Apple Bug
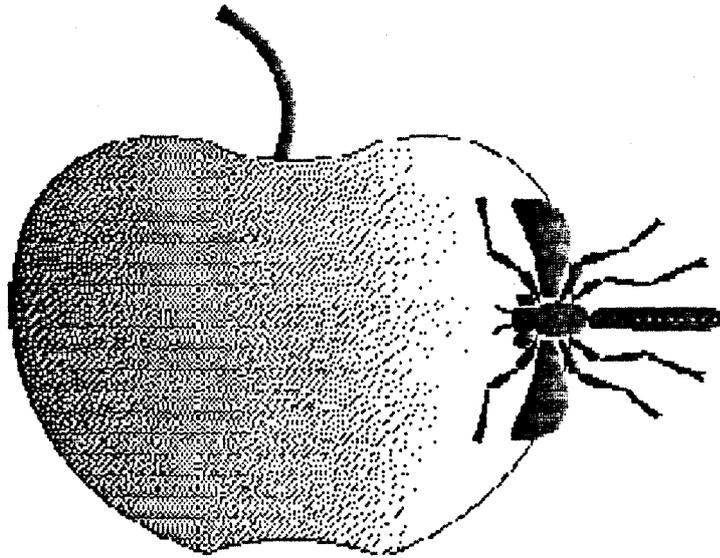
The Newsletter of:

Apple-Q Inc.

The Brisbane Apple Users' Group.

February 1989 Edition

Volume 8, Number 2

This Month...

Open Day
Sunday 19th Feburary 1989
Hours: 9.00 am to 4.30 pm

Committee Meeting
Monday 20th Feburary 1989
Starts: 7.00 pm

Next Month...

Open Day
Sunday 19th March 1989
Hours: 9.00 am to 4.30 pm

Committee Meeting
Monday 20th March 1989
Starts: 7.00 pm

Apple-Q Auction
Sunday 19th March 1989
Starts: 12.30 pm

Executive Committee

Vince Crosdale	President	(07)	351-3090
John Finch	Vice-President	(07)	260-5218
Bob Godbehere	Secretary	(07)	808-3892
Bernie Benson	Treasurer	(07)	345-1545
Graham Black	Registrar	(07)	883-1525
Dale Rodgie	Editor	(075)	38-6942
Sheryl Mann	Software Librarian	(071)	96-7401
Brett Dutton	Hardcopy Librarian	(07)	265-5112

Bulletin Board

Name:	Apple-Q Inc. BBS
On-line:	24 hours a day
Telephone:	(07) 284-6145 (Bulletin Board)
	(07) 883-1525 (Voice)
Baud Rates:	300, 1200/75, 1200 & 2400 (CCITT & BELL)
Data Specs:	8 Data bits, 1 Stop bit, No Parity, Full Duplex
Sysops:	Graham Black, Vince Crosdale, Brett Dutton

Now with a 60 megabyte Hard Disk

Membership Fees

Joining Fee:	$10.00 (add to Membership Fee when first joining)
Adults/Family:	$20.00
Pensioners:	$12.00 (on production of Pensioner Card)
Full Time Students:	$12.00 (under 21 years & on production of Student Card)
Corporate Membership:	$50.00
Associate Membership:	$ 5.00 (plus $5.00 joining fee - BBS only)

(At the discretion of the Executive Committee)

Copying Fees

Apple-Q has a wide selection of Public Domain, Shareware and Demonstration software available to members. We charge a copying fee so the group can obtain more software to expand the library. The copying fee for 5.25 inch disks is 50 cents a side with a minimum charge of $2.00. For the 3.5 inch disks, the fee is $3.00 per disk. See the software librarian at the next Open Day for a

More Info...

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

Apple-Q Auction '89

Again in March we are holding another Apple-Q Auction. The auction will be held at the Open Day on Sunday, 19th March at 12.30 pm. Again, if you wish to auction any of your computer related items, please fill in the form that will appear in the next Apple-Q and bring the form to the Auction.

This time, we will be asking for a commision of ten percent (10%) of the final auctioned price of each lot. This money will go into the Apple-Q funds and be used to improve the services the club provides.

The Auction is open to all Apple-Q members and to any computer related items. This includes CPU's, monitors, cards, printers, software, manuals, etc. So have a look around your home for those items that gather dust and bring them next month. More information in the March edition of Apple-Bug.

In this issue

[Editoral]

by Dale Rodgie

Hello again! This is my first newsletter since December. Due to our printers going on holidays, I had to work on the January edition during late November. So I am back from my holiday as editor. Well not quite. In early December, I uploaded the December edition of Apple-Bug to the BBS. I plan to upload the newsletter to the Apple-Q BBS each month. So look for it when you log on.

I would like to thank Ann White and Carl Von Linden for the articles that were used in this edition. I am always looking for more articles from members. So start writting today.

Please Note!
The coffee machine is provided by the Hooper Centre, and coffee costs only 20 cents per cup. Money is put in the bowl on top of the machine using the honour system. The chairs and tables are owned by the Hooper Centre, and extra trestles can be obtained from under the school building if needed. We aren't allowed to have alcoholic

beverages on the premises because of Departmental Regulations. The telephone is locked and not available for outgoing calls. We do not have a key to this phone.

Someone has to clean up at the end of the day, make sure that the trestles have been returned, rubbish put out, etc. Anyone volunteering to help close up (clean up, put away trestles, etc) would be welcomed with open arms.

A small number of power boards are available, at Open Days, for a deposit of $20.00. Due to the number of missing power boards, we had to increase the deposit. I recommend that you bring your own as the few available will not last long.

[Software Library]

This month we look at a new program that was added to the Software Library last month. Below is the introduction to the program written by the Author. If you are interested, please see Sheryl at the Software Library table (on your right as you walk through the enterence). Phil (the Author) noted that you may pay the $12.00 (US) Shareware fee by sending him a box of 5.25 inch disks instead of having problems getting US currency.

An Introduction to the Large-Text Joyreader Disk

by Phil Shapiro

Are you tired of squinting at 80-column text? Are you tired of putting up with the "dot-matrix" look of 40-column text on your computer screen? Well, help is on the way.

Written initially for children, the Large-Text JoyReader program displays text in a high-resolution, proportionally-spaced, block font. The text is so large and bold that it is clearly visible twenty feet away from your computer's monitor. On a standard twelve inch monitor, the text is a full one-half inch tall. In printer's terms, this text would be equivalent to 36 point type.

The proportional spacing allows up to 30 columns of text to fit onto one line. Vertically speaking, nine lines of text fit onto the monitor at one time.

The Large-Text JoyReader disk contains various demonstration programs. The possible uses of the program vary all the way from displaying reading passages for beginning readers to displaying commercial messages in store windows. The disk includes eight different reading selections for children, including two short stories written by eight-year olds.

Also on the disk are various "message board" programs showing how the program might be used in a high school, a public library, and a commercial enterprise. All of the messages were composed by the author of the program itself.

Finally, the disk shows a demonstration of a homemade Cyrillic font. Since the program displays graphic letters, any alphabet can be displayed on the hi-res screen. And since the Soviets purportedly use an Apple II compatible computer in their schools, the author of the program felt moved to include a Cyrillic demonstration.

The speed of display of text is controlled either by a joystick/paddle, or from the keyboard. For simplicity of use, the keyboard method adopts the metaphor of the four gears of a car. Press key number "1" for first gear, key number "2" for second gear, key number "3" for third gear, and key number "4" for fourth gear.

The corresponding rates of display are as follows:

```
1st gear - - - -  75 words per minute
2nd gear - - - - 100 words per minute
3rd gear - - - - 160 words per minute
4th gear - - - - 340 words per minute
```

On the other hand, joystick users have access to a continuous gradient of display speeds, ranging from 60 words per minute to 380 words per minute.

For escape artists and stop-and-start readers, all programs feature a one-key escape to the main menu at any time.   All program also possess an instant stop/start feature accessed by pressing <Control-S>.   The instant stop/start feature is particularly helpful when using the program with budding readers. (Even the slow first gear speed might be a tad rushed for fledgling readers.)

Unfortunately, you cannot enter your own text into the Large-Text JoyReader program at this time. Once the program is published commercially, users will be able to use this program as a tool for displaying their own stories/messages.

The disk runs on the Apple IIe, IIc, and IIGS, but not on the Laser 128. The disk will run on the Apple II+, but without keyboard control of the program (i.e. you have to use a joystick).

The Large-Text JoyReader disk is a shareware disk. You may freely copy it and give it away to friends and colleagues. The requested shareware fee is $12.00 (US).

[Apple News]

Apple is Tops!!!
It is a fact! Apple sells more computers in Australia than any other manufacturer. Apple has held the top position in the United States and now a research company in Australia announced that Apple holds the sales lead over IBM by three percentage points. Amstrad is in third place, and NEC and Commodore are neck-and-neck for forth position.
(thanks to Geoff Bone for the information)

The New IIc Plus
Apple has released the Apple IIc Plus computer. It includes a new microprocessor which runs at 4 megahertz clock speed, in-built 3.5 inch disk drive, SmartPort, internal power supply and Apple's new platinum case. According to InCider magazine, this new computer runs faster that an Apple IIe fitted with a ZIP chip. The bad news is that it is not available in Australia.

Open-Apple comes on Disk
The information packed newsletter for Apple II users now comes on a 3.5 inch disk. Articles that did not make it into the printed newsletter are included on the disk. The rest of the disk is filled with Public Domain and Shareware programs, and system software upgrades. A yearly subscription costs $84.00 (US) and is sent by airmail direct to your mail box. For more information write to: Open-Apple, P.O. Box 7651, Overland Park, KS 66207, U.S.A.

Graphicwriter version 3.0
Version 3.0 of the "desktop pubishing" program, Graphicwriter, is available in the States. Seven Hills Software have bought the rights to Graphicwriter. Graphicwriter was one of the first programs published for the Apple IIGS.

Hypercard for the IIGS?
Move over Mac users. Roger Wagner Publishing has published Hypercard for the GS. It is called HyperStudio and it allows you to link all types of information. Not much information is available for this program as yet, but if it is anything like the

Macintosh version, you will be able to store graphics, text, sounds, and launch programs from with-in the "stack".

[Disk of the Month]

This is a new name for what the group have been offering over the last few months. Each "Disk of the Month" contains the best Public Domain and Shareware programs. Later on we will be bringing out a disk of the month for the GS and Mac computers.

The Disk of the Month costs $5.00 (for the 5.25 disk) and this includes the disk. This month we are offering three of the "BBS Fund" disks. They are: Terc Basic Enhancements, Modem Utility Disk and Davex Utility Disk.
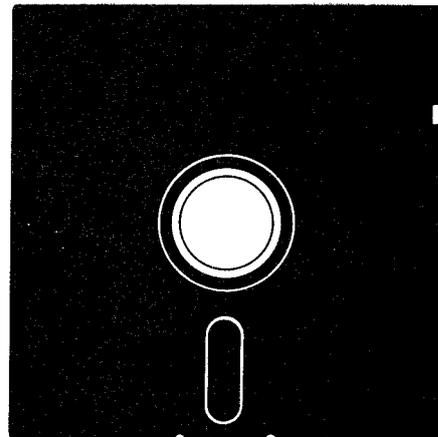
Let's have a quick look at each disk:

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

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

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

These disks are available from the Trading Table at the Open Day or by sending $7.00 ($5.00 for disk and $2.00 for postage) to the Editor, P.O. Box 6375, Gold Coast Mail Centre, Bundall, Queensland 4217.

[Problem Printhead?]

by Ann White

A solution for a Printhead Problem on Dot Matrix Printers?

I have an Imagewriter II which is used daily for preparation of teaching materials, school administration and reports, newsletters...you call it. Recently it started producing hard copies minus descenders on lower case letters and minus underlining. This occurred for Appleworks documements but not in graphics mode...eg. Printshop or Multiscribe.

Local Apple dealer diagnosed, via telephone conversation, the possibility of a print head replacment due to damaged pin(s) with a quote in the vicinity of $400. Service is good there since new management took over, but I wasn't in the mood for that sort

of expenditure just at the moment. Necessity being the mother of many things ... I did a little research. My spouse runs two Osborne machines, recalled an article on print head problems in one of his FOGHORN magazines (US publication for Osborne computer owners).

Database search revealed the said article (Alan Chattaway: "Go Soak Your Head!"; FOGHORN Volume 5, Number 8, page 50) which discussed previous spraying of printer ribbon with WD-40 to extend the life of his ribbon, and the resultant "gunking" of his print head. His machine was an Epson and he was advised by Epson service tech to try soaking the head in something "not too strong" to remove the build up of "gunk". He used a gasoline type solvent from a cigarette lighter, and an editorial comment after the article queries the possibility of accidental ignition.

I duly purchased some alcohol from a chemist and was all set to tackle the job. However we had to go to a barbecue so the job was put on hold. At said barby, got into conversation with a friend who runs a business place and he said his tech was into those sorts of repair solutions where appropriate rather than avoidable part replacments. So, I delivered my Imagewriter, power cord and manual to his tender care.

Two days later, I called to be told that the printhead was really clean now...but the processor might need replacement because the printer wouldn't self-test now. This sort of news is not recommended for those with weak hearts! However, all really was well. He had merely tried to perform a self-test without replacing the front perspex section of the printer...and we all know that means "No Go". Looks of relief on his face and mine were fairly well matched when printer ran beautifully even on the draft print of self-test.

Final part of the rehabilitation process was performed at home. Using Appleworks, I prepared and ran a page consisting of lines of "g", "j", "p", "q" and "y" plus alternate lines of underline. My printer is running brilliantly again, my face is smiling and my bank account is still showing black.

The technician's advice is to clean the print head periodically with Video head cleaner to ensure normal gunk from the ribbon does not clog up the little pins. Seems like a good idea to me! And the price beats that of a printer head replacment!

[Satelite BBS?]

Editor: This article was downloaded from a BBS. Even though it is talking about a transmission that is not available in Ausralia, I thought I would include this glimpse at the future of Bulletin Board Systems.

SATELLITE TV OR NOT TV THAT IS THE QUESTION ANSWER
NO! BUT PUBLIC ACCESS DATA (PAD)

There is something unusual happening on satellite, and it's NOT television --it's DATA. That's right, I said data. The latest new satellite service offers text files and information, readable by any home computer with a modem delivered via satellite through K-SAT Broadcasting's new Public Access Data (PAD) service.

I realize that sending data via satellite is not all that new or unusual.   There are already several data services, mostly delivered for use by cable systems, that are currently available via satellite. But, the WAY that K-SAT is sending its data makes the service most unusual.

The methods used to deliver the new PAD service are different, even though the technology has existed for a number of years, but thus far, satellite data services have chosen much more complicated, expensive technology instead.

First, I must explain that there are more reasons to own a home satellite dish than simply to watch cable TV without the cable. In addition to more   than 100 video services that can be accessed with a dish, there are also nearly 100 AUDIO services.

Audio services can be found anywhere there is a video picture. This is because a satellite video signal also has room for about eight good audio signals. Some of these extra audio subcarriers are used to carry left and right channels for stereo audio on the video service you can pick up, but many also carry totally different audio services.

These additional services include radio stations, news services, non-commercial music services for use in hotels and grocery stores, and services aimed at home satellite dish owners. K-SAT is one of the latter.

Broadcasting seven days a week, 24 hours a day, K-SAT can be heard by tuning your dish to satellite Telstar 303, transponder 18, audio subcarrier 6.48.   K-SAT's primary goal is to distribute information about the current fight between the cable monopoly and satellite dish owners, and to direct its listeners to take actions that will lead to favorable legislation for the home satellite dish industry. This is accomplished on K-Sat, via a phone-in talk show, five nights a week, from 8:30 p.m. to 11:30 p.m. Eastern time.

To help offer the "K-Sat Army" more information on a continuing basis, a pair of bulletin boards were also set up. These offer strategy messages, the text of new telecommunications bills working their way through Congress, letters to and from congressman and senators, and more.

About three weeks ago, K-Sat decided to try something different. A software program was developed that allows a computer and modem to spit out data as if they were connected to the phone, without an online system at the other end. This produced a solid audio data carrier that can be recorded. The end result is an audio tape of a carrier signal, plain and simple. As an experiment, this audio tape was played over the air, on K-Sat's audio subcarrier, after the talk show went off the air. The transmission was about 45 minutes long, so it could be recorded by the listeners on one side of a 90-minute cassette.

Listeners who recorded this carrier signal were then told how to construct   an inexpensive cable that would allow them to hook up their cassette   recorders and players to their modems. By connecting their cassette players to their modems and issuing a special command string that shut off all smart features on the modem itself, listeners were able to start up a   communications program, set it to originate mode, start the tape and read the text they had recorded on their tapes.

This might sound like a lot of trouble until you realize that recording the signal is no more complicated than recording ANY radio program. Then, once you have the cable, the data that has been sent can be received whenever you are ready for it, just by turning on your modem, computer, and tape player.

So far, K-Sat has been testing its new PAD service for 45 minutes a night, three nights a week. Transmissions are sent at 300 baud, which means it takes a bit of time to get the whole thing, but there is no phone bill or online charge, so speed is actually not of major importance here.

What is important is the fact that K-Sat is now able to distribute form   letters with which to petition Congress, the complete text of new bills under consideration, the latest news about new and old video and audio services, in short, whatever text matter they want to get to their listeners--and   their listeners can get that information at no cost.

Chuck Dawson, president of K-Sat Broadcasting, Incorporated, has recently announced his plans to expand the service. Since K-Sat broadcasts 24 hours a day, and the telephone talk show occupies only three hours of that schedule, Dawson hopes to fill up good portion of K-Sat's remaining broadcast time with data transmissions.

Dawson says he wants to broadcast a complete weekly guide to video and audio programming that is available on satellite. Also, he is also open to ideas for other text to transmit.

The tests have been very popular with K-Sat's listeners. Many have purchased complete computer systems, just so they can access the data that has been sent so far. Others, like Joe Wentzel, have already developed devices that make receiving the data easier.

Wentzel's device, dubbed the Random-Access Tape system, takes care of the problem of dropped carriers for PAD users. When running the taped data through the modem, there is a minor problem if, for some reason, the carrier should be lost. Since the hook-up carrier is only at the beginning of the tape, you must rewind the entire cassette and start over if the carrier is dropped.

The Random-Access Tape system is made up of a box with two inputs and a single output, for use with stereo cassette players. One channel on the cassette player carries the PAD data transmission, while the other offers the hook-up carrier, at various points throughout the tape. A switch on the box allows you to flip between these two channels and easily pick the carrier back up if you should accidentally lose it.

Another new device, still under development but about to be released, allows you to pick up the PAD service without a computer. This system, which is set to retail for around $150, connects to your satellite receiver's audio output jack, picks up the data signal, modulates it into text, then sends it out a video output jack, so you can simply watch it on the TV screen or on any video monitor. A printer port, which is also included with the device, allows you to hook up a printer to print out PAD data as it is received, to read later.

One caller on the K-Sat talk show described a method he has devised to send the data straight from the modem to his printer.

As usual, simple ideas often work best. So far, the only drawback I see is that the PAD service is one-way. But this condition might not last long. In an even more daring experiment, K-Sat plans this week to test a real-time hook-up between its online BBS system and the satellite uplink.

The result will be automatic transmission of whatever transpireson the BBS. Then, PAD listeners will also be able to call the BBS data line number and contribute to the data stream, post classifieds, or enter messages. and have their words sent down the satellite signal as they are entered.

K-Sat's PAD service has generated a lot of interest, and it is no small wonder. The beauty of this idea is its total simplicity. Users can access the data, with equipment they already own, to call any standard bulletin board, but there are no online charges, long-distance toll charges or other expensive peripherals needed.

There is more than transmission of data behind K-Sat's motives for creating its new PAD service. All that is needed to pick up the satellite data signal is a small inexpensive home satellite dish system. A simple 5' home satellite dish system can now be purchased for about $500--about the average price for a mail order IBM-compatible hard disk. With dish prices so low, computer stores will consider selling them just like modems, printers and disk drives. And, satellite dish dealers might be able to pick up a line of computers and sell them, too.

In the end, K-Sat's new PAD service makes an important point. There is a whole lot more to home satellite dishes than HBO! My hat is off to Chuck Dawson and K-Sat's PAD service.

If you don't yet own a satellite dish, you can also call the K-Sat BBS, 300 or 1200 baud, 11:30 p.m. to 8:30 p.m., Eastern time, and all day weekends. The number is (408)-848-5572.

[I I A r c h a e o l o g y]

An Archaeology of the Apple II Family by Phil Shapiro

(With the introduction of the Apple IIc Plus in September, 1988, and the rumored release of the Apple IIGS Plus in the near future, many Apple II users must be justifiably confused at the all the different models of the Apple II. It seems appropriate at this time to offer an Apple II retrospective to help sort out where the Apple II line of computers has been, with hints of where the Apple II lineage is going. Here then, is an archaeological view of the progressive evolution of the Apple II family of computers.)

The fossil record shows the Apple 1 to be a spritely little fellow. From the fossils found in its proximity, it appears that the Apple 1 was born without a keyboard, without a monitor, and without even a case. This ancestor of the Apple II family had a humble existence, feeding off cassette tape drives, and spewing out the occassional high resolution graphics. Its language capabilities were limited to short grunts and Integer BASIC. Of course, Integer BASIC, while primitive by today's standards, had the prime virtue of being fast. And, in the early days of micros, being fast was reason enough to survive.

Born in the Bicentennial, 1976, the Apple 1 was short-lived. Carbon-14 dating shows that the Apple 1 expired by mid-1977. Like a trout, the Apple 1 had fought its way upstream, against all odds, to spawn the Apple II. Its mission fulfilled, the Apple 1 rolled over and died.

It was a humble creature, to be sure. But it carried with it a spark, a tiny flame. Before expiring, it passed on this flame to its offspring, the Apple II. In April of 1977, the Apple II became the official torch-bearer of the Apple clan.

These early days of the Apple II were characterized by much hunting and scavaging. Apple II users would hunt for software for the machine, and scavage what they could from whatever they found. "Do-it-yourself" was not only a fashionable credo - it was the only way to get what you wanted.

All this changed in June of 1978. Johann Gutengberg designed the printing press in 1452, thereby giving birth to the mass dissemination of print. Steven Wozniak designed the Apple II disk drive circuitry in 1978, thereby giving birth to the mass dissemination of microcomputer programs.

Prior to the Apple II disk drive, the only way to save and load program was from cassette tape. Cassette tape devices were not only excruciatingly slow, they were notoriously unreliable. Early hackers joked that they would turn on the cassette recorder to load a program, go and make a sandwich, and then come back to see if the program was finished loading. The introduction of the disk drive was one small step for Apple, but a giant leap for humankind.

This is not to say that the Apple II disk drive ushered in the Renaissance. Far from it. The early Apple II computers were still in the Stone Age. They had some pretty nifty tools, but getting anything done was a still a pain in the neck. If

you wanted to write a program in Applesoft BASIC (also referred to as "floating point BASIC"), you had to load the language itself into memory.

All this changed in June of 1979, with the introduction of the Apple II Plus. With great foresight, Apple Computer Inc. put the Applesoft BASIC language into ROM, thereby making it immediately available to anyone who turned on the machine. Putting Applesoft into ROM gave the language to the people. This monumental step is analogous to the development of popular literacy after the invention of the printing press. Give the language to the people, and they'll give you back civilization in return.

In the early years of the 1980's, the Apple II Plus gained increasing acceptance among the computer shy. Forward thinking schools were taking the bold step of bringing computers into the classroom. But the technology was not embraced wholeheartedly. Many teachers still had reservations - - - at the Cyberphobic Restaurant. And they dined there frequently.

The Renaissance did not emerge full blown until the introduction of the Apple IIe in January of 1983. The Apple IIe had everything the II Plus had, but more. Boasting upper and lower case letters, full eighty-column screens, and a memory expandable to 128K, the Apple IIe was a sight to behold. Accompanying the Apple IIe was a resurgence in the arts, a renewed interest in the human experience, and a crateful of new software programs to take full advantage of its features.

The Apple IIe was accepted with open arms. Schools bought the IIe by the dozen. Scientists hooked up equipment to its eight slots like never before. And families brought the IIe home like a welcome puppy. Business at the Cyberphobic Restaurant tapered off.

But Apple Computer Inc. had a card up its sleeve. Less than a year and a half after the introduction of the Apple IIe, the Apple IIc was unveiled. Packed in a small, portable case the Apple IIc stunned the world with its compact design, its sleek lines, its built-in disk drive. Weighing in at just seven and one half pounds, the Apple IIc quickly became the bouncing baby of the microcomputer world.

The Apple IIc featured a hardware designed almost identical to the Apple IIe. The only big distinction was that the IIc was sold as a closed computer, without the eight slots that made the early Apple II's so flexible. The IIc was designed as a computer for the home market, an "appliance" that you just plug in and use. People with special needs could always pick up an Apple IIe, with its open architecture.

The Apple IIc was the type of computer you could take up Mount Everest with you. Which is precisely what American climber Scott Lankford did. To keep track of his expedition's equipment and supplies, Lankford hooked up his IIc to a solar powered battery, and booted disks as high as 18,000 feet. Fragments of AppleWorks files have been found as high as 17,000 feet. Whether these were part of the Lankford expedition is not entirely certain. Word has it that the Yetis are becoming increasingly savvy these days.

With the Apple IIc, civilization had discovered flight. But it took the Apple IIGS to blast us into space. With super high-resolution graphics, a pallet of over 4,000 colors to choose from, and a sophisticated, built-in sound chip, the Apple IIGS ushered in a new age.

September, 1986, is the month which archaeologists have pinpointed as the likely time of the Apple IIGS's unveiling. From the start, the Apple IIGS caused a great stir in the archaeological community. Here was a computer which defied easy classification. The IIGS had the skull of a Macintosh, but the heart of an Apple II. Like the Macintosh, the IIGS could process 16 bits of information at once. But when asked to, this hybrid computer could behave exactly like an Apple II.

In operation, the Apple IIGS boasted a Macintosh-lookalike interface: pull-down menus, mouse intensive user interaction, and an icon based operating system. The IIGS also brought the first widespread use of the new 3 1/2 inch floppy disk to the Apple II family. Occassional outbreaks of 3 1/2 inch disk drives had been witnessed with the Apple IIe and the Apple IIc, but always as secondary and external drives.

The new 3 1/2 inch disk drive gave the IIGS a clear adaptive advantage. For one thing, the small 3 1/2 inch floppies held 800K of information, a full five times more than their 5 1/4 inch predecessors. Also, the disk access time for 3 1/2 inch floppy drives was substantially improved. Still, with millions of 5 1/4 inch drives in active operation, it appears that the 3 1/2 inch drive met with an eager, but decidely slow reception.

No archaelogist worth his or her silicon would dispute the fact that the Apple IIGS brought with it a cognitive leap in the evolution of the Apple II lineage of computers. But accompanying this leap in computing power and sophisticated features was a price tag that paralleled, if not exceeded, the technical developments.

Unlike the axe, the arrow head, and the wheel, the Apple IIGS is not the type of tool to be wielded by your average hunter/user. Its most distinctive disadvantage, from an archaeological point of view, is its high priced analog RGB color monitor. When the price of a computer's monitor equals or exceeds the price of the system itself, something serious is amiss.

But the job of an archaeologist is to describe, not prescribe, so questions of corporate pricing policy will be henceforth dropped and never again referred to, despite the fact that some errors of judgment could conceivably have been made in the pricing of the Apple IIGS, which could be partially rectified in the pricing of imminent future models of the computer. Enough said. Let the message go forth.

Getting back to archaeology proper: an axe is worth nothing without wood to chop. And a computer is worth nothing without software to run. In its early days the Apple IIGS suffered from a bout of software anemia. Software developers scurried to learn how to make use of the sophisticated graphics and sound the machine had to offer. But it took a couple of months for "IIGS specific" software to travel through the pipeline.

In 1987 some noteworthy IIGS specific products emerged. Paint programs that made use of the IIGS's super-high resolution screen showed how the IIGS could strut its stuff. Breathtaking music and speech synthesis became matter-of-fact in IIGS specific software.

The latter part of 1988 saw some interesting products emerge. An important development was the release of Appleworks IIGS, way back in the end of 1988. Appleworks IIGS is an improved version Appleworks, the venerable Apple II workhorse. New features include multifont, wysiwyg (what-you-see-is-what-you-get) documents, a built in telecommunications program, and a laser printer driver. All these are likely to meet with the approval of IIGS owners.

Around the same time as the release of Appleworks IIGS, a new GS operating system appeared on the scene. The new operating system, GS/OS allows the Apple IIGS to behave as a true 16-bit computer, while speeding up all disk access operations. GS/OS ought to usher in yet another new wave of IIGS software.

Meanwhile, the folks out in Cupertino (Apple's corporate headquarters), never tiring of ushering in new products, ushered in the Apple IIc Plus in September, 1988. This creature walks and talks very much like the Apple IIc, except it replaces the earlier 5 1/4 inch, built-in disk drive with a 3 1/2 inch, built-in disk drive. It also boasts two selectable operating speeds: a fast 4

megahertz operating speed, and 1 megahertz operating speed to emulate the older
Apples.

Well, that about brings us up to date in the endlessly unravelling world of Apple II
archaelogy. It's tempting at this point to point out the vast distance the Apple II
has travelled from Integer BASIC to the 16-bit GS/OS operating system. It's
tempting to come up with a trite phrase like "you've come a long way, baby." But
triteness and "laurel resting" are alien to all that the Apple II is about. If the
road travelled has been long and winding, the road ahead promises the same rich
variety of undulating landscapes. Rich opportunities still lie ahead for the Apple
II archaeologist of tomorrow.

An Apple II Chronology

March 1976 .... First Apple 1 built.
June 1976 .... First Apple 1 sold.
April 1977 .... First Apple II unveiled.
June 1977 .... First Apple II sold.
June 1979 .... Apple II Plus introduced.
Dec. 1980 ...... Apple Computer Inc. goes public.
Jan. 1983 .... Apple IIe introduced.
April 1984 .... Apple IIc introduced.
Nov. 1984 .... Two millionth Apple II sold.
Sept. 1986 .... Apple IIGS introduced.
Sept. 1988 .... Apple IIc+ introduced.

[Using the ProDOS Pathname]

by Carl Von Linden

Apple's latest Disk Operating System for the Apple II series of computers is called
ProDOS by Apple, and "a Bloody Nuisance" by a lot of Apple users.

ProDOS is an abbreviation of Professional DOS, and it is indeed a much more advanced
Dos, with many improvements on the older Dos 3.3, however ease of use is not one of
the improvements.

Apple have tried to make ProDOS as compatible to Dos 3.3 as possible, so most of the
commands are the same, and most commands work the same way, however the big
difference immediately noticed by most people is the Pathname.

The Pathname is made necessary by the hierarchical directory structure of ProDOS,
which simply means that the files on a disk can be divided into separate Directories
within Directories, this is very usefull for sophisticated users of large capacity
disk drives, such as hard disks, and Apple's 3.5 inch Unidrive, but it is of limited
use for most of us who use the standard 5.25 inch floppy.

A Pathname is simply the pathway that leads ProDOS from one Directory to the next
Directory to the file, and is made up of the name of each Directory and the name of
the file, with each name preceded by a slash "/".

On most disks you may only need the one basic Directory that is created when you
format the disk, in this case the Pathname is made up of the name of the disk,
followed by the name of the file, so to load a file named PROGRAM from the disk
named MY.DISK, you would use the Pathname /MY.DISK/PROGRAM.

Apple refer to the disk's Volume Name, but you may find it easier to think of the
Volume Name as the name of the ROOT Directory, the basic Directory that is at the

first level, and is the root from which other Directories grow in a tree like structure.

A Directory is the same as the CATALOG track on a Dos 3.3 disk, it holds information about files stored on the disk, the root Directory is fixed in the same way as the Dos 3.3 Directory/Catalog track, it is always in the same position occupying track zero, and is of a predetermined size, holding 51 files, including any other Directories, (called Sub Directories).

ProDOS can have several Sub Directories on a disk, each looking after its own separate files, each Sub Directory is a DIR type file, placed on the disk wherever there is room, and is dynamic in size, with no maximum limit other than space on the disk.

Each Sub Directory can have files of the same name in it, as the path to these files is through more than one Directory there must at some point be a difference in the Pathname.

For example if your disk is called "MY.DISK" and it has two sub directories called "SUBDIRECTORY.1" and "SUBDIRECTORY.2", then each Directory can have a file called "BASIC.PROGRAM", as the Pathname for each of the three files would be slightly different,

for the first file..../MY.DISK/BASIC.PROGRAM
for the second file.../MY.DISK/SUBDIRECTORY.1/BASIC.PROGRAM
for the third file..../MY.DISK/SUBDIRECTORY.2/BASIC.PROGRAM

In Dos 3.3 you use a disk drive, not the disk itself, you use the parameter "D" to select the drive (E.G. CATALOG,D2), and if you have more than two drives you also use the "S" parameter to specify the slot number, (E.G. CATALOG,S5,D2), after that Dos continues to use that particular drive untill you change it.

It does not matter which disk is in the drive, you can in fact replace the disk with a new and completely different disk, and Dos 3.3 will continue to use whichever disk is in the drive you have chosen to use.

With ProDOS if you are not using a Pathname, you can also use the drive you specify, but normally ProDOS uses the Directory or Sub Directory, and not just the drive. this means that you can even move the disk from one drive to another. and the next time you access a file using the Pathname, ProDOS will search all of your drives untill it finds the correct disk.

The PREFIX is a shortcut in using the Pathname, if you don't want to type in the full name of the root Directory and sub Directory each time you access a file, you can let the computer do it for you, simply set the Prefix, and ProDOS will add the Prefix every time you use a file name.

If you are using the files in a sub directory all the time, just type in "PREFIX /MY.DISK/SUBDIRECTORY", the computer will check that the Pathname exists, then you can just type the file name (E.G. LOAD FILE.1), and ProDOS adds the Prefix automatically, loading files straight from the Sub Directory.

You can still access files from other Directories by using a full Pathname, and to cancel the Prefix just type "PREFIX/".

To add a new Sub Directory on a disk, you can use a utility program like Apple's "FILER", or from the keyboard you can type "CREATE EXAMPLE,TDIR", this will create a DIR (Directory) type file called EXAMPLE.

[BBS Long Distance]

Here are a list of some Bulletin Board Systems that you can contact in the United States.

AW Users Group   Phone 0011-1-313-482-8090
The National Appleworks Users Group BBS. They offer tips on Appleworks and /// EZ Pieces. They are located in Canton, Michigan.

Beagle Bros.   Phone 0011-1-619-452-5565
The Sales and Tips board for Beagle Bros., Publishers of MicroWorks, Super MicroWorks, and the Time Out series. They are located in San Diego, California.

Pro-Carolina   Phone 0011-1-803-776-3936
BBS for Carolina System Software. They have various shareware packages available for download. They are located in South Carolina.

Apple Cider   Phone 0011-1-718-482-0089
This is an Apple User Group BBS. They also give support for Sider (FCP) Hard Disks. They have many public domain and shareware programs available for download. At the time I logged on to this BBS they had over 200 programs for the Apple II series computers. They are located in New York, New York.

Pro-Colony   Phone 0011-1-214-370-7056
This is another member of the ProLine Network of BBS's. It has an Info-Apple feed from various other networks and is designed for the Apple Computer user. Many shareware and public domain files are avaliable for download. They are located in The Colony.

[Advertisements]

FOR SALE   Contact: Don Bajenoff, phone (07) 376-8235
    1 x GS 1meg RAM CARD - brand new in unopened box - sell at the landed price - $700.
    1 x Sendata Modem 1200/75 offers.

FOR SALE   Contact: Graham Black at the Trading Table or phone (07) 883-1525
    Samsung Monitors Green/Amber screen with swivel base $225.00
    Samsung Monitors Green/Amber screen Standard $199.00

WANTED   Contact: Shane Mc Sweeny, phone (07) 284-1723
    1 x Grappler Card for an Apple IIe
    (Must work with Print Shop)

WANTED   Contact: Gail Dillon, phone (071) 64-4332
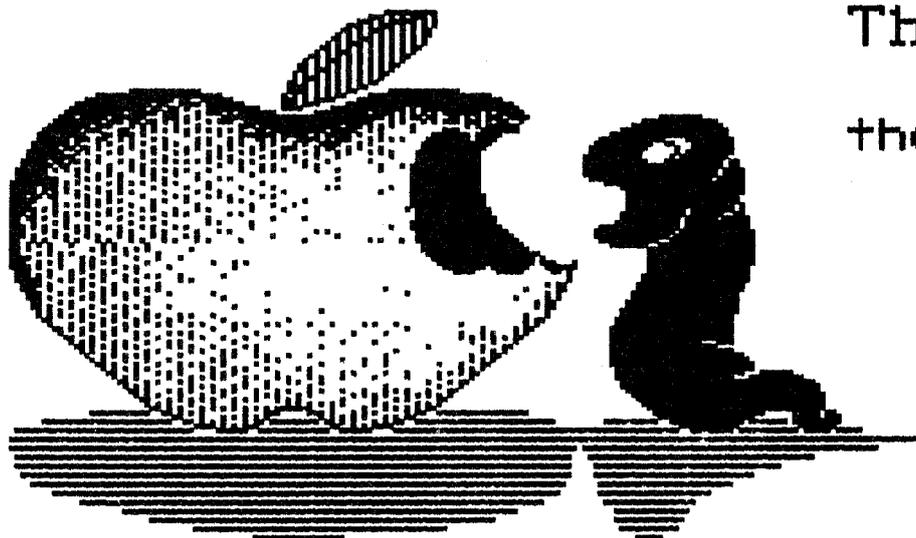   1 x 400K Macintosh disk drive

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