Apple Bug

the newsletter of Apple-Q Inc.

$1.50

THE BRISBANE APPLE USERS' GROUP

Apple-Q Inc. Diary

This Meeting
Sunday June 16th

General meeting: 11.00am - 4.30pm.
Demonstration: 12.00am start.
Committee meeting: 3.00pm start.

Next Meeting
Sunday July 21st

General meeting: 11.00am - 4.30pm.
Demonstration: 12.00am start.
Committee meeting: 3.00pm start.

June 16th
Demonstration

A demonstration by Computer City of the Macintosh LC and the New Apple IIe card available for it.

July 21st
Demonstration

A demonstration by John Aspland on the Explore a story series : educational software . . .

Notes . . .

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

Ultra Macros and Apple Works
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 to :
#169 Matthew Waldock #170 Kevin Jones
#172 Tony Fornaro #173 Paul Featherstonhaugh
#175 Peter Simmonds

Renewals

Thank you for your continued support :

|			
#002	Ian Millar	#004	Graham Black
#006	Lisa Manley	#018	Stan Millar
#028	Geoffrey Galt	#032	Trevor Kidd
#043	Norma Whittaker	#58	Hilary Turner
#76	Louis Constantin	#79	Jenny Loader
#095	Len Giddens	#128	Kelvin Saggers
#130	Austen Donnelly	#141	Jeff Sellars
#160	Len Blackett		

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.

For example:

Disks in boxes of 10	
5.25 blank disks	$8.00
3.5 blank disks	$14.00

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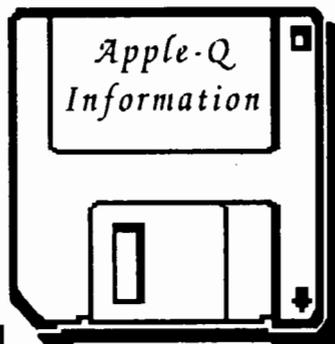
Public Domain Software

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.
Registration of members (new and renewals).
Disk of the Month sales. Raffle Tickets sold.
Public Domain Software available.
11.45 pm Informal question and answer time

12.00 pm - 1.00 pm - Demonstration
Invited speaker to give a demonstration.
followed by a question and answer session
relating to the demonstration.

1.00 pm - 1.30 pm - Lunch,General Computer
Lunch and Draw raffle prize and door prize.
Start of general computer time once the Guest
speaker has finished and continues through SIGs.

1.30 pm - 3.00 pm - Special Interest Groups
AppleWorks, New Users (Beginners),
Apple //GS Computers, Macintosh Computers
Trading Table, Software Library open for business.

3.00 pm - Start Committee Meeting
SIGS, Trading Table, Libraries etc. close.
General computer time continues.
Committee meeting starts. Members welcome.

4.30 pm - Open Day ends.
End of the General and Committee meetings.

Meeting Venu

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 Saggers	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 (071) 96-7401 7-9 pm & W/E

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 Saggers (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 Saggers (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 Saggers

Where has the year gone, half a year has flown by, and it's almost tax time again . . . still onto brighter topics. The next open day meeting will see a return of Peter, and George ·from Computer City {sorry Growth Computer}, and the elusive Mac LC demo. It got lost just after Christmas if you remember, but we seem to have located it again, and this time around it should be accompanied by the Apple //e emulation card. .So for those that are thinking of crossing over to a Mac, and would still like to run your old Apple //e software bring along your favorite program and maybe try it out.

For those who like to book things ahead. If you are interested in Educational software then the July Demonstration will be of special interest to you, and your family. The August meeting will be a demonstration on the HyperStudio, and HyperCard packages so that you can judge for yourself the merits of each package. The September meeting will be taken up with our next Auction, and in October we have the AGM, and the clubs birthday party, so if you would like to be on next years committee now is the time to start thinking about it.

The demonstrations on the 'Quickie' hand held scanner, InWords, and AppleWorks business applications, at the last meeting seemed to go over well with those that attended. But please remember that no computers other than club equipment, and that used for the demonstration, should be running whilst the demonstrations are in progress. There are no such restrictions once the demonstrations are complete, in fact we would like nothing more than to see more members bringing their computers along to open days.

Apple Australia has given the club a copy of the latest system software, along with various Tech notes, and upgrades, on both the Mac, and Apple // computers, for which we would like to thank them for. These items are available to Apple-Q members from the club's library. Apple has also cut it's prices on most of it's lines, read the Bytes and Pieces item in this issue for more information, and drop into your local Apple dealer, and check out the new prices for yourself.

We would like suggestions from you as to a change of venu. We have been using the Hooper Centre now for many years but there have been some suggestions made that maybe we need a bigger venu. If anyone has any comments at all, on this topic, please let us know. Should we stay put, or move, let us know either by mail, or in person at the clubs meetings. At present we are only after members comments and suggestions.

Thank You
We would like to thank the Apple Macintosh Association of Queensland Inc. for their donation of a copy of GS/OS System 5.04 software and manuals to the club. . . .

Accelerate Your TransWarp GS Card Part 1

by John Link

This article was typed in from the AppleWorks Forum Newsletter Volume VI, Number 3. and is part one of a series of two articles on the Transwarp accelerator card.   Part two should appear in the next issue (all things being equal) - Ed

Over the years I have developed a healthy respect for the design and reliability of the Applied Engineering TransWarp GS (TWGS) accelerator card in my computer. The card works well and more than doubles the processing speed of my system.

Now, with help from the card's designer, I've discovered ways to increase the performance of existing TWGS cards by an additional 8% - 60%. This results in a computer that runs two to three times faster than a non-TWGS-enhanced Apple IIGS system.

This is the first of two articles in which I will describe how to install these enhancements.   This month, I describe how to install the simplest of the upgrades, which increases the TWGS cache memory from 8K to 32K. 1 recommend this enhancement for all TWGS owners. Next month, I will describe how to increase the card's processing speed from 7 MHz to 10 MHz. The cache upgrade I describe this month is fully compatible with next month's upgrades to processing speed.

◢ Caveat

With almost 16,000 NAUG members reading these articles, you must recognize that I cannot provide individual technical support for these upgrades.   Applied Engineering supports the cache upgrade with their usual technical assistance/warranty programs.   Although I installed and tested each of the upgrades I describe in these articles, I cannot guarantee that these modifications will work on your system.

How to Get Enhanced Performance

There are two factors that determine the performance of your TWGS:

- The speed at which it processes instructions.
- The amount of high speed cache memory available on the card to execute those instructions.

Like most users, before I began this investigation I believed that accelerator performance was tied to processing speed.   That is, I thought a 9 MHz accelerator would always outperform a 7 MHz accelerator.   However, my tests revealed that the amount of cache memory on the card can have a significant impact on its performance. For example, I found that a 7 MHz TWGS with a 32K cache memory can outperform a 10 MHz TWGS with the standard 8K of RAM cache. That is because a caching accelerator's performance is as dependent upon cache implementation as it is upon processing speed. (See the sidebar "Understanding Cache" for more details.)

Consequently, installing the cache upgrade kit is the single most effective enhancement you can make to any Applied Engineering TWGS, no matter how fast its processor operates.   Increasing the cache on the TWGS has all the advantages of factory approval and should work with any system which currently supports the Applied Engineering TWGS. Fortunately, the cache upgrade also potentiates any increase in processing speed, so performance is improved exponentially when the two are combined on a single TWGS card.   Consequently, anyone who is interested in installing the processing speed modifications I will describe next month should install the cache upgrade first, to get the greatest benefit from increased processing speed.

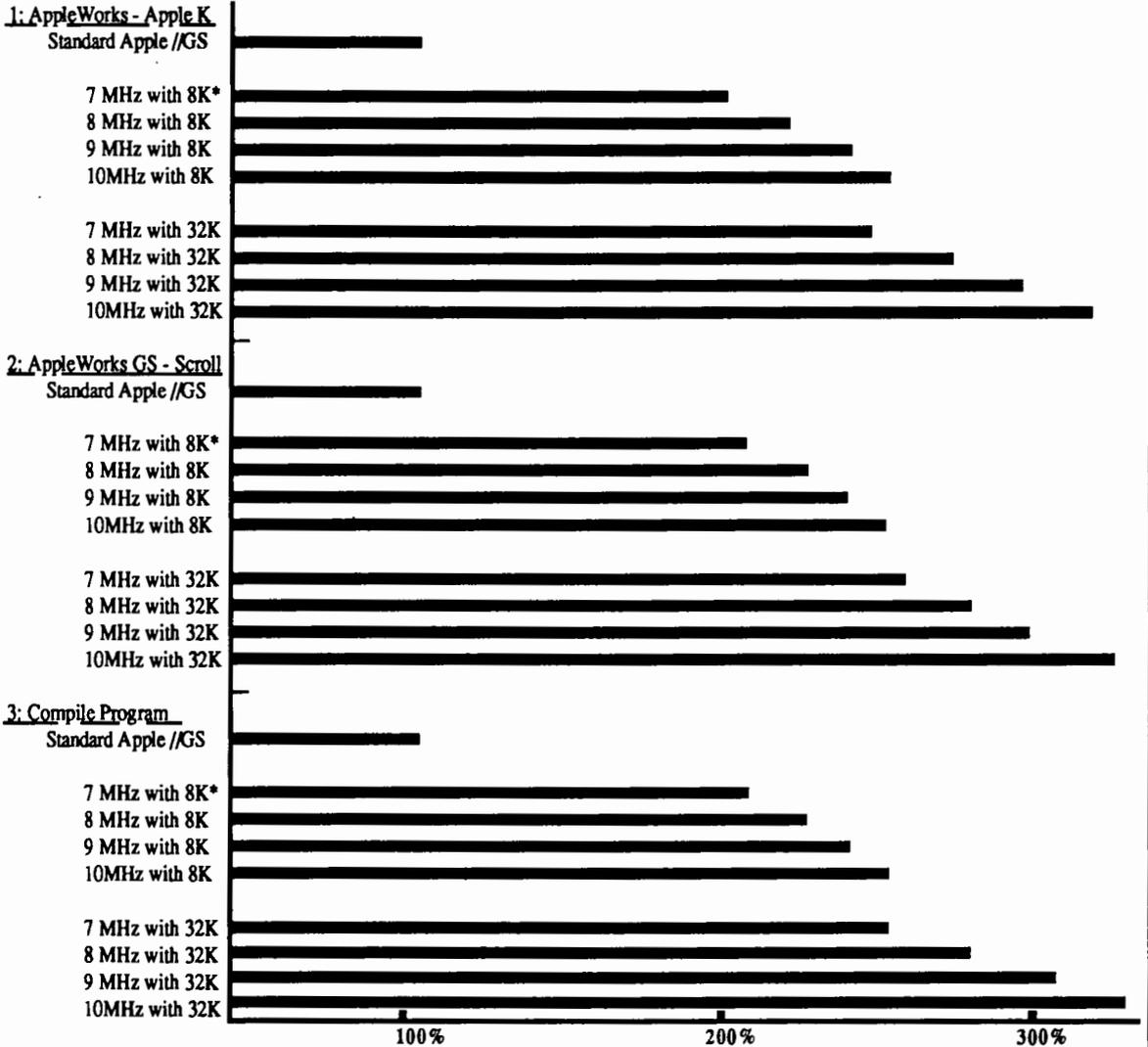## Applied Engineering Enhances TransWarp GS

Applied Engineering now offers a factory approved, user installable kit which upgrades the TWGS's standard 8K of Cache memory to 32K. The cache upgrade offers a 22% increase in the performance of a 7 MHz TWGS. When the upgrade is combined with modifications that increase processing speed on the TWGS to 10 MHz, the total increase in performance exceeds 60%.

The kit consists of complete instructions and a replacement piggy back board. The board includes ROM 1.7w32S (which makes it especially valuable to anyone with an early ROM who wants to install the processor speed enhancements I will describe next month) and SRAMs that are rated at 35 nanoseconds instead of the 45 nanosecond chips which are standard on the TWGS. The faster SRAMs should work reliably up to 10 MHz, which adds more value to the cache upgrade for anyone who is interested in attaining the fastest possible processing speeds from their TWGS card.

The TWGS Cache Upgrade Kit costs $109 directly from Applied and is available from many of their dealers.

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

Figure 1: Relative Performance of Apple //GS Systems

Performance Increases

Figure 1 compares the performance of Apple IIGS computers equipped with TWGS cards that operate at different speeds and have different amounts of cache memory. The graph depicts the performance of these systems executing three different tests.

Test 1:

Calculate the page breaks in a 218-page AppleWorks word processor document. This operation tests the TWGS's ability to manipulate large segments of RAM; the document occupied over 1500K of desktop memory.

Test 2:

Scroll through a 39-page AppleWorks GS document. This task requires extensive updating the screen display in the graphics environment, which is a significant shortcoming in the performance of IIGS systems.

Test 3:

Compile 4800 lines of source code in MD-BASIC, a utility which runs under the 16-bit Orca/M development environment. This test involves repeated disk access and is thus not a perfect test accelerator performance. Nonetheless, it shows that improving the performance of your accelerator will significantly accelerate processes other than sheer memory manipulation.

I conducted each test with an unaccelerated IIGS, with a IIGS equipped with a standard TWGS card (7 MHz and 8K of cache), with a 7 MHz TWGS and 32K of cache, and with

cards operating at 8, 9, and 10 MHz with both the standard 8K cache and the upgraded 32K cache.

The Results

As you can see from **Figure 1**, installing a standard TWGS card more than doubles the speed of an unmodified IIGS system. Upgrading the cache on that card from 8K to 32K increases its speed an additional 22%. Upgrading both the speed of the card and the cache memory can increase TWGS Performance by as much as 60%, leading to performance that is more than three times faster than that of an unenhanced IIGS system.

How to Increase Cache Size

You will need a wooden tongue depressor or a small screwdriver, an Xacto knife or single edge razor blade, and the Applied Engineering TWGS Cache Upgrade Kit to install this upgrade.

The process requires cutting two "traces" (the equivalent of wires) on your Applied Engineering TWGS board and is not easily reversed. However, few owners will find any need to perform this reversal. Follow these steps to increase the size of the cache on your card:

1. Turn off the power to your computer but leave it plugged into a grounded electrical outlet. Remove the case and touch the power supply inside the unit to ground yourself. *[Use the back of your hand when touching any potential source of electrical shock, it may save you receiving a nasty surprise - Ed.]*

2. Remove the TWGS card from the computer.

Figure 2: Back of TransWarp GS Card

TC4

TC5
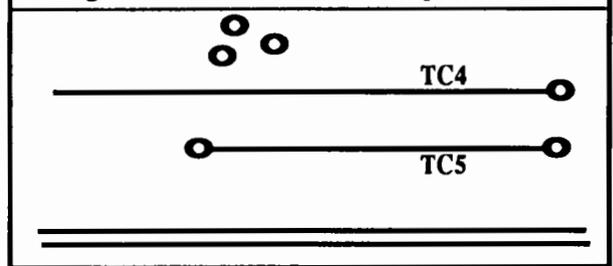
3. The piggy back board is connected to the main TWGS by three 2O pin connectors. Remove it by rocking it back and forth until it comes free. If using your fingers proves too difficult, insert a tongue depressor or a screw under one side of the piggy back board and gently pry as you rock the board.

If you use screwdriver, be certain to cushion its contact Point with a piece of cardboard. Be careful not to damage the delicate traces that run underneath the piggy back board.

4. Locate the two traces at butterflies **TC 4 and 5** on the back side of the TWGS board (see **Figure 2**). Use an Xacto knife or razor blade to scrape between the points of the butterfly until the connection is broken. Do not cut too deeply there is a second layer of traces underneath the butterflies, and cutting into them could render the board inoperable. The second layer is not easily reached, but it is better to be cautious than aggressive.

5. Insert the new piggy back board into the TWGS, observing the correct orientation. You should have no difficulty doing this with your fingers as your only tool.

6. Re-install the 32K TWGS in your system.

Understanding Cache

Both of the accelerators available for the Apple IIGs (TWGS and Zip GS) are caching accelerators. They read the contents of motherboard memory into a small area of high speed memory on the accelerator called its cache, which is why they are called caching accelerators. Although they are capable of accelerating any area of memory, these cards never accelerate more than a small portion of memory at any one time.

There are three phases in the operation of these cards, all of which consume time. First, the accelerator must capture the code it will accelerate. Second, the card's CPU executes the captured code at the accelerated processing speed. Finally, the accelerator must make any changes to motherboard memory indicated by the instructions processed in the cache. The third step is especially critical because the speed of motherboard memory is limited to 2.8, 2.6, and even a very slow 1.O MHz, depending upon which area it addresses (2.8 for ROM areas, 2.6 for RAM areas, and 1.0 for screen display areas).

The TWGS incorporates features that improve all three operations.

Capturing and Executing

The TWGS divides its cache into two components called the "data area" and the "tag area'. The data area contains the code it will accelerate; the tag area stores the address of the original code the accelerator uses the information in the tag area to determine whether it has already cached the code it will execute, or whether it must capture that code first

The IIGS system supports both 8-bit and 16-bit tags. Accelerators with an 8-bit tag limit the range of memory they can accelerate to a function of the size of the data area. For instance, an 8K data buffer might accelerate 1 .5 megabytes of

memory; a 16K data buffer might accelerate 3 megabytes, and so on. Thus, systems that use an 8 bit cache tag require more cache memory to accelerate all the memory in a large system.

The TWGS uses 16-bit tags which let it accelerate up to 16 megabytes of memory, no matter what the size of the data buffer on the card. Thus, adding more motherboard memory to a IIGS equipped with an 8K TWGS will not degrade its performance. Unfortunately, the 16-bit tags require twice as many chips as the 8-bit system and results in a more expensive product. However, 16-bit tags are more efficient and more transparent to the user.

Every time the TWGS needs to execute some code, it checks the tag area to see if the code is already present. If the code is in the cache, the card executes the code. This is called a "hit". If the code is not in the cache, the accelerator captures the code from the motherboard. It stores the code in the data area and its address in the tag area. Then the TWGS executes the code. This is a "miss", because the capture and tag storage operations slow real world performance significantly. A 100% efficient cache is one which never suffers a "miss". Regardless of whether you use an 8-bit or 16-bit tag increasing the size of the data area in the cache increases the percentage of "hits", which is why the performance of the TWGS with a 32K cache is dramatically better than one with 8K of cache, even though processing speed is not changed.

Writing to Motherboard Memory

Many of the instructions executed in the cache issue orders that affect memory outside the cached instructions. The two techniques that handle this task are called "write through" and "write back".

"Write through" techniques halt processing until the system updates the memory outside the cache in accordance with the instruction just executed. This operation takes place at standard (unaccelerated) system speeds of 2.8, 2.6, or 1.0 MHz, depending on the area of the motherboard addressed. This process requires an additional delay because the DRAMS on the motherboard must synchronize their refresh cycles. This slowdown occurs frequently in all applications and can be a significant handicap to real world performance. However, write through technology is less complicated to implement, and can result in a less costly product.

"Write back" technology stores the instructions which order any change the motherboard memory in a special buffer on the accelerator at the accelerated speed. Later, they are written to the motherboard at the appropriate standard speed as a background process, while the accelerator continues to execute additional instructions at the accelerated speed. The TWGS uses multiple write back buffers to enhance its effectiveness and rarely slows down to standard speed.

Although write back is important for all data transfers from the TWGS to the motherboard, it is especially critical in accelerating screen displays, since the //GS video memory cannot operate faster than 1 MHz (that keeps it compatible with Apple //e applications). Thus, the TWGS handles the task of updating the screen in the background while you scroll through a large document. That leaves the TWGS free to continually process the code which orders the scrolling. This dramatically enhances the speed of operations that write to the screen, such as scrolling the screen with AppleWorks GS.

Testing Your Modified TWGS

Follow these steps to test the operation of your enhanced TWGS card:

1. Boot the system from your floppy or hard drive. If your system crashes or locks up, you did not completely cut the traces. Turn off your system, remove the TWGS card, and complete the cutting process.

2. Access the Control Panel and use the TWGS self-test routines to test the card. The test of the cache will take longer to execute; there is now four times as much cache memory to test. If you make a mistake, it will either not work at all, or will fail one of the cache related self-tests, in which case you should cut the traces at TC4 and TC5 slightly deeper. When you cut them deep enough, everything should work smoothly.

The Cost of Customizing

The TWGS is a remarkable product, and Applied has recently reduced its price, making it an even more cost effective upgrade to your IIGS system. Now they are offering a reasonably priced 32K cache upgrade which I recommend highly to all TWGS users. The improvement you get with 32K of cache is dramatic in itself, and interacts with the enhancements to processing speed that I will describe next month, for exponential improvements in performance.

At $109 (U.S.), increasing the cache on your TWGS might seem expensive. However, when analyzed as a function of the total cost of your computer, this enhancement, which offers more than a 20% increase in the processing speed of your entire system, is an excellent value.

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

Macintosh Mumblings

By John Finch

There are a number of tips, hints and shortcuts that "everyone" knows. I thought it might be an idea to trot them out again. There may be one or two you do not know.

On the DeskTop

- If you are selecting files in a window, hold down the **shift key** to make multiple selections.

- In the file selection window, the **tab key** will change drives.

- In a file selection window, typing one letter will select the first file whose name starts with that character.

- Hold down the **option key** when opening multiple windows on the desktop. When you return to the finder the windows will be closed. The changes to the desktop were not recorded.

- Hold down the **option** key when closing from the desktop and all open windows will be closed.

- Hold down the **option key** when selecting "clean up" from the menu. The icons are realigned inside the open window.

- Hold down the **option key** when dragging to the trash to stop the: "Are you sure?" window appearing.

- If an icon can not be trashed, try holding down the **CMD key** whilst dragging it to the trash. If the file is locked this will trash it.

- You can stop yourself, or anyone else, accidentally trashing an item by clicking the lock box in the "get info" window.

- Hold down the **option key** when opening the Font/DA Mover will cause desk accessories to be displayed rather than fonts.

- Hold down the **option key** when selecting the open button in the Font/DA Mover, will allow you to install fonts directly into applications rather than the System. You can add special fonts directly into a word processor.

- **Cmd-Shift-1** ejects the disk in the internal drive.

- **Cmd-Shift-2** ejects the disk in any external drive.

- **Cmd-Shift-3** creates a MacPaint document of the present active window. The first one will be called "Screen 0", the next one "Screen 1" and so on.

- **Caps lock-Cmd-Shift-3** creates a MacPaint document of the entire screen.

- **Cmd-Shift-4** will dump the contents of the active window to your printer.

  Note: The above screen dump commands will not work with menus pulled down. To do this you need a desk accessory called "Camera".

- Hold down the **Option and Cmd keys** whilst clicking on the finder of a disk that is not the start-up disk, will cause that disk to become the start-up disk. This will not work with systems that are older than the version running.

- You can customize the finder appearance by making changes in the LAYO resource by using Resedit. (Open Resedit, open the finder and look for LAYO.) Experiment, but do it on a duplicate of your start-up disk. Never experiment with Resedit on original disks - the results can be terminal!

In Microsoft Word

- **Option-Cmd-M** will select the entire document.

- **Shift-Option-Cmd-S** will show you the footnotes.

- **Shift-Enter** will insert a page break.

- **Option-space** will insert a non breaking space.

- **Cmd-tilde** (extreme top left hand key) will insert a non breaking hyphen.

There are quite a few Option and Cmd key variables in the finder that I have not mentioned. Experiment.

Radiation Shield

By Kevin Riethmuller

Does the radiation emitted by CRT's (cathode ray tube) pose serious health risks? No one knows for certain, but some reported cases and laboratory experiments suggest a link to birth defects, spontaneous abortions, skin rashes and eye irritation. An increasing number of health and safety professionals are worried about exposure, short and long term. As a result, major Government studies are under way to define the risks, but the results may not be known for several years. If You are like me, you may have thought 'Am I in danger of radiation from my loved one - **my computer** '

I decided two months ago that the risk was not worth it, so I bought a NoRad SHIELD. I had seen an advertisement in a computer magazine for a screen that would cut out 99.99% of the electromagnetic radiation from the front of the monitor as well as eliminate all the glare & reflections. It sounded exactly what I was looking for.

On connecting the screen to my monitor I encountered my first problem, where to earth the screen to. As I have to assemble my computer every time I want to use it (living in a bus has it's drawbacks) I had to find a screw that was earthed on the monitor, but as it turned out, this wasn't to hard as I found they were all connected to earth when I checked them out with my multimeter. All I had to do was tape up the excess so as not to have a loose wire hanging around.

The mesh does stop some of the light from the monitor, so the colours are not as bright as before (I have the brightness control turned right up now) but they are still clear. The reflections off the screen are dramatically reduced, making it very good for daytime work where there is a lot of light coming from windows or doorways. The static electricity is also eliminated, and the final result was a monitor that I felt safe to sit in front of for hours at a time.

A word of caution, if you have young children who are likely to poke at the screen with a pencil, or anything sharp, or **anything at all**, be warned it is easy to put a hole in the mesh. There is nothing more annoying than a bright spot staring at you from the monitor. The same can be said for food or drink that gets onto the mesh (I did get it off by rinsing it under the tap as you are not meant to rub the mesh at all).

If you are interested in more information, please contact the Australian importers:

> Radshield (Aust.) Pty Ltd.,
> P.O. Box 121 Currumbin,
> Qld. 4223
> Ph. (075) 98 1353 Or (008) 07 4446

The Brisbane representative is:

> MacMan Pty. Ltd.
> 15 Kenway Drive
> Underwood.
> Qld. 4119

Bytes and Pieces . . .

By Kelvin Saggers

A collection of news, and rumors from various sources, newsletters and magazines, which might be of interest to Apple users . . .

Another One Bites The Dust . . . .

Cinemaware, the people who produced excellent games software like Defender of the Crown and Rocket Ranger for the Apple //GS and Macintosh have, it would seem, bitten the dust according to various news items in some overseas magazines.

They will be sorely missed if this is true, as they are one of the most innovative quality games software houses around, not only for the Apple market, but also for the Atari, and Amiga markets, as well.

Apple Cuts It's prices . . . . .

Apple Computer Australia decreased it's prices on it's computer products and peripherals just recently. An Apple //GS {1 Meg CPU only} now costs $1200.00, and the RGB

monitor to suit it now costs $695. The Apple //e (128K CPU) will now set you back $595, and a colour monitor to suit it now costs around $495.00.

Whilst Apple chipped, a much need, few hundred off the Apple // prices's it was not so frugal with the Mac range.

A Macintosh IIfx {4 Meg HD160} for example drops an impressive $1800.00, and a Macintosh SE/30 {4 Meg 80 HD} drops a massive $2,700, to now sell for $5995. Nearly all of the Macintosh range has had well over $1200 taken off the list price. . . .

Apple peripheral prices have been cut from around 11% to 40%. Most hard drives have been cut by 35 to 40%, Laser printers by 11% to 20%, the Apple CD SC - CD ROM player by 25%, and Apple Ram Expansion Kits by 33% to 42%. This places the new price for the CD ROM player at $1495, and a 40 meg hard drive at $1295.

At last Apple has seen the light on prices, but the Apple // range need to be trimmed even more if they hope to compete with the Apple Macintosh computer range . . . . let alone other computers on the market.

Note - all prices are approximate, and are suggested retail prices only - Ed.

Macros For Automated Bookkeeping

By Brian V. McDonnell

These macros have been written for a hypothetical business to assist in partly automatic accounting. The system for which this is designed is for an Apple //e (enhanced). A Zip Chip or Speed up Card will make the use of spreadsheet files much more pleasant. Software requirements are AppleWorks 3.0 or later, and Ultramacros 3.1 from Beagle Brothers.

The macro set is most easily called if stored as a Task File as described in the Ultramacros manual. They could then be launched by a macro included in your default Ultra.System Ultramacros. You can return to Ultra.System from the 'BUSINESS' set by pressing Both Apples-Z.

The spreadsheet 'BUSINESS.FORMAT' is included on the disk. This spreadsheet is set out to include both business expenditure, and business income, and calculates to give a bank account balance after each transaction, as well as totalling each column. The spreadsheet is formatted with all calculations. Manual Recalculation is recommended (See AppleWorks Manual).

Columns set out include Date, Payee, Cheque number and various categories of expenditure such as Wages, Vehicle costs, Rent, Stationery, Bank Fees etc. etc. (17 in all).

A separate column (Column B) allows a code letter to be entered for any particular item (e.g. an individual person's wages) and this then allows easy sorting of these coded items using AppleWorks "Arrange" feature.

Each item of expenditure is automatically totalled into a "Bank" column and the cheque number is also repeated into a column close by. A further adjacent column (Column W) is provided for checking off transactions against Bank Statements. The use of macro Sa-n will insert the letter 'x' into this reconciliation column.

The Business

For the purpose of this demonstration this is a small business which employs one full time person (P. Jones), a half time person (D. Smith), a casual variable-hours employee (J. Brown), and a variety of other part-timers. Superannuation is paid monthly to Prudential Insurance on P. Jones behalf.

Rent is paid on the first of each month to Watkins P/L for the main office and to Ray White for the use of a branch office. Part of the main office is sublet to another firm and rent is received from this other firm also on the first of each month.

A business loan from the Commonwealth Bank is being repaid at the rate of $1100 each month with the payment being due on the 22nd of each month.

The business owns two motor vehicles. Servicing is done by Auto Centre while petrol is purchased on account from Shell, Mt. Gravatt. The Holy Cross Laundry provides clean linen supplies for the business and advertising is done through Printshop Advertising agency

Income consists of "Service Fees" from customers and rent from the sublet portion of the office.

The Macros

While it is hoped that all the macros could prove useful some were really included for practice in macro writing techniques. The macro table is nearly full.

The macros are divided into several subsets: e.g. Startup, Help, Subroutines, Updating, Automatic Periodic Payments, Tools to Use, Saving, Credit Entries and Debit Entries.

Startup

Startup macros provide a title screen, get the appropriate files on the desktop and then call Both-Apples-E.

Ba-E: This macro sets the current month (stored in Variable $1) and can be called at anytime to change the month.

Help

Ba-? or Ba-/ (unshifted ?) callup a small Help Screen as a reminder of which macro keys relate to specific transactions. Because of space limitations in the macro program no attempt has been made to use the "Help Screen" keys to call up the actual macros. You can exit from "Help" with escape, return, or oa-Q.

Subroutines

Subroutine macros (asr) can not be called from the keyboard.

Subroutine macro Sa-G is the key to the automatic posting feature of the Business Macro set. The letter denoting the column required is put into the variable "$8" by the calling macro.

For example, to make an entry into "Bank Charges" column $8 = "R". Sa-G then moves the cursor directly to Column "R" and awaits the entry.

Tools

Various simple macros which I find handy in working with these files are included. Among others these include macros to catalogue the disk, add files to the desktop, move to the next or previous desktop file, compile the macro set etc. etc. The macro Ba-E to change the month is included here and will be used periodically. Print out the macro set to see what is available.

Save And Backup

For safety you should save your spreadsheet file regularly and make a backup disk. These macros make this a little simpler.

Updating Macro File

When payment values change you will need to permanently update the word processor Macros Business file, save and recompile it, and also update the Task File. Macros Ba-U (Update) and Ba-V will assist in this.

Automatic Periodic Authority Payments.

This business has four payments made directly from the Bank A/C each month. These will be entered into the spreadsheet automatically, although you have the option of cancelling them.

The demonstration payments are :

> 1st Watkins P/L
> 1st Rent Ray White
> 15th Superannuation
> 22nd CTB Loan Repayment.

On changing the month (with Ba-E) these entries will recommence. The automatic entries are triggered by Macro Sa-5 – a staff wages macro which will be used every week.

A further explanation of these auto-payment macros is included in the macro set.

Credit And Debit Entries

These macros are straight forward and are explained in the macro set.

Messages

Several macros display messages on the screen and many of these are controlled by the "Wait" command. The values set are changeable to suit personal preference and will also depend on whether an Accelerator card (Transwarp), or chip is in use (As written these macros are in use with a Zip Chip).

Acknowledgments

While most of the macros are original the ideas, routines and in some cases whole macros have been gathered from various sources. In particular these include Beagle Bros. Macrotools and Macrotools 2 and the more recent disk Macroease. The book "Ultramacros Primer" by M. Munz (published by National AppleWorks User Group) has proved invaluable.

The author would welcome any suggestions.

> Brian V. McDonnell.
> (07) 349-5702

Part two of this article, will appear in the July Apple Bug and will contain a listing of the macros outlined in this issue.   The AW word processor files and templates are also available on disk from our Software Library. - Ed

Mac in Space

When Apple Computer encouraged folks to take the Macintosh Portable with them when they traveled, NASA listened. On Saturday, October 6, 1990, the space shuttle Discovery took off with a Macintosh Portable computer on board. The Portable ran without problems for 16 hours each day until it was stored for landing on Tuesday, October 9,1990.

The effort to get the Macintosh qualified and manifested for a flight took nearly two years which is extremely short in NASA time frames. Central to the short time was the robustness of the Portable: the only modification made to pass safety checks was the addition of a fuse in the battery to eliminate any danger from an accidental short. The case, display and logic board all passed extensive tests with flying colors-a feat almost unprecedented for anything above the sophistication of a screwdriver.

Several programs were used during the flight, including MacSPOC, a custom application that provides a graphic display of the orbital Position against a global map. It also displays the mission elapsed time, next earth observation site, any upcoming maneuvers, sunrise/sunset times (every 45 minutes!) and the current position in space. Based on its successful performance during this mission, the Macintosh is a likely companion on future flights, and plans for the space station.

This article was taken from the January/February 1991 issue of Quick Connect, the Newsletter for

New For the Apple

By Kelvin Saggers

Apple ImageWriter Clone

Mitsui Computer has released an Apple ImageWriter Clone called the Seikosha SP-2000AP.   The price including a cable is around $395.00 (yes that is Australian $).   The Printer is capable of 120cps, and features automatic paper loading, as well as being ImageWriter compatible. Check it out at your nearest Apple Dealer . . .

Anatomy software for the Apple . . .

InnerBodyWorks published by Tom Snyder Software for $US120.00, allows owners of a 1 Meg Apple //GS or Macintosh, explore the human body without cutting one open. The software also contains a game mode, but is basically designed to teach anatomy in the class room.

HyperCard IIgs

by Dale Rodgie

I have just received the full copy of HyperCard IIgs. However two of the disks are damaged. I hope to have this corrected by the next General Meeting. Copies will be available at the Software Library and it is *FREE*! You will require SIX 3.5 inch disks or if you do not have System 5.04 - EIGHT 3.5 inch disks.

Disks of the Month

by Dale Rodgie

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

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

HyperCard IIgs & System Software 5.04

Both HyperCard IIgs and System Software 5.04 are now available from the Software Library at the meeting. These are ,ree of charge - you supply the disks. HyperCard IIgs comes on SIX disks and System Software 5.04 is on TWO disks. HyperCard IIgs requires System Software 5.04 to run.

ProDOS 1.9 and Basic.System.

We also have free of charge a new ProDOS 8 System disk for Apple-Q Inc. members who own an Apple //e, Apple //c or Apple //+ now available from our Software Library - you supply the disk (blank disks are available at the meetings from the trading table. - see Graham).

GS Games Disk #8

Euchre v2.0 - Euchre, pronounced `Yu-ker, is a card game in which the team that calls trump must get three out of five tricks. Therefore, to start each hand, all four players start with five cards. This game is played with only the cards numbered 9 up through Ace. In the game Euchre v2.0, you and your computer partner play against two computer opponents. Your partner has been programmed to play very intelligently, however, so have your opponents. Instructions included.

Four Play v1.0 - This one looks a bit like Tetris but it is different. The squares drifting down must match the adjacent colours of their neighbors when they land, otherwise they turn grey. Grey & black match any colour. A complete row (and grey squares below it) disappears and the game speeds up slightly.

Milestones 2000 - Milestones 2000 is an automobile race game played with a special deck of cards. One player plays against the computer. It is written in ORCA Pascal, which uses the speed, the stereo sound, and the advantages of GS/OS 5.0.2. The program contains over 500K of digitized sound and graphics files, packed into a single 340K file for ease of use (using Apple's sound and graphics compression techniques).

Space Cluster - If you liked Galaxian, you will love Space Cluster. Based on the old game, Space Cluster also includes music. It can be played with either a joystick (recommended) or the keyboard. To run this game just boot the disk. The game includes a help screen - also check out the text file for more info.

FTA Xmas Demo

Here is another fantastic demo by the guys at the Free Tool Association. This demo features:
Bullwinkle: The Sequel - Bullwinkle Mouse attacked FTA, so they fight back.
The Split Demo - Did you know that graphics can be drawn on you monitor's boarder - FTA do. See the amazing stuff FTA does to the boarder.
Starwar Fractured Tale - A twist of that famous film. FTA's adventure against the Apple France Empire.
Christmas Gifts - The Christmas wishes from the FTA gang.
Also rock versions of your favorite Christmas carols all packed onto this disk.

Apple // Music/sound Disk #1

This double sided 5.25 disk {two sides for the price of one} contains simple music players, and sound effects for the Apple //.

Note: both disks use the Apple // speaker to create sound effects and music, so don't expect Apple //gs quality sound and music. AppleSoft, and machine code programers can learn a lot from simple music programs like these, some of which have been around as long as the Apple // it's self, to create sound effects, and music in their own Apple // programs.

Side One :
Turn your keyboard into an electronic piano with **Johann Sebastian Apple**. Discover how to generate sound on your computer with **Apple Piano**, and use the **Games Sounds Editor** to create you very own sound effects, and many, many more.
Side Two :
Banjo Tab allows you to learn to play the Banjo on your Apple //. With Banjo Tab you can write, edit and even print your own songs. The disk also comes with over 20 ready to play songs, and instructions.

Rumors, Wishes & Blatant Lies

By Dale Rodgie

Here it is! All the gossip in the Apple world. Truth, rumor and lies rolled into one.

Apple II

• The word is that Apple will soon be releasing a new card for the Apple IIe that supports the SuperDrive. This will allow the Apple II world to use the 1.44 megabyte High Density disks as well as the standard 800K disks. I don't know if a SuperDrive can be connected directly to the GS - however, the storage space on the High Density disk could hold the System files, HyperCard IIgs and the Home Stack. This means you will not need a hard drive to run HyperCard IIgs. According to A2-Central, both drives will be the same price. So if you are looking for a 3.5 inch drive, hold off for a while and get the new drive.

• Rumors about System 6.0 for the Apple IIgs have been heard. Apparently the Beta version has been completed. This version will allow you to read and write to Macintosh and MS-Dos disks. After the previous news, this seems

quite possible.

• A new Apple IIgs could be on the horizon - Apple are looking to redesign the GS to reduce the retail price. If what they did to the Mac Plus is any indication, it could be a good price drop.

Macintosh

• Soon Apple will be installing new 3.5 inch drives in all their production Macs. This will allow you to store over 2 megabytes on a single disk. You will need a special INIT to use the new features of the drive otherwise it will work as your standard SuperDrive. Also a special disk will be needed. The new Mac will also contain the new drive and will be fully supported by the hardware (no INIT needed). By the way, the new Mac will be using the 68040 microprocessor.

• Apple are currently working on the Finder for the IBM compatibles. Microsoft Windows has not really taken off as yet and Apple see the opportunity to make money. Good idea Apple!

• Claris are working on a Windows version of their Filemaker Pro. One source said that there is no Windows program available like Filemaker.

An Apple-Q Open Day

By Bob Godbehere

It's been a long time since I produced an article for the Apple-Bug. However, since the majority of our members have contact with the club only through our newsletter I thought to give you some idea as to what goes on at our open days.

The meeting starts at 11.00 am, and it's fairly informal with the Trading table, Hard Copy Library, and new user/renewal registrations open for business, looked after mainly by Graham, Ann, Ian and Marci. On the opposite side of the room, at the Software Library Table, Jeff and Dale are busy producing the disk of the month and other public domain disks for members who want the groups latest software, with Graham lending a hand when required, while John handles the Mac Public domain Library over in the far corner. Outside in the cold Bob, and Matthew set up the hot dog and coke stand.

At 12.00 noon we have our first demo, on the "Quickie" hand-held scanner by Kelvin which ran for 27 minutes, Kelvin then demonstrated "InWords" which lasted for 26 minutes. Robert Allan followed by showing us how he uses AppleWorks to help him run his shopping centre management business. Many thanks to both these gentlemen for their demonstrations.

In the meantime, out in the cold, Matthew was doing a great job with the hot dogs, (as long as we called him in from the playground each time).

The SIG's were started after these demos with the Macintosh users in the club taking up one corner and various other groups, like the Apple //GS SIG scattered around the room. The SIGs lasted until around 3.00pm when we started the committee meeting with 8 committee members in attendance and chaired by Ann White.

There were 33 mail articles received during the month which included 7 member renewal forms, which where tabled at the meeting.

Apple requested two names be sent to them as contacts for the Club, the two people nominated as club technical support representatives where Kelvin and Graham.

A package containing disks, manuals, etc for system 5.04 has arrived. The software librarian has the disks, whilst the manuals are held by our Hardcopy librarian Ian.

Our delegates to the Annual Apple User Group Convention were chosen and these are:- Kelvin, Dale, and Ann. This conference takes place in Sydney over our Open day weekend in July so feedback from that will be available to you in August. Each delegate has had to fork out $120.00 out of their own pockets to attend the convention, with Apple picking up the rest of the tab.

Other topics, like future demos were also discussed along with items like the suitability of the present venue, the Sysops report, the Treasures report, the Editors report etc. etc. The day finished around 5.30.

Please remember that you are welcome to sit in at the committee meetings, and that visitors are always welcome on Open days. Your feedback to us gives us a chance to organize things that you want done at open days etc.

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