

April 1991 Edition

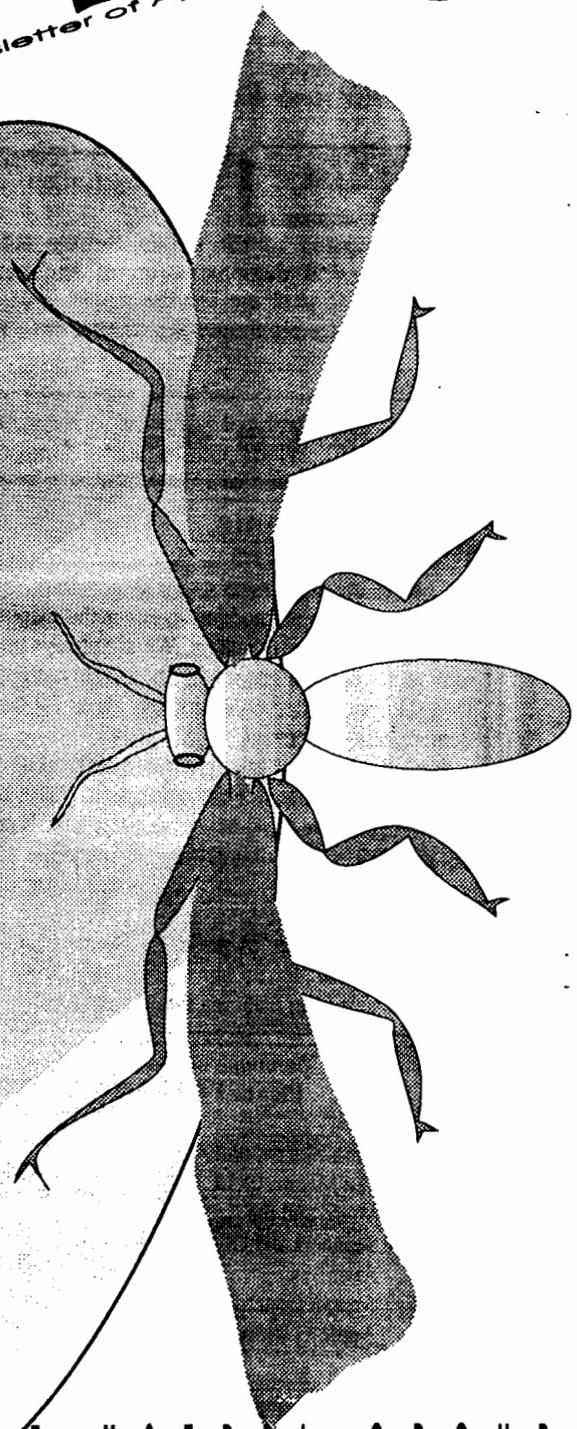
Volume 10/Number 4

# Apple Bug

the newsletter of Apple-Q Inc.

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\$1.50

THE BRISBANE APPLE USERS' GROUP

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

# Apple-Q Diary

## This Meeting

Sunday  
April 21st

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

## Next Meeting

Sunday  
May 19th

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

## April 21st

### Demonstration

A demonstration of the Apple Bubble Jet Printer... and a demonstration of the new InWords OCR package for the Apple II.

## May 19th

### Demonstration

A demonstration by Robert Allen of some AppleWorks business applications, and a short demo on Ultra Macros...

## 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 :

#162	Kerry Cobbing	Inala
#163	Peter Gorta	Albany Creek
#164	Steven Wilson	Bundamba
#165	Brett Eichmann	The Gap

## Renewals

### Thank you for your continued support :

#5	Ronald Paff	#8	James Shaw
#132	Kevin Riethmuller	#134	Shane McSweeney
#137	Kevin McGory	#159	Cedric Webster
#171	Ken Smith	#190	Peter Coade
#244	Nick Robodin		

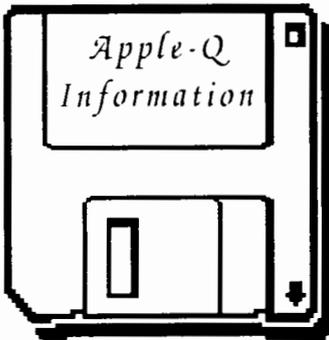
## Trading Table

Apple-Q has for sale to members blank disks and other items that we buy in bulk in order to save you money and generate more 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 fee is \$3.00 per disk.

Each month we also try to put out a "Disk of the Month" selection of Public Domain software. On the inside back page you will find a software order form. This form can be filled out if you wish to order by mail or you can order and pick it up at the meeting. For mail orders, remember to add \$2.00 for postage and 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 and follow up with organized 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 Venue

Hooper Education Centre  
Kuran Street, Wavell Heights.

Visitors 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. Your disk will be returned. The deadline for Apple-Bug is the Open Day meeting.

## 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 Saggors	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
Todd Dixon	Sat. mornings only	(07) 891-6299
Dale Rodgie	Misc / Disk of Month	(07) 32-5251

## Bulletin Board

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

## Production Information

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

## 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  
 Kelvin Saggars (07) 800-4660 BBS {Modem}

### Apple IIgs

Vince Crosdale (07) 351-3090 7-9 pm  
 Dale Rodgie (075) 32-5251 7-9 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) 32-5251 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

### Communications

Vince Crosdale (07) 351-3090 7-9 pm  
 Kelvin Saggars [07] 800-4660 BBS {Modem}

### Disk of the Month

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

### 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) 32-5251 7-9 pm & W/E  
 7-9 pm

### Modems

Vince Crosdale (07) 351-3090 7-9 pm  
 Kelvin Saggars (07) 800-4660 BBS {Modem}

### Software Library

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

**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.**

## Editorial

*by Kelvin Saggars*

The March Auction, went well, with members picking up bargains for their Apple II, and Apple Macintosh computers. Even some items for IBM owners changed hands. Some 220 items went under the 'hammer', and made \$1467.00 for their owners. Remember if you missed out this time, make sure you catch our next auction later in the year.

I feel the club owes a vote of thanks to committee members like Bob Godbehere who ran the auction, and collected items for the Auction, and Ann White who sorted, then entered the Auction items into an AppleWorks Database.

The Apple Diary was also drawn near the end of the Auction, and went to Michael Lockyer, congratulations. Who knows, if Apple Computer, or Apple Dealers give us any other items like the Diary we might have future door prizes for members who attend meetings.

As Apples' Inkjet printer will be the focus of this month's demonstration by Computer City, I felt that a few articles on printers, might be of some interest. Printer prices have fallen over the years to a point where almost all computer users can afford to add one to their system, be it a humble 9 pin job, or the latest Laser printer.

The Inwords demo also planned for the same meeting will depend on the my copy arriving in time from the US. It has only been on order since last December [1990], so it could be here any day now. Today being the 7th of March 1991, I still hold out some hope of seeing it before I pass away.

Last month's newsletter should have arrived in your letter box well before the March meeting, since we had no problems with the Laser printed master copy that month. Many thanks to Computer City who gave us permission to hook my Apple IIGS into their services sections' Laser printer. It means however that I must take my system along to Computer City each month, so I doubt that I will also be carting it along to Open days as well. An Apple IIGS with 3.5 drives and a Hard drive is not exactly a laptop or portable, and I am sure Apple never designed the systems plugs and sockets etc. for continuous removal & insertion.

Hypercard IIGS is a popular topic in most of the overseas newsletters and magazines at the moment. Some see it as proof of Apples' commitment to the Apple II, others see it as yet another link between the Mac and the Apple II range or even as the IIGS equivalent of AppleSoft [A2 Central]. I personally think it will take a lot to beat HyperStudio, which allows complex stacks to be built with Apples' simple click, and point, menu driven format, runs happily on a 1 Meg system with only 3.5 drives, and even an idiot like me can use it without looking at the manual.

A few more survey forms have been received from users since the last meeting, but we still do not have anywhere near the number returned that we had hoped for. Please remember that your feedback is most important.

As in previous years, the May issue will contain a listing of all Apple-Q users who have not objected to having their name, phone number, and suburb printed in the newsletter.

# (In)Compatible Printers

by David Empson

*The following article was typed in from an article by David Empson in the February 1991 Issue of the Capital Apple newsletter from the Wellington Apple Users' Group of New Zealand.*

*The article has undergone some minor editing, to suit Apple-Bug, and because it was part two in a series of articles - Ed*

This Month I will be comparing four printers: the Star NL-10, the Panasonic KX-P1080 (both with ImageWriter options installed), the Apple ImageWriter I and the Apple ImageWriter II.

All of these printers use a serial interface to connect to the computer. They can all be used on the Apple II and the Macintosh, and can be treated by most software as an "ImageWriter".

## ImageWriter I

This is the first serial dot-matrix printer that Apple Computer introduced. It is based on the Apple DMP (Dot

Matrix Printer), which used a parallel interface but was otherwise very similar to the ImageWriter I.

All the other printers I tested are based on the ImageWriter I, so I will use this printer as the base-line for compatibility. This printer is no longer available commercially.

## ImageWriter II

This was Apples' replacement for the ImageWriter I. A lot of new features were added, including optional AppleTalk compatibility, a totally new case design, faster printing, and colour printing.

## Panasonic KX-P1080

This printer is usually parallel and Epson compatible (it is identical externally to the Logitech FT-5002 and Super 5 printers), but an option is available to make it ImageWriter compatible. The option involves adding a serial interface and replacing the printers' ROM chip.

## Star NL-10

The Star is a very flexible printer: it can emulate any of several other printers by changing a plug-in cartridge, which defines the "identity" of the printer (parallel and serial interfaces are available).

In this case I was using a generic "ImageWriter compatible" cartridge. The manual claims it is the "Apple //c interface cartridge".

- Table One -

Feature	ImageWriter I	ImageWriter II	Panasonic	Star NL-10
Serial Connector	DB-25	Mini-DIN-8	DB-25	Mini-DIN-8
Print Speed (draft)	120 cps	250 cps	90 cps	120 cps
Print speed (NLQ)	n.a.	45 cps	24 cps	30 cps ??
Paper feed speed	slow	fast	slow	slow
Graphic print speed	medium	fast	slow	slow
Printer Buffer	1k	2k (32k opt.)	1k ??	2k ??
Weight	8.5 kg	11.4 kg	6 kg	6 kg ??
Noise level	moderate	loud	moderate	moderate
Reliability	good	poor	good	good
Sheet feeder Option	no	yes	no	yes
Apple Talk Option	no	yes	no	no
Tractor type	push	push	pull	push
Print on top line?	no	yes	no	no
Perforation skip	no	yes	no	no
NLQ pitch	n.a.	9 to 17 cpi	10 cpi	10 cpi
Reverse feed	yes	yes	no	yes
Half-height	no	yes	no	no
Superscript	no	yes	no	yes
Subscript	no	yes	no	yes
Vertical form unit	yes	no	yes	yes
Set page length	no	yes	no	yes
Repeat character	yes	yes	yes	no
Repeat line feed	yes	yes	yes	no
Colour printing	no	yes	no	no
Mousetext printing	no	yes	no	no
Custom characters	yes	yes	no	no
Price (approx)	not available	\$NZ 900/1200.00	\$NZ 700.00	\$NZ 700.00 ??

### Common Features

<b>Interface:</b>	Serial interface (connectors vary - see Table One).
<b>External Controls:</b>	Power on / off, Select, Line Feed, & Form Feed. All but the ImageWriter I had some form of "print quality" or "mode" button.
<b>Paper Type:</b>	Single sheet or tractor-feed.
<b>Platen Width:</b>	Around 9 inches ( 8.5 inch paper can be used on all printers ).
<b>Print Pitch (cpi):</b>	9, 10, 12, 13.4, 15, 17, Pica and Elite proportional.
<b>Print Features:</b>	Double-width, underline, boldface, left margin, unidirectional printing and bidirectional printing, variable line spacing, multiple languages e.g. American, English, French etc., settable horizontal tab stops, and graphic printout (bit-mapped).

Some of the physical features of the Panasonic and Star, I could not determine, because they were not listed in the manual. I have indicated these with a question marks in Table One.

#### Notes

The prices listed in Table One for the ImageWriter II are educational and then retail. All prices are approximate. *All the prices listed are in New Zealand Dollars - Ed.*

The quoted print speeds are for 10 characters per inch on all the printers.

The DB-25 serial connector is the "standard" RS-232C one, also used on most modems, the Apple Super Serial card, etc. The Mini-DIN-8 is the same connector used by all Macintosh models since the Mac SE, and the Apple //GS.

Usually the connector will only determine what sort of cable you will need (the Information above may help you work out if a cable you already have may work with a particular printer).

The 'Tractor Type' refers to the positioning of the sprocket-feed in relation to the platen. A 'push' type 'pushes' the paper into the printer ( i.e. the paper passes over the sprockets before getting to the platen) while a 'pull' type 'pulls' the paper out of the printer (i.e. the paper goes around the platen before passing over the sprockets).

While the ImageWriter I and the Star NL-10 have a 'push' tractor mechanism, they cannot reliably print on the top line of the first sheet of paper, since the paper bail is above the print head & won't hold the paper properly. The ImageWriter II has a curved plastic paper guide which allows the top line of the first sheet of paper to be printed on without causing any paper feed problems.

The 'Vertical Form Unit' is a special command supported by the ImageWriter I that can be used to set up special vertical formatting on pages (used for pre-printed forms, for example). I know of no software that supports this - note that the ImageWriter II does not either.

The ImageWriter II has been reported as being somewhat

unreliable. The usual problem quoted is with paper feeding: it is quite easy to get paper jammed, especially if you are not careful when feeding labels back out of the printer. I have not had any problems in this area. My printers' head assembly has suffered: it's colour section mechanism stopped working at one point, and one of the pins in the print head is not functioning at present.

However, these problems should not be regarded as a general fault in the ImageWriter II. Also consider that a new ImageWriter II can be serviced under the AppleCare system if anything does go wrong, which is well worth the money that you pay. Secondhand ImageWriter IIs' may also be eligible for AppleCare, but see your dealer to confirm this.

The ImageWriter II is somewhat more expensive than either the Panasonic or Star, but I feel the extra features (especially print speed) are worth the extra money. The ImageWriter II has come down in price quite significantly since I brought mine (two years ago).

The Panasonics' NLQ mode uses a different command to the ImageWriter II and the Star NL-10, so it may be difficult to select from software that expects an ImageWriter II. It can be selected manually using the front panel of the printer.

The ImageWriter I only supports draft mode. The ImageWriter II uses a different character set in its' draft mode (similar to the one used by the Star and Panasonic). The ImageWriter II also supports the ImageWriter Is' character set, calling it 'correspondence' mode (but I shudder at the thought of any correspondence written with it). For some special printing features, the ImageWriter II switches into correspondence mode. It has the most versatile NLQ mode, however - any character pitch can use NLQ mode (as opposed to the Panasonic and Star, which switch to 10 cpi if NLQ mode is used).

The Star NL-10 has several limitations that are not obvious from Table One. I suspect I was using an old version of the printer interface, so several of these problems may have been fixed.

- If boldface is used, the printer immediately switches to cpi (Pica).
- The Star does not support 9 cpi. It uses 10 cpi instead.
- The Star does not support 13.4 or 15 cpi. It uses 17 cpi instead.
- While doing a test print, I noticed that the Star prints blank lines in unexpected places (e.g. when unidirectional print is selected).
- In some cases the horizontal spacing of various operations differed from the other printers (e.g. the "move printer head to dot NNN" command).
- The character sets used in the proportional modes have different character widths from those in the other printers tested. This may cause problems with programs that count the number of dots across the page to line things up when printing in proportional mode ( e.g. AppleWorks).
- Horizontal graphics resolutions of 96, 107, 136 and 144 dpi are not available.
- I had difficulty printing graphics from //GS desktop style programs on it : the Star locked up quite often while in the

middle of a graphic printout.

- The vertical resolution of graphics printouts does not quite match the other three printers ( about 4mm difference over a whole page ).

The Star appears to be a mixture of ImageWriter I, ImageWriter II, and Epson features. For example, it supports the Epsoms' Italic modes (none of the other three printers can do Italics). It also has an incompatible character download facility. Other non-ImageWriter features include centering, right justification, macros, double-height and quad-height printing.

## Bytes and Pieces

By Kelvin Sagers

*News from various sources about Apple and Apple related products...*

### Apple expands distribution channels . . .

Apple it would seem have had a change of mind and once again will allow distributors other than Apple Dealers to sell their computers, at least in the US. Apple intends to add consumer electronic stores to its distribution channels.

Robert Puette, president of Apple USA, speaking at a luncheon recently commented on Apples' distribution changes. Apple it seems will segment their distribution into the following three channels:

- Low cost, high volume stores with minimal support.
- Computer stores selling to small and large businesses.
- Resellers providing custom integration and consulting.

Apple Australia it would seem have no plans to change their current distribution arrangements, and has no plans to add electronics stores to its network.

### Apple Profits from cost cutting . . .

Apple Computer made a profit of \$150 million in the December quarter, and the companies net revenues were up 12% compared to the same three month period last year. John Sculley, Apple Computers' chairman, attributes the figures to the new Macs.

*Just think what Apples' sales figures would had been like if they had also lowered the price of the Apple //GS and Apple //e. They must have recovered developmental costs on both machines years ago - Ed.*

### Apple and Sony team up . . . .

Apple Computer and Sony might seem strange bed fellows, but it would appear that the two companies are developing products together, and that they might even merge according to some sources.

Apple has its computer technology and Sony the mass-manufacturing, miniaturization and video technology. These areas alone would make for interesting developments in the multimedia, education, portable computer, and game markets.

The Star also has the nicest NLQ font of all these printers.

If you are considering buying a new printer, and would like one that is ImageWriter compatible ( for graphic printouts on a Macintosh or Apple //GS in particular), I recommend seriously considering the Panasonic and ImageWriter II. If you don't mind the loss of speed on the Panasonic, it is quite sufficient.

Unless Stars' software has improved, then I cannot recommend it, due to the various problems I encountered while using it.

An ImageWriter I is also a viable option, if you can get hold of a secondhand one.

Sony have already produced a product called the 'VBOX' which allows an Apple computer to have remote control over Sony products that recognize Sonys' proprietary LANC commands, and ViSCA machine control protocols. This, at present, is limited to Sony video devices like their video cassette recorders, cameras, and video disk players.

Apple is at present writing the drivers for the Sony VBOX control box. It is to be hoped that VBOX drivers are not only being developed for the Mackintosh, but for all Apples' range of computers, as control over video devices can be just as easily managed by an Apple //, and could be used by schools, or just the amateur home video user etc.

### Apple Bubble-Jet . . .

Apple will soon release a new printer to add to its' range which is based on Canons BJ10 Bubble-jet printer. The printer is expected to sell for just over \$1000 and will give almost LaserWriter II quality print.

Apple, it is to be hoped, will provide drivers for this new printer for the complete Apple range. This would be an ideal printer for those Apple // owners who use Publish-It on the Apple //e { //GS, //c }, or AppleWorks //GS, or other applications that require quality printout. Most people who use Publish-It type programs for news letters and the like, cannot afford Laser printers, but would really like something better than dot matrix printer output for their final copy.

The new Apple bubble jet should, if priced competitively, find a ready market in small scale desktop publishing and small business applications. Let us hope Apple keep up their promise to support the Apple // and provide drivers for this, and any future hardware they develop, that can be used by the Apple // range.

### Mac Virus Package Updated . . .

The Macintosh virus protection program Virex version 2.84 has been upgraded to version 3.0. Some of the changes include: use of system 6.07 in the System folder, optional application only scan to give a 30% speed increase, auto scan at shutdown or startup, record of past virus alerts, audible virus alarm, and more user definable options.

Virex Version 3.0 costs around \$150, but upgrades are available for around only \$33.00. Virex is distributed by :

Spinning Heads, 256 Conventry St.,  
South Melbourne. 3205.  
Phone (03) 696-5058

## Disk of the Month

By Kelvin Sagers

Each month we attempt to put out a new disk of the month from new public domain software, Shareware, and freeware we have obtained for the club. The disks of the month catalog is sadly out of date, and has not been published for awhile. I will attempt to bring it up-to-date, and enclose it in the next issue. Disks of the month cost \$8.00 for 3.5 disks, and \$5.00 for 5.25 disks. The club also has a large range of cheaper, older, public domain software, that can also be obtained from the software librarian, Jeff, on open days, or by mail. Ask for the catalog disk.

This month we have two 5.25 disks on Astronomy, and two disks on Games for the Apple //. We also have two 3.5 Games disks, and one Utility disk for the Apple //GS (Macintosh owners please see Mac Mumblings).

**Apple // Astronomy Disk # 1** is a collection of astronomy programs for the Apple // and includes a Planetarium program.

**Apple // Astronomy Disk # 2** contains a graphic overview of the Hubble Telescope by NASA, and needs a 128k Apple //e, //c, or //GS to run on. Topics include the construction of the telescope, and why the Hubble Telescope needs to be up there in space, etc.

**Apple // Games Disk # 3** contains games like the Yellow submarine, Warrior, Wall Street, and Wizard. Most of the files are shrunk by ShrinkIt to allow more files to be placed on the disk. Apple II unshrink and documentation are

also on the disk. Simply run Unshrink, mark the files you wish to unshrink via the space bar, choose where you want to place them, and Apple // unshrink does the rest. The games files were shrunk as directories to make it easier to keep the files for each game together.

**Apple // Games Disk # 4** contains a program to construct your own customized crossword puzzles. Once you have created a puzzle you can then print it out, complete with the clues, and the solution. The user interface is very much like that used by AppleWorks, and is easy to use.

**Apple //GS Games Disk # 6** has an excellent version of a slot machine type game called OneArmBattle that is worth getting if only to hear the digitized comments, and sound effects, if for nothing else. You can set the game up to play itself or to play against you. Also on the same disk is Senseless Violence 2 (WormHole) an anti drug game by the authors of Xenocide. If that is not enough there is a //GS version of the old Colossal Cave Adventure (I use to play that on my old 32k Sorcerer, many moons ago).

**Apple //GS Games Disk # 7** contains shrunk versions of Cosmocade Disk #1, and Cosmocade Disk #2. Both of these need to be unshrunk onto a 3.5 disk via ShrinkIt //GS. Also on the same disk: Cartus.Primus an excellent card game package (includes cribbage and gin rummy), Beast, Power Play (which includes a Tetris Clone), and Tic Tac Toe.

**Apple //GS Utility Disk # 8** is packed with //GS utilities, and Desk Accessories like RunQ version 1.11 (a good program), Disk file control version 1.3, File manager CDA, Pattern GS (change your desk top background), Font DA, and more.

## Coming Attractions . .

By Kelvin Sagers

### StyleWriter and Inwords . . .

As shown on the Apple-Q Diary page of this issue our May demonstration will revolve around AppleWorks, and the April demonstration will revolve around Apples' new ink jet printer the Apple StyleWriter. We hope to have the printer demonstrated on both a Macintosh, and an Apple //, by Computer City (but I don't think Apple have written any drivers for Apple // applications). Also at the same meeting Inwords, and the Quickie scanner, for either the Apple //e or Apple //GS, will also be demonstrated (by this mug).

### HyperCard GS . . .

The Apple //GS SIG for April will include Apples' new HyperCard GS. Dale has the program on order, and hopes to be able to show what the new HyperCard GS package from Apple can do.

### HyperCard Vs HyperStudio

For members interested in Hypermedia, we also plan to run a demonstration around July, on both the HyperCard GS (Dale), and the HyperStudio (myself). Members that are

interested in either package can see for themselves, the strengths, and weak points of these Hypermedia programs.

### Mac LC and Apple //e card . . .

The Committee also hopes to be able to arrange a demonstration (again) of the Macintosh LC, and the Apple //e emulator card. The Macintosh LC demo, will we hope take place in June (yes, this year . . .).

### Systems Disks . . .

Still waiting for the latest Systems Disks. . . . so are we! Neither Apple Computer or local dealers seem to know of, or have supplied us with, either the ProDOS 8 version 1.9, or the GS/OS version 5.0.4 systems disks as yet (late March 1991). So maybe if Apple Computer Australia read this, on one of their free copies of our newsletter, they might even send us the long awaited systems disks. Thus showing some of that Apple support we hear so much of. Who knows at some future meeting before the release of the next upgrade we might even be able to supply this basic upgrade service to our members . . . Apple willing . . .

*Never give up . . . .*

*Even a broken clock is right twice a day . . .*

*- Frank Spencer*

## Vitesse Utilities . . .

### By Kelvin Sagers

For those of us who wish to use printers, other than those sold by Apple, there is often the drama of finding the correct printer drivers, to link the printer of our choice, to the application we wish to use it with.

One source of printer drivers for the Apple //GS comes from Vitesse in America. Vitesse produces a printer driver package called **Harmonie**. Some of the printers Harmonie supports for use with text, and graphic printing under GS/OS include: the HP LaserJet, DeskJet, PaintJet, and compatible printers, as well as serial and parallel 24 pin dot matrix printers.

Vitesse also markets the Salvation Utilities, for the Apple //GS. All of which use simple mouse driven menus, and come with excellent manuals.

**Salvation Deliverance** is a GS/OS utility that attempts to reconstruct damaged files, folders, and disks. The options include: reconstruction of bitmaps, unerase volumes and files, mark 'bad' blocks, and much more.

**Salvation Guardian** is a hard drive backup, and restore program, that allows you to backup your whole hard drive, or selected folders or files onto disks, or even another hard drive. Guardian also has the ability to stop a backup in the middle and continue it at a later date.

**Salvation Wings** is a program launcher, and disk utility package that allows you to launch virtually any program file. Wings will allow you to define each of the 16 buttons on each screen yourself. A maximum of 128 buttons are available. Wings also comes with file, and volume handling utilities much like those found in programs like Copy //+.

**Salvation Renaissance** is an optimizer. Once you have sorted a volume in the order you feel files, and directories are used, by putting the ones used once in a while at the beginning {lessens fragmentation}, Renaissance will then write all the files and folders in the order you set up in the directory. You end up with shorter disk access times, and less fragmentation {if you have sorted the files correctly}.

**Salvation Exorciser** checks for known types of computer virus programs. Once Exorciser detects a virus it attempts to correct the infected system. Exorciser also contains utilities to analyze any file, which could help to detect new viruses. Vitesse have also added an option to load updated virus detection routines into Exorciser, if they are required.

Vitesse can be contacted at:

Vitesse Inc., 13909 Amar Road, Suite 2  
La Puente, CA 91746-1669.  
Phone (818) 813-1270

Harmonie	SUS 32.00
Salvation Deliverance	SUS 31.00
Salvation Guardian	SUS 31.00
Salvation Wings	SUS 57.00
Salvation Renaissance	SUS 31.00
Salvation Exorciser	SUS 29.00

*The prices above were taken as an average of several US mail order suppliers prices, and could vary depending on where you purchase them. They are only presented as a guide - Ed.*

## Modem Madness . . .

### By Graham Black

It was decided at the last committee meeting that we would investigate purchasing another modem for the Apple-Q Inc. BBS {(07) 851-1711}, as many people have complained that they are unable to log on to our system. We appear to have a compatibility problem with the existing Nettcom modem, and the GBBS software we use to run the BBS. As a result of this, we now have a Nettcom 1234A modem for sale to the highest bidder. When we purchased this modem, it was retailing at approximately \$1600, but our wholesale price for the clubs' board was quite a bit less.

The clubs' NettCom 1234A Modem is for sale for \$400.00 o.n.o. The baud rates it supports are 300 - 1200 - 1200/75 - 2400. Please Note - there is absolutely nothing wrong with the modem. We simply wish to change to a more compatible modem for the clubs' existing BBS software, and hardware.

If you would like to make an offer, then please phone Graham Black on (07) 883-1525, at any time between midday and 7 p.m., or place a message on the clubs BBS addressed to the SysOp, or contact a committee member at the next open day.

## In The Next Issue . . .

- What do you get when you merge Apple and Canon technology ???
- Inwords the new OCR program for the Apple //
- A review of the Vitesse Quickie hand Scanner for the Apple //e, and Apple //GS.
- The new Mac LC as reviewed by a Macintosh user.
- A full listing of Apple-Q Inc. Members.
- And much more like, disk of the month, and Mac Mumblings . . .

# Printer Power. . .

By Kelvin Sagers

Most computer users these days can afford to add a printer to their system, be it a humble 9 pin dot matrix or the latest Laser printer. The problem is that many people get stuck with the printer that is 'recommended' for the system they are buying, or own, without much, if any consideration being given to what it is going to be used for.

## General considerations . . .

A printer like most other computer peripherals should be purchased with an eye towards the uses it is going to be put to, not because it bears the same brand name, or because it is the best thing invented since sliced bread. Aside from the use(s) you may wish to put your printer to, some other points you should check out before you take the plunge, are the prices, and availability of ribbons, the types, and availability of paper it can handle, the price of the paper you intend to use, service backup and compatibility, if you need either a serial or a parallel printer, and of course the price you can afford.

Printers can be used for graphic printouts, letters, word processing, printouts of spreadsheets, data bases, or graphs, desktop publishing, preprinted forms or labels, and general use such as program listings to name but a few. How you intend to use your printer can be very important to the type of printer you choose. For example you would not use a dot matrix printer for desktop publishing, unless you could not afford to use an Ink Jet, or Laser printer. Conversely you would not use a laser printer for continuous form paper applications, mailing labels, making carbon copies, and the like because a laser printer is, as far as I am aware, unable to do any of these tasks, and in most cases it would be an overkill anyway. So if your small business relies on preprinted continuous form printouts, with a carbon copy behind, then you will need a dot matrix type printer, or one of the other types of impact printers. If in doubt ask for a demonstration.

Printers come in three basic types: the dot matrix, the Ink Jet, and the Laser printer. They are also available in two basic connection types, serial, and parallel. The first thing to look at, is what ports, if any, your computer has to control the printer, and if it is serial or parallel. A port is a socket, normally on the rear of your computer, that can be configured by software, or hardware, to control a printer, modem, or monitor etc. On an Apple the printer port/card socket can range in size from a Mini-DIN-8 used on the Apple //GS, IIc, and later Macs, to a 25 pin DB25 male or female connector.

If you own an Apple //, //e, //GS, then you can use a plug in printer card in one off the expansion slots inside your computer to drive the printer. The printer card can be either serial, like the Apple Super Serial card, or parallel, like the Grappler. Most printer cards come with a socket, normally a DB25, attached to the card via a short lead. This allows you to create a printer port on your Apple // by fixing the

socket into one of the prepunched positions available on the back of your machine. The choice between serial, and parallel will be out of your hands if you want to use the built in serial ports on the //c, //GS, and Mac, unless you use a converter - see the ImageWriter Emulator article in this Issue.

The term parallel refers to the fact that all 8 data bits which make up a character are transferred from the computer to the printer in one hit, whereas serial refers to the fact that each bit of the eight bits are sent out, one at a time. The situation gets even worse when the parity, and stop bits, etc. are taken into account for each character. So a serial printer is inherently slower than a parallel printer, and must do more 'work' to reach the same output. The fact that a printer is parallel or serial, as long as it matches the card or port that it is to be connected to, does not worry most users, except in the case of purchasing the correct card, or cable to run it. Most printer cables are off the self items these days, and should not present a problem in most cases.

Once the printer connection type is known, the next step in choosing a printer, mainly revolves around what printer type you need, and of course what you can afford. Low end dot matrix printers start at around \$300, Ink Jet printers start around \$1000, and laser printers around \$2500. Like all things, cheaper, and outdated models do exist, and can be good buy . . . just remember that a cheap buy could be a nightmare if you cannot get parts, or the ribbons etc. are hard to get, and cost an arm and a leg.

## Dot Matrix Printers . . .

The dot matrix type printer is available mainly as either 9 pin, or 24 pin, in multi-colour, or monochrome (normally black ink) formats. The pin number refers to the printhead, and the number of pins it has to strike the ribbon, and thus transfer the image being printed to the paper. It does not take a maths master to see that the more pins the printhead has the better the image it can produce in one pass.

Most dot matrix printers, these days, have a NLQ (Near Letter Quality) mode which overstrikes the first image the printer produces, with a slightly offset image of the character to 'slur' the dots, and thus makes the character appear less 'grainy'.

Most printers also come with a few basic fonts, sizes, and styles, which can be expanded, in most cases, by plug in ROMs, or customized characters. For the average user the standard set up will be all they need. Also programs like MultiScribe use their own fonts, and the printout is actually produced by the printer in graphic mode. The only problem with this is it slows down the printout.

A dot matrix printer is by it's nature an impact printer. Thus carbon copies can be produced on this type of printer, but not on an Ink Jet or Laser printer, because they are not impact type printers. The number of copies a dot matrix printer can produce at any one time varies, so if this is important ask for a demonstration, and bring along, if possible, the forms you will be using, as paper thickness, and type could vary the result. Because dot matrix printers are impact printers they also produce the highest level of noise when they printout, although some would argue that

the fans, and mechanisms of some of the other printer types are not whisper quiet either.

Dot matrix printers can handle most paper forms available from labels, envelopes, cut sheets, and continuous form paper etc. This is not so with Laser and Ink Jet printers. Again ask before you buy. Cost wise the dot matrix ranges from the low hundreds to the thousands depending on what you want. See Table One for an idea on what is available, and the price, based on a few of the more popular Epson models.

For those into colour graphics, or high quality graphic printout, then an Ink jet printer would be a better choice. Of course dot matrix printers can, and do produce colour graphics, but you will soon find that, that expensive colour ribbon has become dirty on the yellow section, for example, because of overprinting, and is now quite unusable. Also because of the nature of the coloured inks used on printer ribbons, some colours have a greater printout life than others.

Thus some colours will be almost washed out on a printout while others are as good as new.

The other problem dot matrix printers have is the stripe syndrome, where even on a black and white graphic printout white lines appear across the graphic because of the paper feeder, and vibrations, etc. This is less noticeable on the 24 pin printers than on the nine pin ones, and with some dot matrix printers less noticeable in colour mode than black and white.

Dot matrix printers on the other hand are quite acceptable for graphs, and the like, in colour, if you watch your ribbons, and use basic solid colours, rather than subtle shades.

Even a monochrome (black and white) printer can be made to printout in various colours. For example if you have

a word processor program like AppleWorks that allows you to insert a pause in the printout of a letter. You could then change the ribbon, at the pause, for another colour, and then change it back at the next one. This could be used to highlight a company name or word. Monochrome ribbons are available in many colours, (e.g. red, yellow, green, and blue), and are cheaper than multi-coloured ribbons, but dearer than black ribbons.

### Ink Jet Printers . . .

Whereas dot matrix printers have 9 pins, or 24 pins (some where produced with 48 pins, but most of these have been discontinued), Ink Jet printers have anywhere between 30 to 60 or more tiny nozzles. This fact allows the Ink Jet printer to produce almost as good, and in some cases, as good as, Laser quality printouts for less cost than a laser printer.

Most of the older type Ink Jets had problems based on the fact they used liquid ink. The main problem was that the image, even one on which the ink had dried, was prone to smearing if it came in contact with any moisture, like damp hands. Another problem involved the fact that the ink would dry up, and clog the nozzles, which would be a pain to clean and unclog. In the new models the ink formula has been changed to make it faster drying, and also less prone to smears. Also the nozzles are now part of a sealed cartridge, which means that you replace the nozzles each time you replace the cartridge.

Ink Jet printers can produce quick colour, or black and white high-resolution graphics, and text. Price wise Ink Jet printers start at around the middle range of the dot matrix market (around \$1000), and end in the low end of the laser printer market. Most Ink Jets, like Laser printers, only printout on cut sheets, but some can handle continuous form

**Table One**

Epson Model	Printer Type	Type Styles	Paper Width	Colour Printer	Buffer Size	Draft Speed	Unit Price
LX400	9pin dot matrix	2	10"	No	3k	180cps	\$399.00
LX850	9pin dot matrix	2	10"	No	4K	200cps	\$499.00
LQ400	24 pin dot matrix	2	10"	No	8K	180cps	\$599.00
LX1050	9pin dot matrix	2	15"	No	4k	200cps	\$699.00
LQ550	24 pin dot matrix	2	10"	No	8k	180cps	\$699.00
LQ1010	24 pin dot matrix	2	15"	No	8K	180cps	\$999.00
LQ1050	24 pin dot matrix	2	15"	No	8k	300cps	\$1299.00
SQ850	24 nozzle ink jet	7	10"	No	8k	600cps	\$1499.00
DLQ2000	24 pin dot matrix	9	15"	Yes	6k	270cps	\$2199.00
EPL7100	Laser Printer	10	??	??	512k	6ppm	\$2599.00

#### Notes.

- All the dot matrix printers, and ink jet printers above had 'push' type tractor feeds, except for the LX400, and the LQ400 printers.
- Ten inch printers are also known as 80 column printers, and fifteen inch printers are also known as 132 column printers.
- At the time of printing all the above printers where around \$100.00 less than the price list above, some even \$200.00 less, when sold by a local chain store. The laser was \$300.00 cheaper, the colour printer was \$400.00 cheaper, and the Ink Jet was \$200.00 cheaper. So bargains can be found if you look.

as well.

The Canon BJ-10e (the same unit as Apples new Ink Jet) costs around \$800.00 for the base unit, \$90.00 for the single bin cut sheet feeder, \$90.00 for the optional Battery pack, and \$50.00 for replacement ink cartridges. This notebook printer is a monochrome model that according to reports produces excellent text, but falls short in the graphics department. Apples ink jet will sell for just under the \$1200.00 mark, and will be put though it's paces at our next meeting, we hope.

One last problem with Ink jet printers that could cause some problems is the fact that the type of paper you intend to use will have a marked effect on the image produced. Ink Jets do exactly as their name suggests, spray ink onto paper. That ink must be absorbed, and dry quickly and evenly, or a blotchy image will result.

### Laser Printers . . .

If you have \$2500 or more burning a hole in your pocket, have no need for continuous form paper or carbon copies, and require excellent quality text and graphic printouts, then a laser printer is the printer for you. The cost of laser printers has been falling over the years, with some costing a lot less than some of the high end dot matrix printers. The high end Ink Jet printer market, and low end laser printer market cover pretty much the same price range.

Early laser printers, beside costing the earth, had a few problems of their own. The laser printed image for example was prone to lifting off the paper onto which it had been 'printed'. Many of the older laser printers, also did not produce the crisp black and whites they do now. Both problems seemed to have been fixed, and even the low end laser printers produce crisp clean text and graphics, some better than others.

For people into desktop publishing, and PostScript the Laser Printer is the only way to go, if you can afford it of course. Most laser printer speeds are quoted at Pages Per Minute and for text can range somewhere between 4ppm to 17ppm. Graphics of course takes much longer to produce, and can range between .07gppm to 4gppm (Graphic Page Per Minute). the time to print a page, and quality of the printout in both text and graphics modes, will have to weighed against the price, and size of the machine, before buying.

A few other points to look out for in laser printers revolve around what you intend to do with the laser printer, for example does the software you intend to use require PostScript compatibility, what other emulations will the laser printer accept, will the laser printer accept download fonts, what size paper will the laser printer accept, and what paper feeder mechanisms are available. The list goes on, and on, for example the cost of cartridges, and services, and the availability of any kind of backup if you have problems.

### Conclusion . . .

Only you know what you need, and can afford. A good dealer will take the time, and effort to explain about the products he has for sale, and what they are capable of. If he

has not got the time before the sale, just think how much less time he will have, after it. Competent staff, and good after sales service are important factors to bear in mind, and is the one thing Apple, for example, has always prided its' self on.

This is probably less important with the low end dot matrix printers, as most 'brand' printers like Epson are quite reliable if not abused, and can be picked up quite cheaply around chain stores like 'Kmart', and electronics stores like Dick Smiths, etc. If possible ask for a demonstration. You will probably have to buy paper, and a cable before you can use your printer, but both products are normally available at the same location you purchased your printer. Also check out the availability of ribbons etc., and their cost. The final choice is yours . . .

*All prices in this article, and other articles in this newsletter, are approximate only, and are shown only as a guide - Ed*

## 1991 Meetings & Apple Bug Deadlines . . .

For those who like to plan ahead . . . a list of Apple-Q Open days, and Apple Bug article deadlines for 1991 (in case someone goes mad, and feels the urge to contribute an article).

March meeting April edition	Sunday 17th March Friday 15th March
April meeting May edition	Sunday 21st April Friday 19th April
May meeting June edition	Sunday 19th May Friday 17th May
June meeting July edition	Sunday 16th June Friday 14th June
July meeting August edition	Sunday 21st July Friday 19th July
August meeting September edition	Sunday 18th August Friday 16th August
September meeting October edition	Sunday 15th September Friday 13th September
October meeting November edition	Sunday 20th October Friday 18th October
November meeting January 1992 edit.	Sunday 17th November Friday 15th November *

\* note this date might be extended a little depending on when the Printer at the Hopper Center closes up shop for the Christmas break.

# Macintosh Mumblings

By John Finch

Stop press: Hypercard version 2.0 is now in the PD library.

Please note that this is just the software. If you want the full package, including documentation, then you will have to buy this from your friendly dealer.

I have created a completely new index for the Macintosh public domain library and this index is available on disk in a d'librarian format. I also hope to be able to put this index on a couple of bulletin boards (Apple-Q Inc. B.B.S. { (07) 851-1711 }, and The Phoenix BBS { (07) 800-4660 }) for any one to download.

The library continues to grow and there are a several new disks, plus new programs to fill up the old disks.

I have created a special disk of new versions of old programs. On this disk are the latest versions of three anti-virus programs plus a few more.

Also in the Macintosh PD Library are a growing number of Hypercard stacks. One stack contains the whole of the Holy Bible and it is great for searching through for any references to particular words. One problem: it comes packed on 4 disks

- unpacked it is about 5 megabytes so it is limited to hard disk users only.

The Macintosh Public Domain Disk library also now has demonstration versions of "TypeStyler" and "FileMaker Pro" to add to the collection of demo disks that we now have..

Just recently I had some hardware problems with my Mac. Mind you it started life as one of the original 128K machines back in the dawn of the Mac-age so it has not done too badly. The screen would go black except for a white line, after the machine had been running for a while.

Fortunately I was able to trace the problem to a bad solder joint on the video board, so a dab with a soldering iron was all that was needed for a repair. I do not have to worry about voiding my warranty - it ran out years ago! But be warned, opening up the Mac is not for the amateur - there are big big biteies loose inside.

The other problem I had (how is it that problems never come one at a time?) was a sudden rush of floppy disk errors on both drives at once. What had happened was that I had a bad disk that was shedding it's coating. Without releasing what the problem was I had put the disk in both of my drives, so causing the two of them to become dirty, and me to have a nervous breakdown! This fault was easily solved (once I had stopped twitching) by cleaning the drive heads. The drive heads can become dirty and they do need an occasional cleaning. So if you do have a rush of disk errors, clean your head - the drive head that is!

## Hardcopy Library Notes

By Ian Millar

The Hardcopy Library has now had a much needed overhaul, with magazines prior to 1986 being removed from the listing, and many magazines not previously recorded being numbered and brought onto the listing. I have retained only those magazines less than six years old because of lack of space and also to enable a better, and neater display of those still available for borrowing. This should also, hopefully, make selection easier.

Members will see that a paginator has been used to number each book, magazine, or publication, and the Clubs name and address has been rubber stamped throughout in all cases to enable easy identification of Club ownership. In addition all books and magazines have been sorted into order.

To assist members wanting to borrow from the library a listing will be available at the trading table so please make use of it to acquaint yourself with the range of books available. In addition the Software Librarian has a Library listing available on disk. The list has been compiled using AppleWorks .03.

Some of the Magazines in the library include:

- A2-Central
- A+ and InCider (now incorporating A+)
- Your Computer

- Australian Personal Computer
- AppleWorks Forum
- Nibble
- Numerous Magazines from other Clubs.
- A Book library of some 39 Titles.

The Club also has a set of 5 cassette tapes titled :

"AppleWorks: Beyond The Basics" purchased from The National AppleWorks Users Group, presenting tips, and techniques for AppleWorks.

**Please use your library - that is what it is there for. But I ask for your cooperation in keeping it tidy, and the books in order.** If I do not get this cooperation it will mean closing the library down until it can be sorted out once again, and then the library will only be able to be used under supervision, and at the convenience of the librarian. This would be totally undesirable.

Ian Millar - Apple-Q Hardcopy Librarian

*Ian and his wife have put a lot of work into the library since he became librarian a few months ago, and the club owes them a vote of thanks for their effort. Please show your appreciation by making use of the Library facilities. - Ed*

# ImageWriter Emulator

By Kelvin Sagers

When the Epson LX-80 first hit the shops here in Brisbane I put my old serial DMP to pasture, and purchased the then new edition to the Epson range. This printer coupled to a Grappler plus printer card gave me excellent service on my old Apple //e. It was because of this that I held onto the Epson when the Apple //GS came out, & I made my mind up to sell my old Apple //e & upgrade to an Apple //GS. There was not a great deal of Apple //GS software out then, but what little there was, I was disappointed to find out, did not support my old faithful Epson printer.

I waited patiently for many years for an Epson Printer driver to appear. . . but in vain. Then AutoIce who had produced a good printer card and cheap 80 Column card for the Apple IIe (lets forget about the modem), came up with an ImageWriter II emulator. I purchased one of the early models from Micro-Educational, and have not looked back since. The ImageWriter II emulator or IceCable as it is called has worked well for quite a few years now, and although it has its' faults it is a viable alternative to the overpriced ImageWriter II. I still use it now, even though there are now Epson drivers available for use with most //GS software.

The IceCable comes in five versions that I am aware of: the Apple //c version, the Apple //e version, the Mac Plus/SE/II/IIGS version, the Mac 512 version, and the Mac portable version.

As I said before my ImageWriter II emulator is for an Apple //GS, and is an early design or so I'm told, so some of the comments below might not apply to the newer models.

The emulator consists of a cable that plugs into the Apple, and a black box, with a small printed circuit board inside, on the end that plugs into the printer. This brings up problem number one. The box does not allow the plug to seat real well, and you may even have to remove the two metal clips from the back of your printer that secure the Centronics type plug favored by Epson. I did not have to do this on my LX-80, but even the IceCard 'manual' states that it might be necessary to bend or remove them. The leverage caused by the box, and connector hanging from the printer socket can cause the plug to 'pull' out enough to cause the computer, and printer to loose contact with each other { or not make it in the first place}. This problem may have been fixed on more current models. A simple fix would have been to place the box back from the printer plug, with a short lead running from it to the printer. I have fixed this problem with two thick rubber bands, and a small block of wood. The rubber bands hold the block of wood onto the underside of the black box, and thus supports it. The rubber bands also stops the wooden block, and plug from moving from any vibrations the printer might generate, as it 'grips' the table top better than the wood alone would do. I know it is not exactly good engineering but it works, and works well.

The IceCable mimics ImageWriter II codes pretty

well, and any discrepancies are listed in the small 'manual' provided. The two major differences are the lack of reverse line feed, and downloadable characters, functions. With most software this does not present any real problems. It has never been a problem that I am aware of, with any software that I use.

The IceCable ImageWriter II emulator sends signals at 9600baud, with 8 bits, no parity, and one stop bit (8N1) with hardware handshaking. This is the normal default on most Apple computers, so it should not be of any concern to most users. The printed circuit card picks its' power up from the printer cable, and puts it's self to sleep when not being used to conserve power.

When you first power up your Apple system, the computer, printer, and IceCable are reset to predetermined states. Because of this if the printer loses power for any reason, then both it, and the computer must be turned off for about 30 seconds, and then both powered back up, or the printer will produce erratic results. This again should not present any real problems to most users.

You can if you wish, undo a few screws, and cut a track on the printed circuit card, to use the cable as a straight through serial to parallel converter with no code conversions made. Two other tracks are provided for future expansion, and are not used on my model. AutoIce also provide a command that will return the firmware version number and current configuration.

I have used the IceCable to dump Apple //GS graphics to my humble 9pin Epson, and I also use it each month to produce draft copies of this newsletter from page layouts using AppleWorks //GS, and it has never let me down once. The same printer is used by my BBS, day in, and day out, and has been for many years. The IceCable will also work with Epson compatible printers, 24 pin printers, and colour printers, with the current cost around \$130.00 from Micro-Education these days. Team that up with a cheap Epson or compatible, and you will be set for life.

## Notes

- I understand the IceCable ImageWriter II emulator is sold under a different name outside Australia.
- Automatic Ice Co. can be contacted at 10 Smiths Street, Charlestown, 2290. Phone (049) 633188.
- Micro-Educational can be contacted at P.O. Box 160, The Junction, N.S.W. 2291. Phone (049) 26 4122. But remember they are changing their name soon . . .
- Epson Australia can be contacted 410 Ann Street, Brisbane, Q.L.D. 4001. Phone (07) 832-5400, and their agents.

## Catalogs and Specials . . .

Apple-Q receives many items in the mail each month like the catalogs that Zytech { Mac }, and JPR Software { Mac / IIGS / IIe etc. } sent to us this month. These items are available to all club members, once they have been tabled and cataloged, from the groups hardcopy librarian Ian.



# 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, Queensland 4101, Australia.

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

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