Apple - Bug

The Newsletter of Apple-Q Inc.

In this Months Issue

Apple-Q Inc. The Brisbane Apple User Group.

Supporting the Apple Macintosh, and Apple][computers....

Apple-Q Inc. Diary

Sunday	August 16th		1992
General Meeting	[11.00 am]:	Doors Open. Please refer to the Information Page for details.	
Demonstration	[12.00 am]:	Demonstration of new Apple][and Macintosh Software by Wes Slade of Logical Solutions.	
Committee Meeting	[3.00 pm]:	Committee Meeting. Members are more than welcome to attend.	

Sunday	September 20th		1992
Doors open	[10.30 am]:	Doors Open. Book in Auction Items up to 11.30 am.	
Auction	[12.15 pm]:	Apple-Q Inc September Auction - Start	
Committee Meeting	[3.00 pm]:	Committee Meeting. Members are more than welcome to attend.	

Notice Board

Seven Hills

Remember Apple-Q Inc can sell Seven Hills Software direct to members ... For example Express printer spooling software - $49.95

Growth Computers

4 Park Road. Milton
Phone 369-4099

For all your Apple needs...

The Q-Store

5.25	DDDS blank disks	{Box 10}	$9.00
3.5	DDDS blank disks	{Box 10}	$18.00
3.5	DDHD blank disks	{Box 10}	$36.00
3.5 / 5.25 Disk Satchells		{Pkt 50}	$7.00
Apple IIGS Replacement Battery		{Each}	$25.00

We also stock supplies of Printer Paper, Ribbons, Mouse Holders etc . . .

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

Apple-Q Information

Public Domain Software

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

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

Meeting Format

11.00 am - 12.00 - Open for Business
Trading table open. Hard copy Library Open
Registration of members (new and renewals).
PD Software Library sales. Raffle Tickets sold.

8 - 1.00 pm - Demonstration
Invited speaker to give a demonstration.
followed by a question and answer session
relating to the demonstration, draw raffles etc . . .

1.00 pm - 3.00 pm - Special Interest Groups
Special Interest Groups . . .
Trading Table, Software Library continues . . .
General Computer Time . . .

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

5.00 pm - (approx.) Open Day ends.
End of the General and Committee meetings.

Meeting Venue

Andrews Special School

79 Troughton Road, SunnyBank.

Membership Fees

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

At the discretion of the Executive Committee

Articles for Apple-Bug

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

Executive Committee

Ann White	President	(07) 371-4067
Bob Godbehere	Vice-President	(07) 808-3892
Dale Rodgie	Secretary	(075) 91-2819
Stan Millar	Treasurer	(07) 801-1901
Kelvin Saggers	Editor	(07) 800-3577
Graham Black	Registrar	(07) 883-1525
Ian Millar	Hardcopy Librarian	(07) 343-4261

Software Librarians

John Finch	Apple Macintosh	(07) 260-5218
Steve Wilson	Apple //	(07) 282-6868
Paul Featherstonhaugh	Apple GS	(07) 201-1698

Bulletin Board

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

Production Information

The Apple-Bug was written mainly with AppleWorks GS, and AppleWorks GS was also used for the Page Layout. Apple-Bug is printed by the Hooper Education Centre. Thanks to Kelvin Saggers for the use of the StyleWriter used to produce the original copy.

More Info

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

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

The Editors Desk

By Kelvin Saggers

Apple II General

BobGodbehere	(07) 808-3892	7-9 pm & WE

Apple IIGS General

VinceCrosdale	(07) 351-3090	7-9pm
GrahamBlack	(07) 883-1525	1-6pm
KevinRiethmuller	(07) 030-2293	7-9pm

Apple Macintosh General

JohnFinch	(07) 260-5218	7-9pm & WE
AnnWhite	(07) 371-4067	7-9pm W'Days

Apple Macintosh - Music

TonyTruscott	(07) 266-4795	7-9pm & WE

Apple Macintosh - Page Maker

AnnWhite	(07) 371-4067	7-9pm W'Days

AppleWorks (Classic)

AnnWhite	(07) 371-4067	7-9pm W'Days

AppleWorks IIGS

KelvinSaggers	(07) 800-4660	ModemAnytime

AppleSoft / Beginners

BobGodbehere	(07) 808-3892	7-9pm & WE
VinceCrosdale	(07) 351-3090	7-9pm
GrahamBlack	(07) 883-1525	1-6pm

Communications / Modems

VinceCrosdale	(07) 351-3090	7-9pm
KelvinSaggers	(07) 800-4660	ModemAnytime

Education Programs

AnnWhite	(07) 371-4067	7-9pm W'Days
JohnAspland	(07) 368-2420	7-9pm
GeoffGalt	(07) 355-5161	School hours

Seven Hills Partner

KelvinSaggers	(07) 800-4660	PhoenixBBS

Software Library & Disk of the Month

SteveWilson	(07) 282-6868	Apple II
PaulFeatherstonhaugh	(07) 2011-698	IIGS
	Times: 7-9 pm and Weekends	

Apple IIGS Graphics, Programing

PaulFeatherstonhaugh	(07) 2011-698	7-9pm

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

Please Only call the help line between the times listed. WE stands for Weekend, W'Days stands for Weekdays only, A'Machine stands for an automatic answering machine, and Modem and BBS are NOT voice lines.

Well yet another month bites the dust, and another issue is almost ready to hit your letter box. I had hoped to include a few other items in this issue but time and newsletter deadlines wait for no man . . . least of all the Editor. OK. So what's in this issue and what have we lined up for you over the next few months, read on and find out . . .

As John is away, and I ran out of time, Mac Mumblings had to take a rest this month, but it should be back again next month. We have once again received quite a few News Release sheets from CoNeXus, and other companies like NetComm, most of which relate to Macintosh networking packages, for those interested they can be found in the clubs HardCopy library.

Macintosh and Apple // software will be demonstrated by Logical Solutions at the August meeting, which includes, so I am told, free ID tags produced by one of the packages to be demonstrated. Also in late August, but after the meeting, Ann, Steve, and myself will fly down to Sydney to represent the club at the 4th Annual Apple User Group Conference, this trip will be my second as Editor for Apple-Q and I hope it will be just as informative as the last one. Once again details of the conference will be written up in the Apple-Bug, but they will probably miss the September issue as it would normally be on it's way to the printers by then.

The September meeting will be taken up mainly with Apple-Q's last Auction for 1992, more details on this can be found along with an Auction Form on pages 11 and 12 of this issue. Please remember that Apple-Q Inc. takes no responsibility for the items put up for auction. The goods are in the main second hand, and as such, people should expect missing documents and or disks etc. In most cases this is noted down by the seller . . . but this is not to be n upon, aside from which all goods to be Auctioned are laid out for viewing prior to the start of the Auction. As in the past Bob Godbehere will be the master of ceremonies.

In October we have our AGM with the Committee elections, and of course FREE Apple Ice cream cake, Apple Cider, and Apple slices, will once again be given away to all attending members and their family. As is our custom the October meeting will see the old committee step down, and a newly elected one take it's place. As this event draws closer, I would ask that you start thinking about taking up one of the positions available. In next months issue I will present a brief re'sume' of each position in order to give you some idea of what is involved, and if you think you would like to know more about a particular position simply contact the member currently filling that post and ask for more details. Apple-Q can continue to grow with your support, or wither away from the lack of it . . .

The History of the Apple II - Part 7

Compiled and written by Steven Weyhrich
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Version 1.1 :: 12 Dec 91

Edited by Kelvin Saggers

The Apple IIe

Prelude: The Apple IIe Project . . .

As we continue our travels examining the history of the Apple II, let's fine tune the time-machine card on our souped-up Apple II to concentrate specifically on the next version of the II, the IIe. As before, just accelerate the microprocessor speed to 88 MHz, and watch out for the digital fire-trails! Destination: 1982.

Between the years 1979 and 1983, although no new versions of the Apple II were released, it enjoyed a broad popularity and annually increasing sales. The open architecture of the computer, with its fully described hardware and firmware function via the Reference Manual, made it appealing both to hardware and software hackers. Third-party companies designed cards to plug into the internal slots, and their function varied from making it possible to display and use 80-column text, to clocks and cards allowing the Apple II to control a variety of external devices. During this time there was also an explosion of new software written for this easily expandable machine, from the realm of business (VisiCalc and other spreadsheet clones), to utilities, to games of all types. Each month a host of new products would be available for those who wanted to find things to do with their computer, and the Apple II was becoming a place in the home, the classroom, and the office.

At Apple Computer, Inc., however, the Apple II was not viewed with the same degree of loyalty. By September 1979 the Apple II had continued to be a sales leader. However, few at Apple believed that the II could continue to be a best seller for more than another year or two. Since Apple Computer, Inc. was a business, and not just a vehicle for selling the Apple II computer, they began to enlarge the engineering department to begin designing new products.<1>

These new design efforts had begun as far back as late 1978. Their first effort was an enhanced version of the Apple II that used some custom chips, but that project was never ever finished. They also began work on a different, more powerful computer that would use several identical microprocessor chips sharing tasks. The main advantage would be speed, and the ability to do high precision calculations. This computer was code-named Lisa, and

because it was such a revolutionary type of design, they knew it would take many years to come to actual production. Because of the power it was to have, Apple executives felt that Lisa was the future of the company.<2>,<14>

Because they knew that the Lisa project would take a long time to complete, and because the Apple II was perceived to have only a short remaining useful life as a product, they began a new computer project called the Apple III. Instead of building upon the Apple II as a basis for this new computer, they decided to start from scratch. Also, although Wozniak made most of the design decisions for the Apple II, a committee at Apple decided what capabilities the Apple III should have. They decided that the Apple III was to be a business machine, and not have the home or arcade-game reputation that the II had. It was to have a full upper/lowercase keyboard and display, 80-column text, and a more comprehensive operating system. They also decided that since it would be a while before many application programs would be available for this new computer, it should be capable of running existing Apple II software. In some ways this handicapped the project, since it was then necessary to use the same microprocessor and disk drive hardware as was used in the Apple II.<3>

Apple executives also decided that with the introduction of the Apple III they wanted a clear separation between it and the Apple II in regards to marketing. They did not want ANY overlap between the two. The III would be an 80-column business machine and was predicted to have ninety percent of the market, while the Apple II would be a 40-column home and school machine and would have ten percent of the market. Apple's executives were confident that after the release of the Apple III, the Apple II would quickly lose its appeal.<4>

Because of their desire for a strong and distinct product separation, the Apple II emulation mode designed into the Apple III was very limited. The engineers actually ADDED hardware chips that prevented access to the III's more advanced features from Apple II emulation mode. Apple II emulation couldn't use 80 columns, and had access to only 48K memory and none of the better graphics modes. As a result, it wouldn't run some of the better Apple II business software, during a time when there wasn't much NEW business software for the Apple III.

The Apple III engineers were given a one year target date for completion. It was ready for release in the spring of 1980, but there were problems with both design and manufacturing. (It was the first time that Apple as a company tried to come out with a new product; the Apple II had been designed and built by Wozniak when he WAS the engineering department). The first Apple III computers were plagued with nearly 100% defects and had to be recalled for fixes. Although Apple took the unprecedented step of repairing all of the defective computers at no charge, they never recovered the momentum they lost with that first

misstep, and the III did not become the success Apple needed it to be.<3>

Although all of the bugs and limitations of the Apple III were eventually overcome, and it became the computer of choice within Apple, it did not capture the market as they had hoped. At that point, they weren't sure exactly what to do with the II. They had purposely ignored and downplayed it for the four years since the II Plus was released, although without its continued strong sales they would not have lasted as a company. In a 1985 interview in Byte magazine, Steve Wozniak stated:

"When we came out with the Apple III, the engineering staff cancelled every Apple II engineering program that was ongoing, in expectation of the Apple III's success. Every single one was cancelled. We really perceived that the Apple II would not last six months. So the company was almost all Apple III people, and we worked for years after that to try and tell the world how good the Apple III was, because we KNEW [how good it was] . . . If you looked at our advertising and R&D dollars, everything we did here was done first on the III, if it was business related. Then maybe we'd consider doing a sub-version on the II. To make sure there was a good boundary between the two machines, anything done on the II had to be done at a lower level than on the III. Only now are we discovering that good solutions can be implemented on the II . . . We made sure the Apple II was not allowed to have a hard disk or more than 128K of memory. At a time when outside companies had very usable schemes for adding up to a megabyte of memory, we came out with a method of adding 64K to an Apple IIe, which was more difficult to use and somewhat limited. We refused to acknowledge any of the good 80-column cards that were in the outside world; only ours, which had a lot of problems."<4>

Wozniak went on in that interview to say that at one time he had written some fast disk routines for the Pascal system on the Apple II, and was criticized by the Apple III engineers. They didn't think that anything on the Apple II should be allowed to run faster than on a III. That was the mindset of the entire company at the time. Apple has been much maligned for the attention they gave the Apple III project, while suspending all further development on the Apple II. They pegged their chances for the business market in 1980 on the Apple III. Even Steve Wozniak had stated in another interview:

"We'd have sold tons of [computers in the business market] if we'd have let the II evolve . . . to become a business machine called the III instead of developing a separate, incompatible computer. We could have added the accessories to make it do the business functions that the outside world is going to IBM for."<3>

Part of the problem was the immaturity of the entire microcomputer industry at the time. There had NEVER been

a microcomputer that had sold well for more than a couple of years before it was replaced by a more powerful model, usually from another company. The Altair 8800 and IMSAI had fallen to the more popular and easier to use Apple II and TRS-80 and Commodore PET, as well as other new machines based on the Intel 8080 and 8088 processors. It is entirely understandable that Apple's attitude between 1978 and 1980 would be of panic and fear that they wouldn't get a new computer out in time to keep their market share and survive as a company. However, during the entire time when Apple was working on the III as a computer to carry the company through until Lisa would be ready, and during the entire time that the Apple II was ignored by its own company, it continued to quietly climb in sales. It is a credit to both the ingenuity of Wozniak in his original design, and to the users of the Apple II in THEIR ingenuity at finding new uses for the II, that its value increased and stimulated yet more new sales. The Apple II "beat" the odds of survival that historically were against it.

The Apple IIe: Beginnings . . .

When Apple saw that the sales on the Apple II were NOT going to dwindle away, they finally decided to take another look at it. The first new look at advancing the design of the II was with a project called "Diana" in 1980. Diana was intended primarily to be an Apple II that had fewer internal components, and would be less expensive to build. The project was later known as "LCA", which stood for "Low Cost Apple". Inside Apple this meant a lower cost of manufacturing, but outsiders who got wind of the project thought it meant a $350 Apple II. Because of that misconception, the final code name for the updated Apple II was "Super II", and lasted until its release.<5>

The Apple IIe: Hardware . . .

Part of the IIe project grew out of the earlier work on custom integrated circuits for the Apple II. When they finally decided to go ahead and improve the design by adding new features, one of the original plans was to give the Apple II an 80-column text display and a full upper and lowercase keyboard. Walt Broedner at Apple did much of the original hardware planning, and was one of those at Apple who pushed for the upgrade in the first place. To help maintain compatibility with older 40-column software (which often addressed the screen directly for speed), he decided to make 80-columns work by mirroring the older 40 column text screen onto a 1K memory space parallel to it, with the even columns in main memory and the odd columns in this new "auxiliary" memory. To display 80-column text would require switching between the two memory banks. Broedner realized that with little extra effort he could do the same for the entire 64K memory space and get 128K of bank-switchable memory.

They put this extra memory (the 1K "80-column card, or a 64K "extended 80-column card") in a special slot called the

"auxiliary" slot that replaced slot 0 (the 16K Language Card was going to be a built-in feature). The 80-column firmware routines were mapped to slot 3, since that was a location commonly used by people who bought 80-column cards for their Apple II's, and was also the place where the Apple Pascal system expected to find an external terminal. The auxiliary slot also supplied some special video signals, and was used during manufacture for testing on the motherboard.

The engineers that worked on the IIe tried hard to make sure that cards designed for the II and II Plus would work properly in the new computer. They even had to "tune" the timing on the IIe to be slightly OFF (to act more like the II Plus) because the Microsoft CP/M Softcard refused to function properly with the new hardware. A socket was included on the motherboard for attaching a numeric keypad, a feature that many business users had been adding (with difficulty) to the II Plus for years. The full keyboard they designed was very similar to the one found on the Apple III, including two unique keys that had first appeared with the III: one with a picture of an hollow apple ("open-apple") and the other with the same apple picture filled in ("solid-apple" or "closed Apple" [now called the 'Option key' on most new Apples]). These keys were electrically connected to button 0 and button 1 on the Apple paddles or joystick. They were available to software designers as modifier keys when pressed with another key; for example, open-apple-H could be programmed to call up a "help" screen. The newer electronics of the keyboard also made it easier to manufacture foreign language versions of the Apple IIe.<6>

Overall, Broedner and Peter Quinn (the design manager for the IIe and later the IIc projects) and their team managed to decrease the number of components on the motherboard from over one hundred to thirty-one, while adding to the capabilities of the computer by the equivalent of another hundred components.

The Apple IIe: Firmware ...

Peter Quinn had to beg for someone to help write the new firmware revisions to the Monitor and Applesoft for the Apple IIe. He finally got Rich Auricchio, who had been a hacker on the Apple II almost from the beginning. Quinn said in a later interview:

"You cannot get someone to write firmware for this machine {Apple IIe} unless he's been around for three or four years. You have to know how to get through the mine field [of unofficial but commonly used entry points]. He [Rick] was extremely good. He added in all the 80-column and Escape-key stuff."

Quinn also got Bryan Stearns to work on the new Monitor.<6>,<7>

Changes were made in the ROMs to support the new bank-switching modes made necessary by having two parallel 64K banks of RAM memory. To have enough firmware space for these extra features, the engineers increased the size of the available ROM by making IT bank-switched. This space was taken from a location that had previously not been duplicated before; the memory locations used by cards in the slots on the motherboard.

Ordinarily, if you use the Monitor to look at the slot 1 memory locations from $C100 through $C1FF, you get either random numbers (if the slot is empty), or the bytes that made up the controller program on that card. Any card could also have the space from $C800 through $CFFF available for extra ROM code if they needed it. If a card in a slot did a read or write to memory location $CFFF, the $C800-$CFFF ROM that belonged to that card would appear in that space in the Apple II memory. When another card was working, then ITS version of that space would appear. On the IIe, they made a special soft-switch that would switch OUT all the peripheral cards from the memory, and switch IN the new expanded ROM on the motherboard. The firmware in the new bank-switched ROM space was designed to avoid being needed by any card in a slot (to avoid conflicts), and much of it was dedicated to making the 80-column display (mapped to slot 3) work properly.

Also added were enhancements to the ESC routines used to do screen editing. In addition to the original ESC A, B, C, and D, and the ESC I, J, K, and M added with the Apple II Plus, Auricchio added the ability to make the ESC cursor moves work with the left and right arrow keys, and the new up and down arrow keys. The new IIe ROM also included a self-test that was activated by pressing both apple keys, the control key, and RESET simultaneously.<5>

The Apple IIe: Success ...

The new Apple IIe turned out to be quite profitable for Apple. Not only was it more functional than the II Plus for a similar price, but the cost to the dealers selling it was about three times the cost of manufacture. They had gotten their "Low Cost Apple", and by May of 1983 the Apple IIe was selling sixty to seventy thousand units a month, over twice the average sales of the II Plus. Christmas of 1983 saw the IIe continue to sell extremely well, partly resulting from the delayed availability of the new IBM PCjr. Even after the Apple IIc was released in 1984, IIe sales continued beyond those of the IIc, despite the IIc's built-in features.<8>

The Apple IIe: Modifications ...

Early Apple IIe motherboard's were labelled as "Revision A". Engineers determined soon after its introduction that if the same use of parallel memory was applied to the hi-res graphics display as was done with the text display, they could create higher density graphics. These graphics, which they called "double hi-res", also had the capability of displaying a wider range of colors, similar to those available with the original Apple II lo-res graphics. The IIe

motherboards with the necessary modifications to display these double hi-res graphics were labelled "Revision B", and a softswitch was assigned to turning on and off the new graphics mode.

Later versions of the IIe motherboards were again called "Revision A" (for some reason), although they HAD been modified for double hi-res graphics. The difference between the two "Revision A" boards was that the latter had most of the chips soldered to the motherboard. An original "Revision A" board that had been changed to an Enhanced IIe was not necessarily able to handle double hi-res, since the change to the Enhanced version involved only a four-chip change to the motherboard, but not the changes to make double hi-res possible.<9>

The Apple IIe: The Enhanced IIe ...

This version of the Apple IIe was introduced in March of 1985. It involved changes to make the IIe more closely compatible with the Apple IIc and II Plus. The upgrade consisted of four chips that were swapped in the motherboard: The 65c02 processor, with more assembly language opcodes, replaced the 6502; two more chips with Applesoft and Monitor ROM changes; and the fourth a character generator ROM that included graphics characters (first introduced on the IIc) called "MouseText".

The Enhanced IIe ROM changes fixed most of the known problems with the IIe 80-column firmware, and made it possible to enter Applesoft and Monitor commands in lower-case. The older 80-column routines were slower than most software developers wanted, they disabled interrupts for too long a time, and there were problems in making Applesoft work properly with the 80-column routines. These problems were solved with the newer ROMs.

Monitor changes also included a return of the mini-assembler, absent since the days of Integer BASIC. It was activated by entering a "!" command in the Monitor, instead of a jump to a memory location as in the older Apple][. Also added were an "S" command was added to make it possible to search memory for a byte sequence, and the ability to enter ASCII characters directly into memory. However, the "L" command to disassemble 6502 code still did not handle the new 65c02 opcodes as did the IIc disassembler. Interrupt handling was also improved.

Applesoft was fixed to let commands such as GET, HTAB, TAB, SPC, and comma tabbing work properly in 80-column mode.

The new MouseText characters caused a problem for some older programs at first because of changes to the character generator ROM, until the programs were upgraded; as characters previously displayed as inverse upper-case would sometimes display as MouseText instead.<10>,<11>

The Apple IIe: The Platinum IIe ...

This version of the IIe, introduced in January 1987, had a keyboard that was the same as the IIGS keyboard, but the RESET key was moved above the ESC and "1" keys (as on the IIc), and the power light was above the "/" on the included numeric keypad (the internal numeric keypad connector was left in place). The CLEAR key on the keypad generated the same character as the ESC key, but with a hardware modification it could generate a Ctrl-X as it did on the IIGS. The motherboard had 64K RAM in only two chips (instead of the previous eight), and one ROM chip instead of two. An "extended 80-column card" with 64K extra memory was included in all units sold, and was smaller than previous versions of that memory card.

No ROM changes were made. The old shift-key modification was installed, making it possible for programs to determine if the shift-key was being pressed. However, using a game controller that actually used the third push-button (where the shift-key mod was internally connected), pressing shift and the third push-button simultaneously causes a short circuit that shuts down the power supply.<12>

The Apple IIe: Mac LC - Emulation Card

In early 1991, Apple introduced a new version of the Apple IIe. This one was designed to be exactly like the 128K Platinum IIe, with the modification that it had a color Macintosh attached to it. **This Apple IIe cost only $US199, but the required Macintosh peripheral went for about $US2,495, which makes the combination the most expensive Apple II ever made.** Apple engineers managed to put the function of an entire IIe onto a card smaller than the old Disk II controller card. With version 2.0 of the Apple II interface software, more of the memory allocated to the Macintosh can be used by the IIe (strange way of designing an Apple II!).

However, unlike all previous versions of the IIe, there are no hardware-based slots on the Apple IIe card; instead, there are software-based slots that are allocated by moving icons that represent various peripherals into "slots" on the Mac screen. (Oh, yes; it runs some Mac software, too).

To use 5.25 disks with this Apple IIe, there is a cable that attaches to the card. The cable splits into a game connector (for paddles or joystick operation) and a connector that accepts IIc and IIGS style 5.25 drives. The IIe card runs at a "normal" (1 MHz) speed and a "fast" (2 MHz) speed.<13>

It has limitations, however. For a 1991 Apple II, it is limited in being unable to be accelerated beyond 2 MHz (a Zip Chip can run a standard IIe at 8 MHz), and the screen response seems slow, since it is using a software-based Mac text display instead of the hardware-based Apple II character ROM. As a Macintosh it lacks the power and speed of the

newer Macintosh II models (which also run in color). But if having a Apple II and a Mac in one machine is important, this is the best way to do it.

The Next Installment
The Apple //c

Notes

<1> Freiberger, Paul, and Swaine, Michael. "Fire In The Valley, Part I (Book Excerpt)", A+ Magazine, Jan 1985, p. 45-48.

<2> Freiberger, Paul, and Swaine, Michael. "Fire In The Valley, Part II (Book Excerpt)", A+ Magazine, Jan 1985, p. 46,51.

<3> Rubin, Charles. "The Life & Death & Life Of The Apple II", Personal Computing, Feb 1985, p. 72.

<4> Williams, Gregg, and Moore, Rob. "The Apple Story, Part 2: More History And The Apple III", Byte, Jan 1985, pp. 177-178.

<5> Tommervik, Al. "Apple IIe: The Difference", Softalk, Feb 1983, pp. 118-127, 142.

<6> Williams, Gregg. "'C' Is For Crunch", Byte, Dec 1984, pp. A75-A78, A121.

<7> Little, Gary. Inside The Apple //c, 1985, pp. 1-7.

<8> Rose, Frank. West Of Eden: The End Of Innocence At Apple Computer, 1989, pp. 98-99.

<9> Weishaar, Tom. "Ask Uncle DOS", Open-Apple, Dec 1986, p. 2.86.

<10> Weishaar, Tom. "A Song Continued", Open-Apple, Mar 1985, pp. 1.20-1.21.

<11> Weishaar, Tom. "Demoralized Apple II Division Announces Enhanced IIe...", Open-Apple, Apr 1985, pp. 1.25-1.27.

<12> Weishaar, Tom. "Apple Introduces An Updated IIe", Open-Apple, Jan 1987, p. 3.1.

<13> Doms, Dennis. "The Apple II as Mac peripheral", Open-Apple, Jul 1991, pp. 7.43-7.44.

<14> This was an early version of the Lisa project. When the 68000 microprocessor became available from Motorola, it was decided to use that as a single processor for the Lisa.

Also, after Steve Jobs paid a visit to the Xerox lab and saw the Xerox Star computer with its icon interface and mouse pointing device, he pushed strongly for the Lisa to work in that way.

to be continued . . . .

Committee Highlights

by Dale Rodgie

For years we have tried to forge a reputation for providing exciting and innovative up-to-date articles, written to exacting standards of quality . . . but this is not one of them . . . welcome instead to yet another exciting edition of the committeehighlights.

• The club is buying a Maestro 2400 ZXR modem for the Apple-Q BBS. We are buying it for $304.00, direct from Maestro.

• The winner of the Article of the Month competition for July is Robert Hook.

• When using our Help Line service, please remember to call between the listed times. You won't get very useful help if the person on the other end is half asleep etc.

• For those Mac users with modems, MAQ now has a BBS just for the Macintosh. It uses a graphical interface like the Finder. The phone number is (07) 847 2066. You can connect using most comms programs and download the TeleFinder software required for the graphical interface.

• Ann White is working to design a sweatshirt logo for our delegates to wear at the Apple User Group Convention.

• Paul Featherstonhaugh is ordering some new Apple IIgs PD software. Check out the future issues for more details.

• We had seven new members join last month.

• Future Meetings

August Meeting

Logical Solutions
ID Software for Mac
(ID cards made for all members attending)

September Meeting

Apple-Q Auction

October Meeting

Apple-Q AGM
Apple pie, cider and ice cream cake
Logo Writer Demo
Ann White - Apple II, Macintosh

Disk of the Month

by Steve Wilson & Paul Featherstonhaugh

Apple-Q's Software Library Disks are available at the open day meetings from either Steve or Paul at the Software Library Table, or if you wish via phone/mail. An order form appears on the inside back cover of this issue. Even if you don't wish the disks sent out by mail you can help out if you order via phone so we can then have the disks ready for you to pick up at the meeting. The prices are as follows:

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

Apple][Disk of the Month . . .

This month we have some exciting new programs. First up we have SOFTSOUND.1.0, which is a sound player and editor for the Apple IIe and IIc. Digitized sounds are very popular on //GS and Macintosh systems, but in the past they haven't been playable on 8-bit Apple II systems (well, not very well anyway) without adding extra hardware. No longer. Here is a utility for not only playing, but also for modifying digitize sound samples. there are literally thousands of digitize sound samples available, especially in Apple-Q's //GS and Macintosh PD Libraries. There's even one sound file included with this package. Try this one out, just to show that there's still creative things to be done with the 8-bit Apple II.

IIGIF is a graphics program by Jason Harper. GIF files are a computer-independent format for graphic images. Well, to use such images you need a program to convert them to your machine. IIGIF fills that roll quite well indeed for most Apple II systems. It allows you to view Gif graphics in hires monochrome, hires colour, double hires monochrome, or double hires colour. It will also allow you to save the files in standard hires or double hires files, so you can use them with other programs if you wish. Included is Sunset.GIF, which can be viewed with this program on any Apple II.

Also included is IIGIF.IIC.PATCH. IIGIF will need to be patched if you intend to run it on a IIc. Mind you, once patched, it will no longer work on other Apple II's.

On side two of this month's Apple][disk we have the latest version of A2.SNEEZE, version 2.2. Sneeze has been updated to fix a small bug or two, and to add a nifty new multiple file copy feature. Be sure to read the Intro file, which has been revised to explain the changes and new features.

Also on side two we have KICKSTART.2.2 which is a rather unique utility intended primarily for RAM disk users. Basically, it will copy the contents of one disk to another.

The nice thing is that it does this with almost alarming speed, like a very fast disk-to-disk (as opposed to file-by-file) copy. But the volumes do not have to be the same size; in fact, it's assumed that they'll be different sizes. It's pretty unique; most utilities, if they attempted a fast disk-style copy to a RAM disk of a different size than the original, would either fail or leave you with some of your unused RAM disk space simply removed. KickStart doesn't do this at all.

Lastly, there is a game that has been floating around in the public domain for many years. It is called Wormy.Run, or just Wormy, and there has been several variations over the years. It is a Binary file instead of the usual SYS file that most runable ProDOS programs use, but the launcher on this disk has no worries starting this game. You'll find that Wormy is excellent proof that some of the best games are 8-bit Apple II "nothing fancy" affairs. Enjoy!

Apple //GS Disk of the Month . . .

This months GS Disk of the Month is another incredible offering from FTA. Bouncing Ferno is a Marble Madness 'type' of game for the Apple //GS. The version supplied on this months Disk of the Month comes complete with the source code and a level Editor. To run the game you either simply boot the disk or launch (double click) the P8.Loader file from your desktop (or launching program). Bouncing Ferno is also Hard Disk installable.

Like all FTA products this one comes complete with great graphics, sound effects and music. The game has 3 levels of 25 screens already defined which can be played with either the mouse or joystick. You can create and edit your own game screens via the built in editor . . . what more could you ask for.

The idea of the game is simple (like most games of this gendre) and somewhat addictive as you try and 'roll over' various objects in order to 'pick them up' and thus advance to the next level. Also like most games of this type this is not as simple as it sounds because in order to do so you must negotiate 3-D ramps etc to achieve your goal.

The game is complete except for the scoring module a minor problem which InCider's latest contest should hopefully fix. InCider (A+) is holding a competition in which programers are invited to supply a scoring module for the game using the existing FTA source code for the game {provided on the disk} or creating your own from scratch. For more details see the August 1992 edition page 10 - under FTA Game Contest.

Non programmers have not been forgotten as InCider is also running a competition based on creating your own unique Bouncing Ferno levels using the built in editor. Both competitions close December 30th 1992. So grab a copy of this disk and start creating. . . you don't even have to be an InCider subscriber to enter the competition.

That's it for this month . .

Apple-Q Auction

By Kelvin Saggers

It's almost time again for the September Apple-Q Auction. If you attended our March Auction, you will be aware that some very good bargains come up for sale, not only for Apple II and Macintosh computer owners, but for users of lesser brand computers as well. The last auction we had was actually the first meeting held in our new 'home' here at Sunnybank., and in spite of the sudden venu change the auction went well, and with your support this one will be just as successful.

Start looking around at home, or work, you will probably find some software or hardware, or even an old computer you no longer use or want. You can turn these items into cash simply by entering the details on the form provided in this newsletter, and by lodging both the completed form{s} and item{s} with Apple-Q Inc. If bargain hunting is more your style, and past auctions are anything to go by, there will be plenty of those on hand for you to bid for.

You can, if you wish contact Apple-Q before the meeting to lodge the items you wish to auction. We work on a "first in - first served" basis based on receiving both your items, and form. Simply put, the first person to lodge their items and form with us will get at the top of the auction list, and so on down the line. If you bring your items on the day at the last minute, then you will find your self at the end of the list and your items will be the one of the last items auctioned.

The doors will open at Andrews Special School at 10.00 a.m. on Sunday the 19th of September, so please come early and help avoid the rush if you intend to enter Items for auction. Please remember that items cannot be accepted after the 11.30 am deadline, as we need time to sort out and enter last minute items into the auction data base, label them, and place them on display. The Auction itself starts around 12.15.

Should the Auction form prove too small just copy the format onto another piece of paper and hand both in with your items {a copy of the Auction form will also be printed in the September issue of Apple-Bug- Ed}. If possible please take the time to fill in your form before the meeting in order to speed things up . . . . . a limited number of forms will be available on the day.

Apple-Q Auction Rules & Notes

- The doors will be open from 10.00 a.m . for you to lodge your items.

- All your Auction items must lodged before the 11.30 a.m. deadline.

- The auction starts at 12.15 p.m.

- All auctioned items must have a Reserve Price of no less than $5.00, {Please Note - If an Item has a Reserve Price of less than $5.00, then Apple-Q Inc. will still look upon the sale as being a $5.00 sale for commission purposes}.

- Apple-Q gets a commission of 10 percent of the final auctioned price. This money will go towards running the club, equipment, etc.

- Apple-Q Inc. takes no responsibility for software or equipment lodged at this Auction.

- You can auction any computer related item for example - software or hardware, for any computer type you wish.

- You must be a financial member of Apple-Q Inc. {The Brisbane Apple User Group} OR a current member of The Mac Association of Queensland} in order to bid or place items in the Auction. Ring up and ask . . . we don't bite . . . too often. Membership renewals {see the application forms at the back of this newsletter and the information page - Ed} can be made on the day of the Auction

{please ensure that you are financial as our rules {not to mention our database} requires this to be so.

- Only Committee members {or those nominated by the Committee} can handle goods lodged for Auction once the Auction starts. Members may view the goods for Auction, once they have been lodged and processed, and laid out on the tables, before the Auction starts.

- Once the Auction starts, goods that have been auctioned off successfully will be placed on tables in an area away from the main auction tables. You will not be allowed to take goods from this area without a receipt from the club's Tresurer or nominated member at the 'Q Store'. Please pay for your items first, & then approach the holding area for your purchases.

- We can not finalize payments until after the auction is over and all outstanding money is received.

- If you have to leave early, we will post a cheque to you (minus $1.00 to cover handling).

- Only Committee members or those nominated by the Committee should be in the 'Q Store' or 'Auctioned goods' area.

- Please remember goods are sold 'as is' and Apple-Q Inc cannot be held reponsible for missing, damaged or defective items.

Apple-Q Inc. Auction Form

Apple-Q Inc. (the Brisbane Apple User's Group)

Please fill in this form and hand it in with the items you wish to auction. If you wish, you may photocopy this form.

All items for auction must be handed in by 11.30 a.m. A commission of 10% of each sale will be taken out by the club.

This money will be used to improve the services offered to Apple-Q members. The Auction will start at approx 12.15 p.m.

Members Name: . . . .

Group: Apple-Q [   ]   Mac Association [   ]   **Membership Number:** . . . .

Please enter a brief description of the item you wish to auction along with it's reserve price, if any in the spaces provided.

Item Description	Reserve Price	Auction No.
[01]	$	. . . .
[02]	$	. . . .
[03]	$	. . . .
[04]	$	. . . .
[05]	$	. . . .
[06]	$	. . . .
[07]	$	. . . .
[08]	$	. . . .
[09]	$	. . . .
[10]	$	. . . .

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

Super Finder

Building a Super Finder in GS System Software 6.0

By Thomas M. Schmitz.

Those who have upgraded to System Software 6.0 for the Apple IIgs are discovering a whole range of new features and abilities, but like a sports car, fresh from the factory, the Finder is even better with the addition of some well chosen, high performance parts.

For the IIgs there exist a whole inventory to choose from when souping up your computer. But before we look at individual programs you will want to know a little bit about the various classifications and their placement. We will be examining four classes of additions: Inits, Desk Accessories, Control Panels and Finder Extras. All of these are placed inside various folders within the /System folder of your boot drive or starting volume.

Desk Accessories

A Desk Accessory is a program you can run without leaving the Finder or the GSOS program your may be running. They may accomplish a number of tasks such as editing documents, manipulating files or even playing games.

There are two types of Desk Accessories, the NDA or New Desk Accessory and the CDA or Classic Desk Accessory. To install a Desk Accessory you simply copy it into the /Desk.Accs folder located inside the /System folder of your boot drive. Then, the next time you turn your IIgs on the NDA or CDA will be automatically installed.

To access a CDA you press the Command (Open Apple), Control and Escape buttons all at the same time. Then use the arrows to highlight the needed CDA and press return. To Access an NDA simply move the cursor to the apple in the upper left hand corner, hold down the mouse button and drag the cursor until the NDA you wish to use is highlighted. Let go of the mouse and the NDA opens-up.

Control Panels

Control Panels, formerly known as CDev's, are similar in nature to Desk Accessories but tend to regulate a distinct function in the computer's settings and performance. Control panel s are traditionally placed in the /CDev folder within the /System folder of your boot drive or starting volume.

When in the /CDev folder Control Panels are automatically installed at booting time. To access a Control Panel just open the Control Panels NDA and the menu will appear, or by simply double clicking a Control Panel's icon you can open that Control Panel directly.

Inits

Inits do a number of tasks, usually having to do with system control. Simply place an Init in the /System.Setup folder within the /System folder of your boot drive or starting volume. Inits perform their functions in a number of different manners so you will need to read each Init's individual instructions to see how it works.

Finder Extras

Finder Extras can be seen as a sort of marriage between Desk Accessories and Inits. To install a Finder Extra you will need to create a /FinderExtras folder in the /System folder. Copy the Finder Extra into the folder and when you boot your computer you will find a EXTRAS option on the menu bar. Click the EXTRAS on the menu and a window will open listing the installed Finder Extras.

Some Finder Extras will work like NDAs, open the EXTRAS menu, highlight and let go. Other's require you to click a file's icon or perform some other task. This can become confusing so be sure to read each Finder Extra's documentation to find out how it works.

Examples . . .

Now that you know what Desk Accessories, Control Panels, Inits and Finder Extras are we can look at some of the great software which will make your Apple IIgs a better looking and better performing machine. Except for DeskColor, all of the following programs are performance programs. They either make the Finder more powerful or make your computer easier to use. DeskColor is like that racing stripe you always wanted to put on the side of your car. Its sole purpose is to make your computer look good.

Finder-View 3.0, by Jupiter System's.Finder-View 3.0 is shareware, $10. Finder-View 3.0 is a Finder Extension that works with the Finder in System Software 6.0 and later. With Finder-View you can view pictures of the following formats: SHR uncompressed, SHR compressed, PaintWorks, APF, Print Shop GS, 3200 color (Brooks, French, SHR, APF), and you can also animate $C2 Paintworks animations, all right from within the Finder! Finder-View 3.0 supports selection of multiple graphic files at once, displaying them in a slide show. Seeing a single graphic is as easy as double-clicking on its icon in the Finder!

MoreInfo Version 1.2. This Apple IIgs Finder 6.0 Extension adds more functionality to Finder's Icon Info menu item. With MoreInfo installed, shift-selecting Icon Info from the Finder 6.0 menu brings up the MoreInfo window , which shows you the file type, aux filetype, individual access attributes, creation/mod dates, data fork blocks, data fork size, resource fork blocks, resource fork size, and storage type. You can also CHANGE many of these values!! Version 1.2 looks nicer, fixes one bug, and

allows/displays filetypes with either hexadecimal numbers or 3-letter abbr. Requires System 6.0! Shareware: Fee=$10, Copyright(c) 1992 by Bill Tudor.

HotKeys version 1.1. This is an Apple IIgs Finder 6.0 Extension INIT that adds "HotKeys",which are single-keystroke function keys to the System 6.0 Finder. You can do many Finder functions with a single keypress such as Open folders, quit the Finder, shutdown the computer, stack windows, set the view to "by name" and Much More! Version 1.1 adds a number of new actions including (but not limited to) Open ANY fold and LAUNCH Applications that you choose!! Keys on the keypad can be defined as HotKeys. Version 1.1 also allows Shift-<keypad key> HotKeys. Extended Keyboard keys can also be defined as HotKeys. Documentation Included. Shareware: $10. Copyright(c) 1992 by Bill Tudor.

InitMaster Version 2.1.1. This Apple IIgs Init is a Finder 6.0 extension that allows you to quickly change the Enabled/Disabled states of all your Inits (PIF and TIF), DAs (NDA and CDA), Drivers, FSTs, Icons (old style), and FinderExtras without having to use Finder's "Icon Info" window on each and every one of them. You can also have up to 3 sets of saved settings for quick recall. This program is ShareWare (Fee=$10). Copyright(c) 1992 by Bill Tudor.

Piece O' String Version 1.0 is a Finder Extension that will memorize and later restore icon selections in the Finder. Selections are remembered across Finder sessions. It adds two items to the Extras menu: "Preserve Selection" and "Restore Selection".

DeskTop Utilities is GyruS shareware from Australia. Goes in System.Setup folder but gives you an NDA and CDA with incredible functions! Add/remove fonts/DAs, create virtual DAs, instant DAs, has a screen blanker for both P8 and GS/OS, installs a menu clock with date, frees memory, has a stopwatch, does mouse coordinate info, creates custom hot keys and includes some already set up to shutdown (with options) or launch another program from within any desktop app. You can even launch a program and open a document file at the same time (great for running HCGS or HS stacks).

SynthInit Play MidiSynth songs by double clicking on their Icons from the Finder. Accepts multiple selections, next, previous feature, and will play to either the GS speaker or both GS speakers and Midi device. Docs are also included, and it's FreeWare . . .

FndrSounder Version 1.0 is a very handy finder-extension that lets you play rSound resources in files by double clicking them in Finder. Finder Sounder is less than 3K and doesn't take up much memory. Currently only supports playing first rSound resource in a particular file. Highly recommended, short download. Freeware, written by Jupiter Systems

QuickLaunch by Steve Stephenson. This is a Finder

Extension which will launch programs from the Finder with the greatest of ease. Install the INIT in your System.Setup folder under System 6.0 (or greater) and reboot. Then select the QuickLaunch menu item under the Extras menu in the Finder to add programs to the Launch List. This file is Freeware and copyrighted by Seven Hills Software. Please read the Read.Me file and check out the on-line Help System for more information about QuickLaunch and Seven Hills Software! Enjoy!

DeskColor is a neat IIgs CDEV/Control Panel to change the color or pattern of your desktop, or add a background graphic. This version of DeskColor simplifies the interface for selecting patterns which is now done from the main window - you may also insert or delete patterns. It also updates immediately to the new desktop when you close the Control Panel, especially desktop graphics. Has a built-in pattern editor, includes documentation and some sample patterns. This utility is JesusAware and is distributed the same as Freeware.

You should note that all these programs take-up memory on your computer which makes InitMaster and Desktop Utilities particularly attractive programs. Learning and using these two programs can take you to a higher level in your IIgs's ability and in memory management.

You can find many popular Desk Accessories, Control Panels, Inits and Finder Extras available in GEnie's Apple II library {see Notes - Ed}. There are games, word processors, clocks, calculators and other useful applications. You owe it to yourself and your machine to take a look at what your Apple IIgs can achieve under System Software 6.0.

Notes . . .

Most, if not all of the programs listed in the above article are available from the clubs software library, see the information pages for more details.

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

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79 Troughton Road, Sunnybank**

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

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Suburb: ....

City: ....

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A membership list is published every year in the Newsletter. Only your Name, Suburb and Phone number, are listed.   Do you require exemption from this list?   ☐ YES   ☐ NO

System Information
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☐ Apple //e   ☐ Apple //gs   ☐ Apple ///
☐ Macintosh   ☐ Other: ....

Members are reminded that the copying of commercial software is not santioned 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.

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Apple-Bug

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