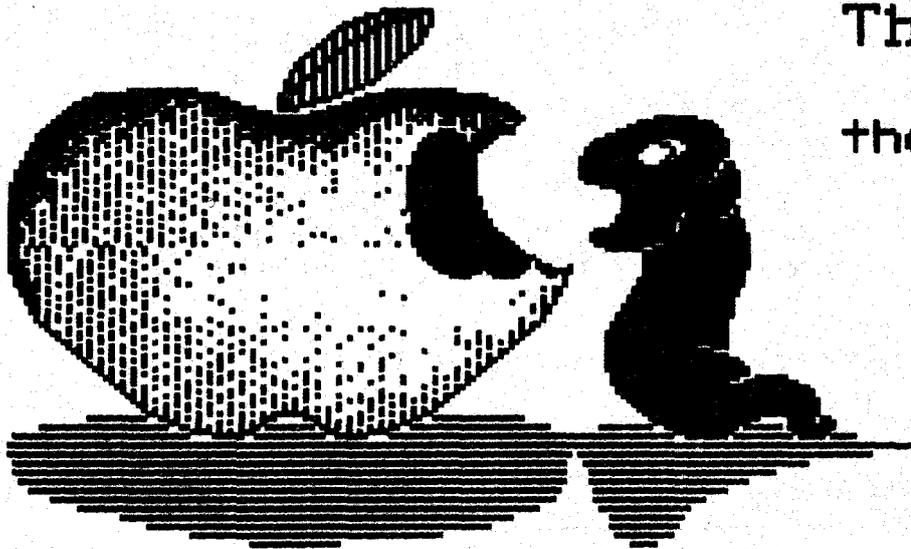


apple - bug



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

August 1988 Issue

Volume 7 No. 8

Address:
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South Brisbane,
Queensland 4101.

>>> In this issue <<<

Information Page.....	2
Editorial.....	3
Software Library.....	4
Apple News.....	5
CD-ROM for the Apple.....	6
The Virus Metaphor.....	9
Claris Products.....	11
Peek, Pokes and Calls.....	12
MicroThought.....	14
Advertisements.....	15
In the Next Issue.....	15

>>	Dale Rodgie	--	He typed it all in	<<
>>	Graham Black	--	He typed some too	<<
>>	The Members	--	For their contributions	<<
>>	Appleworks	--	Word Processing	<<
>>	ImageWriter II	--	Typesetting	<<
>>	The Hooper Centre	--	Printing & Distribution	<<
>>	The APPLE Computer	--	The reason for it all	<<

\$1.50

[Executive Committee]

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Ken Smith	- Software Librarian	Ph.(07) 345-1995
Brett Dutton	- Hardcopy Librarian	Ph.(07) 870-8599

[Bulletin Board System (BBS)]

Apple-Q Inc. BBS : online 24 hrs
Telephone : (07) 284-6145 (DATA)
 : (07) 883-1525 (VOICE)
Baud Rates : 300, 1200/75, 1200 and 2400 (CCITT and BELL)
Data Specs : 8 Data bits - 1 Stop bit - No Parity (Full Duplex)
Sysops : Graham Black - Vince Crosdale - Brett Dutton
Calls to the system : 11,847
Registered Users : 143 (as of 11.30 p.m. 8th August)
SYSOP stands for : SYStem OPERator
BBS stands for : Bulletin Board System

[What's When]

at the Hooper Education Centre - Kuran Street - Wavell Heights

Open Day

Sunday 21st August 1988
Hours: 9.00.am. till 4.30.pm.

Committee Meeting

Monday 22nd August 1988
Starts: 7.00.pm.

Open Day

Sunday 18th September 1988
Hours: 9.00.am. till 4.30.pm.

Committee Meeting

Monday 19th September 1988
Starts: 7.00.pm.

Machine Language SIG

Time: 1.30 pm this Open Day
Where: Software Library Room
Interest: Apple II Machine Language Programming

Serious Users SIG

Time: 1.00 pm. this Open Day
Where: Room 22. Main Hooper Building
Interest: Business programs & programming on the Apple II & Macintosh

[Membership Fees]

Adults/Family: \$20	Joining Fee: \$10
Pensioners: \$12	Pensioners on production of Pensioner Card
Full Time Students: \$12	Full Time Students under 21 years on production of Student Card
Corporate Membership: \$50	
Associate Membership: \$ 5	plus \$5 Joining Fee (BBS only)

[.....at the discretion of the Executive Committee]

Copying fees for the Club's Public Domain Software are 50 cents per disk side, with a minimum charge of \$2.00 for 5.25" disks. The copying fee for 3.5" disks is \$3.00 per disk. We cater for the II, II+, //e, //c, //GS and MAC. 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 for 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.

AUCTION OF THE YEAR!!

If you are like me, you have a few computer related items gathering dust at home. Well why not sell them. Apple-Q is holding an Auction in September so you can sell those items. So bring your cards, monitors, cpu's, software, etc. to the Open Day, the 18th of September. The Auction starts at 1.30 p.m. and is free to all Apple-Q Inc. Members.

- Auction starts 1.30 p.m., 18th September
- Any computer related items can be auctioned
- Free to all Apple-Q Inc. Members
- Due to space restrictions, no main frames can be brought to the meeting

[Editorial]

by Dale Rodgle

What a great meeting we had last month. A special thanks must go to Frank Ravill for coming up north for the demonstration. It is good to see that Apple Computer is showing the User Groups the CD-ROM before the dealers. We had the CD-ROM connected up to my GS. I hoped that we would not be able to unplug it from my GS and I could take it home. But this was not the case. May be next time I should bring some super glue.

Thanks also Frank for the new Public Domain programs you donated to the group and for the latest news in the Apple world. Some of that info is contained in Apple News later in the newsletter.

Well what do you think of the new logo. Thanks to Vince Crosdale for designing it. We have 9 new members join last month. They were: Kimble Mensforth, Karen Hoskins, Alan Gold, Alex Shemansky, Geoffrey White, Mark Wansovich, Peter Dempsey, Jason Sakadakis and Anothony Dadson. I am sure the other members will make you welcome.

Users of the Apple-Q BBS will know of the problems of keeping it online. One of the main reasons for it crashing is the lack of disk space to store the messages. At present the BBS is using a 5 megabyte hard drive for storage. This is far short of what the BBS needs. So we have started a "Hard Drive" fund to get the money for the drive. We are looking for donations of money to buy a 20 or 40 megabyte hard drive for the BBS. The increased disk space will allow the Sysops to add more games, public domain programs, etc. to the board. If you wish to donate, please see Graham Black or myself (Dale Rodgle) at the Open Day or call us. Our phone numbers are on page two of the newsletter. You can also contact us through the BBS.

We need Information!

To help members with computer problems, we need to know what type of computer you have. So please see one of the committee members this Open Day so we can keep up to date records.

Membership Renewals

You can now pay for your membership renewal by post if you have either a Bankcard or Mastercard. Simply fill in your details on the coupon at the end of the newsletter and send it to:- The Registrar, Apple-Q Inc., P.O. Box 698, Redcliffe, Queensland 4020. Please enclose your old membership card with the coupon.

Questionaire

Anybody wishing to participate in the questionaire can receive a copy by telephoning Kerry Nagle at home: (07) 300 2782, work (07) 377 3710 or you can complete the questionaire on the BBS. Kerry is doing a questionaire of computer users which is part of her thesis for her Ph D.

Remember to display your membership card on your Apple this Open Day. There is only limited space available, so only Apple-Q members can set up their machines. People not displaying their membership card will be asked to pay the membership fee or remove their computer.

Both the Trading Table and the Software Library will close at 1.30 p.m. this Open Day. So please orginize your business around these new business hours. Also, please don't go behind the counter at the Open Day.

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]

Below is a list of the contents of another two Public Domain disks available in the Software Library. The letter in the square brackets represents the file type. ie. [A] = Applesoft Basic, [B] = Binary, [I] = Integer Basic and [T] = Text. If you have an an Enhanced Apple IIe, Apple IIc or Apple IIGS, you may need to get Integer Basic before you can run programs marked [I].

The copy fee for the 5.25 inch disks is 50 cents per side with a minimum of \$2.00. For 3.5 inch disks, it is \$3.00 per disk. The Software Library will be open until 1.30 pm. this Open Day, so talk to Ken Smith if you are interested.

GRAPHICS DISK #137 (Dos 3.3) =====

[I] SLIDE SHOW 2	[B] COPY.OBJ
[B] RANDOM LADY.PIC	[B] LADY BE GOOD.PIC
[B] MACROMETER.PIC	[B] DIP CHIPS.PIC
[B] TEX.PIC	[B] SQUEEZE.PIC
[B] THE TIME MACHINE.PIC	[B] WINSTON CHURCHILL.PIC

[B] HOPALONG CASSIDY.PIC	[B] A GIRL'S BEST FRIEND.PIC
[B] BABY JANE.PIC	[A] DISPLAY PAGE
[B] CHURCHILL	[I] SUPER HIRES GRAPHICS ?
[B] SUPER HIRES GRAPHICS.X	[A] LORESGRAPHICS
[B] W52MR	[B] MATH
[A] PICTURE.PACKER	[B] PACKER
[B] PIC.0	[B] PIC.2
[B] PIC.1	[A] GRAPHIC.DEMO
[B] BUG	[A] HELLO
[A] INSTRUCTIONS	[A] DEMO1
[A] DEMO2	[A] DEMO3
[A] DEMO4	[A] DEMO5
[B] ASCII.SET	[B] BLIPPO BLACK.SET
[B] BYTE.SET	[B] PINOCCHIO.SET
[B] SLANT.SET	[A] HIRETEXTDEMO/3
[B] HIGH-RES-TEXT/3	[A] CHARACTERS
[B] ROMAN	[A] HIRES NOFLASH
[B] KALEIDOSCOPE.OBJ	[A] LIGHT SHOW
[A] FIREWORKS	[A] APPLESOFT SHAPE MAKER

ASTRONOMY DISK #80 (Dos 3.3) =====

[A] ^CLC APPLE TUTOR 001	[I] BASIC PROGRAMMING
[I] BASIC PROGRAMMING 1	[I] BASIC PROGRAMMING 2
[I] BASIC PROGRAMMING 3	[I] BASIC PROGRAMMING 4
[A] BASIC-INTEGER	[B] ^BASIC-INTEGER.X
[I] CONVENTIONS	[I] CPU 6502
[I] HELLO SAMPLE	[I] MICRO 6502 SIMULATION
[I] MINI ASSEMBLER TUTORIAL	[A] RANDOM DRILL TUTOR 3.2 ONLY
[I] SWEET 16 DISASSEMBLER	[I] SWEET 16 SPEED ?
[B] ^SWEET 16 SPEED.X	[I] TOP DOWN PROGRAMMING
[A] ^CLC ASTRONOMY 014	[A] ASTRONOMY EXPOSURES
[I] ASTRONOMY TUTOR	[A] CALENDAR MOON AGE
[A] EPHEMERIS	[A] GREAT CIRCLE BEARINGS
[A] JUPITER MOONS	[B] ^JUPITER.X
[B] ^JUPITER.Y	[A] MOON FINDER
[A] OSCAR	[A] OSCAR ORBIT PERIODS
[A] OSCARLOCATOR	[A] OSCARLOCATOR FILE INIT
[A] OSCARLOCATOR INSTRUCTIONS	[A] PLANET LOCATOR
[B] ^PLANET LOCATOR.X	[B] ^PLANET LOCATOR.Y
[A] SUNRISE AND SET	[A] URSA STAR TIME

=====

[Apple News]

A new Operating System for the GS

Due out in September is a new operating system for the GS. The new operating system, called GS-OS, can increase disk speed up to three times. It will be the first true 16-bit operating system for the GS. The current Prodos 16 is accutually Prodos 8 in a shell. GS-OS is compatible with Prodos 16 and most of your current Prodos 16 applications will run under GS-OS. Many software publishers are waiting until its release before marketing their new programs. GS-OS will also be able to access up to 150 megabytes on a hard disk or CD-ROM. The present Prodos 8 and 16 can only access up to 32 megabytes of storage.

GS version of Appleworks

As you read in the last Apple-Bug, GSWorks is soon to be released. Double page adds appear in the latest Nibble and A+ magazines. However, I hear that Styleware (the

people that publish GSWorks) are waiting until GS-OS is available before they release the product. While in Australia, GSWorks will be marketed under the label of Claris. Claris is Apple company which deals with software for the Apple range. However, it will not be called GSWorks in Australia. The name of GSWorks, in Australia, has not been announced to date.

The IIe is not Dead!!

In the midst of rumors that Apple will discontinue the Apple IIe, it looks like a new version of "old faithful" will soon be available. Keep your eyes glued to Apple-Bug for more details.

[CD-ROM for the Apple]

"Any sound ever made, any picture ever created, any word ever written . . ." That's how John L. O'Brien envisions the communications possibilities of high technology's latest brainchild - the Compact Disc (CD), a 5 inch reflective plastic platter that can hold as much information as 1000 or more floppy disks.

O'Brien, founder of LaserLand, a Colorado-based laser-hardware and software retailer, has other visions of CD, too: "Over the next decade, we can provide a medium for huge databases, standardize the level of education of children throughout the world, even teach piano and foreign languages interactively." And all with the computer.

Revolutionary Rumblings

Wouldn't you know it? Just as we're getting comfortable with magnetic media - including floppy and hard disks - along come optical media, which promise to revolutionize the way we access information.

But laser-disc technology with its many promising computer applications didn't erupt overnight. More than ten years ago, Philips, the Large Dutch electronics firm, began researching ways to use the laser (light amplification by stimulated emission of radiation), a fine-tuned, coherent beam of light - waves of one frequency and travelling in one direction - to encode data.

By early 1982, Philips and Sony had jointly developed the technology for storing digital audio data on CDs. By the end of that year, the first Compact Disc-Audio (CD-A) players were introduced.

By 1986, Philips/Sony and other high-tech industry leaders (including Apple Computers) had begun to recognize the unprecedented power of the Compact Disc for data storage and retrieval, interactive learning, and entertainment.

During this time, at least three new forms of Compact Discs were christened: Compact Disc-Video (CD-V), Compact Disc-Interactive (CD-I), and Compact Disc-Read-Only Memory (CD-ROM). The first two types of discs are played on stand-alone home entertainment equipment. Only CD-ROM and its progeny require a personal computer system.

The Here and Now

As 1988 progresses, CD-ROM (a catch phrase that includes CD-ROM discs, drives, and technology) is just beginning to make its impact on the world of personal computer data storage.

CD-ROM applications (data files on Compact Discs) for IBM PC-based systems number just over 160 discs, according to CD-ROM Review. But at least that many more have been produced for companies' internal purposes and aren't available for sale to the public. Many commercial discs are so narrowly focused and expensive that they

appeal mainly to what are known as 'vertical markets' - specialized industries such as finance, law, or medicine. For example, Standard & Poor's Compustat Services publishes versions of Compustat PC Plus (a database of financial information on publicly traded companies) on CDs for \$12,000 - \$45,000 per year (U.S.).

At the other end of the spectrum, however, are less expensive CD-ROMS like MicroSoft Bookshelf (\$295 U.S.) - an electronic library composed of ten reference books, including the American Heritage Dictionary, Roget's Thesaurus, and The World Almanac and Book of Facts. Ten volumes on a single Compact Disc!

The most popular uses of CD-ROM to date are in the field of publishing. Bowker Electronic Publishing of New York offers Books in Print and other compendia for users of IBM PCs. The Washington Post has created a CD-Rom disc of the contents of its 1985 issues for in-house use.

Currently under development are CD-ROM databases such as telephone directories, catalogues of manufacturing parts, movie indices, and museum-collection archives. Some industry analysts predict that CD-ROM will come to replace microfilm, microfiche, and printed publications. Indeed, library applications are among the initial and most widespread uses of CD-ROM. Good-bye card catalogues!

A number of problems, some hardware-based, some software-based, some market-based - have slowed the growth of CD-ROM for the Apple II. That trend is now beginning to change.

Compact Disc drives transfer information at 1.41 megabits per second, a speed that gags an Apple II Plus or IIe. According to Jim Solomon of MicroTRENDS, a hardware developer, these earlier Apple IIs can take only 1 megabit of information per second. The IIGS, a 16-bit microcomputer, is inherently more voracious and theoretically more CD-ROM compatible.

To beef up older Apple II models to work with CD-ROM, Solomon's company has developed an Apple II coprocessor board - a circuit board containing a 16-bit Motorola 68000 series microprocessor chip that operates at the necessary speed and represents the standard recommended by Philips/Sony for CD-I applications. MicroTRENDS' coprocessor, named Jonathan, creates an intelligent environment inside your Apple II, so that the computer can distinguish programs using the 6502 chip (Apple's microprocessor) from 68000-based applications, such as CD-I applications that work under an OS-9 type operating system.

Jonathan brings the Apple II up to speed, and a daughter board (A second circuit card that piggybacks onto Jonathan) provides the interface needed to attach a stand-alone, top-loading, Philips CM100 Compact Disc Drive (or player), a device that looks like some telephone-answering machines.

MicroTRENDS bundles its Jonathan system with a copy of the Grolier Electronic Encyclopedia, a single CD-ROM priced separately at \$299 (U.S.) (Grolier reports that the price may increase somewhat by the time you read this.) The CD version contains all text entries found in the 21 volume printed edition (which costs between \$650 and \$750 U.S.) and about 2000 additional reference articles. A floppy disk containing specific search/retrieval software for Grolier's encyclopedia is also included in the Jonathan setup.

According to Solomon, Jonathan systems are "scattered around the world", and MicroTRENDS is "finalizing agreements with Philips Australia" to be the exclusive Jonathan distributor Down Under.

MicroTRENDS plans to offer a second CD-ROM application, The Visual Dictionary, an electronic version of a French/English dictionary featuring photos and drawings of objects and activities labelled in both languages.

Once you've interfaced your Apple II hardware and you've placed the Compact Disc in its player, using CD-ROM is no more difficult than booting up the accompanying search/retrieval floppy disk and working with it as you would any other piece of software. You can find, view, save to disk (but not to Compact Disc), and print any research information you need.

Without a doubt, efficient search/retrieval software is critical to the CD-ROM working environment. The 500-plus megabytes of data encrypted on CDs are arranged in one three-mile-long spiral - as opposed to the concentric circular tracks on magnetic media. Magnetic storage devices such as hard drives are inherently quicker at finding random bit of information. While CD-ROM has a longer seek time, well-indexed search/retrieval software that fosters split-second access can overcome this deficiency.

As you might expect, John Cole at Grolier Electronic Publishing is bullish on CD-ROM. According to Cole, the electronic version of his company's encyclopedia has been well accepted by educators and students alike, because of the system's strong indexing capabilities, which make researching by computer fun as well as functional.

"Say you want to prepare a report on first women (women who were the first of their gender to accomplish various feats)," Cole explains. "With a printed encyclopedia, where would you look? It would be very difficult and time-consuming. With CD-ROM, all you do is type in 'first woman' and the software will search the CD index for all occurrences where this phrase appears - some 73 articles in all."

While Cole is enthusiastic about CD-ROM in general and Grolier's Electronic Encyclopedia in particular, he's not so enthralled by MicroTRENDS' Jonathan system. Cole calls the Jonathan system "a warmed-over IBM version (of the encyclopedia) that has not met with universal appeal and will not be updated by Grolier." Until other alternatives exist, though, Jonathan may be the only game in town for owners of the Apple II Plus and IIe who want to get into CD-ROM.

CD-ROM and the GS

Jonathan works with the GS, but in Apple IIe mode. Cole, at Grolier, notes that his company intends to provide generous trade-in discounts to Apple owners who use the Jonathan system now and who want to purchase the actual IIGS version of the encyclopedia when it's released later this year.

One current disadvantage of CD-ROM is that neither the Jonathan version nor the GS version of the Grolier encyclopedia contains graphics. The GS version, however, is expected to offer color-text capabilities consistent with the GS' enhanced graphics features.

Any successful marriage between CD-ROM and the GS hinges on connecting a CD-ROM drive to the GS' SCSI (small-computer-systems interface, pronounced "scuzzy") port. At press time, a number of Compact Disc drive manufacturers, including Denon, JVC, Philips, Panasonic, Sony and Toshiba, were reportedly developing or offering drives with SCSI communications capability.

Well by the time you read this article you should have already read the latest Apple Talks with the latest on the CD Roms for the GS, (If your not receiving Apple Talk direct from Apple please let the group know we receive a number of spare copies every issue) Apple's commitment to CD-ROM is clear. Apple maintains membership in the High Sierra Group, a committee of industry leaders working to develop standards for CD-ROM, and the company has at least one staff member pursuing this area - a quest Apple refers to as "evangelism."

In addition to "inventing the future" and devising new applications we haven't even imagined yet, CD-ROM developers should be encouraged to creatively repackage

tried-and-true applications that have met success in the marketplace. How about a single CD-ROM containing all Apple II public domain software?

Or a single Compact Disc containing AppleWorks, Pinpoint's Desk Accessories and Spelling Checker, a macro generator, a grammar checker, and maybe Quicken, FontWorks, and Sideways, as well? Packaging like-minded programs this way would not only increase their convenience, but reduce piracy, too. (Most Compact Disc drives aren't expected to have recording functions.)

Will your family room, home office, or media centre adopt CD-ROM? John L. O'Brien at LaserLand thinks it's inevitable and is staking his company's future on it. And, despite industry wide obstacles the new technology must overcome, "Disk/Trend Reports" in InfoWorld (September 28, 1987) estimates that sales of CD drives are expected to increase sixfold within the next few years. Is an Apple II CD-ROM drive in your future? Only time will tell.

[Reprinted from the GS Users NewsDisk - July 1988]

[The Virus Metaphor]

by Graham Black

A virus, a real virus I mean, is a submicroscopic packet of genetic material, wearing a protein coat, that sneaks inside a living cell and commandeers the cell's reproductive system. Rather than allowing the cell to continue making more cells, the virus tricks the cell into making more viruses. Then you sneeze and the baby viruses, dressed in their shiny little protein coats, fly off to find other cells and to make more babies.

Ideas act like viruses. Ideas infect people and cause us to make little idea packets to put in our children's lunches. I myself have recently been infected with the idea that ideas-act-like-viruses. And I'm about to infect you with it.

I caught the ideas-act-like-viruses idea-virus from 'Memetics: The Science of Information Viruses', by Keith Henson. Memetics is the study of memes (sounds like beams), which is a new word that means idea virus. Not all ideas are memes, only the infectious ones. For example, you may have an idea for a better mousetrap, but if the world doesn't beat a path to your door, all you have is an idea, not a meme.

A meme currently reaching epidemic proportions, not only in the Apple II community, but everywhere computers are used, is the software virus meme.

A software virus is a small program that has the primary purpose of reproducing itself as much as it can. Given the panic about software viruses that's been sweeping the known universe since the first of the year, you'd think that every virus would have to be destructive, but that's not necessarily so. In fact the most successful software viruses will be ones that never do anything other than reproduce themselves (unless someone comes up with one that actually helps the system - it could prove very popular). Viruses that destroy files or otherwise harm systems are thereby discovered and eliminated.

What panics me isn't software viruses, but idea viruses concerning software viruses. Up until January or so, when people encountered a problem with a program, they figured it was a 'bug' - an unintentional programming error. Nowadays, when something goes wrong, people write and ask us if they have a 'virus' - an intentional, self-replicating, destructive packet of code. Paranoia is mounting. And all the people who never understood how their computers worked to begin with now have something new to blame every programming and operator error on.

The number of anti-reality idea-viruses concerning software viruses infecting today's computer users is stunning. In the last six weeks I've read articles that claim viruses can move from Amigas to IBMs to Apples. I've read articles that insinuate that a virus can inflict your computer while you're online reading electronic mail. And I've read many articles that suppose that a single virus can infect any kind of file on a disk. All these idea viruses are anti-reality because they consist of misinformation. Anybody got some aspirin?

Don't get me wrong - software viruses are real and they can be very dangerous to your computer system. But if you understand where they come from and how they work, you'll be less likely to participate in some of the stupid, superstitious rumours now popping up wherever computers are used.

First of all, understand that a software virus is a program. A software virus can't corrode the copper traces on your motherboard and it can't cause your monitor to explode.

Since a software virus is a program, it can't do anything until you bring it to life by running it. Since no one is going to purposely start up a software virus on their own computer, viruses will always be hidden inside other programs. A virus hidden inside a data file is dead meat. Since data files are never "executed", a virus hidden inside one could never "come to life" and could never have a chance to reproduce. You can bury your computer in data files teeming with viruses and still have absolute confidence that none of them will ever reproduce; none of them can do anything to harm your system. Think about it. Your computer can't catch a virus from a graphic file, from a sound file, from a spreadsheet file, from a word processor document, or from a database. It can't catch a virus while reading electronic bulletin boards or while your transmitting files to other people. The only way your computer can catch a virus is by executing a program that contains a virus.

On the other hand, any program has the potential to contain a virus. But the journey from potential to actual is arduous. As a virus replicates itself and attaches to a program, it has to attach itself in such a way that it will be executed when the program is run. At the same time, it has to attach itself in such a way that it will not damage the other program. If it causes damage, the user will stop executing the program and the virus will die.

Writing a small piece of code that is smart enough to attach itself to any Apple II program and satisfy these two requirements approaches the impossible. A successful virus is more likely to look for a specific program or a specific class of programs to infect. For example, imagine a virus embedded in ProDOS 16 desk accessory. Whenever that desk accessory is used, the virus might look on all the disks attached to the system for the PRODOS file and reproduce itself there. Then, whenever you boot your system with that infected PRODOS file, the virus might reproduce itself on desk accessory files that it's familiar. In this scenario, the virus would jump from system to system as disks containing the infected PRODOS files or infected desk accessories were used on other computers.

This is scary and it's the kind of software virus we all need to protect ourselves against. However, it's not as scary as many of the idea-viruses about software viruses that are currently infecting society. Software viruses aren't magic. They don't have spiritual powers. They can't jump through the ether and they can't animate inanimate objects. They are just little programs, probably full of obscure little bugs, that need to write on disks to reproduce themselves.

Most of the virus attacks actually suffered by computers to date have been on mainframes, MS-DOS machines, and Macintoshes. As it turns out, it's quite a bit easier to write a virus for an 'advanced' operating system than it is to write one for the Apple II. For example, most people think of a Macintosh Hypercard Stack as a

data file, but it's really a program. Viruses have already been written that can jump from stack to stack.

But don't feel like the Apple II has been left out. Even if we've never had a widely-identified virus, we already have some sophisticated viral detection software. Remember that in order to reproduce itself, a virus has to write to disk. Glen Bredon, of ProSel fame, has written a program called Apple.Rx that you can use to create a 'snapshot' of the program files and other vulnerable areas on a disk. After that you run Apple.Rx in 'Check' mode - it will tell you if anything has been changed since the last snapshot was taken. Changed files are suspect and should be deleted and replaced with the original version.

(Apple.Rx will be available on disk directly from Bredon, 521 State Road, Princeton, NJ 08540, for \$25 beginning in September. It requires a //gs or an enhanced //e or //c with a 65C02 microprocessor. A 65802 chip can be bought for under \$20 and can be easily inserted in place of the 65C02 in the latter two machines. Apple.Rx is also available right now, for a \$20 shareware fee, on the major online information services. On GENie, search for the keyword "Apple.RX". Bredon asks in his documentation that Apple.Rx not be distributed on local bulletin boards or in the standard shareware manner because it is, itself, a prime target for attack by virus programmers. Unofficial versions may be bogus!)

Even without Apple.Rx, there are many sensible things you can do to protect yourself from viruses and other programs that could damage your system. Apple.Rx, for example, can do nothing about a non-viral but hostile program. It's easy to write programs that erase disks when they are run after a certain date. This kind of program is hostile, but it's not a virus. It can't reproduce itself.

The most important thing you can do to protect yourself is to keep backups of your disks. Write-protect all original commercial software disks before you even insert them in your computer. Make a copy and work from the copy. Avoid copy-protected software.

If you have a //gs, try write-protecting your System disk - the disk you boot ProDOS 16 with. There are several programs that legitimately write on the System Disk, however, so this suggestion may prove unworkable for some of you.

The most important safeguard is to avoid running software on your machine that is of dubious origin. While viruses have been found on commercial disks (not Apple II commercial disks, however,) they are much more probable in the public domain. Pirate software that can't be traced back to any specific programmer is particularly suspicious. Rumours abound of software companies attacking piracy by uploading infected versions of their own programs to pirate bulletin boards.

Nonetheless, I think the more dangerous virus is the idea-virus about software viruses. Go out into the world with an understanding of how a software virus works, use care, and it's very unlikely your system will ever be infected. What I can't tell you is how to protect your mind. Nobody knows how idea-viruses work. That's what's really scary. If software viruses happen to lead to a better understanding of idea-viruses, any trouble they cause could be absorbed with a smile.

[Claris Products]

A few months ago I saw a double page add from Claris Corp. in the US Apple magazines. The add described a new version of Appleworks. So I wrote to Claris about more information. Unfortunately the reply was sent by surface mail and took about six weeks to arrive. In my letter I asked two questions about the new version of Appleworks:

1. In your add, you mentioned two improvements. The first is extended memory support for the Apple IIGS and a mail merge capability. These are two features that are available with Appleworks 2.0. So does this Claris version of Appleworks improve these features or is this the same program as we know and love?

Appleworks V2.0 for Claris contains the same features that Appleworks V2.0 for Apple contained. We have improved the documentation and added serial numbers to the software to aid in registering customers on our database to apprise them of upgrades, undates, new products, etc.

2. I have heard that Claris is working on a GS version of Appleworks with the Human Interface. Could you please tell me if this is correct and if it is, what new features will be available in the GS version.

We have not released an Appleworks package designed especially for the IIGS computer at the present time and cannot comment until we do so.

What's available from Claris?

With the letter, I received, Claris enclosed a colour brochure of the programs they publish. Other than Appleworks, all the other software they publish is for the Macintosh. Let's have a look at the software available:

MacDraw II is the latest version of that classic Mac drawing program. It is faster, more flexible, more precise and in colour. MacDraw II runs 3 to 10 times faster than current drawing programs. It now has a layering feature that allows you to save individual layers and load them into other drawings. You can also customize all the tools, enlarge your drawing up to 32 times or zoom in to points to an accuracy of 2000 dots per inch. MacProject has also been upgraded. MacProject II is a project management program. It now comes in colour and you can link it to your favorite spreadsheet. It can also be linked to other graphics and word processor programs. The new MacWrite 5.0 now has a spelling checker. MacWrite is claimed to be the most popular word processor for the Mac with over 600,000 sold.

[Peeks, Pokes and Calls]

EDITOR: This article comes from the pages of the TAUG Newsletter.

This month I promised some of the Zero Page Information - this is the area that your Apple uses to do its housework and keep everything in order - in order for you to run your programs that is!

I will give you a list of locations that exist in Zero Page (that means from memory address 00 to FF in case you don't know) and what they do or mean. How you use them is up to you, but remember the old saying - if you don't know what you are doing then don't do it - no, seriously folks, you can play around to your little heart's content, but don't use a good disk to play with. I would suggest you use your System Master (DOS 3.3) and initialise a new disk to use. When you have finished looking around, reboot another disk if you want to use the computer for anything else.

Address		What it does or what it can be used for.....

HEX	BIN	

\$20	32	Left edge of the Text Window (Range 0 - 39)

\$21	33	Width of the Text Window (Range 1 - 40)

Apple-Bug <13> August 1988

\$22	34	Top edge of the Text Window (Range 0 - 22)
\$23	35	Bottom edge of the Text Window (Range 1 - 24)
\$24	36	Horizontal Cursor Position (Range 0 - 39)
\$25	37	Vertical Cursor Position (Range 0 - 23)
\$2B	43	Boot Slot x 16 (After Boot)
\$2C	44	End Point of last HLIN, VLIN or PLOT Command
\$30	48	Lo-Res Color value x 17
\$32	50	Text Output format (63 = Inverse, 127 = Flash if 243 is set to 64, 255 = Normal)
\$33	51	Prompt Character
\$4A.4B	74-75	LOMEM Address (INT Basic)
\$4C.4D	76-77	HIMEM Address (INT Basic)
\$4E.4F	78-79	Random Number Field
\$67.68	103-104	Start of Program Address (FP Basic)
\$69.6A	105-106	Start of Variable Space Address (FP Basic)
\$6B.6C	107-108	Start of Array Space Address (FP Basic)
\$6D.6E	109-110	End of Numeric Storage Address (FP Basic)
\$6F.70	111-112	Start of String Storage Address (FP Basic)
\$73.74	115-116	HIMEM Address (FP Basic)
\$75.76	117-118	Line Number being executed (FP Basic)
\$77.78	119-120	Line Number where program stopped (FP Basic)
\$79.7A	121-122	Line being executed Address (FP Basic)
\$7B.7C	123-124	Line where DATA being read
\$7D.7E	125-126	DATA Location Address
\$7F.80	127-128	INPUT or DATA Address
\$81.82	129-130	Last used Variable Name (FP Basic)
\$83.84	131-132	Last used Variable Address (FP Basic)
\$AF.B0	175-176	End of Program Address (FP Basic)
\$CA.CB	202-203	Start of Program Address (INT Basic)
\$CC.CD	204-205	End of Variable Storage (INT Basic)

\$D6	214	RUN Flag (Auto-RUN if set > 127) (FP Basic)
\$D8	216	ONERR Flag
\$DA.DB	218-219	Line where ONERR error occurred
\$DE	222	ONERR error code (See full list at article end)
\$E0.E1	224-225	X-Coordinate of last HPLOT
\$E2	226	Y-Coordinate of last HPLOT
\$E4	228	HCOLOR Value (0 = 0, 42 = 1, 85 = 2, 127 = 3, 128 = 4, 170 = 5, 213 = 6, 255 = 7)
\$E6	230	Hi-Res Plotting Page (32 = Page 1, 64 = 2, 96 = 3)
\$E7	231	SCALE Value
\$E8.E9	232-233	Start of Shape Table Address
\$EA	234	Hi-Speed Collision Counter
\$F1	241	256 minus SPEED Value
\$F3	243	FLASH Mask (64 = FLASH if 50 set to 127)
\$F9	249	ROT Value

Error Codes

0 = Next without For	12 = No Buffers Avail.	107 = Bad Subscript
1 = Lang. not Avail.	13 = File Mismatch	120 = Redim. Array
2,3 = Range Error	14 = Prog. too Large	133 = Division by Zero
4 = Write Protected	15 = Not Direct Command	163 = Type Mismatch
5 = End of Data	16 = Syntax Error (FP)	176 = String too long
6 = File not Found	22 = Rtn w/out Gosub	191 = Too Complex
7 = Volume Mismatch	42 = Out of Data	224 = Undef. Function
8 = I/O Error	53 = Illegal Quantity	254 = Bad Input Resp.
9 = Disk Full	69 = Overflow	255 = Ctrl-C Interrupt
10 = File Locked	77 = Out of Memory	
11 = Syntax Error (DOS)	90 = Undef. Statement	

These Codes are what your Apple uses when you make an error (Heaven forbid!) - you can look at Address 222 (\$DE) to see what error has occurred (ie PEEK 222) and if you want to see where it occurred then look at Addresses 218-219 (\$DA.DB) via the same means. If you are using some of the Alternate DOS Systems (eg DiversiDOS) then these may not print out the Error Code in full, only by Number.

Next Month we will start on DOS itself - what goes where, why, how, who with and whatever.

- The Phantom Poker!

[MicroThought]

Was the man who coined the words byte, nibble and bit a fisherman?

[Advertisements]

FOR SALE Contact: Graham Black at the Trading Table or phone (07) 883-1525 after 12.00 noon (he does shift work)

- 1 x Auto Ice Printer Card \$ 60.00
- 1 x Zardax Word Processor (Dos 3.3 version) \$155.00
- 1 x Speed Demon \$450.00
Makes you Apple run 3.6 times faster than normal - excellent with Data Bases and Spreadsheets.
- 1 x Roland 800 DXY Plotter (8 colour) \$995.00
Used A3 paper and there are lots of pens to go with it.
- 1 x Epson LX-800 printer \$495.00
- 1 x Alf Music Synthesizer \$450.00
Includes AIWA amp. with over 30 disks of music.
- 1 x Super Serial Card (new and sealed) \$140.00
- 1 x IBM XT TURBO \$2500.00
Includes: Samsung Amber Monitor, 30 meg. Miniscribe Hard Disk, two 360K floppy drives, two Serial Ports, Parallel Port, Mouse, Keyboard. Multifunction card, plus several manuals.

FOR SALE Contact: Vince Crosdale at the Trading Table or phone (07) 351-3090

- 1 x Enhanced Apple Iie \$1900.00
Includes: 512K of RAM, Apple Green screen monitor, two disk drives. Parallel printer card, RGB card, manuals and much software.

FOR SALE Contact: Bob Clews, phone (079) 857415

- 1 x Apple //c (128k RAM and inbuilt drive) \$1700.00
Includes: //c Monitor and stand, //c External Drive, Apple Scrib. Printer. Maestro Supermodem 300/300, 1200/75 baud, Apple Joystick, Apple Mouse. Complete set of Manuals, All in perfect condition.
Programs: Type-Quick, Terminapple, Viaterm, Appleworks, Apple Pascal, plus approx. 120 double sided disks of software.

FOR SALE Contact: Dale Rodgie, at the Open Day or phone (075) 386942

- 1 x ProDOS Assembler 3.0 \$30.00
- 1 x Apple Secrets (manual and disk) \$20.00
- 1 x Music Construction Set (Apple //e version) \$30.00
- 1 x Newsroom (includes back-up disk) \$40.00
- 1 x Apple Mechanic \$20.00
- 1 x Alpha Plot \$20.00
- 1 x Machine Language for Beginners (manual) \$15.00
- 1 x ProDOS Technical Reference Manual (inc.disk) \$25.00
- 1 x Microsoft Multiplan (spreadsheet) \$50.00
- 1 x Mosaic 1200B Modem \$350.00
Includes: 300/300, 1200/1200 bps, Hayes compatible, Auto answer, Auto dial, only 3 months old, still in box, if you own a GS. I'll throw in the cable and a comms. program.

[In the Next Issue...]

In the next issue of Apple-Bug we will start a two part series on MIDI. The first part will look at the hardware you can get to connect to your Apple and the second looks at the software. All this coming to a letter box near you...

