as soon as we could we jumped back into archiving PD software, until duty called and we were off once again to a demonstration. This time on the HyperStudio look a like HyperCard.

Godfrey Gamble ran a demonstration on a Mac and an Apple //GS based on the HyperCard Stack mover, which allows you to move stacks from the Mac (older versions) to the Apple //GS versions, and back again. Most of the buttons and cards are transferred intact, but some machine specific functions are lost in the transfer and have to be rebuilt or removed from the stack. Still, in all, quite an impressive demonstration on two way interaction between the two platforms. It is a pity Apple still have not seen fit to supply Apple // users with the same utility they do Macintosh users with the Apple File Exchange program.

For the next item on the agenda we are given a choice of a demonstration on System Seven and Claris products for the me {which Ann might like to throw some light on for the newsletter/club}, or some quote 'exciting new developments for the Apple //GS', which Dale might be better qualified to enlighten you on once Apple release the information. At this point we are not allowed to enlighten you further except to say that it impressed both Dale and I, and shows that Apple is still supporting the Apple //.

It's 4.00 in the afternoon, and we are back in the convention room listening to Frank, demonstrate a Macintosh program that allows you to keep records for your User Group or Business. Each User group was given a copy of the program which Ann or John might like to give a short demonstration on at one of the Open days.

The last demonstration for the day was on a new Technical Info source CD Apple is releasing soon. The demonstration was given by Jamie Tyson from Apple who we are told had a great deal to do with the CD. The CD ROM contains Macintosh, and Apple // software. The main interface once you boot the ROM being via a Hypermedia type interface - I wonder if it only works on a Mac or if Apple have created a front end for a //GS, or even an Apple //e. From what we saw the CD ROM was certainly worth the price tag Apple placed on it pity we don't have a CD ROM player {more on this later in the article}.

The time is around a quarter to six, and we are once again left to our own devices with dinner at 7.30 the only thing we have to worry about. Again it's back to the playroom and this time another Apple //GS has been set up. At this point I would like to point out that for the majority of the time there where more people hanging around the Apple //s, and the Mac's with the most people standing around them where those on which people where playing the CD ROM game.

After dinner we where given a demonstration, again I am not at liberty to say much about it, except that it was a follow on of the 3.00 session we had earlier in the day. The copying and computer talk went on well into the wee hours of the morning again, and Dale spent even more time, after we left the Playroom, in one of the other delegates room taking off PD software from the CD ROM.

Breakfast was again at 6.30 and the weekend was

beginning to take it's toll on some delegates. It was after breakfast that we found we could not access the Hard drive on a standard Apple SCSI card, nor could we get Apples hard drive that had been hooked to the RamFast to boot either. The one that had not worked fine. Asking around we found another victim and tried to sort out what had happened, It would appear the RamFast writes information back onto the drive that it must place in areas it thinks Apple does not use. RamFast is wrong Apple does it appears need some information somewhere on the harddrive that the RamFast has destroyed. It was something we thought we could fix . . . we where wrong.

Somewhat crest fallen, we entered the convention room at 9.00. The Demonstration that followed was on 'Connectivity' {where do they get these words from} and was run by Steve Manchester. Basically it was a demonstration on how well the Apple can link into various networks and Mainframes, quickly covering topics like Ether-net, and 10Base T networks, Terminal emulations, network compatibility etc., and ending with a hook up to Apples network Australia wide.

A short coffee break at 10.00, was followed by a talk about AAPDA, by Alan Bell {Development Services Manager, and AAPDA Manager}. Alan stressed that AAPDA was not restricted to software developers, and that any one can join and receive AAPDA products at their reduced cost { a catalog and price list will be available at the meeting}.

AAPDA was also going to implement a new structure in the Association's subscription fees along the lines of the more you pay the more 'support' you receive. For example a Gold Pass subscription would be worth around \$5,000 and give the subscriber access to AppleLink and Phone Support, a \$2,000 Silver Pass would give you only AppleLink access etc. AAPDA also intends to implement an 0052 Phone service and set up a BBS in Sydney.

The 11.00 Open Forum run by Frank and Pene, brings up a number of topics that will be dealt with in greater detail at the club meeting, and in the next few newsletters. We are now officially affiliated with Apple Computer, which means we get most of the releases the dealers get. Apple will also let the Clubs who do not have a CD ROM player have one at 50% discount {\$750}, I for one would be totally behind the purchase of one of these CD ROM units for the club. Apple also went though a quick discussion on Licensing of Software, and again brought up the idea of using Compuserve {again I support this}.

It's noon, and the Convention is almost over. The second Trade Show is about to start, and this is where I meet Jeff Schuurman from Australian II Software, and purchased a 32K expansion kit for my TransWarp.

After lunch at 1.00 it's time to say good-bye and head back to the airport, and catch the late afternoon flight back to Brisbane.

It has been both fun and informative, maybe I will be lucky enough to be chosen again to go next year ,who knows. Thank you Apple, I for one think the exercise was worth it, just one gripe . . . not enough Apple // machines.

Apple-Q Inc. September Auction

By *Kelvin Sagers*

The September meeting will be taken up mainly by the Apple-Q Auction. The auction will work much like the previous one, held last March, and will, we hope be just as well supported.

You can contact Apple-Q before the meeting to lodge the items you wish to auction. However, we work on a "first in - first served" basis. The first person to lodge their items and forms with us will go to the top of the auction list..

The doors will open at 10.00 a.m. on the Sunday of the September 15th meeting, so please help by being there early and thus avoid the rush. All items must be booked in by the 11.30 deadline.

Should the Auction Form on page 19 prove too small just copy the format onto another piece of paper, and hand both in with your items (another form will also appear in the September issue - Ed.). If possible please take the time to fill in your form before the meeting in order to speed things up on the day.

Please remember that items must be lodged before 11.30 a.m. and that the Auction starts at 12.00 p.m., so don't be late

Auction Rules and Notes

- The auction starts at 12.00 pm, and your item must be lodged before 11.30 am. The doors open at 10.00 a.m. on the day of the Auction.
- All auctioned items must have a Reserve Price of no less than \$5.00 { Please note - you can nominate a reserve below \$5.00 but Apple-Q will look upon the sale as being a min. of \$5.00}.
- Apple-Q gets a commission of 10 percent of the final auctioned price.
- Apple-Q Inc. takes no responsibility for any software or equipment lodged at this Auction.
- You can auction any computer related item - software or hardware.
- You must be a member of Apple-Q Inc to bid or place items in the Auction. Application for new club membership and, or renewal can be made on the day of the Auction.
- We can not finalize anyones payments until after the auction. If you have to leave early, we will post a cheque to you (minus \$1.00 to cover handling).

Committee News and Views

By *Bob Godbehere*

Venue Update

The Committee had a general discussion re the proposed venue change and decided to set some criteria to be used in the choosing of a new venue.

- To be within 10Km of the GPO.
- Cost Factor . . . not too expensive
- Adequate Parking 20 Cars Minimum.
- Easy access for unloading computer equipment
- power points . . . minimum of 4 GPO's per room
- Rooms . . . minimum of 2 rooms
- Minimum room size approx 24' x 30' (8 x 10 Metres)
- Additional items . . . Toilets, sinks, kitchen facilities
- Seating for a minimum of 40 members.
- 10 Tables each to be able to carry 4 computer setups.
- Suitable Lighting, Ventilation.
- Whiteboard/Blackboard/Display Aids desirable.

Submissions for any possible meeting venues

from members are most welcome

Communications Course

Macintosh Association of Queensland are holding a Communications Course on Saturday 17th August from 8.30 a.m. until 12.30 p.m.

Cost \$30 for MAQ Members {\$55 for non-members}.

Ann White is to ask the MAQ Committee if Apple-Q Members can attend for \$30 { this has been given the nod as far as I am aware - Ed }

The session will include the theory, and details associated with computer communications, both as a general topic, and as items specific to the Macintosh Computer.

Enquiries:

Ann White - (07) 371-4067 {7.00 - 9.00 p.m.}

Door Prizes

This months [July Open Day meeting] door prizes were won by K. Riethmuller and S. Skill, congratulations.

that's all folks

Membership and or Renewal Form

Please fill in this form, tick the appropriate boxes and send the form to Apple-Q Inc., P.O. Box 721, South Brisbane, Queensland 4101. Please enclose your remittance with this form.

- Membership Application
- Renewal of Membership

Membership Number:.....

Membership Fees

- \$10.00 Joining Fee (first year only)
- \$25.00 Adults, Family & Students
- \$10.00 Associate Membership (BBS only)
- \$50.00 Corporate Membership (Schools/Business Houses)

Member's Details

Name:

Street:

Suburb:

City:

State: Post Code:

Home Phone: (.....)

Business Phone: (.....)

A membership list is published every year in the Newsletter. Only your Name, Suburb and Phone number, are listed. Do you require exemption from this list?

- YES
- NO

System Information

- Apple II Apple II+ Apple IIc
- Apple IIe Apple IIgs Apple III
- Macintosh Other:

Members are reminded that the copying of commercial software is not sanctioned by the Apple-Q Inc., and that members who do so, risk expulsion from the group.

I hereby declare that the above details are true and correct, and agree to abide by the Rules and Regulations of the Group.

Signed:.....

For Official Use Only

Receipt Number: Date:

Status: Paid: \$

Exp. Date:

Apple-Q Inc. September Open Day Auction Form

Please fill in this form and hand it over at the Trading Table with the items you wish to auction. If you wish, you can use a photocopy of this form. All items for auction must be handed over at the Trading Table by 11.30 a.m.

Members Name: Membership Number:

Item Description	Reserve Price	Auction No.
(01)	\$
(02)	\$
(03)	\$
(04)	\$
(05)	\$
(06)	\$

Apple-Q Inc. takes no responsibility for computer equipment or software left in it's care.

Apple-Bug

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