

May 1989 Edition

Apple Bug

the newsletter of Apple-Q Inc.

In this Issue (Volume 8 Number 5)

Editorial	3
Programming Competition	3
Disk of the Month	4
Apple News	5
Macintosh Mumbblings	5
Double High-Resolution Graphics	6
Icecable Review	9
GEOS Review	10
Membership List	10
Help!	14
Stop FID Fretting	14

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

THE BRISBANE APPLE USERS' GROUP

Apple-Q Inc. Information Page

This Month...

Open Day

Sunday 21st May 1989

Hours: 9.00 am to 4.30 pm

Committee Meeting

Monday 22nd May 1989

Starts: 7.00 pm

Next Month...

Open Day

Sunday 18th June 1989

Hours: 9.00 am to 4.30 pm

Committee Meeting

Monday 19th June 1989

Starts: 7.00 pm

All meetings are held at:
Hooper Education Centre,
Kuran Street,
Wavell Heights

Executive Committee

Vince Crosdale	President	(07) 351-3090
John Finch	Vice-President	(07) 260-5218
Bob Godbehere	Secretary	(07) 808-3892
Bernie Benson	Treasurer	(07) 345-1545
Graham Black	Registrar	(07) 883-1525
Dale Rodgie	Editor	(075) 38-6942
Sheryl Mann	Software Librarian	(071) 96-7401
Brett Dutton	Hardcopy Librarian	(07) 397-8087

Bulletin Board - Apple-Q Inc. BBS

On-line: 24 hours a day

Telephone: (07) 851-1711 (Bulletin Board)
(07) 351-3090 (Voice)

Baud Rates: 300, 1200/75, 1200 & 2400 (CCITT & BELL)

Data Specs: 8 Data bits, 1 Stop bit, No Parity, Full Duplex

Synops: Vince Crosdale, Graham Black, Brett Dutton

The Apple-Q Inc. BBS has a new Phone Number:

(07) 851-1711

Membership Fees

(At the discretion of the Executive Committee)

Joining Fee - Adults: \$10.00 (add to Membership Fee when first joining)

Students: \$ 5.00 (under 21 years & on production of Student Card)

Adults/Students: \$25.00

Corporate Membership: \$50.00

Associate Membership: \$10.00 (plus \$5.00 joining fee - BBS only)

Copying Fees

Apple-Q 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 fee is \$3.00 per disk. See the software librarian at the next Open Day for a catalogue. Also see the "Disk of the Month" section for more great Public Domain software.

More Info...

- The copying of Commercially produced software cannot be sanctioned by Apple-Q Inc. and members who do so risk expulsion from the group.
- All contributions to the newsletter should be handed to a committee member at the Open Day, or posted to P.O. Box 6375, Gold Coast Mail Centre, Bundall, Queensland 4217. The deadline date is the committee meeting immediately following the Open Day.
- Application for membership or Renewal of membership should be sent to P.O. Box 698, Redcliffe, Queensland 4020. All other mail should be sent to the club's post office box - listed on the cover.
- Due to space restrictions, only Apple-Q Inc. members are allowed to set up their machines at the meetings. Make sure to display your membership card on your machine, or you will be required to pay a membership fee.
- No one is allowed behind the Trading Table counter except the committee members and anyone appointed to work at the Trading Table.

Editorial

by Dale Rodgie

On the 8th and 9th of April, Vince Crosdale and I journeyed to the city of Sydney for the inaugural Apple User Group Convention. This convention was organized by Apple Computer (or should I say Frank Revill) to bring together members from User Groups from all over Australia. Communication between the groups was the aim and it was a success. Fifteen User Groups and Associations attended the conference, they were:

AAPDA (Aust. Apple Programmers & Developers Assoc.)
 ACT Apple Users Group
 Australian GS Users Association
 Apple-Q Inc.
 AUSOM (Apple Users Society of Melbourne)
 Central Coast Users Group
 Club Mac
 Macintosh Association of Queensland
 South Australia Users Group
 Sunshine Coast Users Group
 Apple User Group (Sydney)
 Toowoomba Users Group
 Townsville Apple Users Group
 VMUG (Victorian Macintosh Users Group)
 Great Western Users Group

Members from two other groups could not attend the conference. They were: Tasmanian Apple Users Group and Western Australian Apple Users Group.

Topics discussed at the conference include the software library, BBS, membership, public relations, meetings. In relation to the software library, AAPDA has offered to assemble a national Public Domain software catalog. We will be able to use this catalog to swap software between groups.

I hope to start also swapping articles for the newsletter. This will increase the quality of the newsletter and also help out the smaller groups. On the BBS front, we were shown the new generation of Bulletin Board Systems. Read the **Apple News** for details. One thing I noticed was that the Apple-Q BBS is equal to, equipment wise, to any Apple II board run by other groups.

The dedication of some User Group members was amazing. One group that has six members sent three to the conference. All I can say is that I can't wait for the next conference.

Membership Fees

It was decided at the last Committee Meeting to increase the membership fees for the club, however the Joining Fee remains the same. The Joining Fee for Adults is \$10.00 and Students \$5.00 on presentation of a student card and if under 21 years. The annual Membership Fee has risen to \$25.00 for both Adults and Students. Corporate Membership stays unchanged. The Associate Membership Fee has risen to \$10.00 with a \$5.00 Joining Fee (BBS only). These fees take affect immediately.

**New
 Apple-Q Inc. BBS
 Phone Number**

The BBS has now moved to Vince's place. The new phone number is (07) 851-1711. Vince has already put a lot of work in upgrading the BBS. Have a good look around next time you log-on. A heap of new Public Domain software is now available for you to download. If you ring the old BBS number, you will get a message telling you the new BBS number.

The Great Apple-Q Magazine Giveaway!

We have a stack of Classic Apple Magazines to give away this Open Day. If you are a Apple II or II+ owner, this is a must. Hundreds of programs, tip, hints and some good reading is yours for the taking. See Brett Dutton at the Open Day for more details.

Please, No Smoking!

Please no smoking in the Hooper Centre. Cigarette smoke can damage disks and computers as well as affecting other people. If you wish to smoke, please go outside.

More Trading Table Bargains!

This Open Day the Trading Table is selling the following items. See someone at the Trading Table for more details.

Tractor Unit for Epson LQ600 printer	\$20.00 o.n.o.
Apple Modem 300/1200 accessory Kit (IIC)	\$10.00 o.n.o.
Apple DMP Cables	\$10.00 o.n.o.
Mouse Mats	\$ 9.00 each

Programming

I have been given permission to hold another programming competition and, hopefully, be able to continue to.

I had a few problems with coming up with another problem so you might have to put up with the odd painful problem. The next problem is one of file encryption.

File Encryption is where you substitute one character depending on a key. For example, a text file that contains the string: "The quick brown fox jumps over the lazy dog", could

be written like this:

ZTH LPBJVF ...etc... using the key:

original character: ABCDEFGHIJKLMNOPQRSTUVWXYZ
 character code: KFJGHIATBSVWCUXDLEYZPQRMNO

The program you write must read a text file and output the

Apple-Bug - 4

encrypted text to another file. As with the last competition, your entry must be handed to me on disk before the closing of the competition. The disk can either be formatted in Dos 3.3 or Prodos and the source code of the program must also be on the disk. Except for Applesoft Basic programs, the source code must be in a text file. Remember to label the disk so I know who the winner is. Again we are offering another software prize

for the winner and entries close at 12.00 p.m. 18th June.

Last Months Competition

For last months competition, entries close at 12.00 p.m. 21st May. For more information on the last competition, read last months Apple-Bug.

Disk of the Month

The Disk of the Month is proving to be vary popular. This month we have two disks of the month. The first is the **Dos 3.3 Utilities Disk** and the second is called the **ProDos Pot-Pourri**. These disks are available from the Software Library desk, just as you enter through the front door. The prices for the disks are as follows:

	with Disk	without Disk
5.25 inch	\$5.00	\$4.00
3.5 inch	\$8.00	\$5.00

The Dos 3.3 Utilities Disk is only available on a 5.25 inch disk since there is not standard for 3.5 inch Dos 3.3 disks and some of the Dos utilities will not work on 3.5 inch Dos 3.3 disks. Now let's have a look at whats on each disk:

Dos 3.3 Utilities Disk

Graphics Grabber - This one grabs parts of Hires pictures and converts them into the Printshop format.

Printshop Modifier - This is a patch for Printshop to allow you to use an Auto Ice printer card.

Syntax Checker - Checks for syntax errors in your Applesoft Basic programs.

Applesoft Prettylist - Displays an Applesoft Basic listing in an easy to read form. I can also be printed on paper.

Disk Details - Displays a sector map showing all used sectors.

Menu Writer - Scans a Dos 3.3 disk and creates a menu program. You can select which files appear in the list and disk you own title on the screen.

Diversi Copy - This is version 1.0 of this famous program. Diversi Copy allows you to copy 5.25 inch disks and format disks in Prodos, Dos 3.3, Pascal and CP/M.

Dogfight - This game is on the disk because it comes with Diversi Copy. It is a Hires flying game.

Disa-65C02 - This one disassembles sections of memory. It can either be displayed on the screen or printer. This also works well in Prodos.

Disk Compare - Disk Compare will check two disks to see if they are the same. It requires two 5.25 inch drives.

Disk Master - This program allows you to catalogue your disks, making programs easier to find.

Track Adder - Add an extra track to 5.25 inch disks.

Sector Adder - Add extra sectors on 5.25 inch disks by using unused catalog sectors.

Dos-Purge - Remove Dos 3.3 from the disk to get more disk space.

Disk Map - Displays a sector map of the disk.

Power Kez - Adds macros to Basic. You can create your own macros.

Disk Editor 2.0 - Modify Dos 3.3, edit sectors of a disk, search for strings or bytes. All menu driven.

Fix Sector Count II - Dos 3.3 has a bug that can loose track of some free sectors. Fix Sector Count II gives the correct number of free sectors on a disk.

Disk Catalog Printer - Prints a sorted catalog on the printer.

Reconstruct VTOC - Saves damaged disks.

Remember][- One member was looking for a Dos 3.3 Comms program, well here it is.

CP/Muffin - Convert files from CP/M yo Dos 3.3.

T/S Display Patch - Patches Dos 3.3 to display the track and sector when the disk is being accessed.

Prodos Pot-Pourri

Cyberfind - This is a virus cheker that looks for CyberAids and Festering Hate. These are the only two known Prodos viruses.

Font Editor - This is a font editor for GS, Superfonts and Publish It! fonts. (File type needs to be changed for Publish It!). Works on a Ile, Iic and IIGS.

System Setup - Here's a handy utility for Prodos 8 users. System Setup runs programs found in a certain directory on boot-up. Works on Ile and Iic.

Chameleon - Converts files between the four major operating systems (Prodos, Dos 3.3, Pascal and CP/M).

Dogpaw - This a an Applesoft command that displays text files and Appleworks word processor files on the screen. You can also print the files to the printer.

Windows - This is a front end for Dogpaw. It is easy to select text files to read or print and to run programs.

File Chopper - It you have long text files that don't fit in memory, yu need this program. File Chopper chops text files into a manageable size.

Fontrix to Multiscribe - Converts fonts from Fontrix to Multiscribe (Ile version).

TEX - This is version 2.01 of the program that appeared on the "Modem Utilities Disk of the Month". TEX removes carriage returns from text files, appeands text files, type text files and almost anything to do with (you guessed it) text files.

Type Changer - This excelant program changes the flie type of a file. No need to guess, just select the flie type from a menu.

Next Disk of the Month

Next month's disk of the month is already in the works. Next month we will have a collection of GS utilities. Keep reading Apple-Bug for details. If you have any ideas for Disk of the Month, please talk to one of the committee members.

Apple News

Appleworks GS Upgrade

Version 1.1 of Appleworks GS should be available in May according to the Australian distributor, Dataflow. Registered owners of the program will receive a letter in the mail regarding the new version. You will be asked to send the original disk to Dataflow and version 1.1 will be sent to you. Version 1.1 of Appleworks GS has many of the bugs fixed that are found in version 1.0. According to Dataflow, most of the problems are caused by using Appleworks GS on 1.25 megabyte machines. Even though 1.25 megabytes is the minimum requirement, version 1.0 prefers greater amounts of RAM. This is fixed in version 1.1. Also version 1.1 has improved printing, with up to a 50% improvement in printing speed. Other improvements include cropping for imported graphics, better "match records" command and better handling of colours. This will be greatly accepted. For the **Apple IIe and IIc owners**, a new version of Appleworks (version 3.0) could be available later this year.

Bye A+

After the May 1989 issue, A+ will merge with inCider magazine. The company that owns A+, Ziff-Davis Publishing Company, has sold the A+ magazine to IDG Communications/Peterborough. InCider will offer a special deal for people who subscribe to both publications.

Totally Amazing GS/BS

No, its not another typo. GS/BS is a new telecommunications system for the Apple IIGS. It was demonstrated at the Apple User Group Conference in Sydney, last month. GS/BS comes in two parts. A program for the BBS (host) computer and another for your home computer. It is a dedicated communications package - it uses its own protocol to transfer files between the host and your GS. It uses the full Human (WIMP) Interface.

You can easily change between message boards or file transfer sections from one of the pull-down menus. File transfer allows you to check out the details of a file before you download it.

Like most bulletin board systems, you can leave messages on different message boards. However, unlike other boards that store only the text message, GS/BS stores the message as a picture. Pictures drawn using your favorite painting program can be imported into the program and then sent to the BBS. So both text and pictures can be used in your message. GS/BS has its own painting program built-in, so you can write (or paint) the message in the package. When you are finished with the message, GS/BS compacts the picture and sends it to the host

computer.

The author of ProBoard, Chris Nelligan, is one of the authors working on this program. This is one of the new breed of GS programs that shows what the GS is capable of. GS/BS is still in its pre-release version. Keep reading Apple-Bug for more details on this great program.

Apple Card

Do you have a old IBM or compatible laying around, yes Graham you. You can turn it into a productive Apple with the Trackstar E card. It is a 65C02 coprocessor card that fits into one of the slot of that (yuk) computer. Trackstar E emulates an 128K Apple with built-in clock, 40 and 80 column video and a 5.25 inch drive port. It also comes with 128K of RAM. Using the card, you can store Apple file on an IBM hard drive and transfer files between MS-DOS and Prodos. The cost is \$445.00 (US) and it is available from Diamond Computer Systems, 470 Lakeside Drive, Sunnyvale, CA 94086, U.S.A. Phone 0011-1-408-736-2000.

Macintosh II upgrade card

Rumours are flying about a card for the Macintosh II and Iix that emulates an Apple IIGS. It will give the Macintosh II all the features of the GS. You will also be able to use the Apple PC drive for the 5.25 inch disks. The card contains the Equosniq sound chip that produces CD quality sound and a modified version of the 65C816 micro processor that uses a gate array and caching to slow down the Macintosh II to the GS's speed. Price is not available at the time of publication.

ImageWriter LQ Upgrade

LQ owners can get a free upgrade for your printer. The upgrade will fix many of the problems with the current LQ. The new version has improved quality, performance and it is quieter. Unlike in the States, a number of parts are replaced in the unit, and not the whole printer. This is at no cost to you. Contact your local dealer for more details.

RGB for the IIc

'One member has been looking for months for an adapter to connect his Apple IIc to an RGB Monitor - well here it is. A company called "Telexmax" has delevoped an adapter to run either a digital or analog RGB monitor from your IIc. It is call "Peacock" and it costs \$199.00 (US). For more infomation, contact: Telexmax, P.O. Box 339, Washington, PA 18976 - Phone 0011-1-215-343-3000.

Macintosh Mumblings

by John Finch

New disks in the Mac PD library include:

Update on **Hypercard**. **Version 1.2.2**. This free upgrade comes with a text stack listing the changes and some notes. Also included is an update on the Australian Post Codes stack.

Attache version 4 demo. This demo disk allows you

to run Attache with a lot of demonstration files. Attache is a business application for mailing etc. I am unable to run the demo fully as an extended keyboard is assumed, which I do not have. If you are looking for business software, this may be for you.

Another demonstration disk received is of **Wingz**. This

Apple-Bug - 6

program is really something, and in the few minutes I spent with the program I came no where near to finding out its full capabilities. Basically **Wingz** is a spread sheet, but with one difference. To start with it has one billion cells (32,768 columns, 32,768 rows - Excel has 4 million cells). On top of this it has a graphics and text entering capabilities that allow you to produce reports that are as full and detailed as you wish - import clip art, use fancy fonts, draw borders - all in colour if you have a Mac II.

The charting facility is a dream, with 20 basic styles to

choose from. You can build 3D charts, and then rotate them to view from any angle. You can even build a contour map in 3D. Enter Hypercard like buttons to allow linking between files, or use Hyperscript to create user definable functions. Like Attache there is a catch, In this case a hard disk and at least a Mac plus are the mimimum configuration for running the full program, however the demo can be run with two 800K drives. Yes, the demo is on two disks and totals above 1.5 Mb. If you need a top line spreadsheet program, and you can justify the \$700+ it costs, then have a look at **Wingz**, and you too can learn to fly.

Apple Iie Double High-Resolution Graphics (Part 2)

Revised by:

Matt Deatherage, Glenn A. Baxter & Cameron Birse (November 1988)

Written by:

Peter Baum (September 1983)

This Technical Note is a tutorial on double high-resolution (hi-res) graphics, a feature available on 128K Apple Iie, Iic, and IIGS computers.

EDITOR: This is part two of this article. The first part appeared in the April edition. This final part of the technical covers the use of the AUXMOVE routine in ROM.

Using AUXMOVE

You use the AUXMOVE routine to move data blocks between main and auxiliary memory, but the task still remains of setting up the routine so that it knows which data to write, and where to write it. To use this routine, some byte pairs in the zero page must be setup with the data block addresses, and the carry bit must be fixed to indicate the direction of the move.

You may not be surprised to learn that the byte pairs in the zero page used by AUXMOVE are also the scratch-pad registers used by the monitor during instruction execution. The result is that while you type the addresses for the monitor's move command, those addresses are being stored in the byte pairs used by AUXMOVE. Thereafter, you can call the AUXMOVE command directly, using the USER (Control-Y) command.

In practice, then, enter the following instructions:

```
C00A:0      (turns on the 80-column ROM,
             which contains the AUXMOVE
             routine)
C000:0      (reason explained below)
3F8: 4C 11 C3 (the jump to AUXMOVE)
2000<2000.3FFF ^Y (where ^Y indicates that you should
                  type Control-Y)
```

The syntax for this USER (Control-Y) command is:

```
{AUXdest}<{MBstart}.{MBend}^Y
```

The command copies the values in the range MBstart to MBend in the motherboard memory into the auxiliary memory beginning at AUXdest. This command is analogous to the MOVE command.

You can use this procedure to transfer any block of data from the motherboard memory to hi-res page 1X. Working directly from the keyboard, you can use a data block transferred this way to fill in any part of a double hi-res screen image. The image to be stored in hi-res page 1X (i.e., the image that will be displayed in the even-numbered columns of the double hi-res picture) must first be stored in the motherboard memory. You can then use the Control-Y command to transfer the image to hi-res page 1X.

The AUXMOVE routine uses the RAMRD and RAMWRT switches to transfer the data blocks. Because the 80STORE switch overrides the RAMRD and RAMWRT switches, the 80STORE switch must be turned off--otherwise it would keep the transfer from occurring properly (hence the write to \$C000 above).

If the 80STORE and HIRES switches are on and PAGE2 is off, when you execute AUXMOVE, any access to an address located within the range from \$2000 to \$3FFF inclusive would use the motherboard memory, regardless of how RAMRD and RAMWRT are set. Entering the command C000:0 <cr> turns off 80STORE, thus letting the RAMRD and RAMWRT switches control the memory banking.

The Control-Y trick described above only works for transferring data blocks from the main (motherboard) memory to auxiliary memory (because the monitor always enters the AUXMOVE routine with the carry bit set). To move data blocks from the auxiliary memory to the main memory, you must enter AUXMOVE with the carry bit clear. You can use

the following routine to transfer data blocks in either direction:

```
301:AD 0 3    (loads the contents of address $300 into the
              accumulator)
304:2A        (rotates the most-significant bit into the
              carry flag)
305:4C 11 C3  (jump to $C311 (AUXMOVE))
3F8:4C 1 3    (sets the Control-Y command to jump to
              address $301)
```

Before using this routine, you must modify memory location \$300, depending on the direction in which you want to transfer the data blocks. If the transfer is from the auxiliary memory to the motherboard, you must clear location \$300 to zero. If the transfer is from the motherboard to the auxiliary memory, you must set location \$300 to \$FF.

Two Double Hi-Res Pages

So far, we have only discussed using graphics pages 1 and 1X to display double hi-res pictures. But--analogous to the standard hi-res pages 1 and 2--two double hi-res pages exist: pages 1 and 1X, at locations \$2000 through 3FFF, and pages 2 and 2X, at locations \$4000 through 5FFF. The only trick in displaying the second double hi-res page is that you must turn off the 80STORE switch. If the 80STORE switch is on, then only the first page (1 and 1X) is displayed. Go ahead and try it:

```
C000:0        to turn off the 80STORE switch
C055          to turn on the PAGE2 switch
```

The screen will fill with another display of random bits. Clear the screen using the instructions listed above (in the Using AUXMOVE section). However, this time, use addresses \$4000 through 5FFF instead. (Don't be alarmed by the fact that the figures you are typing are not displayed on the screen. They are being "displayed" on text page 1.)

```
4000:0
4001<4000.5FFFM
4000<4000.5FFF ^Y
```

You will be delighted to learn that you can also use this trick to display two 80-column text screens. The only problem here is that the 80-column firmware continually turns on the 80STORE switch, which prevents the display of the second 80-column screen. However, if you write your own 80-column display driver, then you can use both of the 80-column screens.

Colour Madness

It should come as no surprise that colour-display techniques in double hires are different from colour-display techniques in standard hi-res. This difference is because the half-dot shift does not exist in double hi-res mode.

Instead of going into a dissertation on how a television set decodes and displays a colour signal, I'll simply explain how to generate colour in double hi-res mode. In the following examples, the term colour monitor refers to either an NTSC monitor or a colour television set. Both work; however, the displays will be much harder to see on the colour television. The generation of colour in double hi-res demands sacrifices. A 560 x 192 dot display is not possible in colour. Instead, the

horizontal resolution decreases by a factor of four (140 dots across the screen). Just as with a black-and-white monitor, a simple correspondence exists between memory and the pixels on the screen. The difference is that four bits are required to determine each colour pixel. These four bits represent 16 different combinations: one for each of the colours available in double hi-res. (These are the same colours that are available in the low-resolution mode.)

Let's start by exploring the pattern that must be stored in memory to draw a single coloured line across the screen. Use a colour demonstration program (such as COLOR.TEST from older DOS 3.3 System Master disks) to adjust the colours displayed by your monitor. After you have adjusted the colours, exit from the colour demonstration program.

The instructions that appear below are divided into groups separated by blank lines. Because it is very difficult (and, on a television set, almost impossible) to read the characters you are typing as they appear on the screen, you will probably make typing errors. If the instructions appear not to work, then start again from the beginning of a group of instructions.

```
CALL -151      (to get into the monitor
               routine/program)
C050          (This set of instructions puts the
               computer into double hi-res mode)
C057
C05E
C00D:0
2000:0        (This set of instructions clears first
               one half of the screen, and then the
               other half of the screen.)
2001<2000.3FFFM
3F8: 4C 11 C3
2000<2000.3FFF^Y
2100:11 4     (Two red dots appear on top left of
               screen)
2102<2100.2126M (A dashed red line appears across
               screen)
2150:8 22     (Two green dots appear near bottom
               left)
2152<2150.2175M (Dashed green line appears across
               screen)
2100<2150.2177^Y (Fills in the red line)
```

In contrast to conditions in standard hi-res, no half-dot shift occurs, and the most-significant bit of each byte is not used.

As noted above, four bits determine a colour. You can paint a one-colour line across the screen simply by repeating a four-bit pattern across the screen, but it is much easier to write a whole byte rather than just change four bits at a time. Since only seven bits of each byte are displayed (as noted earlier in our discussion of black-and-white double hi-res) and the pattern is four bits wide, it repeats itself every 28 bits or four bytes. Use the instructions listed below to draw a line of any colour across the screen by repeating a four byte pattern for the color as shown in Table 2.

```
2200: main1 main2 (Coloured dots appear at the left
                  edge)
2202<2200.2226M  (A dashed, coloured line appears)
2250: aux1 aux2
2250<2250.2276M
```

Apple-Bug - 8

2200<2250.2276^Y (Fills in line, using the selected colour)

Colour	Repeated Binary				Pattern
	aux1	main1	aux2	main2	
Black	00	00	00	00	0000
Magenta	08	11	22	44	0001
Brown	04	08	11	22	0010
Orange	4C	19	33	66	0011
Dark Green	22	44	08	11	0100
Grey1	2A	55	2A	55	0101
Green	66	4C	19	33	0110
Yellow	6E	5D	3B	77	0111
Dark Blue	11	22	44	08	1000
Violet	19	33	66	4C	1001
Grey2	55	2A	55	2A	1010
Pink	5D	3B	77	6E	1011
Medium Blue	33	66	4C	19	1100
Light Blue	3B	77	6E	5D	1101
Aqua	77	6E	5D	3B	1110
White	7F	7F	7F	7F	1111

Table 2 - The Sixteen Colours

In Table 2, the heading aux1 indicates the first, fifth, ninth, thirteenth, etc. byte of each line (i.e., every fourth byte, starting with the first byte). The heading main1 indicates the second, sixth, tenth, fourteenth, etc. byte of each line (i.e., every fourth byte, starting with the second byte). The aux2 and main2 headings indicate every fourth byte, starting with the third and fourth bytes of each line, respectively. Aux1 and aux2 are always stored in auxiliary memory, while main1 and main2 are always stored in the motherboard memory.

As you will infer from Table 2, the absolute position of a byte also determines the colour displayed. If you write an 8 into the first byte at the far left side of the screen (i.e., in the aux1 column), then a red dot is displayed. But if you write an 8 into the third byte at the left side of the screen (the aux2 column), then a dark green dot is displayed. Remember, the color monitor decides which colour to display based on the relative position of the bits on each line (i.e., on how far the bits are from the left edge of the screen).

So far, so good. But suppose you want to display more than one colour on a single line. It's easy: just change the four-bit pattern that is stored in memory. For example, if you want the left half of the line to be red, and the right half to be purple, then store the red pattern (8, 11, 22, 44) in the first 40 bytes of the line, then store the purple pattern (19, 33, 66, 4C) in the second 40 bytes of the line. Table 2 is a useful reference tool for switching from one colour to another, provided you make the change on a byte boundary. In other words, you must start a new colour at the same point in the pattern at which the old colour ended. For example, if the old colour stops after you write a byte from the main1 column, then you should start the new colour by storing the next byte in memory with a byte from the aux2 column. This procedure is illustrated below:

```
2028:11 44 11 44 11 44 11 77 5D 77 5D 77
      5D (creates a dashed line that is red then yellow)
2128: 8 22 8 22 8 22 8 22 6E 3B 6E 3B 6E
2028<2128.2134^Y
      (fills in the rest of the colours)
```

Switching Colours in Mid-Byte

If you want a line to change colour in the middle of a byte, you will have to recalculate the column, based on the information in Table 2. Suppose you want to divide the screen into three vertical sections, each a different colour. The leftmost third of the screen ends in the middle of the 27th character from the left edge—that is, in an aux2 column of the colour table. (Dividing 27 by 4 gives a remainder of 3, which indicates the third column, or aux2.) Your pattern should change from the first colour to the second colour after the 5th bit of the 27th byte. You can change the colour in the middle of a byte by selecting the appropriate bytes from the aux2 column of Table 2 and concatenating two bits for the second colour with five bits for the first colour.

However, because the bits from each byte are shifted out in order from least significant to most significant, the two most significant bits (in this case bits 5 and 6, because bit 7 is unused) for the second colour are concatenated with the five least significant bits for the first colour. For instance, if you want the colour to change from orange (the first colour) to green (the second colour), then you must append the two most significant bits (5 and 6) of green to the five least significant bits (0-4) of orange. In Table 2, the aux2 column byte for green is 19, and the two most significant bits are both clear. The aux2 column byte for orange is 33, and the five least significant bits are equal to 10011. The new byte calculated from appending green (00) to orange (10011) yields 13 (0010011). Therefore, the first 26 bytes of the line come from the table values for orange; the 27th byte is 13, and the next 26 bytes come from the table values for green.

```
2300: 19 66 (puts an orange line on the screen)
2302<2300.2310M
2350: 4C 33
2352<2350.2360M
2300<2350.2360^Y
230D: 33 4C 33 4C 33 4C 33 4C (puts a green line next to it)
235D: 13 66 19 66 19 66 19 66 (note the first byte)
230D<235D.2363^Y
```

There you have it: a basic explanation of how double hi-res works—except for one or two anomalies. The first anomaly is that NTSC monitors have a limited display range. The second anomaly shows one of the features of double hi-res versus a limitation of standard hi-res.

An NTSC colour monitor decides what colour to display based on its view of four bit windows in each line, starting from the left edge of the screen. The monitor looks at the first four bits, determines which colour is called for, then shifts one bit to the right and determines the colour for this new four-bit window. But remember, the colour depends not only on the pattern, but also the position of the pattern. To compensate for relative position from the left edge of the screen, the monitor keeps track of where on each line each of these windows start. (For those of you of the technical persuasion, this is done through the use of the colour burst signal, which is a 3.58 MHz. clock).

Try this example:

```
2000:0          (Clears the screen)
2001i<2000.3FFFFM
2000<2000.3FFF^Y
2001:66        (Draws an orange box in the upper
                left)

2401:66
2801:66
2C01:66
3001:66
2050:33        (Draws a blue box below and to the
                right of the orange box)

3402<2050.2050^Y
3802<2050.2050^Y
3C02<2050.2050^Y
```

Notice that if the blue box was drawn at the top of the screen, next to the orange box, they would overlap. Yet, the boxes were drawn on two different columns, orange on main2 and blue on aux1. This can be explained by the previous paragraph, and the sliding windows. The monitor will detect the pattern for orange slightly after the main2 column, while the pattern for blue shows up before column aux1.

The orange pattern is as follows:

```
0000000 | 0110011 | 0000000
  aux2 |   main2 |   aux1
```

Look at four-bit windows and you will see an orange pattern overlaps on both sides. If a pattern is repeated on a line, this overlap does not cause a problem, since the same colour just overlaps itself. But watch what happens when a new pattern is started next to a different pattern:

```
3002<2050.2050^Y  (Puts a blue pattern next to the
                    orange one)
2C02<2050.2050^Y
2802<2050.2050^Y
```

Where the blue overlaps the orange, you will see a white dot. This effect is because one of the four-bit windows the monitor sees is all 1s. If two colours are placed right next to each other, the monitor will sometimes display a third colour, or fringe, at the boundary. This fringe effect is especially noticeable when there are a lot of narrow columns of different colours next to each other. (Next time you run colour TEST take a look at the boundaries between the colours).

The orange and blue pattern is as follows - note the four 1s in a row at the boundary between orange and blue.

```
0000000 |0110011 | 11001100
  aux2 |   main2 |   aux1
```

Conclusion

Now you have the tools and the rules to the double hi-res mode. As you can see, double hi-res has more colour with higher resolution than standard hi-res. You can even develop games that do fancy animation or scroll orange objects across green backgrounds. You can develop word processing programs which use different fonts or proportional character sets in black and white. Have fun playing with his new mode.

Further Reference

- Apple IIe Technical Reference Manual
- Apple IIc Technical Reference Manual
- Apple IIGS Hardware Reference

Icecable Review

by *Graham Back*

ICECABLE: from Automatic Ice Co.

Do you have the problem of owning software that will only recognise the Imagewriter printer, and not your Epson, or Epson compatible printer? I do, and I got fed up with it, so I bought the new *ICECABLE* which is the *Epson to Imagewriter converter*, and it works. I will have it at the next Open-Day, so if you are interested you can have a look at it. This one I bought is for the LQ series with the 24 pin head (there is also one for the 9 pin head printers).

It connects directly to your Super Serial Card, if you have a][+ or][e, and directly to the serial printer port on the][c,][GS and Mac. Mind you, you need to specify which machine you have, because the plugs are different on each machine. The *ICECABLE* allows your *EPSON* to impersonate the *IMAGEWRITER*, but it can also be used as a direct Serial/Parallel converter, without any imitating what-so-ever.

Which means, you can still pass the normal control codes to the printer.

Let me quote from the manual:

"The ICECABLE accepts the serial printer output from the full range of Apple computers and converts it to a format suitable for EPSON and EPSON COMPATIBLE printers. Most printers require Centronics Parallel input signals and operate on a more-or-less standard set of control codes made popular by the EPSON company. Apple computers generate a serial printer output with their own unique range of graphic and character control codes, ensuring that only the Apple Imagewriter printer will work satisfactorily with Apple computers. The ICECABLE changes this serial output to Centronics parallel format and converts the control codes so that EPSON compatible printers mimic the Imagewriter almost perfectly, even generating the Apple Mousetext characters."

They work really well for what they are and can be ordered through the Trading Table for \$99.00.

**Remember the new Apple-Q Inc. BBS Phone Number:
(07) 851-1711**

GEOS

Graphic Environment Operating System

by Duncan Dempster

How would you like a fully integrated home productivity program which handles word processing complete with text import from other popular programs, multiple fonts and type styles, spellchecking and mail merge, a full fledged paint/draw feature, full

text and graphics integration, a data base, a spreadsheet and a desktop publisher, plus a bagfull of desk accessories such as alarm clock, note pad and calculator? If so, GEOS may be just your cup of tea. But, like many "tgtbt" (too good to be true) software packages, the advertising claims for this formidable program are true only under certain conditions. Before you run right down to your favorite software house, take time out to consider all the pros and cons...there are a lot of each.

First, some basics: GEOS is extremely versatile, running on any of the II family from the IIe (must have 80-column) to the IIc and IIc+ (not available in Australia) to the IIGS (in IIe emulation mode only) as well as all the Laser clones. Absolute minimum RAM requirement is 128K. It will recognize up to 4 standard disk storage devices including all the currently available media...5.25 inch, 3.5 inch, hard drive and RAMdrive and will even operate using a 5.25 inch single drive! It's compatible with just about any peripheral or add-on you might have including all RAMcards, all hardware clocks, most serial cards and most printers, all accelerators (ZIP, Rocket, etc) and any mouse or joystick. The initial configuration process is a little tricky but not impossible if you follow the well written documentation. In short, the folks at Berkeley Software anticipated just about any hardware lashup an Apple II owner might have and included it in the configuration routines. One clever little extra touch: if you don't have a clockcard or No-slot clock, GEOS will simulate one in software which you can set **when** you boot and even as a real-time alarm clock (not super accurate but it does the job).

Basically, GEOS is two different animals. First, it's a complete operating system in itself, different from and incompatible with Prodos. That's not necessarily bad, but consider it a basic fact which you should understand. GEOS starts out with a Prodos file to load itself into your Apple RAM. And there are also utilities to load many Prodos WP files (APW, Multiscribe, WordPerfect and generic ASCII) into its word processor or many popular graphic or clipart files (Print Shop, Print Master, Newsroom and DazzleDraw) into its paint module. But beyond that, the files that GEOS creates are unique files, not Prodos files, and they cannot later be read into any other Prodos based application.

Second, GEOS is a full featured, integrated

Membership List

Below is a list of the current club members and their phone number. If you have a problem during the month, someone in your area may be able to help you. For this reason the list is arranged in Post Code order.

<u>Name</u>	<u>Suburb</u>	<u>P/C</u>	<u>Telephone</u>
Bone, Geoff	Alstonville	2477	(066) 86 7003
Hart, Paul F.	Murwillumbah	2484	(066) 72 1973
Loader, Mrs.jenny	Banora Point	2486	(075) 54 1325
Seet, Geoffrey	Brisbane	4000	(07) 300 3162
Allen, Peter	Petrie Tce	4000	(07) 832 4006
Carey, Norman	Spring Hill	4000	(07) 252 3097
Gresham, P.	Brisbane	4001	(07) 378 5360
Crowther, Geoffrey	Clayfield	4011	(07) 262 4333
Giddens, Leonard	Clayfield	4011	(07) 262 4205
Nelson, Ken	Wavell Heights	4012	(07) 266 2239
Truscott, Tony	Wavell Heights	4012	(07) 266 4795
Raguse, Don	Wavell Heights	4012	(07) 266 1801
Finch, John	Nundah	4012	(07) 260 5218
Lloyd, Philip	Banyo	4014	(07) 267 7330
Ramsay, James	Virginia	4014	(07) 260 5630
Avenall, Stephen	Sangate	4017	(07) 269 4646
Stevenson, Ian	Bracken Ridge	4017	(07) 269 6699
Mcsweneey, Shane	Margate	4019	(07) 284 1723
Dadson, Anthony	Clontarf	4019	(07) 283 1490
Black, Graham	Kippa Ring	4020	(07) 883 1525
Patel, Nikhil	Windsor	4030	(07) 357 6884
Lockyer, Michael	West Chermshire	4032	(07) 359 1368
Sakadakis, Jason	West Chermshire	4032	(07) 359 3788
Lockyer, David	West Chermshire	4032	(07) 359 1368
Law, Kay	Chermshire	4032	(07) 359 9450
Solly, Paul.v	Aspley	4034	(07) 263 6828
Maclean, Rod	Geebung	4034	(07) 265 5034
Coade, Peter	Geebung	4034	(07) 265 6425
Gauci, John	Zillmere	4034	(07) 265 1642
Dutton, Brett	Geebung	4034	(07) 265 5112
Gorta, Peter	Albany Hills	4035	(07) 264 2723
Galt, Geoffrey	The Grange	4051	(07) 355 5161
Robertson, Neil	Everton Park	4053	(07) 354 3111
Buckney, Shane	Stafford	4053	(07) 352 5087
Piper, Mark	Everton Park	4053	(07) 285 5823
Fortescue, Jeffrey	Everton Park	4053	(07) 355 4431
O'Neill, Megan	Mcdowall	4053	(07) 353 1306
Brennan, Michael	Everton Park	4053	(07) 355 7771
Amos, Stephen	Everton Hills	4053	(07) 359 1954
Franklin, Travis	Stafford	4053	(07) 350 3247
Gold, Alan	Stafford Heights	4053	(07) 353 3698
Dempsey, Peter	Stafford Heights	4053	(07) 353 3483
Tuesley, Cameron	Everton Park	4053	(07) 355 5467
Lukacz, Alex	Everton Park	4053	(07) 353 3907

<u>Name</u>	<u>Suburb</u>	<u>P/C</u>	<u>Telephone</u>
Pappin, Mark	Everton Park	4053	(07) 354 1295
Batterbury, Kevin	Mitchelton	4053	(07) 355 9820
Kircher, Gerd	Ferny Grove	4055	(07) 351 5113
Feredoes, Joseph	Ferny Grove	4055	(07) 351 4930
Dowding, Edward	Ferny Hills	4055	(07) 351 5782
Crosdale, Vince	Ferny Grove	4055	(07) 351 3090
Hollamby, John	Ashgrove	4060	(07) 38 6307
Lowis, Jan	The Gap	4061	(07) 300 3079
Crouch, Noel	The Gap	4061	(07) 300 1224
Thomsen, Neal	The Gap	4061	(07) 300 3731
Longhurst, Andrew	The Gap	4061	(07) 330 3320
White, Geoffrey	The Gap	4061	(07) 300 4908
Stent Family	The Gap	4061	(07) 300 4129
Davis, Jared	Paddington	4064	(07) 369 0176
Eltham, Tim	Bardon	4065	(07) 366 6949
Anderson, Jake & Daph	Bardon	4065	(07) 369 1670
Keogh, Reuben	Toowong	4066	(07) 371 3808
Galeazzi, Celso	Toowong	4066	(07) 371 8054
Phillips, Bill & Family	Auchenflower	4066	(07) 870 9766
Casu, Rosanne	Indooroopilly	4068	(07) 870 9151
O'sullivan, Denise	Taringa	4068	(07) 870 1352
Mcinnally, John	Chelmer	4068	(07) 379 4974
Blackett, Len	Indooroopilly	4068	(07) 378 3963
Hughes, Martin & Family	Kenmore	4069	(07) 378 2254
Rabaa, Peter	Chapel Hill	4069	(07) 378 2104
Hamilton, Andrew	Kenmore	4069	(07) 378 9953
Lee, George.& Family	Pullenvale	4069	(07) 202 7180
Brown, Gordon	Bellbowrie	4070	(07) 202 6773
Rich, Roy	Moggill	4070	(07) 202 6135
Sanders, Andrew	Jindalee	4074	(09) 376 8900
Bajenoff, Don	Mt. Ommaney	4074	(07) 376 8235
Pulman, James	Jindalee	4074	(07) 376 1213
Chipperfield, John	Sherwood	4075	(07) 379 7694
Low, B.& Family	Durack	4075	(07) 372 3400
Eggesfield, Richard	Oxley	4075	(07) 379 9379
Tainton, Grahame	Durack	4077	(07) 372 2881
Young Family	Inala	4077	(07) 372 1548
O'sullivan, D	Brisbane	4101	(07) 844 9360
Conrick, Mrs.moya	Highgate Hill	4101	(07) 844 7912
Enevoldsen, Fiona	Highgate Hill	4101	(07) 844 7728
Piat-niski, Family	West End	4101	(07) 368 2878
Lammerts, Edward	Woolloongabba	4102	(07) 391 8305
Plath, Osmond	Annerley	4103	(07) 848 8834
Bowles, Gilbert	Annerley	4103	(07) 848 2132
Littman, Mervyn	Annerley	4103	(07) 848 1539
Cremona, Eleni	Salisbury	4107	(07) 274 1471
Hobson, Mervyn & Family	Robertson	4109	(07) 345 5524
Smith, Ken	Sunnybank Hills	4109	(07) 345 4995
Keynes, Nathan	Macgregor	4109	(07) 343 1061
Benson, Bernie	Sunnybank Hills	4109	(07) 345 1545
Homeming, Lyndon	Pallara	4110	(07) 372 3674
White, Ann	Acacia Ridge	4110	(07) 875 1601
Aspland, John	Kuraby	4112	(07) 368 2420
Karlsson, Bob	Woodridge	4114	(07) 208 7855
Moore, Robert	Woodridge	4114	(07) 208 6313
Saggers, Kelvin	Browns Plains	4118	(07) 800 4660
Wright, Andrew	Browns Plains	4118	(07) 800 1216
Bowring, Tony	Greenslopes	4120	(07) 397 6263
Lobodin, Nickolace	Holland Park	4121	(07) 349 3246
Stock, Heather	Tarragindi	4121	(07) 848 3510
Moss Family	Mt. Gravatt	4122	(07) 349 3281

application whose different parts are all cleverly tied together through the medium of the GEOS desktop, which is at once a capable program launcher and a friendly interface with the unique operating system. Mac and GS users will find the mouse driven point and click metaphor old hat. IIe/IIc users will welcome it as a great new innovation. The learning curve is quite flat...it shouldn't take the average user more than an hour to get the hang of navigating the desktop, and all the applications, for that matter, with the mouse. Absent a mouse, a joystick will work reasonably well and many of the necessary commands are also replicated with closed-apple keyboard combinations as well (although this method is not recommended).

From the GEOS desktop, you can easily perform any of the standard file management commands such as copy, delete, rename, print a file (to a printer but not to the screen), change the current volume and catalog any volume. You seldom ever lay a finger on the keyboard; instead you click and move the little pointer around the screen to various icons like the little waste basket (delete), the printer (print) and the disks (copy).

Finally, after you've tired of the frills and are ready to get down to business, there are the actual GEOS applications. The basic GEOS package contains 2 main applications - geoWRITE (with its associated Text Grabber, geoSPELL, geoMERGE and geoLASER), and geoPAINT (with its associated Graphics Grabber), plus some assorted Desk Accessories (Alarm Clock, Calculator, Note Pad, Photo Manager and Text Manager). For further productivity, Berkley Softworks sells separate standalone programs called geoFILE, geoCALC and geoPUBLISH. These latter were not reviewed but the basic GEOS provides short demos on geoCALC and geoFILE to entice you into buying them as well.

GeoWRITE is a capable word processor which includes most of the features we all expect. You can do just about anything you're accustomed to doing in Appleworks, and then some. Many fonts are available, so long as you've loaded the appropriate font files on the proper disk. Styles are a bit different...they're always available for any of the fonts and include bold, italic, outline, underline, superscript and subscript. In addition, there's a fullpage preview feature which allows you to see the actual page layout (including merged graphics) of any page. Screen print is also available at the touch of the familiar Apple-H combination...in any of the applications.

GeoMERGE is a rather slow but effective form of mail merge available as a separate module where you can merge data onto a form

letter from either a geoFILE database, a specially constructed geoWRITE file or on-the-fly keyboard entry. Besides simple data merging, geoMERGE also provides for some if-then-else logic which allows inclusion or exclusion of certain data depending on a condition you can set up in the merge document.

GeoSPELL is rather slow but adequate, using a bantamweight 38,000 word master dictionary (some including roots plus obvious suffix variants, others in root form only) and any number of custom dictionaries. You can add words, but only to your custom dictionaries, not the master one, and you can only check against one dictionary at a time.

Your document is saved to disk quite often during an editing session, not because it's just a good idea to save periodically but because the graphics-based nature of the program demands it. Many editing features you invoke don't react until the current screen or page has been rewritten to disk. In fact, the only portion of your document in memory at one time is the current page you're working in. Navigating that one page is quite fast...just move the mouse pointer to the top or bottom of the screen and the text starts scrolling. But it's not quite so easy to cruise around in your entire multipage document a la Appleworks; each page must be called up separately from disk. In addition, the screen refresh is slow at normal 1 megahertz 65C02 speed, especially when changing fonts or styles, but any of the ZIP or Rocket chips do wonders for this problem. Again, once you understand the graphics-based nature of the entire system, you learn not to resent that sluggishness so much.

GeoPAINT is the other main feature of the basic GEOS package. This is a reasonably full fledged paint/draw application complete with the usual tools, including brush, pen, eraser, empty and filled shapes, straight lines, an edit box, a "fat bits" equivalent called pixel edit, a ruler for inch or pixel measurement, a spray can, 32 fill patterns, and a text tool with any number of fonts and styles and a host of other goodies. It's not quite your full blown DazzleDraw but it is capable and flexible. Unlike most other Apple graphics programs, the mouse acts a little differently...one click turns on whatever tool you've chosen and the second click toggles it off. Thus, you don't have to keep the button pressed to produce effects on the screen. Graphics and clipart from other programs can be imported but, as mentioned above, once in the GEOS format, there's no translating your picture back to any program. Once in GEOS, always in GEOS.

The desk accessories such as the calculator, alarm clock and note pad are fun initially but of limited value once you realize

<u>Name</u>	<u>Suburb</u>	<u>P/C</u>	<u>Telephone</u>
Fitzpatrick, Stan	Mt. Gravatt	4122	(07) 349 3881
Mcdonnell, Brian	Mt. Gravatt	4122	(07) 349 5702
Przybysz, Stefan	Wishar	4122	(07) 349 9315
Haydon, Steven	Mansfield	4122	(07) 349 7991
Lindsey, Martin	Rochedale South	4123	(07) 341 6002
Wansovich, Mark	Rochedale	4123	(07) 341 6471
Higgins, Jason	Rochedale	4123	(07) 341 3481
Sinclair, Paul	Rochedale South	4123	(07) 341 0841
Fagg, John	Greenbank	4124	(07) 800 3999
Akroyd, Ian	Park Ridg	4125	() 07 297 0063
Godbehere, Bob	Slacks Creek	4127	(07) 808 3892
Whittaker, Norma	Springwood	4127	(07) 208 4025
Uebel, Martin	Slacks Creek	4127	(07) 208 6497
Shemansky, Alex	Daisy Hill	4127	(07) 208 8164
Ross, Christopher	Springwood	4127	(07) 341 3206
Wellbum, J	Redland Bay	4130	(07) 801 2228
Marks, Bruce	Carbrook	4130	(07) 206 8218
Reed, Robert	Waterford West	4133	(07) 299 6952
Dickinson, David	Carina	4152	(07) 398 5358
Genn, Trevor	Carindale	4152	() 07 398 2930
Wobcke, Graham	Camp Hill	4152	(07) 398 3676
Miller, Malcolm	Carina	4152	(07) 398 6195
Marlow, Ian	Wellington Point	4160	(07) 207 1750
Dotd, Leslie & Family	Alexandra Hills	4161	(07) 824 2942
Bates, John	Alexandra Hills	4161	(07) 824 0053
Poyser, Ross	Alex Hills	4161	(07) 824 3772
Wong, Simon	Cleveland	4163	(07) 286 2839
Mccall, Peter	Thornlands	4163	(07) 286 2377
Kelly, Robert	East Brisbane	4169	(07) 399 2447
Skehan, Terry	East Brisbane	4169	(07) 391 7278
Shelley, Malcolm	Norman Park	4170	(07) 398 3484
Shepley, David	Norman Park	4170	(07) 395 0738
Cotter, Patricia	Belmont	4173	(07) 390 6945
Craig, Robin	Runaway Bay	4216	(075) 37 6772
Rodgie, Dale	Bundall	4217	(075) 38 6942
King, Jason	Burleigh Waters	4220	(075) 35 6520
Annette, Martin	Kooralbyn Valle	4285	(075) 44 6176
Eastick, Peter	Beaudesert	4285	(075) 41 2038
Brock, Family	Redbank Plains	4301	(07) 814 4636
Evans, Chris	Booval	4304	(07) 281 5003
Mensforth, Kimble	Silkstone	4304	(07) 202 4221
Summerhayes, Wayne	Yamanto	4305	(07) 281 2668
Jeffrey, Graeme	Raceview	4305	(07) 288 9735
Allan, Carolyn	Raymonds Hill	4305	(07) 201 8429
Greaves, Barry	Boonah	4310	(075) 63 1041
Lyons, Cheryl & Family	Roadvale	4310	(075) 63 5891
Sharpe, Greg	Gatton	4343	(075) 62 2058
Ma, Dr. D. H.	Stanthorpe	4380	(076) 87 2394
Turner, Hilary	Oakey	4401	(076) 91 2746
Ward, Gregory	Cunnamulla	4490	(074) 55 1751
Hunter Family	Cashmere	4500	(07) 264 3640
Menz, Kevin	Watson Park	4503	(07) 204 6325
Patterson, John	Morayfield	4506	(071) 95 2258
Mann, Sheryl	Caboolture	4510	(071) 96 7401
Hodgson, Gordon	Wamuran	4512	(071) 96 6723
Webster, Cedric	Buderim	4556	(071) 45 2147
Doughty, Peter	Tewantin	4565	(071) 49 7955
Young, Peter	Cooran	4569	(071) 85 1472
Shepherd, Peter	Gympie	4570	(071) 84 6305
Dillon, Gail	Kingaroy	4610	(071) 64 4332

that they're not RAM resident unless you have oodles of RAM available. They don't pop up instantly onto the screen.

The first misconception about the GEOS package is that it's fully integrated. True...all the different modules work together very well and you can transfer data between any of the

modules. But each feature is a separate program which must be run separately from the desktop, displacing much or all of what was in memory. Every time you switch from feature to feature, you essentially wipe out what you were doing to make room for the new feature. Nothing gets lost, however, because it's all saved to disk first. All this takes time, especially if your hardware includes only 128K RAM and one or two 5.25 inch drives. We've all become spoiled to the Appleworks desktop (NOT synonymous with the GEOS desktop) with its capability to hold up to 12 files and switch almost instantaneously between the 3 modules, it takes a little while to become accustomed to the relatively slow and lethargic GEOS. The difference, of course, lies in the simple fact that Appleworks is 100% text based while GEOS is 100% graphics based.

Another interesting feature about GEOS concerns copy protection. Contrary to popular opinion you may have read in a recent A+ review, GEOS is 100% UNprotected. All 4 original disks can be copied for archive purposes using either the special built-in program called Disk-Maker or any other copy program for that matter. The trick about GEOS is that the single boot file on the startup disk that allows you to boot the program in the first place is heavily protected. It cannot be copied or accessed by any means as an individual file. All the other GEOS

<u>Name</u>	<u>Suburb</u>	<u>P/C</u>	<u>Telephone</u>
Kidd, Trevor	North Rockhampton	4701	(079) 34 8274
Manley, Lisa	Mackay	4740	(079) 57 6442
Carmody, Linda	Nth Ward	4810	(077) 21 2789
Grainger, James	Atherton	4883	(070) 91 1211

files are unprotected and you can copy them at will to any disk.

Bottom line? GEOS is a good solid citizen of the Apple II world but only at the high end. It's capable, it's flexible and it's fun but don't try it unless you plan to buy, or already have the right hardware. 128K, or even 256K, and a couple of 5.25 inch drives just won't hack it. A RAMdrive and/or hard disk are virtual necessities to run the program properly, and the more of each you have, the better. As a crude and perhaps unfair benchmark, this review contains about 3 pages, or 1677 words. Converting it from Appleworks to GEOS format using Text Grabber took 1 minute 55 seconds. Then, loading it into geoWRITE took a full 42 seconds. Cruising from the top of page 1 to the bottom of page 3 took about 20 seconds. Spellchecking the entire document took 1 minute 50 seconds, after the 35 seconds to load geoSPELL and 15 more seconds to load geoDictionary. The check yielded 61 possible bad words, only 4 or 5 of which were actual bad or weird words and about 90% of which were valid variants of good words (i.e. plurals or the common ly/al/ic/ing suffixes of good words).

In a word, couched in that old familiar computer language: IF RAM > 128 AND DRIVES = 3.5" OR DRIVES = "HARD" AND MOUSE = TRUE THEN GEOS ELSE GOTO APW.

Advertisement

For Sale

Contact **James Donegan** by phoning (07) 397-6803 or see Graham at the Trading Table on Open Day. These items will be displayed at the Trading Table. James also has some I.B.M. cards and accessories available.

2 x 5.25 inch disk drive controller card	\$60.00 each
1 x 80-column card (for an Apple IIe)	\$25.00
1 x 80-column card - Extended 64K (for an Apple IIe)	\$90.00
2 x Apple Disk II drive Controller Card	\$25.00 each
1 x Mouse Interface Card	\$15.00
2 x Micro Buffer Parallel Printer Card (buffer size unknown)	\$75.00 each
2 x 800K Unidisk Drive (3.5 inch - white in colour)	\$300.00
4 x Saturn 128K RAM Cards	\$100.00 each
1 x Serial Interface (CCS-7710)	\$40.00
1 x RAM Card for II or II+ (16K RAM)	\$20.00
2 x Send Data Accoustic Couplers (300 baud modem)	\$60.00 each

Help!

Editor: We received this letter last month and no one in the committee had the answer, so I have published it here. If anyone can help, please phone Graham. His phone number is at the end of the letter.

Dear Editor,

Recently I have been very frustrated because my plan to print from an Apple IIGS through my Adler SE 1005X daisy-wheel typewriter has been to "get of the ground" for approximately 9 weeks.

The interface necessary is a "PC 102" manufactured by Microbite. The problem is that I am unable to find someone who can supply me with one of these rare beasts (PC 102) - The most common story I hear is that Microbite have not manufactured any for at least 3 years.

I am hoping that you may be able to assist me by helping with the following questions: -

- a. Where is Microbite? - Address?
- b. Do you know anyone who can sell me a PC 102 Interface?
- c. Can you help me locate the person who fits the "b" category above?

I am still hopeful, yet my hope is fading steadily. Thanking you in anticipation,

Graham Tainton (phone (07) 372-2881)

Stop Fid Fretting

by *Graham Black*

For anyone with only one disk unit, the following briefest of patches to FID may prove useful to stop that program's continual requests for a slot and disk information (particularly irritating when using the Copy option). The amended program will still stop, with appropriate messages, at disk swapping points.

The menu will also still, apparently, offer the "Reset slot and disk" option; this will now be meaningless but no harm (or effect) will ensure if you are perverse enough to try it. Like FID, the amended version may be loaded into a language card for immediate recall, using Duncan Langford-Allen's routine.

To apply the patch, run the Basic program, amending line

100 if you are not using the usual slot 6. Disk 1 is implicit in a single disk system (or you would not be able to boot!) and this is covered in the remaining POKES. Subsequently.

```
BLOAD FID
EXEC FID-DLE
BSAVE MYFID(or whatever),A2051,L4686
```

Note that FID loads to the same memory area as an Applesoft program - hence the indirect, EXECfile approach shown here. Alternatively the corresponding POKES may be directly keyed in after a BLOAD of FID.

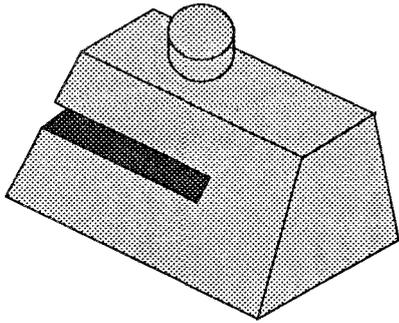
```
100 SLOT = 6
110 D$ = CHR$(4)
120 N$ = "FID-DLE"
130 PRINT D$"OPEN"N$
140 PRINT D$"WRITE"N$
150 PRINT "POKE 4895,"SLOT":POKE 4896,"SLOT":POKE 4893,1:POKE 4894,1:POKE 2328,255:
    POKE 2363,96:POKE 2439,96:POKE 4899,255"
160 PRINT D$"CLOSE"
170 PRINT D$"LOCK"N$
```

**Remember, Members can
Advertise in the Apple-Bug
for Free.**

Contact Dale Rodgie for details.

Computer City

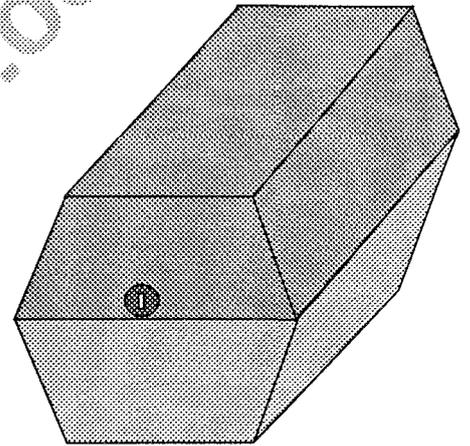
Apple-Q Specials for May 1989



Disk Notchers

Normally \$11.95

Apple-Q \$9.95



Disk Boxes

50 x 5.25"

Normally \$21.95

Apple-Q \$16.95

50 x 3.5"

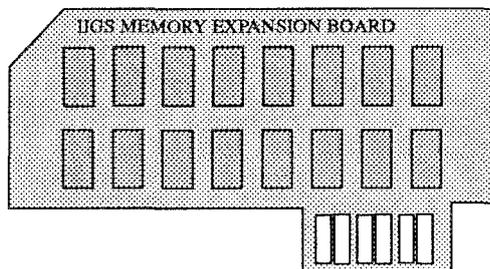
Normally \$22.95

Apple-Q \$17.95

25 x 3.5"

Normally \$16.95

Apple-Q \$12.95



IIGS MEMORY

2 Megabytes

(expandable to 4)

Normally \$1998.00

Apple-Q \$999.00

(This offer only for one month)

OPEN SATURDAY
8.30am till 12.00pm

Computer City
600 Wynnum Road
Morningside Qld 4170
Phone: (07) 395 6722
Facsimile: (07) 395 6406

Computer City is proud to support
the Apple-Q User Group

Remember to bring your Apple-Q
Card for ID!

FOR SALE

The following disks are available from the Trading Table at each meeting, or by sending your order, along with your remittance, to The Editor, P.O.Box 6375, Gold Coast Mail Centre, Bundall, Qld 4217, or to the Software Librarian, P.O.Box 721, South Brisbane, Qld 4101.

5.25" disks \$5.00 - 3.5" disks \$8.00 - plus \$2.00 P&P.

SuperPatch on 5.25" disk

This is the latest version to arrive from the States. This program has up to 30 different patches for Appleworks version 2.0 or 2.1. It is all menu driven, so you don't need to worry about those peeks and pokes.

TERC BASIC Enhancements on 5.25" disk

Terc Basic adds new commands to Applesoft. Terc comes with its own full screen editor, so that you can easily edit your programs. You then compile your program and run it. Using Terc Basic, you can add text and HIRES windows, improved GET commands, labeled subroutines, local variables, debugging commands....so the list goes on.

Modem Utility Disk on 5.25" disk

If you have a HAYSE compatible modem, then this disk is for you. It contains two comms programs (Talk is Cheap & Kermit), text file editor (Freewriter), Binary II utility (BLU), text file utility (TEX) and disk packing program (DDD). All, except for TEX, come with documentation.

Davex Utility Disk on 5.25" disk

Davex is a shell, or command processor. In this shell, you can handle files, type Appleworks (WP) and text files and launch programs. You can also change any of its commands - eg. "CAT" to "DIR" or just "D". It can also convert Appleworks word processor files into text without the hassle of using Appleworks. In most cases, when you quit from a program launched from Davex, you will return back to the Davex shell. You can even write your own commands.

Apple II Technical Notes on 3.5" disk

If you are into programming your Apple II series computer, then this is the disk for you! On this 3.5" disk are 141 Technical Notes covering subjects like: ProDOS, Appletalk, Apple //e, Apple //c, Imagewriter, SmartPort, UniDisk, File types, Apple //gs, and much, much more. These notes take up over one and a half 3.5 inch disks. However, they have been compressed by a program called RLU. The latest version of RLU is also included on this disk.

TIGS Games Disk on 3.5" disk

Here is a collection of six of the better Public Domain, Shareware and Demonstration games for the TIGS. These include: Bounce it - Fl Race - Shanghai - Mastermind - Orthello - Towers of Hanoi.

The following Dealers offer a 10% discount to Financial Apple-Q Inc. members on production of their current Membership card:

- Computer City - Morningside - Brisbane
- Computer Orchard - Brisbane City
- Logical Solutions - South Brisbane
- The Byte Shop - Brisbane

APPLE-Q Inc.
(The Brisbane Users Group)

**APPLICATION
for
RENEWAL of MEMBERSHIP**

Dear Member

Please check the expiry date of your membership. This can be found on both your membership card, and the mailing label on your copy of the Newsletter. Please fill in the necessary details below, tick the box where indicated, and forward your remittance along with this application form to the Registrar, to allow for the updating of our records. The Postal address is: **P.O.Box 698, Redcliffe, Qld 4020.**

Annual Subscriptions

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

(at the discretion of the Executive Committee)

Surname: Given Name:

Postal Address:

Suburb/Town: State: Post Code:

Telephone: Home (.....) Business (.....)

Full time Student under 21 years - Date of Birth: / /

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 or No):

System Information

- Apple][Apple][+ Apple //c Apple //e
- Apple //GS Apple /// 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:

REGISTERED PUBLICATION

(Bundle)
For Post - town or Area

Post Code (or Group)

APPLE-BUG

The Newsletter of APPLE-Q Inc. the Brisbane Users' Group

If not claimed within 7 days, please return to:

P.O. Box 721, South Brisbane Qld. 4101, Australia

**POSTAGE
Paid
Chermside
Qld. Aust
4032**

Please deliver to ➡

Registered by Australia Post - Publication No. QBG 3485

